Telerik UI for ASP.NET

Richest Toolset for ASP.NET Developers
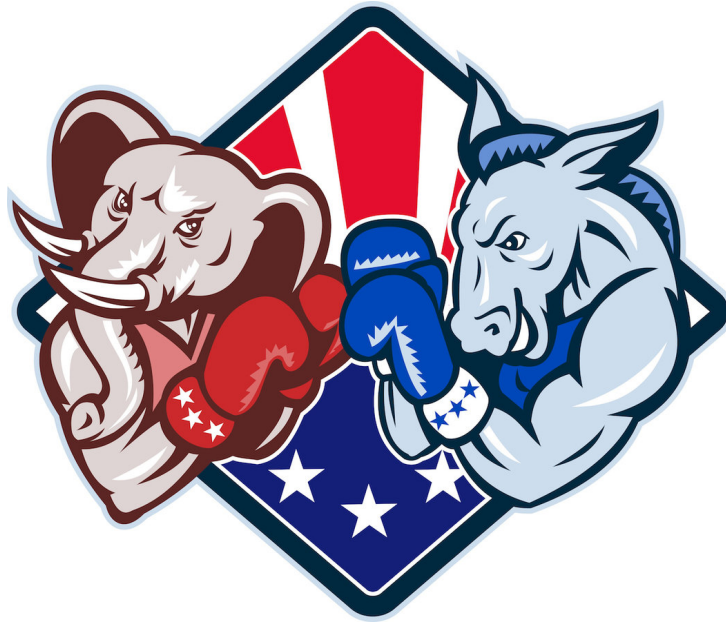
Telerik UI for ASP.NET AJAX

Let's talk ASP.NET first ..

Robust Modern Web Development Platform

- Rich ecosystem
- Developer familiarity
- Easy to build – WebForms or MVC
- Managed .NET code comfort

But a debate rages on ..
Server–side Vs Client–side

Modern browsers are powerful .. they said

Let's do everything client-side with JavaScript

Being Realistic

Server-side is actually pretty awesome

- Intuitive state management
- Business logic is best kept server-side
- Enterprises thrive on ASP.NET applications
- C# rocks for code-behind logic
- Server controls can render clean HTML

Let's keep rocking ASP.NET

Build the Next-Gen of amazing Web apps

ASP.NET WebForms:

- Rock solid

- Easy to start

- Server-side comforts

And no one is moving your cheese ..

Let's get you some SuperPowers
Elevate your ASP.NET Development Stack

Telerik UI for ASP.NET AJAX

http://www.telerik.com/products/aspnet-ajax.aspx

Why Telerik UI for ASP.NET

Rich, Fast & Complete Toolset

80 + ASP.NET Ajax Controls

Robust performance with HTML 5

Mobile support & Responsiveness

LOB Controls + Framework

Telerik UI for ASP.NET Ajax

Where it goes Above & Beyond

Seamless UX across browsers/devices

Polished UI + Rich Data Visualization

Consistent Programming Interface

Robust Ajaxification & Web Optimization

Enough talk .. time to code!

Here's how you start

Add Reference & Off you go ..

Required

☑ **Telerik.Web.UI.dll –** core & default skin

Optional

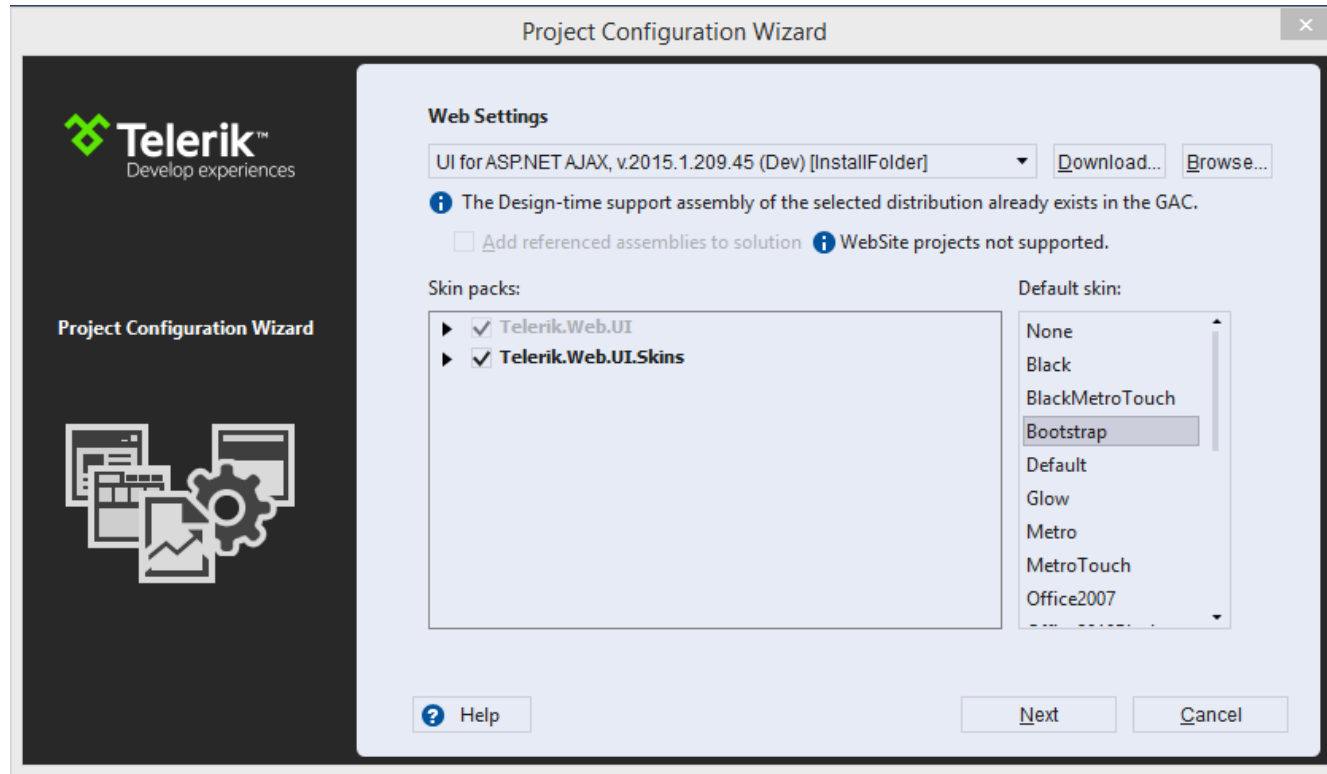☑ **Telerik.Web.UI.Skins.dll –** 20 custom skins

☑ **Telerik.Web.Design.dll –** design mode in VS

☑ **Telerik.Web.Device.Detection.dll –** device detection

Visual Studio familiarity | All controls in Toolbox
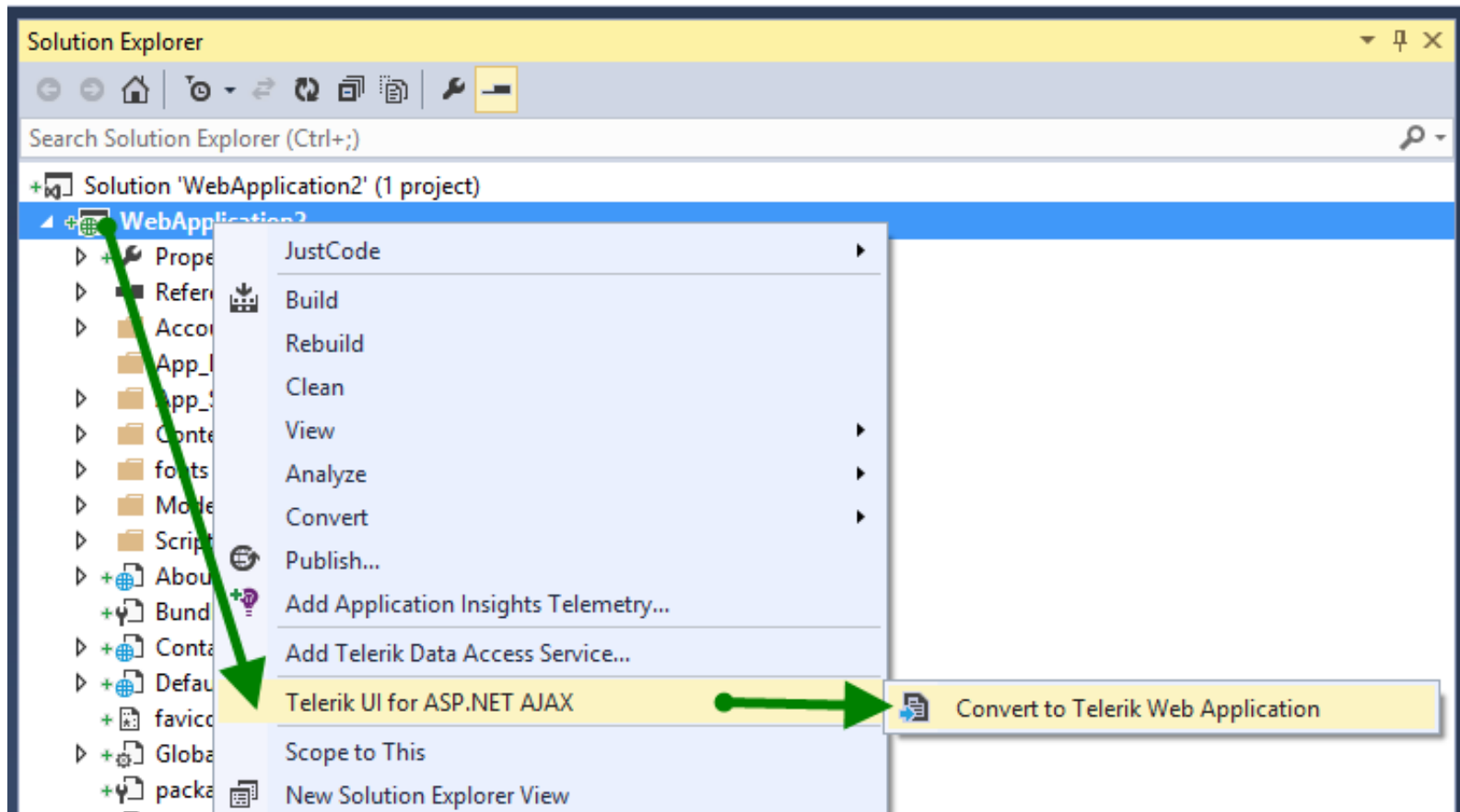
Even Easier

Visual Studio Templates that help

Easy wizard after File > New Project.

Existing ASP.NET Project?

You can Up-Convert just as easily

You'll see RAD pretty often

All UI Control names start with RAD
- Rapid Application Development

Yep, we believe in that.

Let's talk Ajaxification

#1 Performance Optimization for ASP.NET
– Reduce Round-Trips to Server

RadAjaxPanel

Ajax-enabling Container .. no more Page refreshes

```
<telerik:RadAjaxPanel ID="RadAjaxPanel1" runat="server" Width="500px" >
    <asp:DropDownList ID="GameDropDownList" runat="server" AutoPostBack="true"
        OnSelectedIndexChanged="GameDropDownList_SelectedIndexChanged">
        <asp:ListItem> </asp:ListItem>
        <asp:ListItem>Rock</asp:ListItem>
        <asp:ListItem>Paper</asp:ListItem>
        <asp:ListItem>Scisors</asp:ListItem>
    </asp:DropDownList>

    <p>You chose: <asp:Label ID="ChoiceLabel" runat="server"></asp:Label></p>
</telerik:RadAjaxPanel>
```

```
protected void GameDropDownList_SelectedIndexChanged(object sender, EventArgs e)
{
    ChoiceLabel.Text = GameDropDownList.SelectedValue;
}
```

Simply place any ASP.NET controls that you want Ajax-enabled
into a RadAjaxPanel and Telerik RadAjax takes care of the rest.

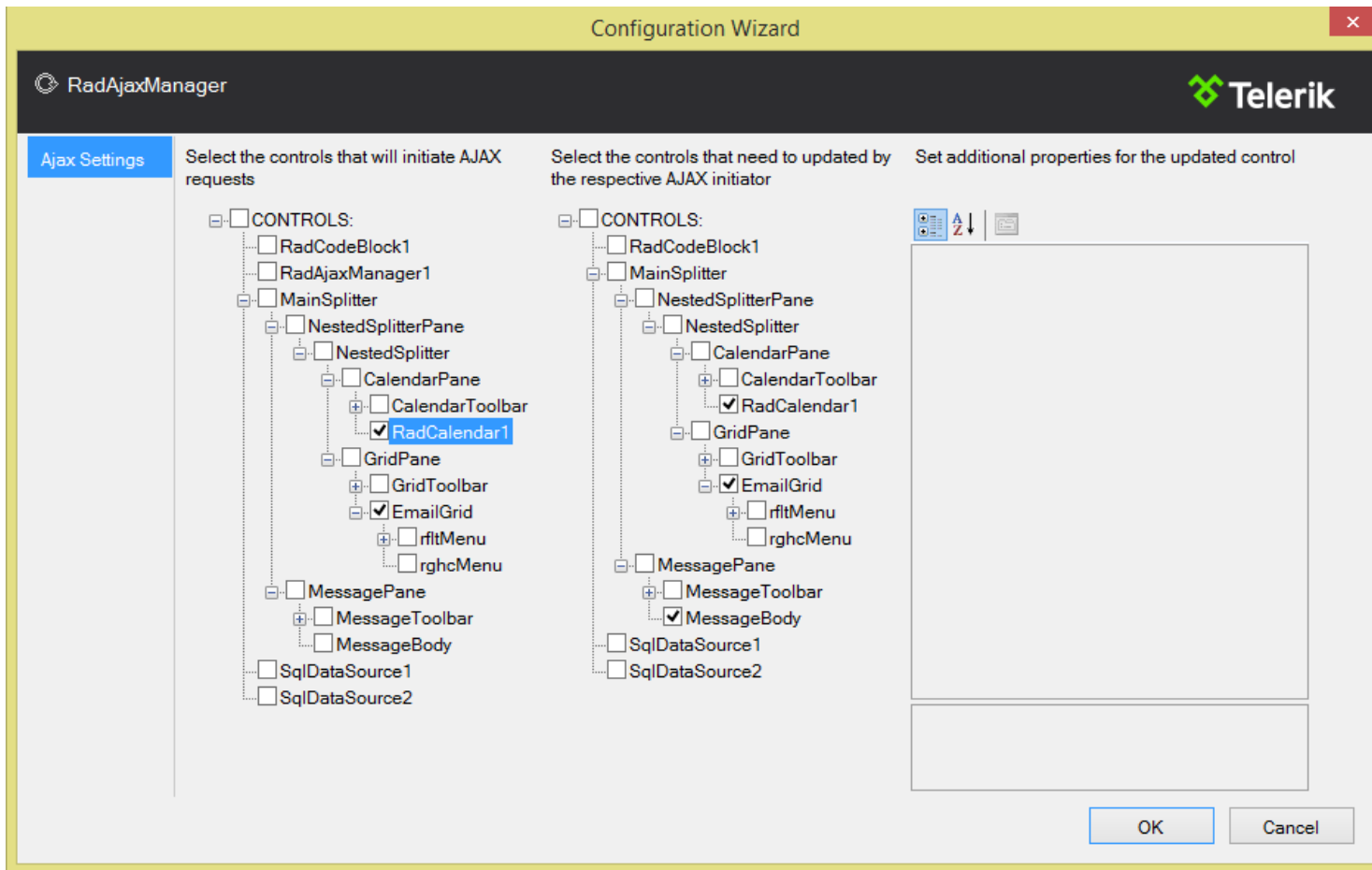# RadAjaxManager

For fine-grained control over Ajaxification

```xml
<telerik:RadAjaxManager ID="RadAjaxManager1" runat="server">

    <AjaxSettings>
        <!-- When an event for this control fires -->
        <telerik:AjaxSetting AjaxControlID="RadCalendar1">
            <!-- Update these controls over Ajax -->
            <UpdatedControls>
                <telerik:AjaxUpdatedControl ControlID="RadCalendar1" />
                <telerik:AjaxUpdatedControl ControlID="EmailGrid" />
                <telerik:AjaxUpdatedControl ControlID="MessageBody" />
            </UpdatedControls>
        </telerik:AjaxSetting>
    </AjaxSettings>

</telerik:RadAjaxManager>
```

Settings in Ajax manager tells the page what to update and when.

RadAjaxManager

Oh, and you can do this visually in design-time

RadAjaxLoadingPanel

Visual indication as Ajax content loads


```
<telerik:RadAjaxLoadingPanel ID="LoadingPanel1" runat="server" />
```

You can customize the loading indicator.

Remember, Ajax is not a panacea

If you Ajaxify every control on your web page ..

Performance will be the same
as in full Page PostBack

So, be smart & optimize.

Let's talk Input controls

Delight your users with easy data entry ..

Polished Input controls

User Data Entry - on steroids

1. RadTextBox
2. RadNumericTextBox
3. RadDateInput
4. RadMaskedTextBox
5. RadAutoCompleteBox

RadMaskedTextBox

Guide users for a positive UX

Telephone: `( )  -  -`

```
// IP Address
RadMaskedTextBox1.Mask = "<0..255>.<0..255>.<0..255>.<0..255>";

// Credit Card
RadMaskedTextBox1.Mask = "#### #### #### ####";

// Phone Number
RadMaskedTextBox1.Mask = "(###) ###-####-####";

// SSN
RadMaskedTextBox1.Mask = "###-##-####";
```

Support for most commonly used masks & fully customizable.

How do you handle Data?

The right UI controls make all the difference ..

Hard-Hitting Enterprise-ready UI
Easy CRUD operations built-in

Data controls

Your UI should never be the bottleneck

1. RadGrid
2. RadScheduler
3. RadListBox
4. RadListView
5. RadPivotGrid
6. RadCalendar
7. RadGantt

RadGrid

Time to get some serious work done..

1. Rich design time wizard

2. Bind to any data source

3. Desktop like UX & performance

4. Sort, Page, Filter , Group & more

5. Export to PDF, Word, Excel & CSV

6. CRUD from various Edit modes

7. Mobile support

Some have called it Father of all grids ..

RadGrid

Let the grid do the heavy lifting

CUSTOMER ID	COMPANY NAME	CONTACT NAME	CONTACT TITLE	ADDRESS	POSTAL CODE
ALFKI	Alfreds Futterkiste	Maria Anders	Sales Representative	Obere Str. 57	12209
ANATR	Ana Trujillo Emparedados y helados	Ana Trujillo	Owner	Avda. de la Constitución 2222	05021
ANTON	Antonio Moreno Taquería	Antonio Moreno	Owner	Mataderos 2312	05023
AROUT	Around the Horn	Thomas Hardy	Sales Representative	120 Hanover Sq.	WA1 1DP
BERGS	Berglunds snabbköp	Christina Berglund	Order Administrator	Berguvsvägen 8	S-958 22
BLAUS	Blauer See Delikatessen	Hanna Moos	Sales Representative	Forsterstr. 57	68306
BLONP	Blondesddsl père et fils	Frédérique Citeaux	Marketing Manager	24, place Kléber	67000
BOLID	Bólido Comidas preparadas	Martín Sommer	Owner	C/ Araquil, 67	28023
BONAP	Bon app'	Laurence Lebihan	Owner	12, rue des Bouchers	13008
BOTTM	Bottom-Dollar Markets	Elizabeth Lincoln	Accounting Manager	23 Tsawassen Blvd.	T2F 8M4

|◄ ◄ **1** 2 3 4 5 6 7 8 9 10 ► ►| Page size: 10 ▼   91 items in 10 pages

Just supply the data when it's needed..lots of event triggers.

RadGrid

Easy Data Binding with rich functionality..

```
<telerik:RadGrid runat="server" ID="RadGrid1"
    DataSourceID="SqlDataSource1" PageSize="20"
    AllowPaging="True" AllowFilteringByColumn="True"
    AllowSorting="true" ShowGroupPanel="True">
</telerik:RadGrid>
```

Features – Paging | Sorting | Filtering | Grouping | Selections

Performance – Scrolling | Virtualization

All simple settings – Out of the Box

RadGrid

Time for some easy CRUD operations..

	ContactName	CompanyName	ContactTitle	Phone	
+ Add new record				Refresh	
✎	Alejandra Camino	Romero y tomillo	Accounting Manager	(91) 745 6200	✕
✎	Alexander Feuer	Morgenstern Gesundkost	Marketing Assistant	0342-023176	✕
✎	Ana Trujillo	Ana Trujillo Emparedados y helados	Owner	(5) 555-4729	✕

CustomerID: ANATR

ContactName: Ana Trujillo

CompanyName: Ana Trujillo Empareda

ContactTitle: Owner

Phone: (5) 555-4729

✓ ⊘

| ✎ | Anabela Domingues | Tradição Hipermercados | Sales Representative | (11) 555-2167 | ✕ |

Just enable AllowAutomaticInserts | Updates | Deletes

RadGrid

CRUD supported through various modes..
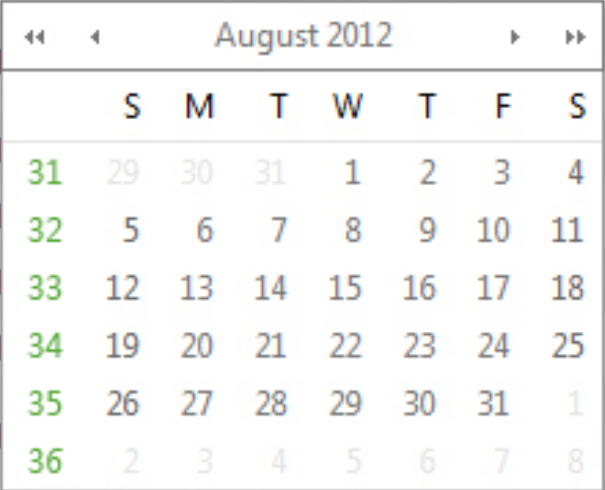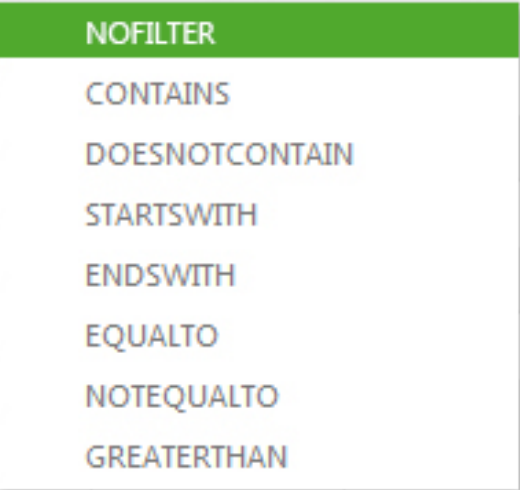

```
<telerik:RadGrid ID="RadGrid1"...
    <MasterTableView EditMode="PopUp"...
```

RadGrid

Back on the Filtering feature..

Built-in intuitive & type smart UX

RadGrid

Export your data with ease..
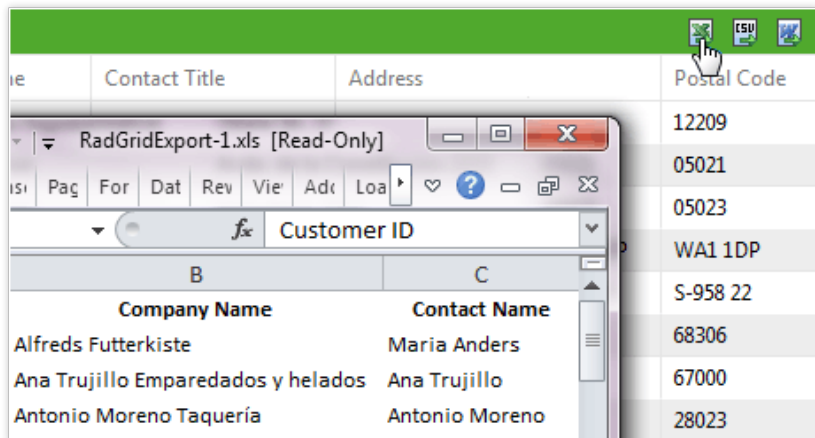
It's as **simple** as
enabling the feature
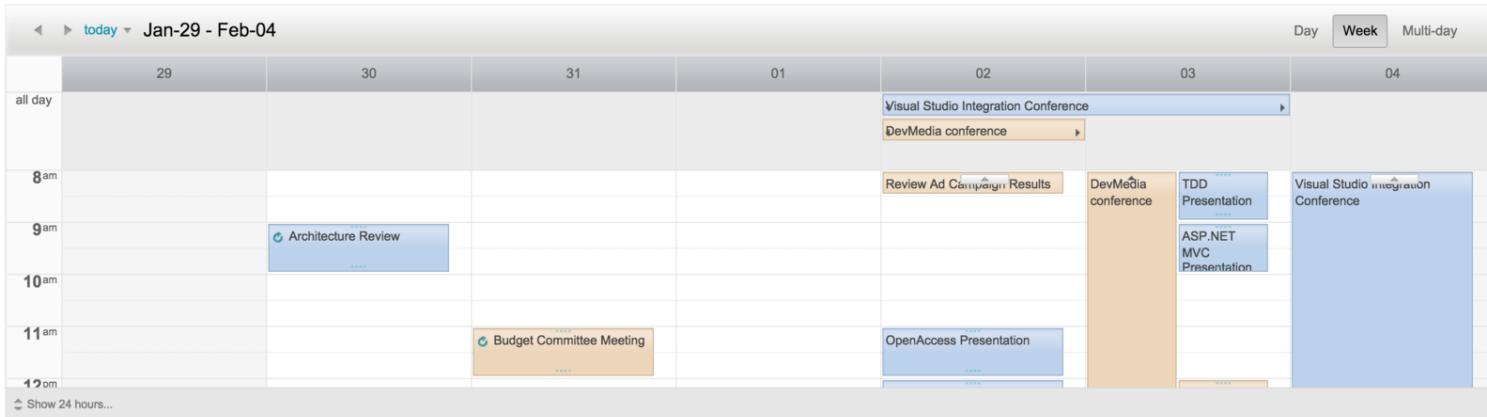
```
<telerik:RadGrid ID="RadGrid1"...>
    <MasterTableView CommandItemDisplay="Top" ...>
        <CommandItemSettings
            ShowExportToExcelButton="True"
            ShowExportToWordButton="True"
            ShowExportToPdfButton="True"
            ShowExportToCsvButton="True">
        </CommandItemSettings>
```

RadScheduler

Here's a peek at the smart Scheduler ..

What's Built-in?

– Easy DataBinding

– View Modes & Export

– Templates & Editing

– Adaptive Rendering

Let's talk Picker controls

Don't make your user guess, just let them pick ..
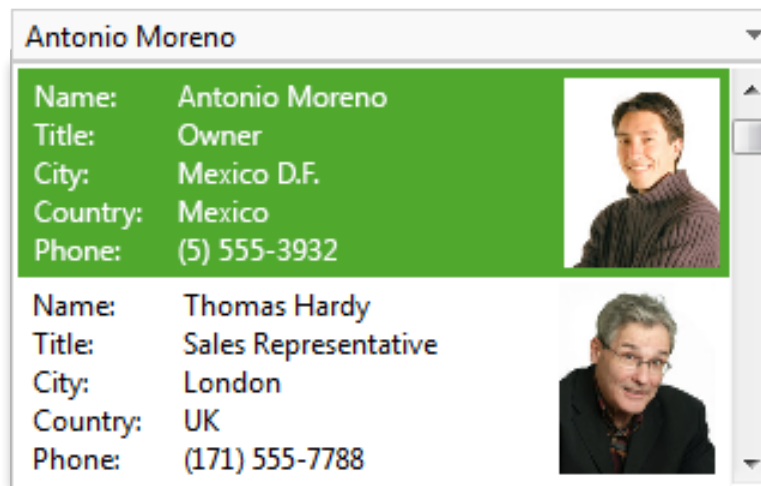
Easy Picker controls

Allow the user to pick from options

1. RadColorPicker
2. RadDropDownList
3. RadComboBox
4. RadDropDownTree
5. RadMenu
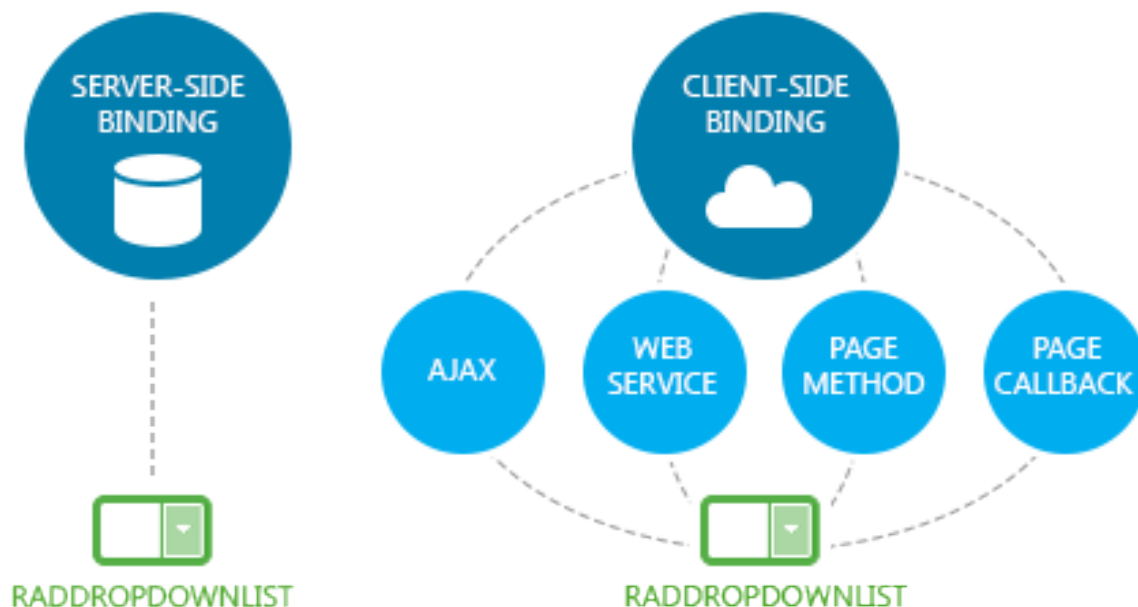6. RadSlider

RadDropDownList

This is not your ordinary drop down list

1. Robust data binding

2. Keyboard support

3. Mobile support

4. Virtual scrolling

5. Client templates

6. Server templates

RadDropDownList

Bind to various data sources
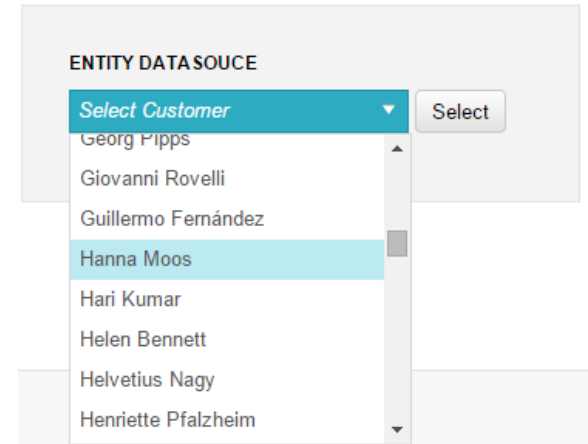

Server-side: Object | SQL | Entity | XML datasources

Client-side: Most standard protocols

RadDropDownList

As simple as setting properties..

```
<telerik:RadDropDownList ID="RadDropDownList4"
    runat="server"
    DataSourceID="EntityDataSource1"
    DataTextField="ContactName"
    DefaultMessage="Select Customer">
</telerik:RadDropDownList>

<asp:EntityDataSource ID="EntityDataSource1"
    runat="server"
    ConnectionString="name=NorthwindReadWriteEntities"
    DefaultContainerName="NorthwindReadWriteEntities"
    EntitySetName="Customers"
    Select="it.[ContactName], it.[City], it.[ContactTitle]"
    AutoPage="true"
    OrderBy="it.[ContactName]">
</asp:EntityDataSource>
```

ENTITY DATASOUCE

Select Customer ▼   Select

Georg Pipps
Giovanni Rovelli
Guillermo Fernández
Hanna Moos
Hari Kumar
Helen Bennett
Helvetius Nagy
Henriette Pfalzheim

Let's talk Navigation

Your users should never be lost ..

Navigation controls

Helping users find their way..

1. RadMenu
2. RadPanelBar
3. RadRibbonBar
4. RadSearchBox
5. RadSiteMap
6. RadTabStrip
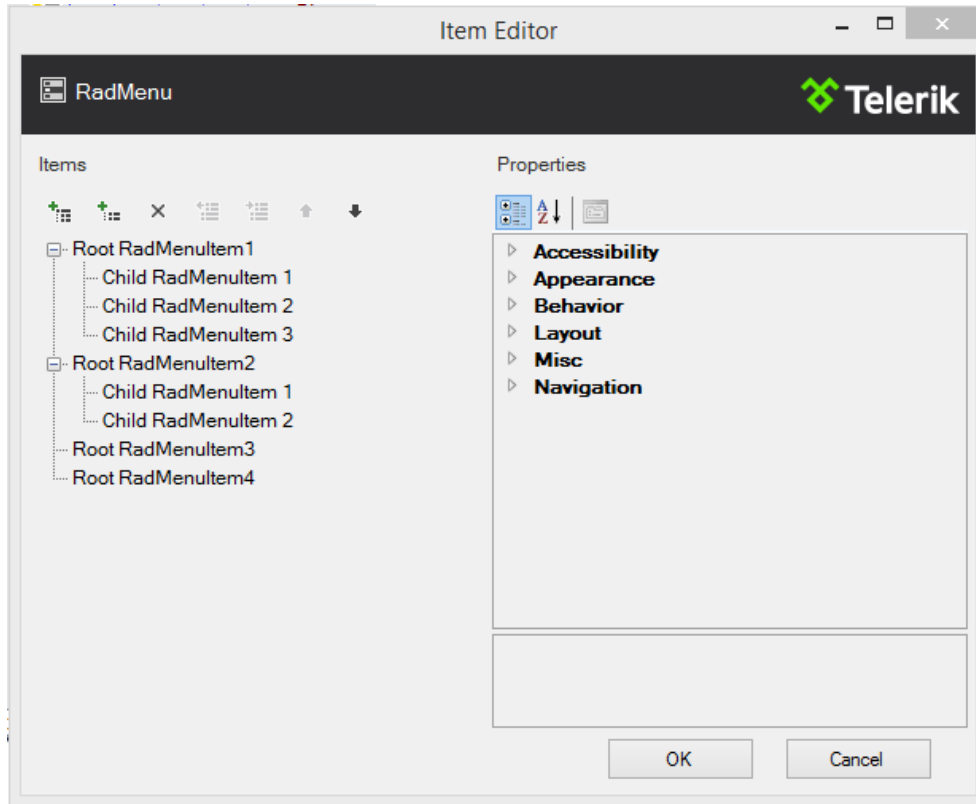7. RadToolBar
8. RadTreeView

RadMenu

Configurable, Flexible, Accessible..

- Design time experience

- Rich data binding

- Use any flat or hierarchical data source

- Vertical & Horizontal configurations

- Customize through templates and rich API

- Accessable: Section 508 compliant

RadMenu

Build it at design time..

Add, Rearrange & Configure Menu items.

RadMenu

Define your own templates..

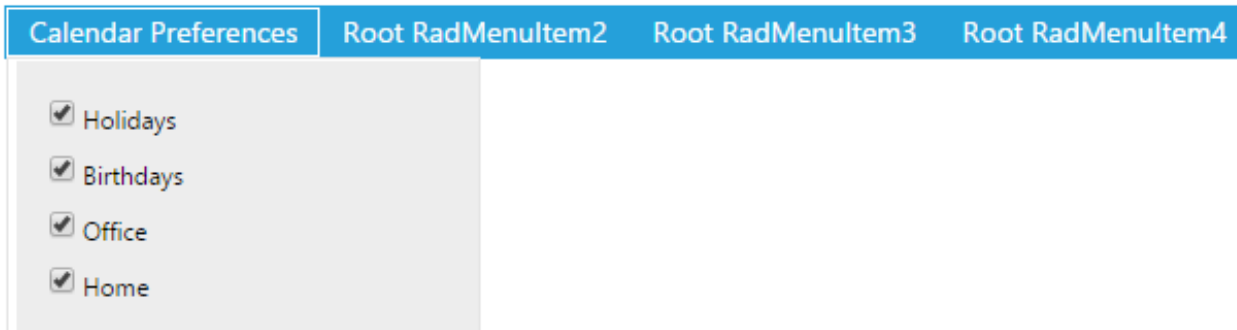```
<telerik:RadMenuItem runat="server" Text="Calendar Preferences">
    <ContentTemplate>
        <div class="custom-menu-item">
            <asp:CheckBox ID="CheckBox1" runat="server" Text="Holidays" />
            <asp:CheckBox ID="CheckBox2" runat="server" Text="Birthdays" />
            <asp:CheckBox ID="CheckBox4" runat="server" Text="Office" />
            <asp:CheckBox ID="CheckBox3" runat="server" Text="Home" />
        </div>
    </ContentTemplate>
</telerik:RadMenuItem>
```
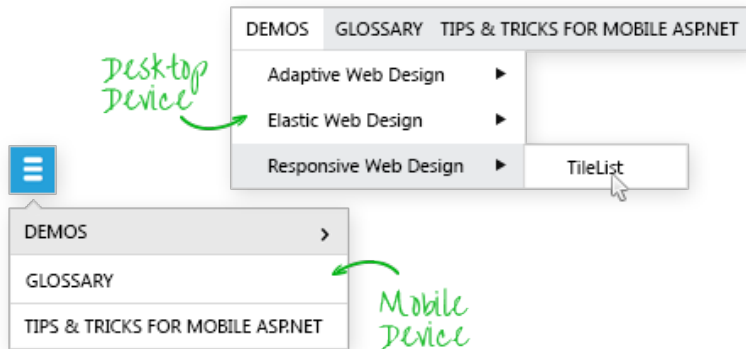
| Calendar Preferences | Root RadMenuItem2 | Root RadMenuItem3 | Root RadMenuItem4 |

☑ Holidays
☑ Birthdays
☑ Office
☑ Home

Embed HTML, Server Controls, and more..

# RadMenu

Let's go mobile!

## Adaptive / Responsive



## Touch Friendly



Multi-level menu support

Light-weight rendering with HTML / CSS3

# Let's talk Layouts

Bring structure & sanity to your web apps ..

# Layout controls

Organization is the key

1. RadDock
2. RadMultiView
3. RadSpiltter
4. RadWizard
5. RadWindow
6. RadToolTip

# RadWizard

Create step-by-step forms, in a snap..

- Quickly create stepped interfaces
- Built in validation
- Mobile Support & Adaptive Behavior

# RadWizard

## Here's how to create step-by-step forms

```xml
<telerik:RadWizard runat="server" ID="RadWizard1" Width="600px"
        Height="330px" RenderedSteps="Active"
        OnActiveStepChanged="RadWizard1_ActiveStepChanged">
    <WizardSteps>
        <telerik:RadWizardStep ID="RadWizardStep1" Title="Name"
            StepType="Start">
            <telerik:RadTextBox runat="server" ID="RadTextBox1"
                Label="First Name" LabelWidth="100px" Width="400px" />
            <telerik:RadTextBox runat="server" ID="RadTextBox2"
                Label="Middle Name" LabelWidth="100px" Width="400px" />
            <telerik:RadTextBox runat="server" ID="RadTextBox3"
                Label="Last Name" LabelWidth="100px" Width="400px" />
        </telerik:RadWizardStep>
            <telerik:RadWizardStep ID="RadWizardStep2" Title="Address">
            <!-- More steps ... -->
    </WizardSteps>
</telerik:RadWizard>
```
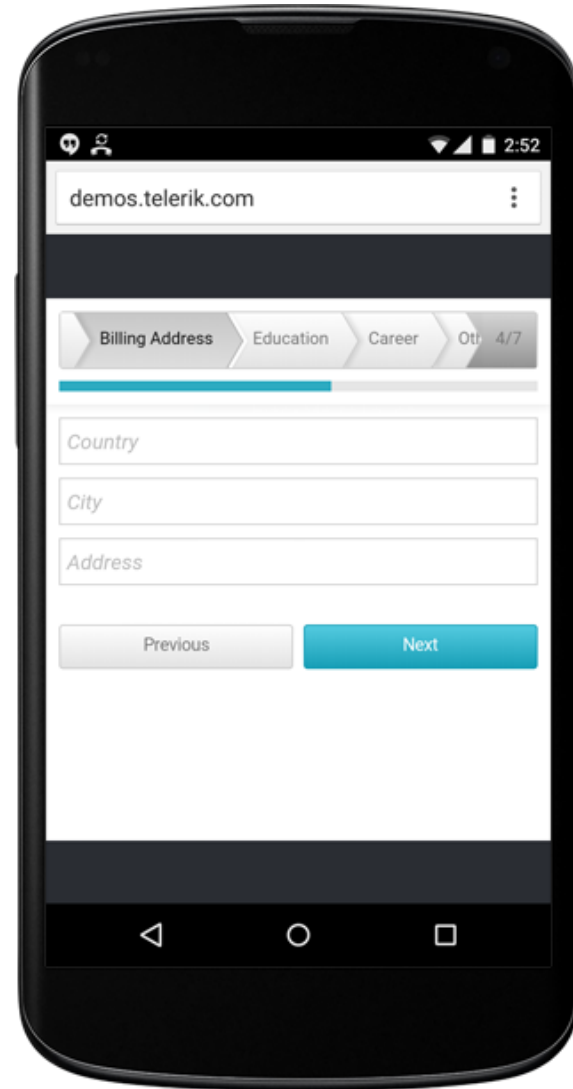
It's just a container, but with smartness.

RadWizard

Take it with you?

Just Set the RenderMode to "Auto"

- RadWizard automatically adapts to Smartphone, Tablet or Desktop.

It's time for Responsiveness

Your web apps, running everywhere ..

Enabling Responsiveness

We do all the heavy lifting

1. Adaptive UI controls – out of the box
2. Full Touch support
3. RadPageLayout
4. Device Detection Framework

Adaptive Controls

User experience tailored to the device..

Telerik UI controls are responsive .. Out of the Box!

- Same functionality
- Bigger touch areas
- A better UX per device
- One easy setting

```
<appSettings>
    <!-- Use automatic rendering application wide -->
    <add key="Telerik.Web.UI.RenderMode" value="Auto" />
</appSettings>
```
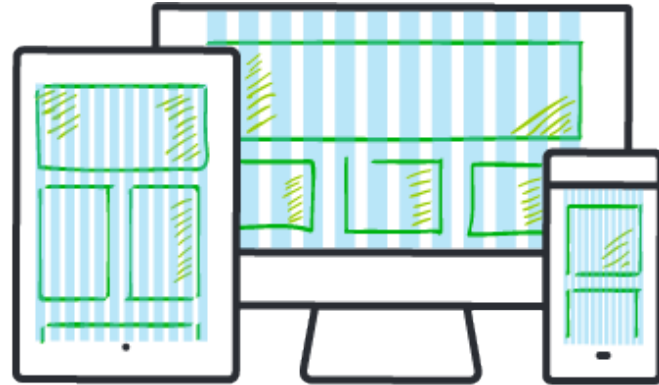
RadPageLayout

Do responsive the WebForms way..

All the features of Bootstrap's grid

Server-side setup, with client-side responsiveness!

RadPageLayout

Let's break down the features..

- 12 Column nest-able grid
- Adjustable per device size
- Preset break points [xs, sm, md, lg, xl]
- Client side visibility settings [show/hide on size]
- Offset columns
- Push / Pull functionality

RadPageLayout

Let's see some code..

```
<telerik:RadPageLayout ID="RadPageLayout1" runat="server" ShowGrid="True"
    GridType="Fluid">
    <Rows>
        <telerik:LayoutRow>
            <Columns>
                <telerik:LayoutColumn Span="4" SpanSm="12" SpanXs="12" CssClass="demo"
                    <asp:Panel ID="FirstPanel" runat="server">
                        <asp:Label runat="server" Text="First"></asp:Label>
                    </asp:Panel>
                </telerik:LayoutColumn>
                <telerik:LayoutColumn Span="8" SpanSm="12" SpanXs="12" CssClass="demo"
                    <asp:Panel ID="LastPanel" runat="server">
                        <asp:Label runat="server" Text="Last"></asp:Label>
                    </asp:Panel>
                </telerik:LayoutColumn>
            </Columns>
        </telerik:LayoutRow>
    </Rows>
</telerik:RadPageLayout>
```

Rows & Columns in a fluid layout | 'Spans' control overflow

Device Detection Framework

Get the clients' screen size, server side..

Determine the Screen Resolution of variety of device form factors

Get the size

```
using Telerik.Web.Device.Detection;
...
var screenSize = Detector.GetScreenSize(Request.UserAgent);
// DeviceScreenSize.Large
```

Get exact dimensions

```
using Telerik.Web.Device.Detection;
...
var screenDimensions = Detector.GetScreenDimensions(Request.UserAgent);
var screenWidth = screenDimensions.Width; // = 480
var screenHeight = screenDimensions.Height; // = 600
```

Device Detection

Serve optimized content to each device..


```
protected void Page_Load(object sender, EventArgs e)
{
    var screenSize = Detector.GetScreenSize(Request.UserAgent);

    var isMediumOrSmaller = screenSize == DeviceScreenSize.Medium
                            || screenSize == DeviceScreenSize.Small;
    var isLargeOrLarger = screenSize == DeviceScreenSize.Large
                            || screenSize == DeviceScreenSize.ExtraLarge;

    LargeBannerImage.Visible = isLargeOrLarger;
    SmallBannerImage.Visible = isMediumOrSmaller;
}
```

Let's talk Data Visualization

Simply amaze your users ..

Highly Visual controls

Visual Guidance > Words

1. RadBarCode
2. RadBinaryImage
3. RadDiagram
4. RadGauge
5. RadMap
6. RadOrgChart
7. RadRotator
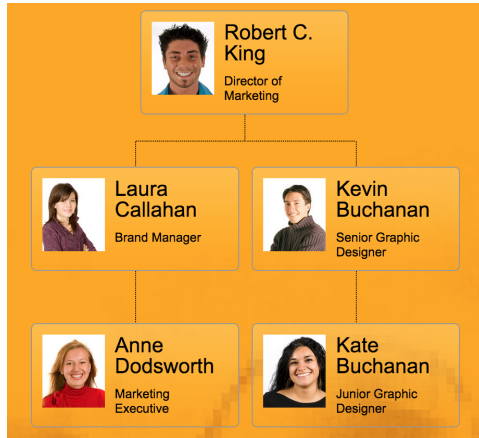8. RadTreeList

RadDiagram

Let's talk fully functional diagram tool..

- Built-in essential shapes
- Predefined layouts
- Client-side and server-side data binding
- Re-size, Rotate, Align and more
- Cut, Copy, Paste, Delete, Undo, Redo
- Drag and Drop support
- Zoom and Pan
- Export and Import JSON
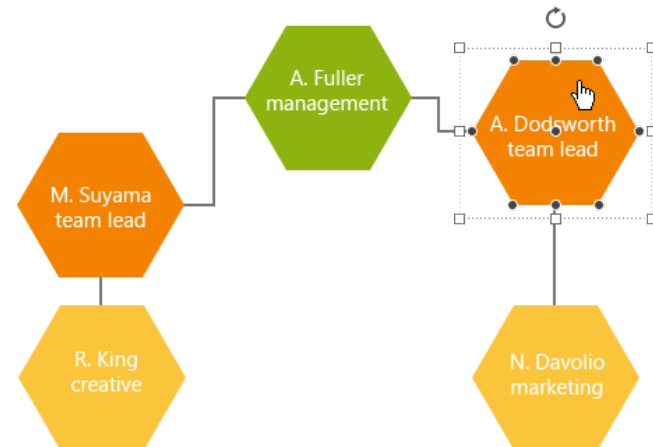
With the right UI controls

The browser becomes your VM..

RadOrgChart

RadBarCode

RadRotator

Someone mention Charts?

This is where Telerik shines ..

Charting controls
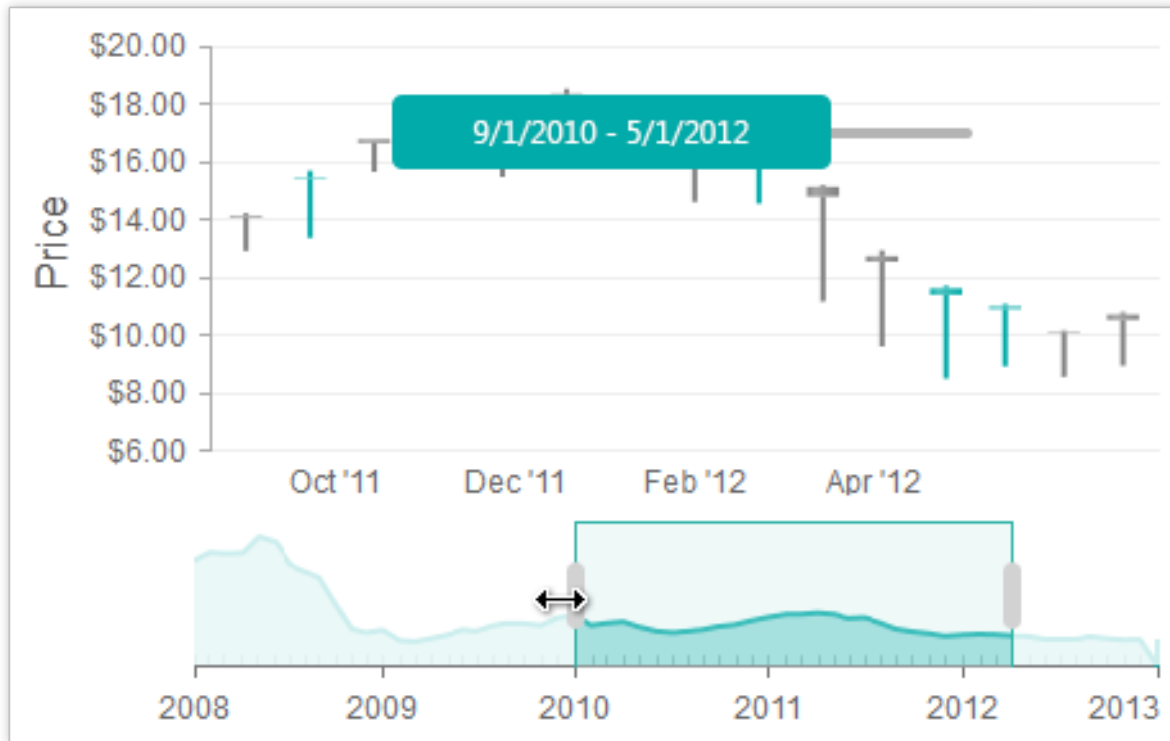
Bring life to your data

1. All essential Chart types

2. Easy Data Binding

3. Intuitive Markup & APIs

4. Extreme performance tuned

5. All user interactions built-in

6. Print & Export

Bar | Pie | Donut | Line | Area Radar | Scatter | Funnel

CandleStick | Waterfall | Polar | Bubble | Many more ..
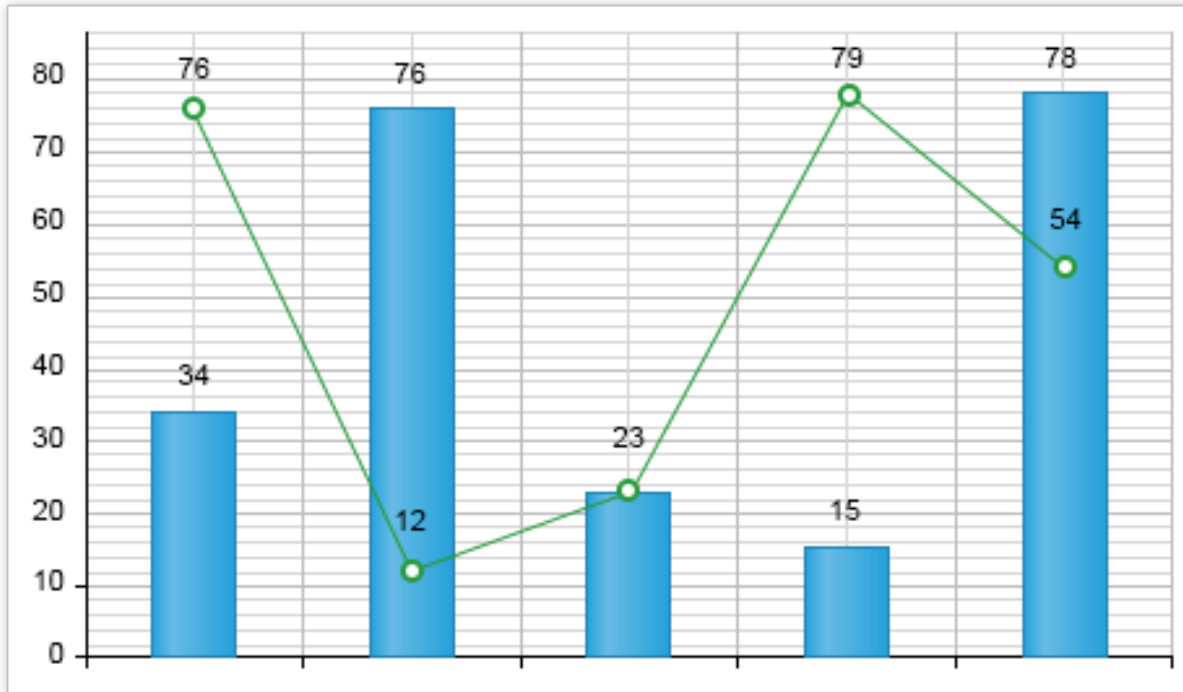
Interactive Charts

The possibility are limitless..

Zoom & Scroll | Drill-Down | Print

Charts that do More
While being developer friendly..

Multiple Series | Combination charts | Multiple Axes

Vast DataBinding support – client or server side

Let's do some Performance Tuning

You're not alone .. there's some serious help

Fine Tuning controls

Squeeze the last bit of performance

1. RadCompression
2. RadScriptManager
3. RadSkinManager
4. RadStyleSheetManager
5. RadZipLibrary

RadCompression

Automatic AJAX compression and more..

Compress what IIS missed:

- ViewState
- AJAX Web Services
- ADO.NET Data Services
- UpdatePanels

```
<httpmodules>
    ...
    <add name="RadCompression" type="Telerik.Web.UI.RadCompression" />
</httpmodules>
```

Features galore

Lots more that we just don't have the time for ..

So much goodness

Everything you need for modern ASP.NET apps

1. Extensive theming

2. 20+ built-in Skins

3. Social UI controls

4. SharePoint Web Parts

5. Rich Media handling

6. Standards compliance

7. Accessibility built-in

Telerik UI for ASP.NET Ajax

Tooling that really helps

Interactive Demos

Real-world Sample Apps

Performance Tuning

Visual StyleBuilder to customize Skins

Telerik UI for ASP.NET Ajax

Feel your SuperPowers?

You're a .NET Ninja

Your ASP.NET Development Stack – Elevated!

Telerik UI for ASP.NET AJAX

http://www.telerik.com/products/aspnet-ajax.aspx