



## **TMS ASP.NET iPhone Controls Pack DEVELOPERS GUIDE**

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Web: <http://www.tmssoftware.com>  
Email : [info@tmssoftware.com](mailto:info@tmssoftware.com)

## Table of contents

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Availability .....	3
Screenshots .....	4
Getting started .....	7
List of included components .....	11
iPhoneButton .....	13
iPhoneEmailLabel, iPhoneLocationLabel, iPhonePhoneLabel & iPhoneSMSLabel .....	14
iPhoneGeolocation.....	16
iPhoneHeader & iPhoneFooter .....	17
iPhoneList .....	19
iPhoneMenu .....	21
iPhoneOnOffButton .....	22
iPhonePageFlip .....	23
iPhonePanel.....	24
iPhonePopup .....	25
iPhoneScrollPanel.....	27
iPhoneSpinner .....	28
iPhoneStyle .....	29
iPhoneTrackbar .....	30

## Availability

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TMS ASP.NET iPhone Controls Pack is available as asp.net components for Visual Studio.

TMS ASP.NET iPhone Controls Pack is available for Visual Studio 2010 and requires ASP.NET 4.0

TMS ASP.NET iPhone Controls Pack has been designed for and tested with: ASP.NET 4.0 on Windows 7.

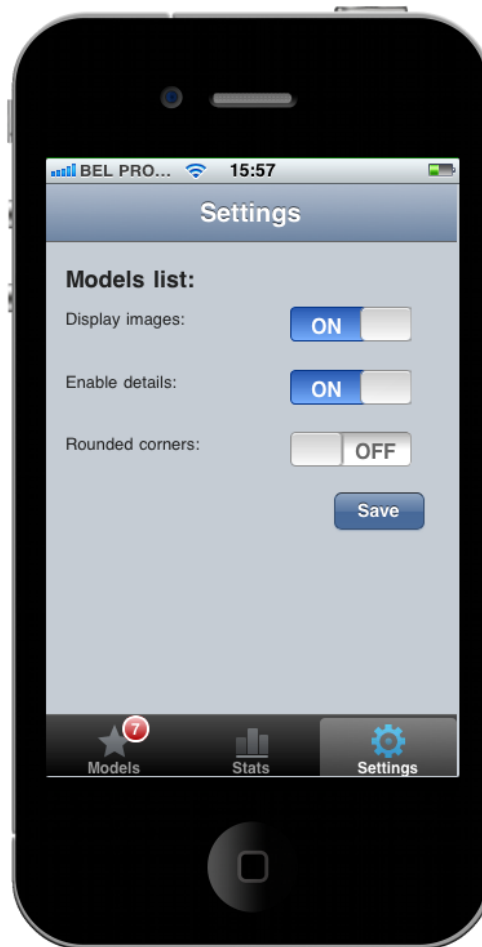
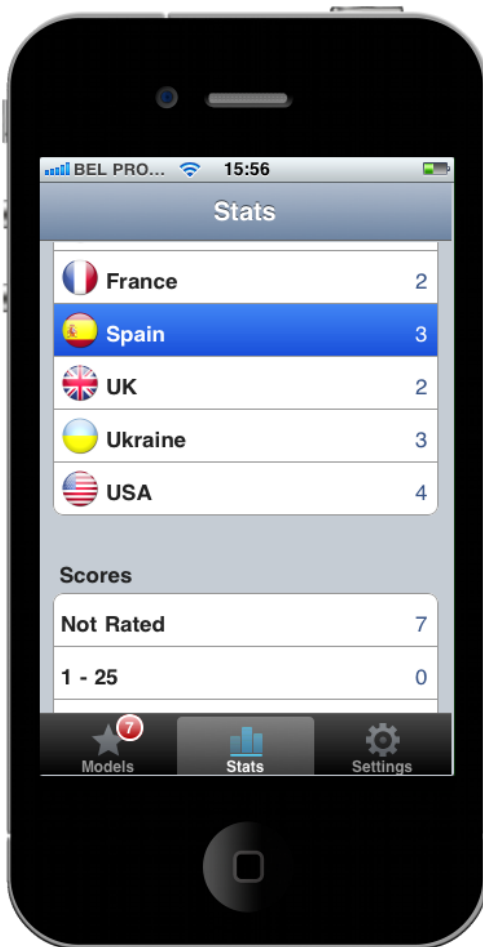
Current version of TMS ASP.NET iPhone Controls Pack has been designed for and tested with iPhone 3, 3G, 3GS, 4, iPad 1, 2, Android.

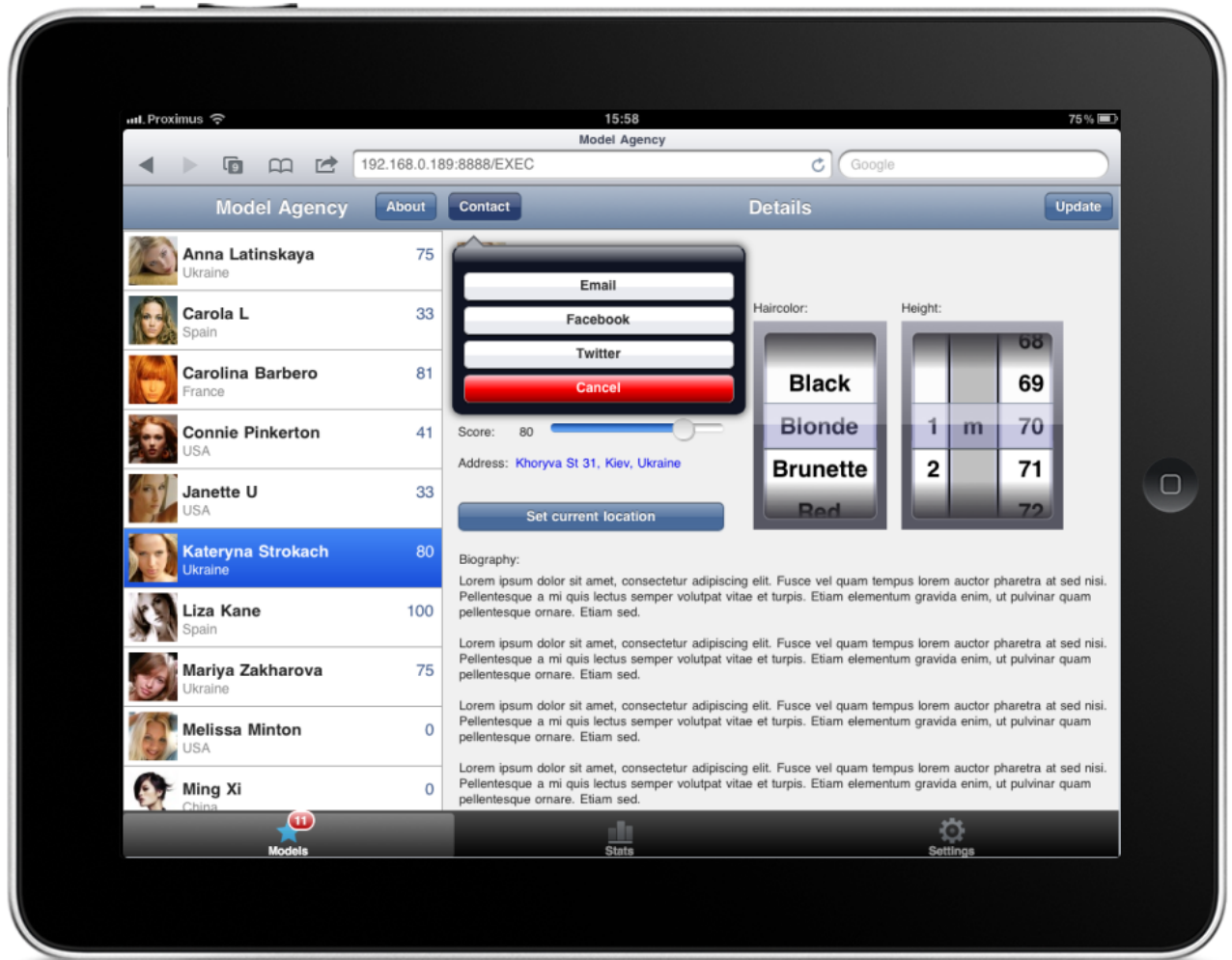
Please note the TMS ASP.NET iPhone Controls Pack is not intended to be used in common desktop browsers like Internet Explorer, FireFox, Chrome, Safari ...

### Screenshots

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## Getting started

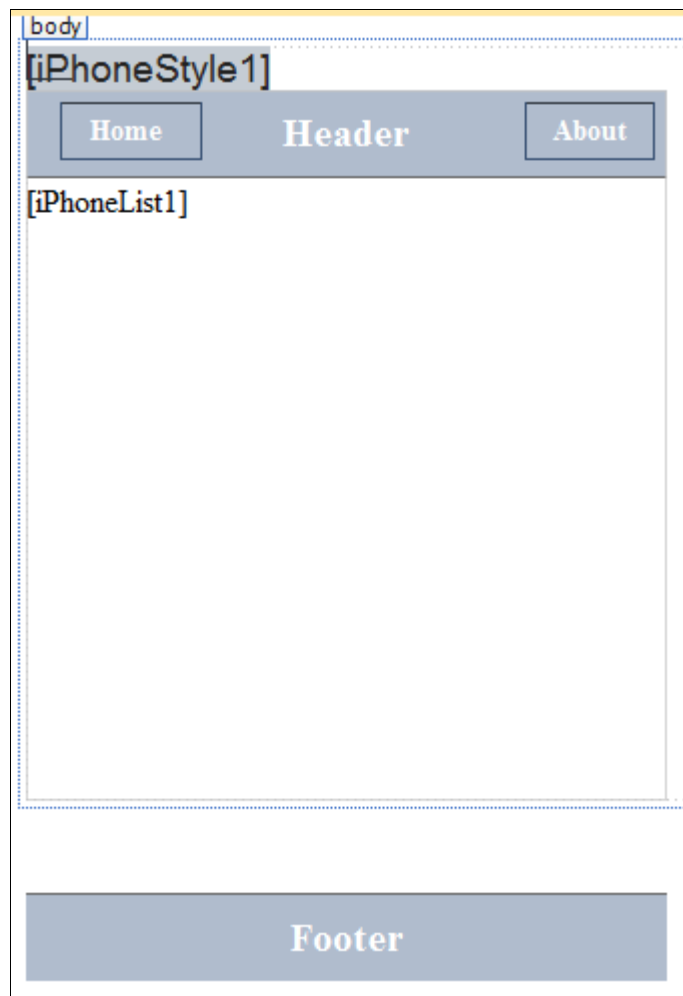
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### I. Installation

1. From the Visual Studio IDE menu, choose Tools, Choose Toolbox Items
2. Switch to the .NET Framework Components tab
3. Choose Browse and pick TMSiPhoneControls.DLL from the installation folder
4. After pressing OK in the Choose Toolbox Items the controls are added to the ToolBox

### II. Using the iPhoneList and iPhoneHeader

1. Start by adding an iPhoneStyle control on the form.  
This way we make sure the application will use the default iPhone/iPad web page configuration, background color and font settings.
2. Then add an iPhonePanel on the form.  
The form size is automatically adjusted to the width and height of the iPhone/iPad screen size.
3. Select the iPhonePanel and add an iPhoneHeader, iPhoneFooter and an iPhoneList control. These controls have to be correctly aligned. The header at the top, the footer at the bottom and the list in the middle. This can be done by adding a table with 3 rows to the aspx file.
4. Change the iPhoneHeader1.RightButton.Caption value to "Load".
5. This is what your design time form should look like:



6. Now it's time to add some items to the iPhoneList. Add the following code to the iPhoneHeader.OnRightButtonClick:

```

iPhoneList1.Items.Clear();
TMSiPhoneControls.iPhoneListItem li;

for (int i = 0; i < 10; i++)
{
    li = new TMSiPhoneControls.iPhoneListItem();
    li.Caption = "List Item " + (i+1).ToString();
    li.Value = (i+1).ToString();
    li.Notes = "notes: " + (i+1);

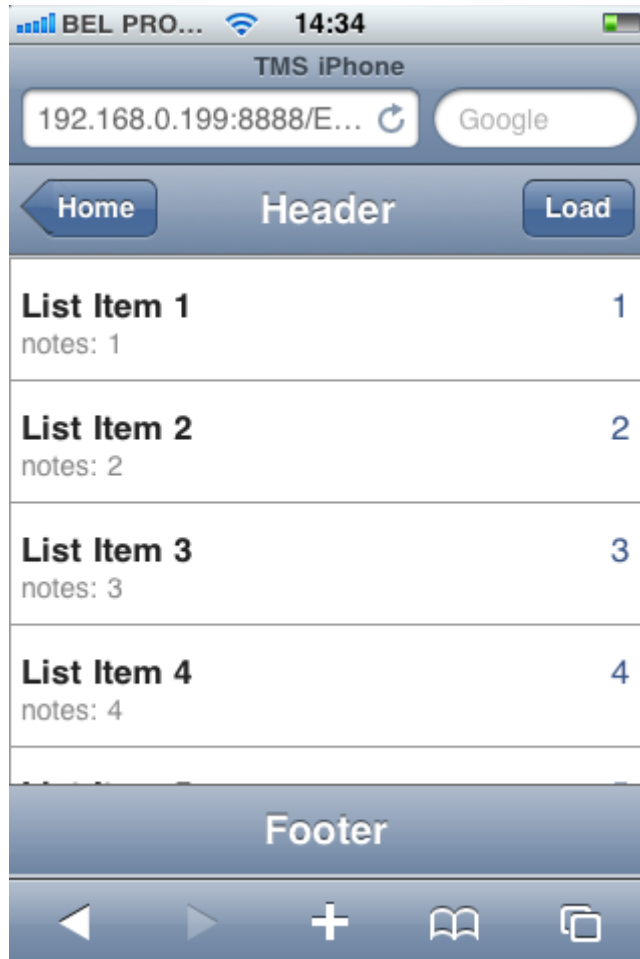
    iPhoneList1.Items.Add(li);
}

iPhoneList1.ItemAppearance.Height = 50;

```

7. That's all there is to it! Hit the Run (F5) button and then type in the correct URL in your iPhone Safari browser (don't forget to enable a port forwarding tool if you're using a standalone application).

- Press the Load button and watch the list items appear on the screen:



### III. Alignment

- Use a TABLE tag to position the controls and make the alignment of an ASP.NET webapp using iPhone/iPad controls resemble the alignment of a native iPhone/iPad app.

Example:

```
<table cellpadding="0" cellspacing="0"
style="width:100%;height:100%;position:absolute;top:0px;left:0px;">
  <tr style="height:100%;width:100%;">
    <td>
      <cc1:iPhonePanel ID="iPhonePanel1" runat="server" BackColor="#C5CCD4">
        <cc1:iPhoneHeader ID="iPhoneHeader1" runat="server" />
        </cc1:iPhoneHeader>
        <br />
        <cc1:iPhoneList ID="iPhoneList1" runat="server">
          </cc1:iPhoneList>
        </cc1:iPhonePanel>
      </td>
```

```
</tr>
<tr>
  <td>
    <tmsiphone:IPhoneMenu ID="IPhoneMenu1" runat="server"
    </tmsiphone:IPhoneMenu>
  </td>
</tr>
</table>
```

2. For a full working example refer to the Demo included with the TMS ASP.NET iPhone Controls Pack that uses this technique to create both an iPhone and an iPad style layout

## List of included components

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iPhoneButton



iPhoneEmailLabel



iPhoneFooter



iPhoneGeolocation



iPhoneHeader



iPhoneList



iPhoneLocationLabel



iPhoneMenu



iPhoneOnOffButton



iPhonePageFlip



iPhonePanel



iPhonePhoneLabel



iPhonePopup



iPhoneScrollPanel



iPhoneSMSLabel



iPhoneSpinner



iPhoneStyle



iPhoneTrackbar

productivity software building blocks

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**TMS ASP.NET iPhone Controls Pack  
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## iPhoneButton

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### iPhoneButton description

Fully customizable iPhone style button.

### iPhoneButton features

- Button in iPhone style with rounded corners
- Full webkit based rendering, no images used
- Client-side events
- Optionally add image in button

### iPhoneButton use

**Appearance:** Change the button background and border color settings. The button background color consists of 2 gradients, a top and bottom (mirror) gradient and this color can be set for normal, hot and disabled state. The default color values resemble the standard iPhone button appearance.

**ButtonType:** Set the button display type (Back, Default, Round, Square). Default sets the type as a standard iPhone button. Round & Square set the button as a rounded rectangle and straight rectangle respectively. The Back type is a button with arrow shape on the left side.

**Caption:** Sets the text for the button

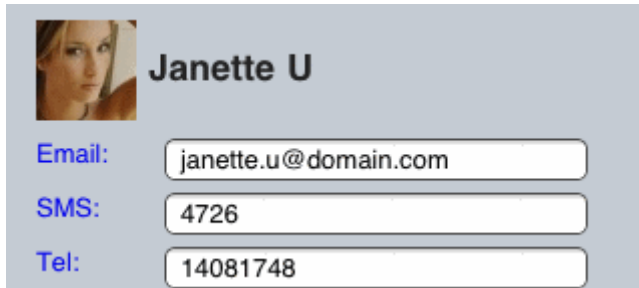
**ImagePosition:** Indicate if the image should be displayed before or after the caption text

**ImageURL:** Specify the image to display in the button

**ClientEvents.Click:** allows adding Javascript code that will be executed when the button is clicked

The button provides one server side event: ButtonClick.

## iPhoneEmailLabel, iPhoneLocationLabel, iPhonePhoneLabel & iPhoneSMSLabel



### iPhoneLabels description

Various label controls that invoke phone, SMS, email and maps functions on the iPhone

### iPhoneLabels features

#### iPhonePhoneLabel

- Label starting iPhone dialer app with predefined phone number

#### iPhoneLocationLabel

- Label starting iPhone maps app with predefined location and optional predefined destination

#### iPhoneEmailLabel

- Label starting iPhone email app with predefined email and optional predefined subject, body text, CC email and BCC email

#### iPhoneSMSLabel

- Label starting iPhone SMS app with predefined phone number

### iPhoneLabels use

**iPhonePhoneLabel:** invokes the phone dialer with the value set by `iPhonePhoneLabel.TelephoneNumber`

**iPhoneLocationLabel:** invokes the maps app with the value set by `iPhoneLocationLabel.Location` (or `iPhoneLocationLabel.Latitude` and `iPhoneLocationLabel.Longitude`) and optionally the `iPhoneLocationLabel.Destination` (or `iPhoneLocationLabel.DestinationLatitude` and `iPhoneLocationLabel.DestinationLongitude`).

Note:

The `Location/Destination` typically contains a street address or country name, etc... The `Latitude` and `Longitude` contain the geographic coordinates of the location.

**iPhoneSMSLabel:** invokes the iPhone SMS app with the value set by `iPhoneSMSLabel.SMSNumber`

**iPhoneEmailLabel:** invokes the iPhone email app with the email address set by `iPhoneEmailLabel.EmailAddress` and optionally the `iPhoneEmailLabel.CCAddress`, `iPhoneEmailLabel.BCCAddress`. In addition, the email subject and body can optionally be preset with `iPhoneEmailLabel.Body` and `iPhoneEmailLabel.Subject`.

If no caption text is specified, the predefined phone number (iPhonePhoneLabel, iPhoneSMSLabel), the predefined email address (iPhoneEmailLabel) or the predefined location (iPhoneLocationLabel) will be displayed instead.

Example:

```
iPhonePhoneLabel1.Caption = "My friend";  
iPhonePhoneLabel1.TelephoneNumber = "001 800 123456";
```

This will display as “My friend” and when clicked will start the phone dialer with number 001 800 123456.

## iPhoneGeolocation

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### iPhoneGeolocation description

Retrieves the current geographic location.

### iPhoneGeolocation features

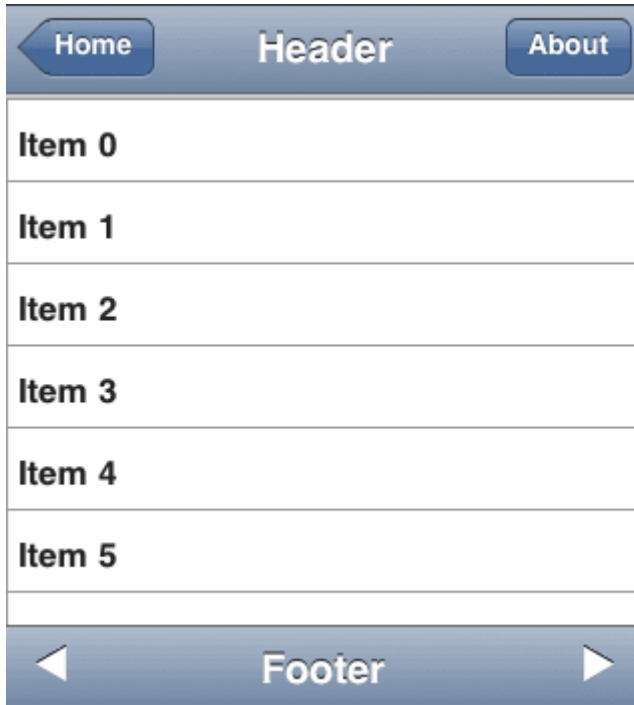
- Non visual component to retrieve the current geographic location
- Retrieve location as a street address or as latitude/longitude coordinates

### iPhoneGeolocation use

- Call the iPhoneGeolocation.RetrieveLocation method (for example through a button's Click event).
- When the location has been found, the iPhoneGeolocation.LocationRetrieved event is triggered. The current geographic location is now available from the event's parameters: Location (street address), Latitude and Longitude (geographic coordinates).

## iPhoneHeader & iPhoneFooter

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### iPhoneHeader & iPhoneFooter description

Customizable iPhone application header control & iPhone application footer control. The header typically consists of up to two buttons and a header text. The footer typically consists of a graphical element on the left and right and a footer text.

### iPhoneHeader & iPhoneFooter features

#### iPhoneHeader

- Optional button left & right with text and/or image
- Optional arrow shape back button
- No images used for rendering
- Client side events for button clicks

#### iPhoneFooter

- Optional graphic element left & right
- Client side events for image clicks

### iPhoneHeader & iPhoneFooter use

#### iPhoneHeader

BackColor, BackColorTo: set the gradient background start and end color.

Caption: sets the header text

**LeftButton, RightButton:** Configure the left hand side and right hand side button respectively. See the iPhoneButton section for further information.

**ClientEvents:** contains the JavaScript code that can be specified that is executed when either the left or right button is clicked.

The header provides following events:

**LeftButtonClick, RightButtonClick:** event triggered when one of the buttons is triggered with a page refresh.

### **iPhoneFooter**

**BackColor, BackColorTo:** set the gradient background start and end color.

**Caption:** sets the footer text

**LeftImageUrl, RightImageUrl:** Specify the image to use on the left hand side and right hand side respectively.

**ClientEvents:** contains the JavaScript code that can that is executed when either the left or right graphic is clicked.

**LeftImageClick, RightImageClick:** event triggered when one of the images is triggered with a page refresh.

## iPhoneList



### iPhoneList description

Fully customizable iPhone style list control

### iPhoneList features

- Supports standard list mode & settings mode
- In settings mode, items can be organized in sections
- Image, value, caption and notes per item
- Smooth iPhone style scrolling & scroll indicator
- Support for inserting and removing items
- Can show detail in connection with iPhonePageFlip
- No images used for rendering
- Extensive control over appearance: colors, margin, font
- Standard iPhone look & feel colors
- Client side event for item clicks

### iPhoneList use

ListType Normal: Display the list as a normal list.

ListType Settings: Display the list as a settings list with rounded borders and (optional) sections



Full control to position the Image (1), Caption (2), Notes (3), Value (4), Detail indicator (5) elements by using the ItemAppearance.\*Margins properties.

The `iPhoneList.ItemAppearance` controls how each item in the list looks. `BackColor/BackColorTo` set the gradient start and end color for an item. The `SelectedBackColor, SelectedBackColorTo` set the gradient start and end color for a selected item. The fonts for caption, notes and value are also controlled by `CaptionFont, NotesFont` and `ValueFont` under `iPhoneList.ItemAppearance`.

The items in the `iPhoneList` are organized via a collection: `iPhoneList.Items`. The item in this collection has following properties:

`iPhoneListItem`:

`Caption`: sets the caption text

`Data`: additional data associated with the item maintained in a collection of strings

`Detail`: when true, an indicator '>' is shown that indicates a detail screen is available

`Image`: sets the URL of the image to be shown in the item

`Name`: sets the name of the item

`Notes`: sets the optionally displayed notes

`Section`: when true, the item represents a section title in an `iPhoneList` with `ListType = ListTypeEnum.Settings`

`Tag`: holds an integer value associated with the item

`Value`: sets the value of the item as string

The `iPhoneList` can display a typical "See more" button below the last item if not all collection items are currently displayed in the list (The initial number of items displayed can be set with `InitialItemCount`). After clicking this button, additional items will be inserted in the list (Configure the number of items that are inserted after every click with `LoadAdditionalItemsCount`).

The `iPhoneList` exposes following events:

`ImageClick`: event triggered when the item image is clicked

`ItemClick`: event triggered when the item is clicked

`LoadAdditionalItems`: event triggered when the "See more" button is clicked. If this event is assigned, no additional items will be added this allows for adding custom code.

`GetItemProps`: event triggered every time an item is ready to be rendered in the browser. The item properties (`Caption, Notes, Value, Image` and `Detail`) can be changed here.

Example:

This adds an item to the list via code:

```
TMSiPhoneControls.iPhoneListItem li;
li.Caption = "New item";
li.Value = "value";
li.Notes = "This is the description of the item";
li.Detail = true; // show the detail indicator
iPhoneList1.Items.Add(li);
```

## iPhoneMenu

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### iPhoneMenu description

Fully customizable iPhone application menu control

### iPhoneMenu features

- Collection of menu items with text
- iPhone style status indicator per item
- Client side JavaScript events

### iPhoneMenu use

iPhoneMenu consists of a horizontal series of menu items. The menu item has an image and a caption text. Optionally, a menu item can show a status indicator (red circular indicator). The status indicator is fully updatable. The menu can have one selected menu item, set by iPhoneMenu.SelectedIndex. The menu items are organized in a collection: iPhoneMenu.Items. This is a collection of iPhoneMenuItem instances:

#### TiPhoneMenuItem

Caption: sets the text for the menu item

Image: sets the URL of the image to be shown in the item

IndicatorCaption: sets the value of the optional status indicator

IndicatorVisible: when true, the indicator is shown at the top right for the menu item

Name: sets the name of the menu item

SelectedImage: alternate image shown for a menu item in selected state

Tag: holds an integer value associated with the item

The iPhoneMenu exposes following events:

ItemClick: triggered event when the menu item is clicked

ClientEvents.ItemClick: this sets the JavaScript code that will be executed when the menu item is clicked (the item index parameter is available through a JavaScript variable called "index")

Example:

This code snippet shows how a click on the 2<sup>nd</sup> menu item sets the indicator on the first menu item:

```
protected void iPhoneMenu12_ItemClick(object sender,
TMSiPhoneControls.iPhoneMenu.ItemEventArgs e)
{
    iPhoneMenu1.Items[e.ItemIndex].IndicatorCaption = "*";
    iPhoneMenu1.Items[e.ItemIndex].IndicatorVisible = true;
}
```

## iPhoneOnOffButton

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### iPhoneOnOffButton description

iPhone style toggle button

### iPhoneOnOffButton features

- On/off toggle button in iPhone style with rounded corners
- Animation when toggling state
- Three built-in styles: normal, system, custom
- States can be represented by text
- No images used for rendering

### iPhoneOnOffButton use

iPhoneOnOffButton is an iPhone style toggle button with two states. The text for the on and off state is set with properties iPhoneOnOffButton.OnCaption and iPhoneOnOffButton.OffCaption. The colors of the button can be configured under iPhoneOnOffButton.Appearance. The default settings of the iPhoneOnOffButton represent the look and feel of the standard iPhone toggle button. This is also the style set when iPhoneOnOffButton.ButtonType = ButtonTypeEnum.Default. Alternatively, the ButtonType = ButtonTypeEnum.System selects the iPhone system toggle button with orange thumb. Custom colors can be set and will be used when ButtonType is ButtonTypeEnum.Custom.

Notification when the button state changes is done via two events:

ClientEvents.Click: this sets the JavaScript code that will be executed when the button state changes

ButtonClick: triggered event causing page refresh when button state changes

## iPhonePageFlip

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### iPhonePageFlip description

Control that allows switching between two associated panels with various animation types.

### iPhonePageFlip features

- Webkit based animation between panels
- Client-side animation
- Different animation types configuration

### iPhonePageFlip use

Setting up and configuring the iPhonePageFlip is done in following way:

#### Configure the iPhonePageFlip control:

Add two IPhonePanel controls to the form.

Add the required controls to both panels.

Assign the front (first) panel to the FrontPanel property.

Assign the back (second/detail) panel to the BackPanel property.

Change the duration (in ms) of the animation by setting the AnimationSpeed property.

Change the type of animation by setting the AnimationType property.

Decide which panel is initially displayed by setting the ActivePanel property to Front or Back.

#### Switch between FrontPanel and BackPanel:

Starting the animation to switch from one assigned panel to another panel can be done in JavaScript code or via handling a server event:

Using an event from any control on your form:

Call iPhonePageFlip.SlideToBack to switch to the BackPanel.

Call iPhonePageFlip.SlideToFront to switch to the FrontPanel.

Using a ClientEvent from any control on your form:

Add the string CONTROLIDback(); to your script event to switch to the BackPanel.

Add the string CONTROLIDfront(); to your script event to switch to the FrontPanel.

(Where "CONTROLID" is the ClientID of the iPhonePageFlip control)

## iPhonePanel

---

### iPhonePanel description

This panel has the size of the standard iPhone/iPad screen. This allows designing the panel in the Visual Studio IDE taking the sizes of the target screen in account.

### iPhonePanel features

- Panel for easy design time configuration of iPhone/iPad size screens

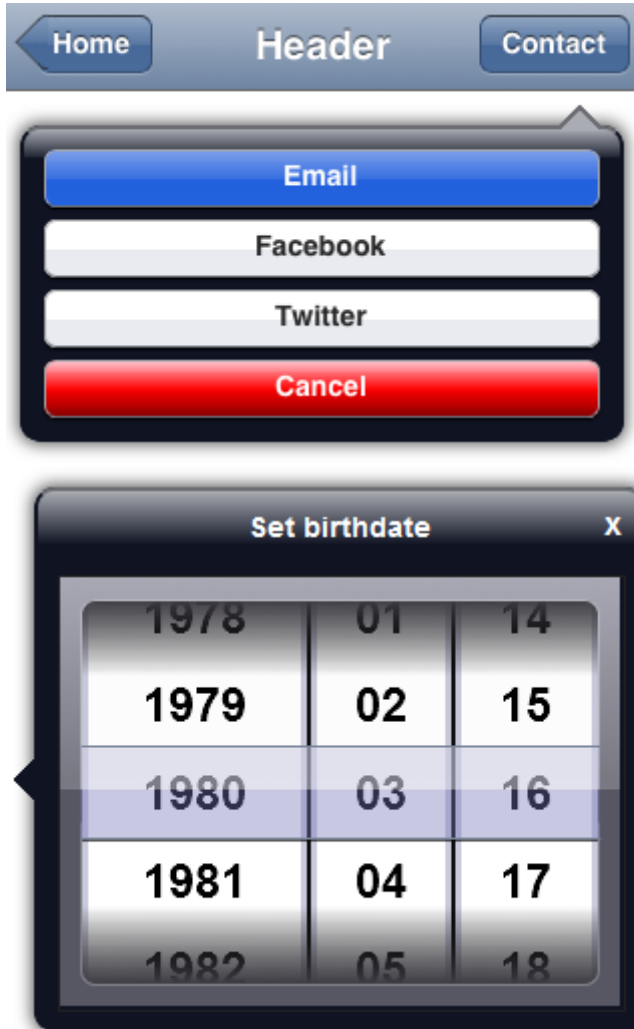
### iPhonePanel use

Using iPhonePanel is similar to using a standard ASP.NET Panel. The advantage of the iPhonePanel is that it shows in the IDE the size of the panel as it will show on the iPhone/iPad as well as allowing specifying a runtime only client-alignment of the panel with a non-aligned design time behavior. This non-aligned design time behavior allows putting multiple panels on a single form at design time and at runtime switch between client-aligned panels.

Specify the iPhonePanel size by setting iPhonePanel.Device to iPad or iPhone and iPhonePanel.DeviceOrientation to Horizontal or Vertical.

## iPhonePopup

---



### iPhonePopup description

iPhone / iPad style popup control

### iPhonePopup features

- Full webkit based rendering, no images used
- Built-in configurable collection of iPhone / iPad style buttons
- Can host custom content by adding a Panel that can contain any control
- Extensive control over positioning

### iPhonePopup use

Initializing the iPhonePopup control:

- Add the required buttons with their Caption text to the Buttons collection
- Optionally configure a popup Caption text
- Optionally configure the positioning ArrowPosition and PositionType properties
- Initially the iPhonePopup will be hidden. Set the ShowPopup property to true using an event of any other control on the form to display the popup. Set the ShowPopup to false to hide the popup.

**ArrowPosition:**

Used to configure the position of the arrow on the side of the iPhonePopup.

This property also determines on what side of the control set in the PositionControl property the iPhonePopup is displayed.

**PositionType:**

Used to determine if the iPhonePopup is positioned based on it's absolute Top and Left values (Absolute) or based on the position of the PositionControl (AtControl)

**Example:**

- Set PositionType to AtControl
- Set PositionControl to a TextBox control on your form
- Set ArrowPosition to TopLeft to display the popup at the bottom left corner of the TextBox control and the arrow will be positioned in the top left corner of the popup, pointing at the TextBox control.

**ContentPanel:**

Select any panel on your form to display it's content in the iPhonePopup.

Note: the buttons from the Buttons collection will be hidden when a ContentPanel is assigned.

**Example:**

Add an iPhoneSpinner control on the ContentPanel to create a DatePicker or TimePicker control.

**ButtonClick, ClientEvents.ButtonClick:**

These events will fire when a button has been clicked and provide a button index parameter.

(For the ClientEvents.ButtonClick the button index parameter is available through a JavaScript variable called "index")

**Tip: Show or hide the iPhonePopup by using ClientEvents:**

You can use JavaScript to show or hide the iPhonePopup with the following calls:

```
POPUPIDShow();  
POPUPIDHide();
```

(Where "POPUPID" is the ClientID of the control in uppercase)

## iPhoneScrollPanel

---

### iPhoneScrollPanel description

Panel for displaying scrollable content.

### iPhoneScrollPanel features

- Smooth iPhone style scrolling & scroll indicator

### iPhoneScrollPanel use

Using iPhoneScrollPanel is similar to using a standard ASP.NET Panel. The advantage of the iPhoneScrollPanel is that it allows clipping of the content and provides smooth iPhone style scrolling and scroll indicator.

It's typically used client aligned inside an iPhonePanel which can already contain a iPhoneHeader and iPhoneFooter or iPhoneMenu. Thanks to the scrolling functionality the Header and Footer or Menu will remain at a fixed position.

## iPhoneSpinner



### iPhoneSpinner description

The iPhoneSpinner is a web implementation of the native iOS date/time selector wheel control

### iPhoneSpinner features

- Full webkit / HTML5 based rendering, no images used
- Configurable collection of Slots
- Built-in date and time selector
- Smooth iPhone style scrolling

### iPhoneSpinner use

#### Initializing the iPhoneSpinner control:

- Add Slots to the Slots collection and add the required Items for each Slot
- Set the SelectedIndex for each Slot
- The Slots are automatically sized relative to the content of the Slot itself and the width of the iPhoneSpinner control

#### Scrolled, ClientEvents.Scrolled:

These events will fire when a slot has scrolled and provide a slot index and item index parameter. (For the ScriptEvents.Scrolled clientevent the parameters are available through JavaScript variables called "slotIndex", "itemIndex" and "itemValue")

#### Date and time selector:

Other than a general purpose single or multi slot spin control, the iPhoneSpinner can also be configured to be used as a date or time selector. This can be done with the iPhoneSpinner.Mode property that offers following presets: DateDMY, DateMDY, DateYMD, TimeHM, TimeHMS. Without using any code, the spinner is this way immediately set up as a day, month, year or month day year or hour, minute or hour, minute, seconds spinner.

## iPhoneStyle

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### iPhoneStyle description

Holds meta tags for controlling if an application runs full screen, defines the optional application icon on the iPhone and the optional splash screen.

### iPhoneStyle features

- Non visual component to define different global iPhone application settings
- Can define iPhone/iPad application button icon
- Can define iPhone application splash screen

### iPhoneStyle use

Drop the iPhoneStyle component on the form. Following control is possible:

BackColor, BackColorTo: set the application gradient background start and end color.

Font: the font settings will be applied to all other controls on the form, except for controls where the font settings are already configured on the control itself.

FullScreen: Boolean; when true, the application will run full screen if started from an iPhone button

HideAddressBar: Boolean; when true, the browser address bar is hidden

IconImage: sets the URL for the image that will be used for the iPhone button from where the web application can be started.

StartupImage: set the URL for the image that can be used as splash screen to start the application

StatusBarStyle: allows selecting a default color or semitransparent black statusbar on the iPhone

UsePrecomposedIcon: Boolean; when true, the image specified in IconImage will not be changed.

When false, the image specified in IconImage will have the typical iPhone button rounded borders and glow effect applied.

FullScreen, IconImage, StartupImage and StatusBarStyle can only be used when the application is started from an iPhone button (i.e. this will not work when the application is started from a link or bookmark in the iPhone browser).

HideAddressBar can only be used when Fullscreen is false.

## iPhoneTrackbar

---



### iPhoneTrackbar description

iPhone style trackbar

### iPhoneTrackbar features

- Full webkit based rendering, no images
- Display the dynamically updated position value

### iPhoneTrackbar use

The iPhoneTrackbar is very similar to a standard TrackBar. It has a `MinimumValue` and `MaximumValue` and a `ThumbPosition`. The thumb can be moved between the minimum and maximum. Optionally an automatically updated label with the position value can be displayed when `ShowValue` is true, the value will be formatted and positioned using the settings from `ValueFormat` and `ValuePosition` respectively. Changes in the trackbar at runtime trigger several events:

JavaScript events with event handlers defined under `ClientEvents`:

`Drag`: holds the JavaScript executed while the thumb is being dragged.

`EndDrag`: holds the JavaScript executed when the thumb is released

`StartDrag`: holds the JavaScript executed when the thumb is first clicked to start dragging

Events:

`Drag`: event triggered while the thumb is being dragged.

`DragEnd`: event triggered when the thumb is released

`DragStart`: event triggered when the thumb is first clicked to start dragging