

# Namespace ASE

## Classes

▼ Filter by title

### AppCanvas (ASE.AppCanvas.html)

AppCanvas Class provides canvas for drawing commands to be displayed on a bitmap

AppCanvas

(ASE.AppCanvas.html)

### AppCommandFactory (ASE.AppCommandFactory.html)

AppCommandFactory

(ASE.AppCommandFactory.html)

AppCommandFactory class extending command factory to allow for new commands to be created

AppWrite (ASE.AppWrite.html)

Form1 (ASE.Form1.html)

### AppWrite (ASE.AppWrite.html)

not yet working

### Form1 (ASE.Form1.html)

Form Class allowing user to pass drawing commands to the canvas

# Class AppCanvas

AppCanvas Class provides canvas for drawing commands to be displayed on a bitmap

▼ Filter by title

## Inheritance

ASE (ASE.html)  
↳ Object (<https://learn.microsoft.com/dotnet/api/system.object>)

↳ AppCanvas  
↳ ASE.AppCanvas (ASE.AppCanvas.html)

Implements  
AppCommandFactory  
(ASE.AppCommandFactory.html)

ICanvas  
AppWrite (ASE.AppWrite.html)

Inherited Members  
Form1 (ASE.Form1.html)

## Unit Tests (UnitTests.html)

Canvas.Tri(int, int) (<https://learn.microsoft.com/dotnet/api/system.int32>)

Canvas.Rectangle(int, int, bool) (<https://learn.microsoft.com/dotnet/api/system.int32>)

Canvas.Clear()

Canvas.getBitmap()

Canvas.Reset()

Canvas.Xpos

Canvas.Ypos

object.Equals(object) ([https://learn.microsoft.com/dotnet/api/system.object.equals#system-object-equals\(system-object\)](https://learn.microsoft.com/dotnet/api/system.object.equals#system-object-equals(system-object)))

object.Equals(object, object) ([https://learn.microsoft.com/dotnet/api/system.object.equals#system-object-equals\(system-object-system-object\)](https://learn.microsoft.com/dotnet/api/system.object.equals#system-object-equals(system-object-system-object)))

object.GetHashCode() (<https://learn.microsoft.com/dotnet/api/system.object.gethashcode>)

object.GetType() (<https://learn.microsoft.com/dotnet/api/system.object.gettype>)

object.MemberwiseClone() (<https://learn.microsoft.com/dotnet/api/system.object.memberwiseclone>)

object.ReferenceEquals(object, object) (<https://learn.microsoft.com/dotnet/api/system.object.referenceequals>)

object.ToString() (<https://learn.microsoft.com/dotnet/api/system.object.tostring>)

Namespace: ASE (ASE.html)

Assembly: ASE.dll

## Syntax

```
public class AppCanvas : Canvas, ICanvas
```

## Constructors

### AppCanvas(int, int)

new instance of appcanvas class create a new bitmap and graphics object to allow for drawing on the bitmap with the specified bitmap dimensions

## Declaration

```
public AppCanvas(int width, int height)
```

#### Parameters

Type	Name	Description
int ( <a href="https://learn.microsoft.com/dotnet/api/system.int32">https://learn.microsoft.com/dotnet/api/system.int32</a> )	<i>width</i>	
int ( <a href="https://learn.microsoft.com/dotnet/api/system.int32">https://learn.microsoft.com/dotnet/api/system.int32</a> )	<i>height</i>	

AppCanvas  
(ASE.AppCanvas.html)  
AppCommandFactory  
(ASE.AppCommandFactory.html)  
AppWrite (ASE.AppWrite.html)  
Form1 (ASE.Form1.html)

## Properties

### PenColour + UnitTests (UnitTests.html)

Set pencolour to rgb values passed from user

#### Declaration

```
public override object PenColour { get; set; }
```

#### Property Value

Type	Description
object ( <a href="https://learn.microsoft.com/dotnet/api/system.object">https://learn.microsoft.com/dotnet/api/system.object</a> )	

#### Overrides

BOOSE.Canvas.PenColour

## Methods

### Circle(int, bool)

Override circle method to draw circle on canvas

#### Declaration

```
public override void Circle(int radius, bool filled)
```

#### Parameters

Type	Name	Description
int ( <a href="https://learn.microsoft.com/dotnet/api/system.int32">https://learn.microsoft.com/dotnet/api/system.int32</a> )	<i>radius</i>	int radius for the circle

Type	Name	Description
bool ( <a href="https://learn.microsoft.com/dotnet/api/system.boolea">https://learn.microsoft.com/dotnet/api/system.boolea</a> n)	<i>filled</i>	boolean value wether the circle will be filled in or not

#### Overrides

Canvas.Circle(int, bool) (<https://learn.microsoft.com/dotnet/api/system.int32>)

#### - ASE (ASE.html)

Type	Condition
AppCanvas (ASE.AppCanvas.html)	
CanvasException AppCommandFactory (ASE.AppCommandFactory.html)	Exception thrown if radius value passed is not positive

AppWrite (ASE.AppWrite.html)  
Form1 (ASE.Form1.html)

#### DrawTo(int, int)

#### + UnitTests (UnitTests.html)

Overrides DrawTo method, takes new x and y positions the user inputs Draws from previous x,y positions to the new x,y positions

#### Declaration

```
public override void DrawTo(int x, int y)
```

#### Parameters

Type	Name	Description
int ( <a href="https://learn.microsoft.com/dotnet/api/system.int32">https://learn.microsoft.com/dotnet/api/system.int32</a> )	<i>x</i>	x position to draw to
int ( <a href="https://learn.microsoft.com/dotnet/api/system.int32">https://learn.microsoft.com/dotnet/api/system.int32</a> )	<i>y</i>	y position to draw to

#### Overrides

Canvas.DrawTo(int, int) (<https://learn.microsoft.com/dotnet/api/system.int32>)

#### Exceptions

Type	Condition
CanvasException	Exception thrown when negative x,y passed from user

#### GetMap()

Getter for bitmap

#### Declaration

```
public object GetMap()
```

#### Returns

Type	Description
object ( <a href="https://learn.microsoft.com/dotnet/api/system.object">https://learn.microsoft.com/dotnet/api/system.object</a> )	current bitmap object

## MoveTo(int, int)

Overrides Moveto method, takes new x and y positions the user inputs updates previous x,y positions to the new x,y positions

### ASE (ASE.html)

#### Declaration

AppCanvas

(ASE.AppCanvas.html)

AppCommandFactory

public override void MoveTo(int x, int y)

(ASE.AppCommandFactory.html)

AppWrite (ASE.AppWrite.html)

#### Parameters

Form1 (ASE.Form1.html)

### UnitTests (UnitTests.html)

Type	Name	Description
int ( <a href="https://learn.microsoft.com/dotnet/api/system.int32">https://learn.microsoft.com/dotnet/api/system.int32</a> )	<i>x</i>	x position to draw to
int ( <a href="https://learn.microsoft.com/dotnet/api/system.int32">https://learn.microsoft.com/dotnet/api/system.int32</a> )	<i>y</i>	y position to draw to

#### Overrides

Canvas.MoveTo(int, int) (<https://learn.microsoft.com/dotnet/api/system.int32>)

#### Exceptions

Type	Condition
CanvasException	Exception thrown when user inputs negative x,y values

## Rect(int, int, bool)

Override rect method to draw rectangle on canvas

#### Declaration

```
public override void Rect(int width, int height, bool filled)
```

#### Parameters

Type	Name	Description
int ( <a href="https://learn.microsoft.com/dotnet/api/system.int32">https://learn.microsoft.com/dotnet/api/system.int32</a> )	<i>width</i>	width of rectangle in pixels
int ( <a href="https://learn.microsoft.com/dotnet/api/system.int32">https://learn.microsoft.com/dotnet/api/system.int32</a> )	<i>height</i>	height of rectangle in pixels
bool ( <a href="https://learn.microsoft.com/dotnet/api/system.boole">an</a> )	<i>filled</i>	boolean value whether rectangle will be filled in or not

## Overrides

Canvas.Rect(int, int, bool) (<https://learn.microsoft.com/dotnet/api/system.int32>)

## Exceptions

Type	Condition
CanvasException	Exception thrown when user inputs negative width/height values

## - ASE (ASE.html)

### Set(int, int)

AppCanvas  
(ASE.AppCanvas.html)  
Sets colour of pen calling SetColour method sets background colour of bitmap to black  
AppCommandFactory  
Declaration (ASE.AppCommandFactory.html)  
AppWrite (ASE.AppWrite.html)  
Font (ASE.Font.html)  
public void Set(int width, int height)

## + UnitTests (UnitTests.html)

### Parameters

Type	Name	Description
int ( <a href="https://learn.microsoft.com/dotnet/api/system.int32">https://learn.microsoft.com/dotnet/api/system.int32</a> )	<i>width</i>	width of bitmap in pixels
int ( <a href="https://learn.microsoft.com/dotnet/api/system.int32">https://learn.microsoft.com/dotnet/api/system.int32</a> )	<i>height</i>	height of bitmap in pixels

## Overrides

Canvas.Set(int, int) (<https://learn.microsoft.com/dotnet/api/system.int32>)

## SetColour(int, int, int)

Override method to change pen colour using rgb values

### Declaration

```
public override void SetColour(int red, int green, int blue)
```

### Parameters

Type	Name	Description
int ( <a href="https://learn.microsoft.com/dotnet/api/system.int32">https://learn.microsoft.com/dotnet/api/system.int32</a> )	<i>red</i>	red value of rgb 0-255
int ( <a href="https://learn.microsoft.com/dotnet/api/system.int32">https://learn.microsoft.com/dotnet/api/system.int32</a> )	<i>green</i>	green value of rgb 0-255
int ( <a href="https://learn.microsoft.com/dotnet/api/system.int32">https://learn.microsoft.com/dotnet/api/system.int32</a> )	<i>blue</i>	blue value of rgb 0-255

## Overrides

Canvas.SetColour(int, int, int) (<https://learn.microsoft.com/dotnet/api/system.int32>)

## WriteText(string)

Method takes string input and displays to current x and y positions drawing the string to the canvas with the current pencolour.

## Declaration

```
public override void WriteText(string text)
```



## Parameters

## - ASE (ASE.html)

Type	Name	Description
AppCanvas		
string (ASE.AppCanvas.html) ( <a href="https://learn.microsoft.com/dotnet/api/system.string">https://learn.microsoft.com/dotnet/api/system.string</a> )	text	String parameter user wishes to draw to the canvas

(ASE.AppCommandFactory.html)

## OverAppleWrite (ASE.AppWrite.html)

```
Form1 (ASEForm1.html)
Canvas.WriteLine(string) (https://learn.microsoft.com/dotnet/api/system.string)
```

## + UnitTests (UnitTests.html)

## Implements

BOOSE.ICanvas

# Class AppCommandFactory

AppCommandFactory class extending command factory to allow for new commands to be created

▼ Filter by title

## Inheritance

ASE (ASE.html)

↳ Object (https://learn.microsoft.com/dotnet/api/system.object)

↳ CommandFactory

↳ AppCommandFactory

↳ AppCanvasFactory

AppCommandFactory

Implements

(ASE.AppCommandFactory.html)

ICommandFactory

AppWrite (ASE.AppWrite.html)

Inherited Members

Form1 (ASE.Form1.html)

+ UnitTests (UnitTests.html)

object.Equals(object) (https://learn.microsoft.com/dotnet/api/system.object.equals#system-object-equals(system-object))

object.Equals(object, object) (https://learn.microsoft.com/dotnet/api/system.object.equals#system-object-equals(system-object-system-object))

object.GetHashCode() (https://learn.microsoft.com/dotnet/api/system.object.gethashcode)

object.GetType() (https://learn.microsoft.com/dotnet/api/system.object.gettype)

object.MemberwiseClone() (https://learn.microsoft.com/dotnet/api/system.object.memberwiseclone)

object.ReferenceEquals(object, object) (https://learn.microsoft.com/dotnet/api/system.object.referenceequals)

object.ToString() (https://learn.microsoft.com/dotnet/api/system.object.tostring)

Namespace: ASE (ASE.html)

Assembly: ASE.dll

## Syntax

```
public class AppCommandFactory : CommandFactory, ICommandFactory
```

## Constructors

### AppCommandFactory()

initialize class

## Declaration

```
public AppCommandFactory()
```

## Methods



# MakeCommand(string)

## Declaration

```
public override ICommand MakeCommand(string commandType)
```



### Parameters

Type	Name	Description
ASE (ASE.html)		
string (https://learn.microsoft.com/dotnet/api/system.string)	<i>commandType</i>	sting command

### Returns

Type	Description
AppCanvas (ASE.AppCanvas.html)	
AppCommandFactory (ASE.AppCommandFactory.html)	
AppWrite (ASE.AppWrite.html)	
Form1 (ASE.Form1.html)	command to be parsed



### UnitTests (UnitTests.html)

#### Overrides

CommandFactory.MakeCommand(string) (https://learn.microsoft.com/dotnet/api/system.string)

## Implements

BOOSE.ICommandFactory

# Class AppWrite

not yet working  
▼ Filter by title

## Inheritance

- Object (<https://learn.microsoft.com/dotnet/api/system.object>)
    - AppWrite
      - AppWriteCommand
        - AppWriteCommandParameter
          - AppWriteCommandFactory (ASE.AppWriteCommandFactory.html)
          - AppWrite (ASE.AppWrite.html)
- Implements
- Form1 (ASE.Form1.html)
  - ICommand

## UnitTests (UnitTests.html)

- Inherited Members
- CommandOneParameter.param1
  - CommandOneParameter.param1unprocessed
  - CommandOneParameter.CheckParameters(string[]) (<https://learn.microsoft.com/dotnet/api/system.string>)
  - CanvasCommand.yPos
  - CanvasCommand.xPos
  - CanvasCommand.canvas
  - CanvasCommand.Canvas
  - Command.program
  - Command.parameterList
  - Command.parameters
  - Command.paramsint
  - Command.Set(StoredProgram, string) (<https://learn.microsoft.com/dotnet/api/system.string>)
  - Command.Compile()
  - Command.Execute()
  - Command.ProcessParameters(string) (<https://learn.microsoft.com/dotnet/api/system.string>)
  - Command.ToString()
  - Command.Program
  - Command.Name
  - Command.ParameterList
  - Command.Parameters
  - Command.Paramsint
  - object.Equals(object) ([https://learn.microsoft.com/dotnet/api/system.object.equals#system-object-equals\(system-object\)](https://learn.microsoft.com/dotnet/api/system.object.equals#system-object-equals(system-object)))
  - object.Equals(object, object) ([https://learn.microsoft.com/dotnet/api/system.object.equals#system-object-equals\(system-object-system-object\)](https://learn.microsoft.com/dotnet/api/system.object.equals#system-object-equals(system-object-system-object)))
  - object.GetHashCode() (<https://learn.microsoft.com/dotnet/api/system.object.gethashcode>)
  - object.GetType() (<https://learn.microsoft.com/dotnet/api/system.object.gettype>)
  - object.MemberwiseClone() (<https://learn.microsoft.com/dotnet/api/system.object.memberwiseclone>)
  - object.ReferenceEquals(object, object) (<https://learn.microsoft.com/dotnet/api/system.object.referenceequals>)

Namespace: ASE (ASE.html)

Assembly: ASE.dll

```
public class AppWrite : CommandOneParameter, ICommand
```

## Constructors

### - ASE (ASE.html)

#### AppWrite()

AppCanvas  
not yet working  
(ASE.AppCanvas.html)

#### Declaration

AppCommandFactory  
(ASE.AppCommandFactory.html)  
AppWrite (ASE.AppWrite.html)  
public AppWrite()  
Form1 (ASE.Form1.html)

### + UnitTests (UnitTests.html)

## Implements

BOOSE.ICommand

# Class Form1

Form Class allowing user to pass drawing commands to the canvas

▼ Filter by title

## Inheritance

### ASE (ASE.html)

- ↳ Object (<https://learn.microsoft.com/dotnet/api/system.object>)
- ↳ MarshalByRefObject (<https://learn.microsoft.com/dotnet/api/system.marshalbyrefobject>)
- ↳ Component (<https://learn.microsoft.com/dotnet/api/system.componentmodel.component>)
- ↳ Control (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control>)
- ↳ ScrollableControl (<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol>)
- ↳ ContainerControl (<https://learn.microsoft.com/dotnet/api/system.windows.forms.containercontrol>)
- ↳ Form (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form>)
- ↳ Form1

### + UnitTests (UnitTests.html)

#### Implements

- IDropTarget (<https://learn.microsoft.com/dotnet/api/system.windows.forms.idroptarget>)
- ISynchronizeInvoke (<https://learn.microsoft.com/dotnet/api/system.componentmodel.isynchronizeinvoke>)
- IWin32Window (<https://learn.microsoft.com/dotnet/api/system.windows.forms.iwin32window>)
- IBindableComponent (<https://learn.microsoft.com/dotnet/api/system.windows.forms.ibindablecomponent>)
- IComponent (<https://learn.microsoft.com/dotnet/api/system.componentmodel.icomponent>)
- IDisposable (<https://learn.microsoft.com/dotnet/api/system.idisposable>)
- IContainerControl (<https://learn.microsoft.com/dotnet/api/system.windows.forms.icontainercontrol>)

#### Inherited Members

- Form.SetVisibleCore(bool) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.setvisiblecore>)
- Form.Activate() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.activate>)
- Form.ActivateMdiChild(Form) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.activatemdichild>)
- Form.AddOwnedForm(Form) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.addownedform>)
- Form.AdjustFormScrollbars(bool) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.adjustformscrollbars>)
- Form.Close() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.close>)
- Form.CreateAccessibilityInstance() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.createaccessibilityinstance>)
- Form.CreateControlsInstance() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.createcontrolsinstance>)
- Form.CreateHandle() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.createhandle>)
- Form.DefWndProc(ref Message) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.defwndproc>)
- Form.ProcessMnemonic(char) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.processmnemonic>)
- Form.CenterToParent() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.centertoparent>)
- Form.CenterToScreen() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.centertoscreen>)
- Form.LayoutMdi(MdiLayout) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.layoutmdi>)
- Form.OnActivated(EventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onactivated>)
- Form.OnBackgroundImageChanged(EventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onbackgroundimagechanged>)

Form.OnBackgroundImageLayoutChanged(EventArgs)  
 (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onbackgroundimagelayoutchanged>)  
 Form.OnClosing(CancelEventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onclosing>)  
 Form.OnClosed(EventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onclosed>)  
 Form.OnFormClosing(FormClosingEventArgs)  
 (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onformclosing>)  
 Form.OnFormClosed(FormClosedEventArgs)  
 (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onformclosed>)  
 Form.OnHandleCreated(EventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onhandlecreated>)  
 Form.OnHandleDestroyed(EventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onhandledestroyed>)  
 Form.OnHelpButtonClicked(CancelEventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onhelpbuttonclicked>)  
 Form.OnLayout(LayoutEventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onlayout>)  
 Form.OnLoad(EventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onload>)  
 Form.OnMaximizedBoundsChanged(EventArgs)  
 (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onmaximizedboundschanged>)  
 Form.OnMaximumSizeChanged(EventArgs)  
 (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onmaximumsizechanged>)  
 Form.OnMinimumSizeChanged(EventArgs)  
 (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onminimumsizechanged>)  
 Form.OnInputLanguageChanged(InputLanguageChangedEventArgs)  
 (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.oninputlanguagechanged>)  
 Form.OnInputLanguageChanging(InputLanguageChangingEventArgs)  
 (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.oninputlanguagechanging>)  
 Form.OnVisibleChanged(EventArgs)  
 (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onvisiblechanged>)  
 Form.OnMdiChildActivate(EventArgs)  
 (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onmdichildactivate>)  
 Form.OnMenuStart(EventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onmenustart>)  
 Form.OnMenuComplete(EventArgs)  
 (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onmenucomplete>)  
 Form.OnPaint(PaintEventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onpaint>)  
 Form.OnResize(EventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onresize>)  
 Form.OnDpiChanged(DpiChangedEventArgs)  
 (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.ondpichanged>)  
 Form.OnGetDpiScaledSize(int, int, ref Size)  
 (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.ongetdpiscaledsize>)  
 Form.OnRightToLeftLayoutChanged(EventArgs)  
 (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onrighttoleftlayoutchanged>)  
 Form.OnShown(EventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onshown>)

Form.OnTextChanged(EventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.ontextchanged>)

Form.ProcessCmdKey(ref Message, Keys) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.processcmdkey>)

Form.ProcessDialogKey(Keys) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.processdialogkey>)

Form.ProcessDialogChar(char) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.processdialogchar>)

Form.ProcessKeyPreview(ref Message) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.processkeypreview>)

Form.ProcessTabKey(bool) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.processtabkey>)

Form.RemoveOwnedForm(Form) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.removeownedform>)

Form.Select(bool, bool) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.select>)

Form.GetScaledBounds(Rectangle, SizeF, BoundsSpecified) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.getscaledbounds>)

Form1 (ASE.Form1.html) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.scalecontrol>)

Form.SetBoundsCore(int, int, int, int, BoundsSpecified) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.setboundscore>)

Form.SetClientSizeCore(int, int) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.setclientsizecore>)

Form.SetDesktopBounds(int, int, int, int) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.setdesktopbounds>)

Form.SetDesktopLocation(int, int) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.setdesktoplocation>)

Form.Show(IWin32Window) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.show>)

Form.ShowDialog() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.showdialog#system-windows-forms-form-showdialog>)

Form.ShowDialog(IWin32Window) ([https://learn.microsoft.com/dotnet/api/system.windows.forms.form.showdialog#system-windows-forms-form-showdialog\(system-windows-forms-iwin32window\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.form.showdialog#system-windows-forms-form-showdialog(system-windows-forms-iwin32window)))

Form.ToString() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.tostring>)

Form.UpdateDefaultButton() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.updatedefaultbutton>)

Form.OnResizeBegin(EventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onresizebegin>)

Form.OnResizeEnd(EventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onresizeend>)

Form.OnStyleChanged(EventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.onstylechanged>)

Form.ValidateChildren() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.validatechildren#system-windows-forms-form-validatechildren>)

Form.ValidateChildren(ValidationConstraints) ([https://learn.microsoft.com/dotnet/api/system.windows.forms.form.validatechildren#system-windows-forms-form-validatechildren\(system-windows-forms-validationconstraints\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.form.validatechildren#system-windows-forms-form-validatechildren(system-windows-forms-validationconstraints)))

Form.WndProc(ref Message) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.wndproc>)

Form.AcceptButton (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.acceptbutton>)

Form.ActiveForm (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.activeform>)

Form.ActiveMdiChild (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.activemdichild>)  
 Form.AllowTransparency (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.allowtransparency>)  
 Form.AutoScroll (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.autoscroll>)  
 Form.AutoSize (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.autosize>)  
 Form.AutoSizeMode (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.autosizemode>)  
 Form.AutoValidate (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.autovalidate>)  
 Form.BackColor (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.backcolor>)  
 Form.FormBorderStyle (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.formborderstyle>)  
 Form.CancelButton (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.cancelbutton>)  
 Form.ClientSize (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.clientsize>)  
 Form.ControlBox (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.controlbox>)  
 Form.CreateParams (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.createparams>)  
 Form.DefaultTimeMode (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.defaulttimemode>)  
 Form.DefaultSize (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.defaultsizemode>)  
 Form.DesktopBounds (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.desktopbounds>)  
 Form.DesktopLocation (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.desktoplocation>)  
 Form.DialogResult (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.dialogresult>)  
 Form.HelpButton (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.helpbutton>)  
 Form.Icon (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.icon>)  
 Form.IsMdiChild (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.ismdichild>)  
 Form.IsMdiContainer (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.ismdicontainer>)  
 Form.IsRestrictedWindow (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.isrestrictedwindow>)  
 Form.KeyPreview (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.keypreview>)  
 Form.Location (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.location>)  
 Form.MaximizedBounds (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.maximizedbounds>)  
 Form.MaximumSize (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.maximumsize>)  
 Form.MainMenuStrip (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.mainmenustrip>)  
 Form.MinimumSize (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.minimumsize>)  
 Form.MaximizeBox (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.maximizebox>)  
 Form.MdiChildren (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.mdichildren>)  
 Form.MdiChildrenMinimizedAnchorBottom (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.mdichildrenminimizedanchorbottom>)  
 Form.MdiParent (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.mdiparent>)  
 Form.MinimizeBox (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.minimizebox>)  
 Form.Modal (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.modal>)  
 Form.Opacity (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.opacity>)  
 Form.OwnedForms (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.ownedforms>)  
 Form.Owner (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.owner>)  
 Form.RestoreBounds (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.restorebounds>)  
 Form.RightToLeftLayout (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.righttoleftlayout>)  
 Form.ShowInTaskbar (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.showintaskbar>)  
 Form.ShowIcon (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.showicon>)  
 Form.ShowWithoutActivation (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.showwithoutactivation>)  
 Form.Size (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.size>)  
 Form.SizeGripStyle (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.sizegripstyle>)  
 Form.StartPosition (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.startposition>)  
 Form.Text (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.text>)  
 Form.TopLevel (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.toplevel>)

Form.TopMost (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.topmost>)

Form.TransparencyKey (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.transparencykey>)

Form.WindowState (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.windowstate>)

Form.AutoSizeChanged (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.autosizechanged>)

Form.AutoValidateChanged  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.autovalidatechanged>)

Form.HelpButtonClicked (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.helpbuttonclicked>)

Form.MaximizedBoundsChanged  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.maximizedboundschanged>)

Form.MaximumSizeChanged  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.maximumsizechanged>)

Form.MinimumSizeChanged  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.minimumsizechanged>)

Form.Activated (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.activated>)

Form.Deactivate (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.deactivate>)

Form.FormClosing (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.formclosing>)

Form.FormClosed (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.formclosed>)

Form.Load (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.load>)

Form.MdiChildActivate (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.mdichildactivate>)

Form.MenuComplete (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.menucomplete>)

Form.MenuStart (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.menustart>)

Form.InputLanguageChanged  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.inputlanguagechanged>)

Form.InputLanguageChanging  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.inputlanguagechanging>)

Form.RightToLeftLayoutChanged  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.righttoleftlayoutchanged>)

Form.Shown (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.shown>)

Form.DpiChanged (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.dpchanged>)

Form.ResizeBegin (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.resizebegin>)

Form.ResizeEnd (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.resizeend>)

ContainerControl.OnAutoValidateChanged(EventArgs)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.containercontrol.onautovalidatechanged>)

ContainerControl.OnParentChanged(EventArgs)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.containercontrol.onparentchanged>)

ContainerControl.PerformAutoScale()  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.containercontrol.performautoscale>)

ContainerControl.RescaleConstantsForDpi(int, int)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.containercontrol.rescaleconstantsfordpi>)

ContainerControl.Validate()  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.containercontrol.validate#system-windows-forms-containercontrol-validate>)

ContainerControl.Validate(bool)  
([https://learn.microsoft.com/dotnet/api/system.windows.forms.containercontrol.validate#system-windows-forms-containercontrol-validate\(system-boolean\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.containercontrol.validate#system-windows-forms-containercontrol-validate(system-boolean)))

ContainerControl.AutoScaleDimensions  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.containercontrol.autoscaledimensions>)

ContainerControl.AutoScaleFactor  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.containercontrol.autoscalefactor>)



ContainerControl.AutoScaleMode

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.containercontrol.autoscalemode>)

ContainerControl.BindingContext

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.containercontrol.bindingcontext>)

ContainerControl.CanEnableIme

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.containercontrol.canenableime>)

ContainerControl.ActiveControl

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.containercontrol.activecontrol>)

ContainerControl.CurrentAutoScaleDimensions

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.containercontrol.currentautoscaledimensions>)

ContainerControl.ParentForm

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.containercontrol.parentform>)

ScrollableControl.ScrollStateAutoScrolling

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.scrollstateautoscrolling>)

ScrollableControl.ScrollStateHScrollVisible

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.scrollstatehscrollvisible>)

ScrollableControl.ScrollStateVScrollVisible

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.scrollstatevscrollvisible>)

ScrollableControl.ScrollStateUserHasScrolled

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.scrollstateuserhasscrolled>)

ScrollableControl.ScrollStateFullDrag

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.scrollstatefulldrag>)

ScrollableControl.GetScrollState(int)

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.getscrollstate>)

ScrollableControl.OnMouseWheel(MouseEventArgs)

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.onmousewheel>)

ScrollableControl.OnRightToLeftChanged(EventArgs)

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.onrighttoleftchanged>)

ScrollableControl.OnPaintBackground(PaintEventArgs)

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.onpaintbackground>)

ScrollableControl.OnPaddingChanged(EventArgs)

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.onpaddingchanged>)

ScrollableControl.SetDisplayRectLocation(int, int)

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.setdisplayrectlocation>)

ScrollableControl.ScrollControlIntoView(Control)

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.scrollcontrolintoview>)

ScrollableControl.ScrollToControl(Control)

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.scrolltocontrol>)

ScrollableControl.OnScroll(ScrollEventArgs)

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.onscroll>)

ScrollableControl.SetAutoScrollMargin(int, int)

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.setautoscrollmargin>)

ScrollableControl.SetScrollState(int, bool)

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.setscrollstate>)

ScrollableControl.AutoScrollMargin

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.autoscrollmargin>)

ScrollableControl.AutoScrollPosition

(<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.autoscrollposition>)

ScrollableControl.AutoScrollMinSize  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.autoscrollminsize>)

ScrollableControl.DisplayRectangle  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.displayrectangle>)

ScrollableControl.HScroll (<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.hscroll>)

ScrollableControl.HorizontalScroll  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.horizontalscroll>)

ScrollableControl.VScroll (<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.vscroll>)

ScrollableControl.VerticalScroll  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.verticalscroll>)

ScrollableControl.Scroll (<https://learn.microsoft.com/dotnet/api/system.windows.forms.scrollablecontrol.scroll>)

Control.GetAccessibilityObjectById(int)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.getaccessibilityobjectbyid>)

Control.SetAutoSizeMode(AutoSizeMode)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.setautosizemode>)

Control.GetAutoSizeMode()  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.getautosizemode>)

Control.GetPreferredSize(Size)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.getpreferredsize>)

Control.AccessibilityNotifyClients(AccessibleEvents, int)  
[https://learn.microsoft.com/dotnet/api/system.windows.forms.control.accessibilitynotifyclients#system-windows-forms-control-accessibilitynotifyclients\(system-windows-forms-accessibleevents-system-int32\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.accessibilitynotifyclients#system-windows-forms-control-accessibilitynotifyclients(system-windows-forms-accessibleevents-system-int32)))

Control.AccessibilityNotifyClients(AccessibleEvents, int, int)  
[https://learn.microsoft.com/dotnet/api/system.windows.forms.control.accessibilitynotifyclients#system-windows-forms-control-accessibilitynotifyclients\(system-windows-forms-accessibleevents-system-int32-system-int32\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.accessibilitynotifyclients#system-windows-forms-control-accessibilitynotifyclients(system-windows-forms-accessibleevents-system-int32-system-int32)))

Control.BeginInvoke(Delegate)  
[https://learn.microsoft.com/dotnet/api/system.windows.forms.control.begininvoke#system-windows-forms-control-begininvoke\(system-delegate\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.begininvoke#system-windows-forms-control-begininvoke(system-delegate)))

Control.BeginInvoke(Action)  
[https://learn.microsoft.com/dotnet/api/system.windows.forms.control.begininvoke#system-windows-forms-control-begininvoke\(system-action\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.begininvoke#system-windows-forms-control-begininvoke(system-action)))

Control.BeginInvoke(Delegate, params object[])  
[https://learn.microsoft.com/dotnet/api/system.windows.forms.control.begininvoke#system-windows-forms-control-begininvoke\(system-delegate-system-object\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.begininvoke#system-windows-forms-control-begininvoke(system-delegate-system-object)))

Control.BringToFront() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.bringtofront>)

Control.Contains(Control) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.contains>)

Control.CreateGraphics() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.creategraphics>)

Control.CreateControl() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.createcontrol>)

Control.DestroyHandle() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.destroyhandle>)

Control.DoDragDrop(object, DragDropEffects)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.dodragdrop>)

Control.DrawToBitmap(Bitmap, Rectangle)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.drawtobitmap>)

Control.EndInvoke(IAsyncResult)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.endinvoke>)

Control.FindForm() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.findform>)

Control.GetTopLevel() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.gettoplevel>)

Control.RaiseKeyEvent(object, KeyEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.raisekeyevent>)

Control.RaiseMouseEvent(object, MouseEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.raisemouseevent>)

Control.Focus() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.focus>)

Control.FromChildHandle(IntPtr)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.fromchildhandle>)

Control.FromHandle(IntPtr) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.fromhandle>)

Control.GetChildAtPoint(Point, GetChildAtPointSkip)  
[https://learn.microsoft.com/dotnet/api/system.windows.forms.control.getchildatpoint#system-windows-forms-control-getchildatpoint\(system-drawing-point-system-windows-forms-getchildatpointskip\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.getchildatpoint#system-windows-forms-control-getchildatpoint(system-drawing-point-system-windows-forms-getchildatpointskip)))

Control.GetChildAtPoint(Point)  
 ASE (ASE.html)  
 AppCanvas  
[https://learn.microsoft.com/dotnet/api/system.windows.forms.control.getchildatpoint#system-windows-forms-control-getchildatpoint\(system-drawing-point\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.getchildatpoint#system-windows-forms-control-getchildatpoint(system-drawing-point)))

Control.GetContainerControl()  
 AppCommandFactory  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.getcontainercontrol>)

Control.GetNextControl(Control, bool)  
 AppWrite (ASE.AppWrite.html)  
 Form1 (ASE.Form1.html)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.getnextcontrol>)

Control.GetStyle() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.getstyle>)

Control.Hide() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.hide>)

Control.InitLayout() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.initlayout>)

Control.Invalidate(Region)  
[https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invalidate#system-windows-forms-control-invalidate\(system-drawing-region\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invalidate#system-windows-forms-control-invalidate(system-drawing-region)))

Control.Invalidate(Region, bool)  
[https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invalidate#system-windows-forms-control-invalidate\(system-drawing-region-system-boolean\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invalidate#system-windows-forms-control-invalidate(system-drawing-region-system-boolean)))

Control.Invalidate() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invalidate#system-windows-forms-control-invalidate>)

Control.Invalidate(bool) ([https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invalidate#system-windows-forms-control-invalidate\(system-boolean\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invalidate#system-windows-forms-control-invalidate(system-boolean)))

Control.Invalidate(Rectangle)  
[https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invalidate#system-windows-forms-control-invalidate\(system-drawing-rectangle\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invalidate#system-windows-forms-control-invalidate(system-drawing-rectangle)))

Control.Invalidate(Rectangle, bool)  
[https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invalidate#system-windows-forms-control-invalidate\(system-drawing-rectangle-system-boolean\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invalidate#system-windows-forms-control-invalidate(system-drawing-rectangle-system-boolean)))

Control.Invoke(Action) ([https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invoke#system-windows-forms-control-invoke\(system-action\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invoke#system-windows-forms-control-invoke(system-action)))

Control.Invoke(Delegate) ([https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invoke#system-windows-forms-control-invoke\(system-delegate\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invoke#system-windows-forms-control-invoke(system-delegate)))

Control.Invoke(Delegate, params object[])  
[https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invoke#system-windows-forms-control-invoke\(system-delegate-system-object\(\)\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invoke#system-windows-forms-control-invoke(system-delegate-system-object())))

Control.Invoke<T>(Func<T>)  
[https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invoke#system-windows-forms-control-invoke-1\(system-func\(\(-0\)\)\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invoke#system-windows-forms-control-invoke-1(system-func((-0)))))

Control.InvokePaint(Control, PaintEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invokepaint>)

Control.InvokePaintBackground(Control, PaintEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invokepaintbackground>)

Control.IsKeyLocked(Keys) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.iskeylocked>)

Control.IsInputChar(char) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.isinputchar>)

Control.IsInputKey(Keys) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.isinputkey>)

Control.IsMnemonic(char, string)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.ismnemonic>)

Control.LogicalToDeviceUnits(int)  
([https://learn.microsoft.com/dotnet/api/system.windows.forms.control.logicalequipmentunits#system-windows-forms-control-logicalequipmentunits\(system-int32\)\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.logicalequipmentunits#system-windows-forms-control-logicalequipmentunits(system-int32))))

~~Control.LogicalToDeviceUnits(Size)~~  
~~([https://learn.microsoft.com/dotnet/api/system.windows.forms.control.logicalequipmentunits#system-windows-forms-control-logicalequipmentunits\(system-drawing-size\)\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.logicalequipmentunits#system-windows-forms-control-logicalequipmentunits(system-drawing-size))))~~

AppCanvas  
([ASE.AppCanvas.html](#))

Control.ScaleBitmapLogicalToDevice(ref Bitmap)  
AppCommandFactory  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.scalebitmaplogicalequipment>)  
([ASE.AppCommandFactory.html](#))

Control.NotifyInvalidade(Rectangle)  
AppWrite ([ASE.AppWrite.html](#))  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.notifyinvalidate>)  
Form1 ([ASE.Form1.html](#))

Control.InvokeOnClick(Control, EventArgs)  
~~UnitTests (UnitTests.html)~~  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invokeonclick>)

Control.OnAutoSizeChanged(EventArgs)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onautosizechanged>)

Control.OnBackColorChanged(EventArgs)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onbackcolorchanged>)

Control.OnBindingContextChanged(EventArgs)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onbindingcontextchanged>)

Control.OnCausesValidationChanged(EventArgs)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.oncausesvalidationchanged>)

Control.OnContextMenuStripChanged(EventArgs)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.oncontextmenustripchanged>)

Control.OnCursorChanged(EventArgs)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onsursorchanged>)

Control.OnDockChanged(EventArgs)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.ondockchanged>)

Control.OnForeColorChanged(EventArgs)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onforecolorchanged>)

Control.OnNotifyMessage(Message)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onnotifymessage>)

Control.OnParentBackColorChanged(EventArgs)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onparentbackcolorchanged>)

Control.OnParentBackgroundImageChanged(EventArgs)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onparentbackgroundimagechanged>)

Control.OnParentBindingContextChanged(EventArgs)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onparentbindingcontextchanged>)

Control.OnParentCursorChanged(EventArgs)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onparentcursorchanged>)

Control.OnParentEnabledChanged(EventArgs)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onparentenabledchanged>)

Control.OnParentFontChanged(EventArgs)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onparentfontchanged>)

Control.OnParentForeColorChanged(EventArgs)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onparentforecolorchanged>)

Control.OnParentRightToLeftChanged(EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onparentrighttopleftchanged>)

Control.OnParentVisibleChanged(EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onparentvisiblechanged>)

Control.OnPrint(PaintEventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onprint>)

Control.OnTabIndexChanged(EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.ontabindexchanged>)

Control.OnTabStopChanged(EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.ontabstopchanged>)

Control.OnClick(EventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onclick>)

Control.OnClientSizeChanged(EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onclientsizechanged>)

Control.OnControlAdded(ControlEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.oncontroladded>)

Control.OnControlRemoved(ControlEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.oncontrolremoved>)

Control.OnLocationChanged(EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onlocationchanged>)

Control.OnDoubleClick(EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.ondoubleclick>)

Control.OnDragEnter(DragEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.ondragenter>)

Control.OnDragOver(DragEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.ondragover>)

Control.OnDragLeave(EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.ondragleave>)

Control.OnDragDrop(DragEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.ondragdrop>)

Control.OnGiveFeedback(GiveFeedbackEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.ongivefeedback>)

Control.InvokeGotFocus(Control, EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invokegotfocus>)

Control.OnGotFocus(EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.ongotfocus>)

Control.OnHelpRequested(HelpEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onhelprequested>)

Control.OnInvalidated(InvalidateEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.oninvalidated>)

Control.OnKeyDown(KeyEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onkeydown>)

Control.OnKeyPress(KeyPressEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onkeypress>)

Control.OnKeyUp(KeyEventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onkeyup>)

Control.OnLeave(EventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onleave>)

Control.InvokeLostFocus(Control, EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invokelostfocus>)

Control.OnLostFocus(EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onlostfocus>)

Control.OnMarginChanged(EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onmarginchanged>)

Control.OnMouseDoubleClick(MouseEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onmousedoubleclick>)

Control.OnMouseClicked(MouseEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onmouseclick>)

Control.OnMouseCaptureChanged(EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onmousecapturechanged>)

Control.OnMouseDown(MouseEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onmousedown>)

Control.OnMouseEnter(EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onmouseenter>)

Control.OnMouseLeave(EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onmouseleave>)

Control.OnDpiChangedBeforeParent(EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.ondpichangedbeforeparent>)

Control.OnDpiChangedAfterParent(EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.ondpichangedafterparent>)

Control.OnMouseHover(EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onmouseover>)

Control.OnMouseMove(MouseEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onmousemove>)

Control.OnMouseUp(MouseEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onmouseup>)

Control.OnMove(EventArgs) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onmove>)

Control.OnQueryContinueDrag(QueryContinueDragEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onquerycontinuedrag>)

Control.OnRegionChanged(EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onregionchanged>)

Control.OnPreviewKeyDown(PreviewKeyDownEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onpreviewkeydown>)

Control.OnSizeChanged(EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onsizechanged>)

Control.OnChangeUICues(UICuesEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onchangeuicues>)

Control.OnSystemColorsChanged(EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onsystemcolorschanged>)

Control.OnValidating(CancelEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onvalidating>)

Control.OnValidated(EventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onvalidated>)

Control.PerformLayout()  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.performlayout#system-windows-forms-control-performlayout>)

Control.PerformLayout(Control, string)  
[https://learn.microsoft.com/dotnet/api/system.windows.forms.control.performlayout#system-windows-forms-control-performlayout\(system-windows-forms-control-system-string\)\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.performlayout#system-windows-forms-control-performlayout(system-windows-forms-control-system-string))))

Control.PointToClient(Point) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.pointtoclient>)

Control.PointToScreen(Point)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.pointtoscreen>

Control.PreProcessMessage(ref Message)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.preprocessmessage>

Control.PreProcessControlMessage(ref Message)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.preprocesscontrolmessage>

Control.ProcessKeyEventArgs(ref Message)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.processkeyeventargs>

Control.ProcessKeyMessage(ref Message)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.processkeymessage>

Control.RaiseDragEvent(object, DragEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.raisedragevent>

Control.RaisePaintEvent(object, PaintEventArgs)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.raisepaintevent>

Control.RecreateHandle()  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.recreatehandle>

Control.RectangleToClient(Rectangle)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.rectangletoclient>

Control.RectangleToScreen(Rectangle)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.rectangletoscreen>

Control.ReflectMessage(IntPtr, ref Message)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.reflectmessage>

Control.Refresh()  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.refresh>

Control.ResetMouseEventArgs()  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.resetmouseeventargs>

Control.ResetText()  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.resettext>

Control.ResumeLayout()  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.resumelayout#system-windows-forms-control-resumelayout>

Control.ResumeLayout(bool)  
[https://learn.microsoft.com/dotnet/api/system.windows.forms.control.resumelayout#system-windows-forms-control-resumelayout\(system-boolean\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.resumelayout#system-windows-forms-control-resumelayout(system-boolean))

Control.Scale(SizeF)  
[https://learn.microsoft.com/dotnet/api/system.windows.forms.control.scale#system-windows-forms-control-scale\(system-drawing-sizef\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.scale#system-windows-forms-control-scale(system-drawing-sizef))

Control.Select()  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.select#system-windows-forms-control-select>

Control.SelectNextControl(Control, bool, bool, bool, bool)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.selectnextcontrol>

Control.SendToBack()  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.sendtoback>

Control.SetBounds(int, int, int, int)  
[https://learn.microsoft.com/dotnet/api/system.windows.forms.control.setbounds#system-windows-forms-control-setbounds\(system-int32-system-int32-system-int32-system-int32\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.setbounds#system-windows-forms-control-setbounds(system-int32-system-int32-system-int32-system-int32))

Control.SetBounds(int, int, int, int, BoundsSpecified)  
[https://learn.microsoft.com/dotnet/api/system.windows.forms.control.setbounds#system-windows-forms-control-setbounds\(system-int32-system-int32-system-int32-system-int32-system-windows-forms-boundsspecified\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.setbounds#system-windows-forms-control-setbounds(system-int32-system-int32-system-int32-system-int32-system-windows-forms-boundsspecified))

Control.SizeFromClientSize(Size)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.sizefromclientsize>

Control.SetStyle(ControlStyles, bool)  
<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.setstyle>

Control.SetTopLevel(bool) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.settoplevel>)

Control.RtlTranslateAlignment(HorizontalAlignment)  
([https://learn.microsoft.com/dotnet/api/system.windows.forms.control.rtltranslatealignment#system-windows-forms-control-rtltranslatealignment\(system-windows-forms-horizontalalignment\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.rtltranslatealignment#system-windows-forms-control-rtltranslatealignment(system-windows-forms-horizontalalignment)))

Control.RtlTranslateAlignment(LeftRightAlignment)  
([https://learn.microsoft.com/dotnet/api/system.windows.forms.control.rtltranslatealignment#system-windows-forms-control-rtltranslatealignment\(system-windows-forms-leftrightalignment\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.rtltranslatealignment#system-windows-forms-control-rtltranslatealignment(system-windows-forms-leftrightalignment)))

Control.RtlTranslateAlignment(ContentAlignment)  
([https://learn.microsoft.com/dotnet/api/system.windows.forms.control.rtltranslatealignment#system-windows-forms-control-rtltranslatealignment\(system-drawing-contentalignment\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.rtltranslatealignment#system-windows-forms-control-rtltranslatealignment(system-drawing-contentalignment)))

Control.RtlTranslateHorizontal(HorizontalAlignment)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.rtltranslatehorizontal>)

Control.RtlTranslateLeftRight(LeftRightAlignment)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.rtltranslateleftright>)

Control.RtlTranslateContent(ContentAlignment)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.rtltranslatecontent>)

Control.Show() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.show>)

Control.SuspendLayout() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.suspendlayout>)

Control.Update() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.update>)

Control.UpdateBounds()  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.updatebounds#system-windows-forms-control-updatebounds>)

Control.UpdateBounds(int, int, int, int)  
([https://learn.microsoft.com/dotnet/api/system.windows.forms.control.updatebounds#system-windows-forms-control-updatebounds\(system-int32-system-int32-system-int32-system-int32\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.updatebounds#system-windows-forms-control-updatebounds(system-int32-system-int32-system-int32-system-int32)))

Control.UpdateBounds(int, int, int, int, int, int)  
([https://learn.microsoft.com/dotnet/api/system.windows.forms.control.updatebounds#system-windows-forms-control-updatebounds\(system-int32-system-int32-system-int32-system-int32-system-int32-system-int32\)](https://learn.microsoft.com/dotnet/api/system.windows.forms.control.updatebounds#system-windows-forms-control-updatebounds(system-int32-system-int32-system-int32-system-int32-system-int32-system-int32)))

Control.UpdateZOrder() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.updatezorder>)

Control.UpdateStyles() (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.updatestyles>)

Control.OnImeModeChanged(EventArgs)  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.onimemodechanged>)

Control.AccessibilityObject  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.accessibilityobject>)

Control.AccessibleDefaultActionDescription  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.accessibledefaultactiondescription>)

Control.AccessibleDescription  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.accessibledescription>)

Control.AccessibleName (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.accessiblename>)

Control.AccessibleRole (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.accessiblerole>)

Control.AllowDrop (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.allowdrop>)

Control.Anchor (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.anchor>)

Control.AutoScrollOffset (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.autoscrolloffset>)

Control.LayoutEngine (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.layoutengine>)

Control.BackgroundImage  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.backgroundimage>)

Control.BackgroundImageLayout  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.backgroundimagelayout>)

Control.Bottom (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.bottom>)



Control.Bounds (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.bounds>)

Control.CanFocus (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.canfocus>)

Control.CanRaiseEvents (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.canraiseevents>)

Control.CanSelect (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.cansselect>)

Control.Capture (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.capture>)

Control.CausesValidation (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.causesvalidation>)

Control.CheckForIllegalCrossThreadCalls  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.checkforillegalcrossthreadcalls>)

**Control.ClientRectangle (Control.ClientRectangle.html)** (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.clientrectangle>)

Control.CompanyName (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.companyname>)

Control.ContainsFocus (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.containsfocus>)

Control.ContextMenuStrip  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.contextmenustrip>)

Control.Controls (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.controls>)

Control.Created (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.created>)

Control.Cursor (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.cursor>)

**Control.DataBindings (Control.DataBindings.html)** (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.databindings>)

Control.DefaultBackColor (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.defaultbackcolor>)

Control.DefaultCursor (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.defaultcursor>)

Control.DefaultFont (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.defaultfont>)

Control.DefaultForeColor (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.defaultforecolor>)

Control.DefaultMargin (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.defaultmargin>)

Control.DefaultMaximumSize  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.defaultmaximumsize>)

Control.DefaultMinimumSize  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.defaultminimumsize>)

Control.DefaultPadding (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.defaultpadding>)

Control.DeviceDpi (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.deveddpi>)

Control.IsDisposed (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.isdisposed>)

Control.Disposing (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.disposing>)

Control.Dock (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.dock>)

Control.DoubleBuffered (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.doublebuffered>)

Control.Enabled (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.enabled>)

Control.Focused (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.focused>)

Control.Font (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.font>)

Control.FontHeight (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.fontheight>)

Control.ForeColor (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.forecolor>)

Control.Handle (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.handle>)

Control.HasChildren (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.haschildren>)

Control.Height (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.height>)

Control.IsHandleCreated (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.ishandlecreated>)

Control.InvokeRequired (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invokerequired>)

Control.IsAccessible (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.isaccessible>)

Control.IsAncestorSiteInDesignMode  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.isancestorsiteindesignmode>)

Control.IsMirrored (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.ismirrored>)

Control.Left (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.left>)

Control.Margin (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.margin>)

Control.ModifierKeys (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.modifierkeys>)

Control.MouseButtons (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.mousebuttons>)

Control.MousePosition (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.mouseposition>)

Control.Name (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.name>)

Control.Parent (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.parent>)

Control.ProductName (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.productname>)

Control.ProductVersion (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.productversion>)

Control.RecreatingHandle  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.recreatinghandle>)

**Control.Region (ASE.html)** (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.region>)

Control.RenderRightToLeft  
AppCanvas  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.renderrighttopleft>)  
(ASE.AppCanvas.html)

Control.ResizeRedraw (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.resizedraw>)  
AppCommandFactory

Control.Right (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.right>)  
(ASE.AppCommandFactory.html)

Control.RightToLeft (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.righttopleft>)  
AppWrite (ASE.AppWrite.html)

Control.ScaleChildren (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.scalechildren>)  
Form1 (ASE.Form1.html)

Control.Site (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.site>)

**Control.TabIndex (UnitTests.html)** (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.tabindex>)

Control.TabStop (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.tabstop>)

Control.Tag (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.tag>)

Control.Top (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.top>)

Control.TopLevelControl (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.toplevelcontrol>)

Control.ShowKeyboardCues  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.showkeyboardcues>)

Control.ShowFocusCues (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.showfocuscues>)

Control.UseWaitCursor (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.usewaitcursor>)

Control.Visible (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.visible>)

Control.Width (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.width>)

Control.PreferredSize (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.preferredsize>)

Control.Padding (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.padding>)

Control.ImeMode (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.ime.mode>)

Control.ImeModeBase (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.ime.mode.base>)

Control.PropagatingImeMode  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.propagatingime.mode>)

Control.BackColorChanged  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.backcolorchanged>)

Control.BackgroundImageChanged  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.backgroundimagechanged>)

Control.BackgroundImageLayoutChanged  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.backgroundimagelayoutchanged>)

Control.BindingContextChanged  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.bindingcontextchanged>)

Control.CausesValidationChanged  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.causesvalidationchanged>)

Control.ClientSizeChanged  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.clientsizechanged>)

Control.ContextMenuStripChanged  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.contextmenustripchanged>)

Control.CursorChanged (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.cursorchanged>)

Control.DockChanged (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.dockchanged>)

Control.EnabledChanged (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.enabledchanged>)

Control.FontChanged (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.fontchanged>)

Control.ForeColorChanged (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.forecolorchanged>)

Control.LocationChanged (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.locationchanged>)

Control.MarginChanged (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.marginchanged>)

Control.RegionChanged (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.regionchanged>)

Control.RightToLeftChanged (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.righttoleftchanged>)

Control.SizeChanged (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.sizechanged>)

AppCanvas (ASE.AppCanvas.html)

Control.TabIndexChanged (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.tabindexchanged>)

AppCommandFactory (ASE.AppCommandFactory.html)

Control.TabStopChanged (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.tabstopchanged>)

Control.TextChanged (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.textchanged>)

AppWrite (ASE.AppWrite.html)

Control.VisibleChanged (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.visiblechanged>)

Form1 (ASE.Form1.html)

Control.Click (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.click>)

UnitTests (UnitTests.html)

Control.ControlAdded (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.controladded>)

Control.ControlRemoved (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.controlremoved>)

Control.DragDrop (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.dragdrop>)

Control.DragEnter (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.dragenter>)

Control.DragOver (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.dragover>)

Control.DragLeave (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.dragleave>)

Control.GiveFeedback (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.givefeedback>)

Control.HandleCreated (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.handlecreated>)

Control.HandleDestroyed (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.handledestroyed>)

Control.HelpRequested (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.helprequested>)

Control.Invalidated (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.invalidated>)

Control.PaddingChanged (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.paddingchanged>)

Control.Paint (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.paint>)

Control.QueryContinueDrag (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.querycontinuedrag>)

Control.QueryAccessibilityHelp (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.queryaccessibilityhelp>)

Control.DoubleClick (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.doubleclick>)

Control.Enter (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.enter>)

Control.GotFocus (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.gotfocus>)

Control.KeyDown (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.keydown>)

Control.KeyPress (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.keypress>)

Control.KeyUp (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.keyup>)

Control.Layout (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.layout>)

Control.Leave (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.leave>)

Control.LostFocus (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.lostfocus>)

Control.MouseClick (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.mouseclick>)

Control.MouseDoubleClick (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.mousedoubleclick>)

Control.MouseCaptureChanged (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.mousecapturechanged>)

Control.MouseDown (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.mousedown>)

Control.MouseEnter (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.mouseenter>)

Control.MouseLeave (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.mouseleave>)

Control.DpiChangedBeforeParent  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.dpichangedbeforeparent>)

Control.DpiChangedAfterParent  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.dpichangedafterparent>)

Control.MouseHover (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.mousehover>)

Control.MouseMove (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.mousemove>)

Control.MouseUp (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.mouseup>)

Control.MouseWheel (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.mousewheel>)

Control.Move (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.move>)

Control.PreviewKeyDown (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.previewkeydown>)

Control.Resize (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.resize>)

Control.ChangeUICues (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.changeuicues>)

Control.StyleChanged (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.stylechanged>)

Control.SystemColorsChanged  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.systemcolorschanged>)

Control.Validating (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.validating>)

Control.Validated (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.validated>)

Control.ParentChanged (<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.parentchanged>)

Control.ImeModeChanged  
(<https://learn.microsoft.com/dotnet/api/system.windows.forms.control.imechanged>)

Component.Dispose()  
(<https://learn.microsoft.com/dotnet/api/system.componentmodel.component.dispose#system-componentmodel-component-dispose>)

Component.GetService(Type)  
(<https://learn.microsoft.com/dotnet/api/system.componentmodel.component.getservice>)

Component.Container (<https://learn.microsoft.com/dotnet/api/system.componentmodel.component.container>)

Component.DesignMode  
(<https://learn.microsoft.com/dotnet/api/system.componentmodel.component.designmode>)

Component.Events (<https://learn.microsoft.com/dotnet/api/system.componentmodel.component.events>)

Component.Disposed (<https://learn.microsoft.com/dotnet/api/system.componentmodel.component.disposed>)

MarshalByRefObject.GetLifetimeService()  
(<https://learn.microsoft.com/dotnet/api/system.marshalbyrefobject.getlifetimeservice>)

MarshalByRefObject.InitializeLifetimeService()  
(<https://learn.microsoft.com/dotnet/api/system.marshalbyrefobject.initializelifetimeservice>)

MarshalByRefObject.MemberwiseClone(bool)  
(<https://learn.microsoft.com/dotnet/api/system.marshalbyrefobject.memberwiseclone>)

object.Equals(object) ([https://learn.microsoft.com/dotnet/api/system.object.equals#system-object-equals\(system-object\)](https://learn.microsoft.com/dotnet/api/system.object.equals#system-object-equals(system-object)))

object.Equals(object, object) ([https://learn.microsoft.com/dotnet/api/system.object.equals#system-object-equals\(system-object-system-object\)](https://learn.microsoft.com/dotnet/api/system.object.equals#system-object-equals(system-object-system-object)))

object.GetHashCode() (<https://learn.microsoft.com/dotnet/api/system.object.gethashcode>)

object.GetType() (<https://learn.microsoft.com/dotnet/api/system.object.gettype>)

object.MemberwiseClone() (<https://learn.microsoft.com/dotnet/api/system.object.memberwiseclone>)

object.ReferenceEquals(object, object) (<https://learn.microsoft.com/dotnet/api/system.object.referenceequals>)

**Namespace:** ASE (ASE.html)

**Assembly:** ASE.dll

**Syntax**

```
public class Form1 : Form, IDropTarget, ISynchronizeInvoke, IWin32Window, IBindableComponent, IComponent, IDisposable, IContainerControl
```

# Constructors

## ASE (ASE.html)

AppCanvas  
initialise Form Class create new instance of app canvas to allow commands to be drawn to the canvas write to (ASE.AppCanvas.html)  
debug output current version of boose.  
AppCommandFactory

## Declaration

```
(ASE.AppCommandFactory.html)  
AppWrite (ASE.AppWrite.html)  
Form1 (ASE.Form1.html)  
public Form1()
```

## + UnitTests (UnitTests.html)

# Methods

## Dispose(bool)

Clean up any resources being used.

### Declaration

```
protected override void Dispose(bool disposing)
```

### Parameters

Type	Name	Description
bool ( <a href="https://learn.microsoft.com/dotnet/api/system.boolean">https://learn.microsoft.com/dotnet/api/system.boolean</a> )	<i>disposing</i>	true if managed resources should be disposed; otherwise, false.

### Overrides

Form.Dispose(bool) (<https://learn.microsoft.com/dotnet/api/system.windows.forms.form.dispose>)

## RePaint()

Redraws the picture box - updating it.

### Declaration

```
public void RePaint()
```

# Implements

IDropTarget (<https://learn.microsoft.com/dotnet/api/system.windows.forms.idroptarget>)

ISynchronizeInvoke (<https://learn.microsoft.com/dotnet/api/system.componentmodel.isynchronizeinvoke>)

IWin32Window (<https://learn.microsoft.com/dotnet/api/system.windows.forms.iwin32window>)

IBindableComponent (<https://learn.microsoft.com/dotnet/api/system.windows.forms.ibindablecomponent>)

IComponent (<https://learn.microsoft.com/dotnet/api/system.componentmodel.icomponent>)

IDisposable (<https://learn.microsoft.com/dotnet/api/system.idisposable>)

IContainerControl (<https://learn.microsoft.com/dotnet/api/system.windows.forms.containercontrol>)

## **ASE (ASE.html)**

AppCanvas

(ASE.AppCanvas.html)

AppCommandFactory

(ASE.AppCommandFactory.html)

AppWrite (ASE.AppWrite.html)

Form1 (ASE.Form1.html)

## **+ UnitTests (UnitTests.html)**

# Namespace UnitTests

## Classes

▼ Filter by title

### CanvasTest (UnitTests.CanvasTest.html)

Class allowing for unit testing of canvas commands to ensure commands work as intended

#### - UnitTests (UnitTests.html)

CanvasTest  
(UnitTests.CanvasTest.html)

# Class CanvasTest

Class allowing for unit testing of canvas commands to ensure commands work as intended

▼ Filter by title

## Inheritance

‣ **ASE (ASE.html)**  
↳ Object (https://learn.microsoft.com/dotnet/api/system.object)  
↳ CanvasTest  
- **UnitTests (UnitTests.html)**

## Inherited Members

object.Equals(object, object) (https://learn.microsoft.com/dotnet/api/system.object.equals#system-object-equals(system-object))  
object.Equals(object, object) (https://learn.microsoft.com/dotnet/api/system.object.equals#system-object-equals(system-object-system-object))  
object.GetHashCode() (https://learn.microsoft.com/dotnet/api/system.object.gethashcode)  
object.GetType() (https://learn.microsoft.com/dotnet/api/system.object.gettype)  
object.MemberwiseClone() (https://learn.microsoft.com/dotnet/api/system.object.memberwiseclone)  
object.ReferenceEquals(object, object) (https://learn.microsoft.com/dotnet/api/system.object.referenceequals)  
object.ToString() (https://learn.microsoft.com/dotnet/api/system.object.tostring)

**Namespace:** UnitTests (UnitTests.html)

**Assembly:** UnitTests.dll

## Syntax

```
[TestClass]  
public class CanvasTest
```

## Methods

### MultLine\_Test()

#### Declaration

```
[TestMethod]  
public void MultLine_Test()
```

### drawto\_sets\_correct\_penpos()

#### Declaration



```
[TestMethod]
public void drawto_sets_correct_penpos()
```

## **moveto\_sets\_correct\_penpos()**

Declaration  
+ **ASE (ASE.html)**

- **UnitTests (UnitTests.html)**  

```
public void moveto_sets_correct_penpos()
    CanvasTest
    (UnitTests.CanvasTest.html)
```

## **start()**

Declaration

```
[TestInitialize]
public void start()
```

## **unrestricted\_MultLine\_Test()**

runs unrestricted boose program commands to testcanvas

Declaration

```
[TestMethod]
public void unrestricted_MultLine_Test()
```