

# CONTROL GADGETS

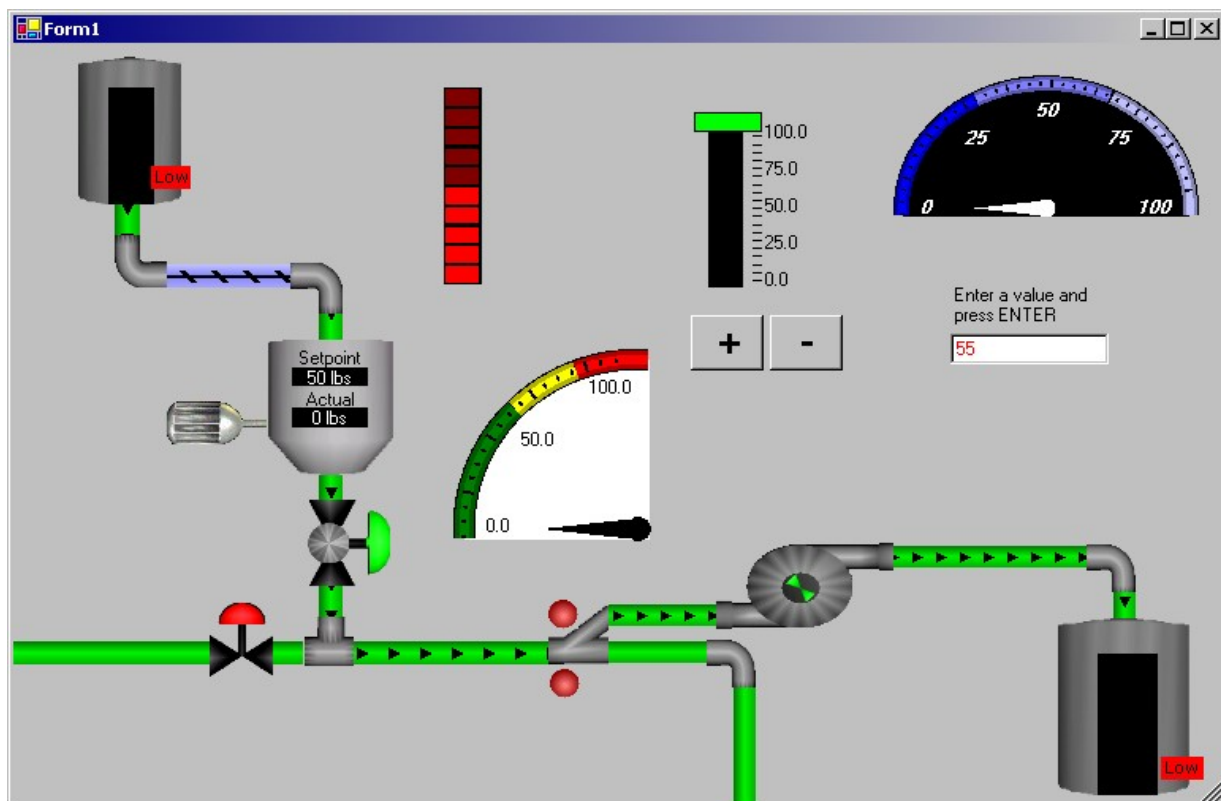
## *iGadgets Reference guide*

*March 15, 2008*

### Introduction

iGadgets offers a set of controls designed for user interfaces specifically targeted at batching and/or material transfer related systems.

The following sample form shows some of the available controls.



Available Controls	
Pipe Control	The Pipe Control is fully animated, and has 5 styles (Square, Ellipse, Triangle, Slash, and Screw Feeder.)
Pipe Split	The pipe split control has 4 appearance styles (2 way, 3 way, T, and diverter valve.)
Pipe Joint	The pipe joint control has 2 styles (large and tight)
Angular Gauge	The angular gauge can be show as a 90, 180, 270, or 360 degree gauge.
Motor	The motor control is an animated boolean control.
LED	The LED control is a boolean control that simulates an LED.
Valve	The valve control is an animated boolean control.
Rotary Valve	The rotary valve control is an animated boolean control.
Pump	The pump control is an animated boolean control with 2 styles (SingleConnector or DoubleConnector)
Hopper	The hopper control displays both an actual value and an optional setpoint value.
Tank	The tank control is an animated level control.
Linear Bar	The linear bar control is an animated level control.
Slider	The slider control is an animated level control used for doing rough adjustments.
Fine Tune	The fine tune control is used for doing fine adjustments (often used with the slider control.)
Write Box	The write box control is a numeric manual entry field. Enter a number and press enter to write it.

## Overview

iGadgets contain controls with a focus on batching and material transfer related systems (although these controls could be used anywhere.) These include pipe, joints, valves, tanks, hoppers, motors, etc.

The iGadgets controls are written in 100% pure .Net managed code, and utilize GDI+ for the smoothest animation possible. They also employ double buffering techniques to prevent flickering. A

## Getting Started

iGadgets based applications are created in the Visual Studio Designer as Visual Basic or C# Windows




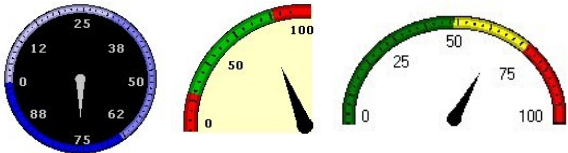

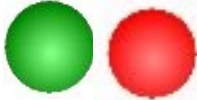


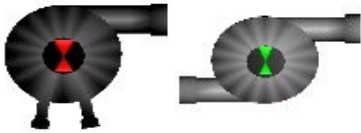
Forms applications.


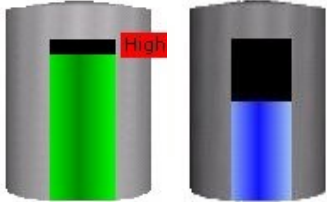
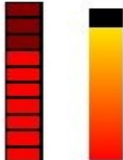
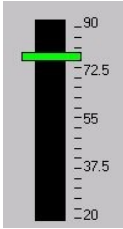


The Visual Studio project needs to have references to the iGadgets.dll.

## Namespaces

### iGadgets

#### Class

PipeControl	
PipeSplit	
PipeJoint	
AngularGauge	
Motor	
LED	
Valve	
RotaryValve	
Pump	

Class	
Hopper	
Tank	
Bar	
Slider	
FineTune	
WriteBox	

## Classes

### *PipeControl*

The PipeControl visualizes material transfer.

For a list of all members of this type, see PipeControl members.

## Inheritance Hierarchy

System.Object  
  System.MarshalByRefObject  
    System.ComponentModel.Component  
      System.Windows.Forms.Control  
        System.Windows.Forms.ScrollableControl  
          System.Windows.Forms.ContainerControl  
            System.Windows.Forms.UserControl  
              **iGadgets.PipeControl**

## Syntax

[Visual Basic]

```
Public Class PipeControl  
  Inherits UserControl
```

[C#]

```
public class PipeControl : UserControl
```

[Delphi]

```
public class PipeControl = class(UserControl)
```

## Requirements

**Namespace:** iGadgets

**Platforms:** Windows 98, Windows NT 4.0, Windows Millennium Edition, Windows 2000, Windows XP Home Edition, Windows XP Professional, Windows Server 2003 family

**Assembly:** iGadgets (in iGadgets.dll)

## Members

Angle	The angle the control is rotated.
Animate	Whether the animation is on or off
Invert	Switches whether to animate when the control is on or off.
Magnet	Whether or not to allow the pipe control snap into place with pipe splits or joints.
PipeColor1	The outer color of the pipe gradient.
PipeColor2	The inner color of the pipe gradient.
Speed	The speed of the pipe animation.
Style	Changes the look of the animation inside the pipe.

## PipeJoint

The PipeJoint connects 2 pipe controls together. When magnet mode is enabled (default), it will automatically snap into place when the control is dropped onto a pipe.

For a list of all members of this type, see PipeJoint members.

### Inheritance Hierarchy

```
System.Object
  System.MarshalByRefObject
    System.ComponentModel.Component
      System.Windows.Forms.Control
        System.Windows.Forms.ScrollableControl
          System.Windows.Forms.ContainerControl
            System.Windows.Forms.UserControl
              iGadgets.PipeJoint
```

### Syntax

```
[Visual Basic]
Public Class PipeJoint
    Inherits UserControl

[C#]
public class PipeJoint : UserControl

[Delphi]
public class PipeJoint = class(UserControl)
```

### Requirements

**Namespace:** iGadgets

**Platforms:** Windows 98, Windows NT 4.0, Windows Millennium Edition, Windows 2000, Windows XP Home Edition, Windows XP Professional, Windows Server 2003 family

**Assembly:** iGadgets (in iGadgets.dll)

### Members

<i>Custom Properties</i>	
Angle	The angle the control is rotated.
BackColor	Background color of the control.
Magnet	Whether or not to allow the pipe joint snap into place with pipe controls.
JointColor	The color of the pipe joint.
Style	Changes the look of the pipe joint.

## PipeSplit

The PipeSplit connects 3 or more pipe controls together. When magnet mode is enabled (default), it will automatically snap into place when the control is dropped onto a pipe.

For a list of all members of this type, see PipeSplit members.

### Inheritance Hierarchy

```
System.Object
  System.MarshalByRefObject
    System.ComponentModel.Component
      System.Windows.Forms.Control
        System.Windows.Forms.ScrollableControl
          System.Windows.Forms.ContainerControl
            System.Windows.Forms.UserControl
              iGadgets.PipeSplit
```

### Syntax

```
[Visual Basic]
Public Class PipeSplit
    Inherits UserControl

[C#]
public class PipeSplit : UserControl

[Delphi]
public class PipeSplit = class(UserControl)
```

### Requirements

**Namespace:** iGadgets

**Platforms:** Windows 98, Windows NT 4.0, Windows Millennium Edition, Windows 2000, Windows XP Home Edition, Windows XP Professional, Windows Server 2003 family

**Assembly:** iGadgets (in iGadgets.dll)

### Members

<i>Custom Properties</i>	
Angle	The angle the control is rotated.
BackColor	Background color of the control.
Magnet	Whether or not to allow the pipe split snap into place with pipe controls.
SplitColor	The color of the pipe split.
Style	Changes the look of the pipe split.

## AngularGauge

The angular gauge control simulates analog angular gauges. It can be displayed in a variety of styles and colors.

For a list of all members of this type, see AngularGauge members.

### Inheritance Hierarchy

```
System.Object
  System.MarshalByRefObject
    System.ComponentModel.Component
      System.Windows.Forms.Control
        System.Windows.Forms.ScrollableControl
          System.Windows.Forms.ContainerControl
            System.Windows.Forms.UserControl
              iGadgets.AngularGauge
```

### Syntax

```
[Visual Basic]
Public Class AngularGauge
    Inherits UserControl

[C#]
public class AngularGauge : UserControl

[Delphi]
public class AngularGauge = class(UserControl)
```

### Requirements

**Namespace:** iGadgets

**Platforms:** Windows 98, Windows NT 4.0, Windows Millennium Edition, Windows 2000, Windows XP Home Edition, Windows XP Professional, Windows Server 2003 family

**Assembly:** iGadgets (in iGadgets.dll)

### Members

<i>Custom Properties</i>	
Angle	The angle the angular gauge is displayed as..
BackColor	The background color of the control.
ColorRange1	The leftmost starting color of the control.
ColorRange1Percent	The amount of the control (0-100) to color with ColorRange1
ColorRange2	The center color of the control.
ColorRange2Percent	The amount of the control (0-100) to color with ColorRange2
ColorRange3	The rightmost color of the control.



<i>Custom Properties</i>	
ColorRange3Percent	The amount of the control (0-100) to color with ColorRange3
DecimalPlaces	Sets the number of places to the right of the decimal to show.
DisplayText	Selects whether to display the numeric text for the gauge.
Font	Selects the font used on the control
ForeColor	Sets the foreground color for the control.
GaugeBackColor	Sets the background color of the gauge.
Max	Sets the maximum value for the gauge.
Min	Sets the minimum value for the gauge.
Value	Sets/Gets the current value of the control

## ***Motor***

The motor control is used to represent a motor.

For a list of all members of this type, see [Motor members](#).

### **Inheritance Hierarchy**

```

System.Object
  System.MarshalByRefObject
    System.ComponentModel.Component
      System.Windows.Forms.Control
        System.Windows.Forms.ScrollableControl
          System.Windows.Forms.ContainerControl
            System.Windows.Forms.UserControl
              iGadgets.Motor
  
```

### **Syntax**

[Visual Basic]

```

Public Class Motor
    Inherits UserControl
  
```

[C#]

```

public class Motor : UserControl
  
```

[Delphi]

```

public class Motor = class(UserControl)
  
```

### **Requirements**

**Namespace:** iGadgets

**Platforms:** Windows 98, Windows NT 4.0, Windows Millennium Edition, Windows 2000, Windows XP Home Edition, Windows XP Professional, Windows Server 2003 family

**Assembly:** iGadgets (in iGadgets.dll)

## Members

<i>Custom Properties</i>	
Active	Turns the animation on or off
Angle	The angle the motor is displayed.
BackColor	The background color of the control.
Invert	Switches whether to animate when the control is on or off.

## LED

The LED control is used to represent a light emitting diode (LED).

For a list of all members of this type, see LED members.

## Inheritance Hierarchy

```
System.Object
  System.MarshalByRefObject
    System.ComponentModel.Component
      System.Windows.Forms.Control
        System.Windows.Forms.ScrollableControl
          System.Windows.Forms.ContainerControl
            System.Windows.Forms.UserControl
              iGadgets.PipeSplit
```

## Syntax

[Visual Basic]

```
Public Class LED
    Inherits UserControl
```

[C#]

```
public class LED: UserControl
```

[Delphi]

```
public class LED = class(UserControl)
```

## Requirements

**Namespace:** iGadgets

**Platforms:** Windows 98, Windows NT 4.0, Windows Millennium Edition, Windows 2000, Windows XP Home Edition, Windows XP Professional, Windows Server 2003 family

**Assembly:** iGadgets (in iGadgets.dll)

## Members

<i>Custom Properties</i>	
Active	Whether the animation is on or off
BackColor	The background color of the control.
Invert	Switches whether to animate when the control is on or off.
OffColor	The color of the LED when it is Active.
OnColor	The color of the LED when it is not Active.

## Valve

The valve control is used to represent a mechanical valve, or gate.

For a list of all members of this type, see Valve members.

## Inheritance Hierarchy

```

System.Object
  System.MarshalByRefObject
    System.ComponentModel.Component
      System.Windows.Forms.Control
        System.Windows.Forms.ScrollableControl
          System.Windows.Forms.ContainerControl
            System.Windows.Forms.UserControl
              iGadgets.Valve

```

## Syntax

[Visual Basic]

**Public Class Valve**

**Inherits UserControl**

[C#]

**public class Valve : UserControl**

[Delphi]

**public class Valve = class(UserControl)**

## Requirements

**Namespace:** iGadgets

**Platforms:** Windows 98, Windows NT 4.0, Windows Millennium Edition, Windows 2000, Windows XP Home Edition, Windows XP Professional, Windows Server 2003 family

**Assembly:** iGadgets (in iGadgets.dll)

## Members

<i>Custom Properties</i>	
Active	Whether the animation is on or off

<i>Custom Properties</i>	
Angle	The angle the control is displayed.
BackColor	The background color of the control.
Invert	Switches whether to animate when the control is on or off.
OffColor	The color of the Valve when it is Active.
OnColor	The color of the Valve when it is not Active.

## **RotaryValve**

The rotary valve control is used to represent a mechanical rotary valve, or air lock.

For a list of all members of this type, see RotaryValve members.

### **Inheritance Hierarchy**

```

System.Object
  System.MarshalByRefObject
    System.ComponentModel.Component
      System.Windows.Forms.Control
        System.Windows.Forms.ScrollableControl
          System.Windows.Forms.ContainerControl
            System.Windows.Forms.UserControl
              iGadgets.RotaryValve
  
```

### **Syntax**

[Visual Basic]

```
Public Class RotaryValve
Inherits UserControl
```

[C#]

```
public class RotaryValve : UserControl
```

[Delphi]

```
public class RotaryValve = class(UserControl)
```

### **Requirements**

**Namespace:** iGadgets

**Platforms:** Windows 98, Windows NT 4.0, Windows Millennium Edition, Windows 2000, Windows XP Home Edition, Windows XP Professional, Windows Server 2003 family

**Assembly:** iGadgets (in iGadgets.dll)

### **Members**

<i>Custom Properties</i>	
Active	Whether the animation is on or off
Angle	The angle the control is displayed.
BackColor	The background color of the control.
Invert	Switches whether to animate when the control is on or off.
RotorColor	The color of the spinning rotor
OffColor	The color of the Rotary Valve when it is Active.
OnColor	The color of the Rotary Valve when it is not Active.

## ***Pump***

The pump control is used to represent a mechanical pump.

For a list of all members of this type, see Pump members.

### **Inheritance Hierarchy**

```

System.Object
  System.MarshalByRefObject
    System.ComponentModel.Component
      System.Windows.Forms.Control
        System.Windows.Forms.ScrollableControl
          System.Windows.Forms.ContainerControl
            System.Windows.Forms.UserControl
              iGadgets.Pump
  
```

### **Syntax**

[Visual Basic]

```
Public Class Pump
```

```
    Inherits UserControl
```

[C#]

```
public class Pump : UserControl
```

[Delphi]

```
public class Pump = class(UserControl)
```

### **Requirements**

**Namespace:** iGadgets

**Platforms:** Windows 98, Windows NT 4.0, Windows Millennium Edition, Windows 2000, Windows XP Home Edition, Windows XP Professional, Windows Server 2003 family

**Assembly:** iGadgets (in iGadgets.dll)

## Members

<i>Custom Properties</i>	
Active	Whether the animation is on or off
Angle	The angle the control is displayed.
BackColor	The background color of the control.
ForeColor	The foreground color of the control.
Invert	Switches whether to animate when the control is on or off.
RotorColor	The color of the spinning rotor
Style	Changes the appearance of the control.

## Hopper

The hopper control is used to represent a physical hopper or receiver.

For a list of all members of this type, see Hopper members.

## Inheritance Hierarchy

System.Object  
  System.MarshalByRefObject  
    System.ComponentModel.Component  
      System.Windows.Forms.Control  
        System.Windows.Forms.ScrollableControl  
          System.Windows.Forms.ContainerControl  
            System.Windows.Forms.UserControl  
              **iGadgets.Hopper**

## Syntax

[Visual Basic]

```
Public Class Hopper  
  Inherits UserControl
```

[C#]

```
public class Hopper : UserControl
```

[Delphi]

```
public class Hopper = class(UserControl)
```

## Requirements

**Namespace:** iGadgets

**Platforms:** Windows 98, Windows NT 4.0, Windows Millennium Edition, Windows 2000, Windows

XP Home Edition, Windows XP Professional, Windows Server 2003 family

**Assembly:** iGadgets (in iGadgets.dll)

## Members

<i>Custom Properties</i>	
BackColor	The background color of the control.
DecimalPlaces	Sets the number of places to the right of the decimal to show.
DisplaySetpoint	Chooses whether or not to display the setpoint on the hopper control.
ForeColor	The foreground color of the control.
HopperColor	The color of the hopper.
SetpointSuffix	The text to the right of the setpoint.
SetPointValue	Get/Sets the setpoint value.
Suffix	The text to the right of the actual value.
TextBackColor	Sets the background color of the setpoint and actual text.
TextColor	Sets the foreground color of the setpoint and actual text.
Value	Gets/Sets the actual Value

## Tank

The tank control is used to represent a physical tank or silo.

For a list of all members of this type, see Tank members.

## Inheritance Hierarchy

```
System.Object
  System.MarshalByRefObject
    System.ComponentModel.Component
      System.Windows.Forms.Control
        System.Windows.Forms.ScrollableControl
          System.Windows.Forms.ContainerControl
            System.Windows.Forms.UserControl
              iGadgets.Tank
```

## Syntax

```
[Visual Basic]
Public Class Tank
  Inherits UserControl
```

```
[C#]
public class Tank : UserControl

[Delphi]
public class Tank = class(UserControl)
```

## Requirements

**Namespace:** iGadgets

**Platforms:** Windows 98, Windows NT 4.0, Windows Millennium Edition, Windows 2000, Windows XP Home Edition, Windows XP Professional, Windows Server 2003 family

**Assembly:** iGadgets (in iGadgets.dll)

## Members

<i>Custom Properties</i>	
BackColor	The background color of the control.
ContentColor1	Sets the outer gradient color of the tank contents.
ContentColor2	Sets the inner gradient color of the tank contents.
CutOutColor	Sets the color of the tank cutout
DisplayMinMax	Enables/Disables displaying the min and max values on the control.
Font	Sets the font for the control
ForeColor	The foreground color of the control.
High	Sets the high level notification for the control
Low	Sets the low level notification for the control
Min	Sets the minimum value for the control.
Max	Sets the maximum value for the control.
TankColor	Sets the color of the tank.
Value	Gets/Sets the Value of the control.

## Bar

Bars visualize an item value in a wide variety of shapes and colors. Control properties define the shape and color of the bar and lower and upper value of the control.

For a list of all members of this type, see Bar members.

## Inheritance Hierarchy

```
System.Object
  System.MarshalByRefObject
    System.ComponentModel.Component
      System.Windows.Forms.Control
```



System.Windows.Forms.ScrollableControl  
System.Windows.Forms.ContainerControl  
System.Windows.Forms.UserControl  
**iGadgets.Bar**

## Syntax

[Visual Basic]

```
Public Class Bar  
    Inherits UserControl
```

[C#]

```
public class Bar : UserControl
```

[Delphi]

```
public class Bar = class(UserControl)
```

## Requirements

**Namespace:** iGadgets

**Platforms:** Windows 98, Windows NT 4.0, Windows Millennium Edition, Windows 2000, Windows XP Home Edition, Windows XP Professional, Windows Server 2003 family

**Assembly:** iGadgets (in iGadgets.dll)

## Members

<i>Custom Properties</i>	
BackColor	The background color of the control.
LEDBars	Sets the number of bars for an LED style control.
Min	Sets the minimum value for the control.
Max	Sets the maximum value for the control.
StartColor	Sets the starting color of the control.
StopColor	Sets the ending color of the control.
Style	Changes the appearance of the control.
Value	Gets/Sets the Value of the control.

## Slider

The slider control is used to perform rough adjustments to values (such as frequency).

For a list of all members of this type, see Slider members.

## Inheritance Hierarchy

System.Object  
System.MarshalByRefObject  
System.ComponentModel.Component  
System.Windows.Forms.Control

System.Windows.Forms.ScrollableControl  
System.Windows.Forms.ContainerControl  
System.Windows.Forms.UserControl  
**iGadgets.Slider**

## Syntax

[Visual Basic]

```
Public Class Slider  
    Inherits UserControl
```

[C#]

```
public class Slider : UserControl
```

[Delphi]

```
public class Slider = class(UserControl)
```

## Requirements

**Namespace:** iGadgets

**Platforms:** Windows 98, Windows NT 4.0, Windows Millennium Edition, Windows 2000, Windows XP Home Edition, Windows XP Professional, Windows Server 2003 family

**Assembly:** iGadgets (in iGadgets.dll)

## Members

<i>Custom Properties</i>	
BackColor	The background color of the control.
Bars	Sets the number of horizontal ticks for the control.
DecimalPlaces	Sets the number of places to the right of the decimal to show.
Font	Sets the font for the control.
ForeColor	Sets the foreground color for the control.
Min	Sets the minimum value for the control.
Max	Sets the maximum value for the control.
Numbers	Sets the numeric divisions for the control.
SliderColor	Sets the color for the slider.
SliderHeight	Sets the height of the slider.
Value	Gets/Sets the Value of the control.

## FineTune

The finetune control is used to perform fine, incremental adjustments to values.

For a list of all members of this type, see FineTune members.

## Inheritance Hierarchy

System.Object  
  System.MarshalByRefObject  
    System.ComponentModel.Component  
      System.Windows.Forms.Control  
        System.Windows.Forms.ScrollableControl  
          System.Windows.Forms.ContainerControl  
            System.Windows.Forms.UserControl  
              **iGadgets.FineTune**

## Syntax

[Visual Basic]

```
Public Class FineTune  
  Inherits UserControl
```

[C#]

```
public class FineTune : UserControl
```

[Delphi]

```
public class FineTune = class(UserControl)
```

## Requirements

**Namespace:** iGadgets

**Platforms:** Windows 98, Windows NT 4.0, Windows Millennium Edition, Windows 2000, Windows XP Home Edition, Windows XP Professional, Windows Server 2003 family

**Assembly:** iGadgets (in iGadgets.dll)

## Members

<i>Custom Properties</i>	
BackColor	The background color of the control.
DecrementAmount	Sets the amount to subtract from the value when the decrement button is pressed.
DecrementBackColor	Sets the decrement buttons background color.
DecrementForeColor	Sets the decrement buttons foreground color.
DecrementText	Sets the decrement buttons text.
Font	Sets the font for the control
ForeColor	Sets the foreground color for the control.
IncrementAmount	Sets the amount to add to the value when the increment button is pressed.
IncrementBackColor	Sets the increment buttons background color.
IncrementForeColor	Sets the increment buttons foreground color.
IncrementText	Sets the increment buttons text.

<i>Custom Properties</i>	
Maximum	The maximum value for the control
Minimum	The minimum value for the control.
Value	Sets/Gets the value of the control.

## **WriteBox**

The WriteBox control is used to manually enter numeric values.

For a list of all members of this type, see WriteBox members.

### **Inheritance Hierarchy**

```

System.Object
  System.MarshalByRefObject
    System.ComponentModel.Component
      System.Windows.Forms.Control
        System.Windows.Forms.ScrollableControl
          System.Windows.Forms.ContainerControl
            System.Windows.Forms.UserControl
              System.Windows.Forms.TextBox
                iGadgets.WriteBox

```

### **Syntax**

[Visual Basic]

```

Public Class WriteBox
    Inherits UserControl

```

[C#]

```

public class WriteBox : UserControl

```

[Delphi]

```

public class WriteBox = class(UserControl)

```

### **Requirements**

**Namespace:** iGadgets

**Platforms:** Windows 98, Windows NT 4.0, Windows Millennium Edition, Windows 2000, Windows XP Home Edition, Windows XP Professional, Windows Server 2003 family

**Assembly:** iGadgets (in iGadgets.dll)

### **Members**

***Custom Properties***

BackColor	The background color of the control.
EditColor	The color of the text after it has been edited without being submitted.
Font	Sets the font for the control
InputType	Sets the input type for the control. Either Long or Float.
Max	Sets the maximum value for the control.
Min	Sets the minimum value for the control.
SubmittedColor	Sets the color for the control after the edited value has been submitted.
Text	The current value for the control.