

Namespace BOOSE_Test

Classes

[UnitTest1](#)

Test class for calling all the test methods.

Class UnitTest1

Namespace: [BOOSE_Test](#)

Assembly: BOOSE-Test.dll








Test class for calling all the test methods.

```
[TestClass]
public class UnitTest1
```

Inheritance

[object](#)  ← UnitTest1

Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  , [object.GetType\(\)](#)  ,
[object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  , [object.ToString\(\)](#) 

Methods

DrawTo_ShouldUpdatePenPosition()

DrawTo method is tested to make sure it updates the pen's position after drawing a line to the provided coordinates.

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

MoveTo_UpdatesValidPosition()

MoveTo method is tested to check that the pen's position (which in this test is a valid value) is correctly updated.

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

Multiline_OutOfCanvas_ThrowsException()

Checks that trying to draw or move the pen outside the canvas height/ width, triggers CanvasException.

```
[TestMethod]
[ExpectedException(typeof(CanvasException), "Canvas exception was not thrown.")]
public void Multiline_OutOfCanvas_ThrowsException()
```

Multiline_UpdateValidPos()

MoveTo and DrawTo methods are tested simulating a multiline program making sure that the pen's final position is correctly updated after the execution of those commands.

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

Namespace BOOSE_assignment

Classes

[Canvas](#)

Keeps track of the pen's position, canvas size, pen colour, and drawing controls and set ups the drawable bitmap/ canvas.

[Form1](#)

[MyParser](#)

[MyTriangle](#)

[MyWrite](#)

[myCommandFactory](#)

Class Canvas

Namespace: [BOOSE assignment](#)

Assembly: BOOSE-assignment.dll

Keeps track of the pen's position, canvas size, pen colour, and drawing controls and set ups the drawable bitmap/ canvas.

```
public class Canvas : ICanvas
```








Inheritance

[object](#)  ← Canvas

Implements

ICanvas

Inherited Members

[object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  , [object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#)  , [object.ToString\(\)](#) 

Constructors

Canvas()

Creates new [Canvas](#) object with default settings. Setting up up the resolution/ size of the canvas starting with a black pen.

```
public Canvas()
```

Properties

PenColour

There is a getter that gets the current pen colour. There also is a setter that helps change the current pen colour,

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

Property Value

[object](#)

Xpos

A setter and getter for the X coordinate that are called by different methods related to moving the pen and drawing on the canvas.

```
public int Xpos { get; set; }
```

Property Value

[int](#)

Ypos

A setter and getter for the Y coordinate that are called by different methods related to moving the pen and drawing on the canvas.

```
public int Ypos { get; set; }
```

Property Value

[int](#)

Methods

Circle(int, bool)

Draws a circle with the given radius at the current pen position, if radius is negative it handles the exception.

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

Parameters

radius [int](#)

filled [bool](#)

Exceptions

CanvasException

If the radius provided value is negative.

Clear()

Clears the canvas by filling it with its background color which is currently set to ControlDark (light grey) in its properties.

```
public void Clear()
```

DrawTo(int, int)

It draws a line from the current pen position to the X (mvX), (mvY) coordinates, that the user wants to draw the line to. When the line is drawn, it updates the current pen position to the one it has moved to.

```
public void DrawTo(int mvX, int mvY)
```

Parameters

mvX [int](#)

mvY [int](#)

Exceptions

CanvasException

Checks that the given coordinates are within the canvas size bounds, otherwise handles exception and notifies the user within the exception

MoveTo(int, int)

Move the pen to the given coordinates position on the canvas but without drawing on the canvas.

```
public void MoveTo(int x, int y)
```

Parameters

x [int](#)

The given X coordinate the current pen position will be updated to.

y [int](#)

The given Y coordinate the current pen position will be updated to.

Exceptions

CanvasException

Thrown if given coordinates are out of canvas bounds (outside the visible screen).

Rect(int, int, bool)

Draws a rectangle at the current pen position with the width and height values that it is given.

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

Parameters

width [int](#)

The width of the rectangle.

height [int](#)

The height of the rectangle

filled [bool](#)

If true, fill in the rectangle with the current pen colour. Else only draw the rectangle's outline with the current pen thickness.

Reset()

Resets the current pen position to origin.

```
public void Reset()
```

Set(int, int)

Sets canvas size to the provided width and height. Resets the pen position to origin, and sets up the Graphics object to allow drawing directly on the bitmap.

```
public void Set(int width, int height)
```

Parameters

width [int](#)

The canvas width.

height [int](#)

The canvas height.

SetColour(int, int, int)

Set the pen colour with the given RGB values. Check the RGB values are within possible range/ valid and fully visible.

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

Parameters

red [int](#)

green [int](#)

blue [int](#)

Exceptions

CanvasException

If invalid RGB values are provided, the exception is reported through the form's exception label.

Tri(int, int)

Draws a triangle on the canvas based on the provided width and height values. It is drawn with the current pen position being its top point.

```
public void Tri(int width, int height)
```

Parameters

width [int](#)

The triangle's base width.

height [int](#)

The triangle's height.

WriteText(string)

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

Parameters

text [string](#)

getBitmap()

Get the current state of the canvas.

```
public object getBitmap()
```

Returns

[object](#)

The bitmap object that has the current canvas state.

Class Form1

Namespace: [BOOSE assignment](#)

Assembly: BOOSE-assignment.dll

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

Inheritance

[object](#) ← [MarshalByRefObject](#) ← [Component](#) ← [Control](#) ← [ScrollableControl](#) ← [ContainerControl](#) ← [Form](#) ← Form1

Implements

[IDropTarget](#), [ISynchronizeInvoke](#), [IWin32Window](#), [IBindableComponent](#), [IComponent](#), [IDisposable](#), [IContainerControl](#)

Inherited Members

[Form.SetVisibleCore\(bool\)](#), [Form.Activate\(\)](#), [Form.ActivateMdiChild\(Form\)](#), [Form.AddOwnedForm\(Form\)](#), [Form.AdjustFormScrollbars\(bool\)](#), [Form.Close\(\)](#), [Form.CreateAccessibilityInstance\(\)](#), [Form.CreateControlsInstance\(\)](#), [Form.CreateHandle\(\)](#), [Form.DefWndProc\(ref Message\)](#), [Form.ProcessMnemonic\(char\)](#), [Form.CenterToParent\(\)](#), [Form.CenterToScreen\(\)](#), [Form.LayoutMdi\(MdiLayout\)](#), [Form.OnActivated\(EventArgs\)](#), [Form.OnBackgroundImageChanged\(EventArgs\)](#), [Form.OnBackgroundImageLayoutChanged\(EventArgs\)](#), [Form.OnClosing\(CancelEventArgs\)](#), [Form.OnClosed\(EventArgs\)](#), [Form.OnFormClosing\(FormClosingEventArgs\)](#), [Form.OnFormClosed\(FormClosedEventArgs\)](#), [Form.OnCreateControl\(\)](#), [Form.OnDeactivate\(EventArgs\)](#), [Form.OnEnabledChanged\(EventArgs\)](#), [Form.OnEnter\(EventArgs\)](#), [Form.OnFontChanged\(EventArgs\)](#), [Form.OnGotFocus\(EventArgs\)](#), [Form.OnHandleCreated\(EventArgs\)](#), [Form.OnHandleDestroyed\(EventArgs\)](#), [Form.OnHelpButtonClicked\(CancelEventArgs\)](#), [Form.OnLayout\(LayoutEventArgs\)](#), [Form.OnLoad\(EventArgs\)](#), [Form.OnMaximizedBoundsChanged\(EventArgs\)](#), [Form.OnMaximumSizeChanged\(EventArgs\)](#), [Form.OnMinimumSizeChanged\(EventArgs\)](#), [Form.OnInputLanguageChanged\(InputLanguageChangedEventArgs\)](#), [Form.OnInputLanguageChanging\(InputLanguageChangingEventArgs\)](#), [Form.OnVisibleChanged\(EventArgs\)](#), [Form.OnMdiChildActivate\(EventArgs\)](#), [Form.OnMenuStart\(EventArgs\)](#), [Form.OnMenuComplete\(EventArgs\)](#), [Form.OnPaint\(PaintEventArgs\)](#), [Form.OnResize\(EventArgs\)](#), [Form.OnDpiChanged\(DpiChangedEventArgs\)](#), [Form.OnGetDpiScaledSize\(int, int, ref Size\)](#), [Form.OnRightToLeftLayoutChanged\(EventArgs\)](#), [Form.OnShown\(EventArgs\)](#),

[Form.OnTextChanged\(EventArgs\)](#), [Form.ProcessCmdKey\(ref Message, Keys\)](#),
[Form.ProcessDialogKey\(Keys\)](#), [Form.ProcessDialogChar\(char\)](#),
[Form.ProcessKeyPreview\(ref Message\)](#), [Form.ProcessTabKey\(bool\)](#),
[Form.RemoveOwnedForm\(Form\)](#), [Form.Select\(bool, bool\)](#),
[Form.ScaleMinMaxSize\(float, float, bool\)](#),
[Form.GetScaledBounds\(Rectangle, SizeF, BoundsSpecified\)](#),
[Form.ScaleControl\(SizeF, BoundsSpecified\)](#), [Form.SetBoundsCore\(int, int, int, int, BoundsSpecified\)](#),
[Form.SetClientSizeCore\(int, int\)](#), [Form.SetDesktopBounds\(int, int, int, int\)](#),
[Form.SetDesktopLocation\(int, int\)](#), [Form.Show\(IWin32Window\)](#), [Form.ShowDialog\(\)](#),
[Form.ShowDialog\(IWin32Window\)](#), [Form.ToString\(\)](#), [Form.UpdateDefaultButton\(\)](#),
[Form.OnResizeBegin\(EventArgs\)](#), [Form.OnResizeEnd\(EventArgs\)](#),
[Form.OnStyleChanged\(EventArgs\)](#), [Form.ValidateChildren\(\)](#),
[Form.ValidateChildren\(ValidationConstraints\)](#), [Form.WndProc\(ref Message\)](#), [Form.AcceptButton](#),
[Form.ActiveForm](#), [Form.ActiveMdiChild](#), [Form.AllowTransparency](#), [Form.AutoScroll](#),
[Form.AutoSize](#), [Form.AutoSizeMode](#), [Form.AutoValidate](#), [Form.BackColor](#),
[Form.FormBorderStyle](#), [Form.CancelButton](#), [Form.ClientSize](#), [Form.ControlBox](#),
[Form.CreateParams](#), [Form.DefaultImeMode](#), [Form.DefaultSize](#), [Form.DesktopBounds](#),
[Form.DesktopLocation](#), [Form.DialogResult](#), [Form.HelpButton](#), [Form.Icon](#), [Form.IsMdiChild](#),
[Form.IsMdiContainer](#), [Form.IsRestrictedWindow](#), [Form.KeyPreview](#), [Form.Location](#),
[Form.MaximizedBounds](#), [Form.MaximumSize](#), [Form.MainMenuStrip](#), [Form.MinimumSize](#),
[Form.MaximizeBox](#), [Form.MdiChildren](#), [Form.MdiChildrenMinimizedAnchorBottom](#),
[Form.MdiParent](#), [Form.MinimizeBox](#), [Form.Modal](#), [Form.Opacity](#), [Form.OwnedForms](#),
[Form.Owner](#), [Form.RestoreBounds](#), [Form.RightToLeftLayout](#), [Form.ShowInTaskbar](#),
[Form.ShowIcon](#), [Form.ShowWithoutActivation](#), [Form.Size](#), [Form.SizeGripStyle](#),
[Form.StartPosition](#), [Form.Text](#), [Form.TopLevel](#), [Form.TopMost](#), [Form.TransparencyKey](#),
[Form.WindowState](#), [Form.AutoSizeChanged](#), [Form.AutoValidateChanged](#),
[Form.HelpButtonClicked](#), [Form.MaximizedBoundsChanged](#), [Form.MaximumSizeChanged](#),
[Form.MinimumSizeChanged](#), [Form.Activated](#), [Form.Deactivate](#), [Form.FormClosing](#),
[Form.FormClosed](#), [Form.Load](#), [Form.MdiChildActivate](#), [Form.MenuComplete](#),
[Form.MenuStart](#), [Form.InputLanguageChanged](#), [Form.InputLanguageChanging](#),
[Form.RightToLeftLayoutChanged](#), [Form.Shown](#), [Form.DpiChanged](#), [Form.ResizeBegin](#),
[Form.ResizeEnd](#), [ContainerControl.OnAutoValidateChanged\(EventArgs\)](#),
[ContainerControl.OnMove\(EventArgs\)](#), [ContainerControl.OnParentChanged\(EventArgs\)](#),
[ContainerControl.PerformAutoScale\(\)](#), [ContainerControl.RescaleConstantsForDpi\(int, int\)](#),
[ContainerControl.Validate\(\)](#), [ContainerControl.Validate\(bool\)](#),
[ContainerControl.AutoScaleDimensions](#), [ContainerControl.AutoScaleFactor](#),
[ContainerControl.AutoScaleMode](#), [ContainerControl.BindingContext](#),
[ContainerControl.CanEnableIme](#), [ContainerControl.ActiveControl](#),
[ContainerControl.CurrentAutoScaleDimensions](#), [ContainerControl.ParentForm](#),
[ScrollableControl.ScrollStateAutoScrolling](#), [ScrollableControl.ScrollStateHScrollVisible](#),

[ScrollableControl.ScrollStateVScrollVisible](#) , [ScrollableControl.ScrollStateUserHasScrolled](#) ,
[ScrollableControl.ScrollStateFullDrag](#) , [ScrollableControl.GetScrollState\(int\)](#) ,
[ScrollableControl.OnMouseWheel\(MouseEventArgs\)](#) ,
[ScrollableControl.OnRightToLeftChanged\(EventArgs\)](#) ,
[ScrollableControl.OnPaintBackground\(PaintEventArgs\)](#) ,
[ScrollableControl.OnPaddingChanged\(EventArgs\)](#) , [ScrollableControl.SetDisplayRectLocation\(int, int\)](#) ,
[ScrollableControl.ScrollControlIntoView\(Control\)](#) , [ScrollableControl.ScrollToControl\(Control\)](#) ,
[ScrollableControl.OnScroll\(ScrollEventArgs\)](#) , [ScrollableControl.SetAutoScrollMargin\(int, int\)](#) ,
[ScrollableControl.SetScrollState\(int, bool\)](#) , [ScrollableControl.AutoScrollMargin](#) ,
[ScrollableControl.AutoScrollPosition](#) , [ScrollableControl.AutoScrollMinSize](#) ,
[ScrollableControl.DisplayRectangle](#) , [ScrollableControl.HScroll](#) , [ScrollableControl.HorizontalScroll](#) ,
[ScrollableControl.VScroll](#) , [ScrollableControl.VerticalScroll](#) , [ScrollableControl.Scroll](#) ,
[Control.GetAccessibilityObjectById\(int\)](#) , [Control.SetAutoSizeMode\(AutoSizeMode\)](#) ,
[Control.GetAutoSizeMode\(\)](#) , [Control.GetPreferredSize\(Size\)](#) ,
[Control.AccessibilityNotifyClients\(AccessibleEvents, int\)](#) ,
[Control.AccessibilityNotifyClients\(AccessibleEvents, int, int\)](#) , [Control.BeginInvoke\(Delegate\)](#) ,
[Control.BeginInvoke\(Action\)](#) , [Control.BeginInvoke\(Delegate, params object\[\]\)](#) ,
[Control.BringToFront\(\)](#) , [Control.Contains\(Control\)](#) , [Control.CreateGraphics\(\)](#) ,
[Control.CreateControl\(\)](#) , [Control.DestroyHandle\(\)](#) , [Control.DoDragDrop\(object, DragDropEffects\)](#) ,
[Control.DoDragDrop\(object, DragDropEffects, Bitmap, Point, bool\)](#) ,
[Control.DrawToBitmap\(Bitmap, Rectangle\)](#) , [Control.EndInvoke\(IAsyncResult\)](#) , [Control.FindForm\(\)](#) ,
[Control.GetTopLevel\(\)](#) , [Control.RaiseKeyEvent\(object, KeyEventArgs\)](#) ,
[Control.RaiseMouseEvent\(object, MouseEventArgs\)](#) , [Control.Focus\(\)](#) ,
[Control.FromChildHandle\(nint\)](#) , [Control.FromHandle\(nint\)](#) ,
[Control.GetChildAtPoint\(Point, GetChildAtPointSkip\)](#) , [Control.GetChildAtPoint\(Point\)](#) ,
[Control.GetContainerControl\(\)](#) , [Control.GetNextControl\(Control, bool\)](#) ,
[Control.GetStyle\(ControlStyles\)](#) , [Control.Hide\(\)](#) , [Control.InitLayout\(\)](#) , [Control.Invalidate\(Region\)](#) ,
[Control.Invalidate\(Region, bool\)](#) , [Control.Invalidate\(\)](#) , [Control.Invalidate\(bool\)](#) ,
[Control.Invalidate\(Rectangle\)](#) , [Control.Invalidate\(Rectangle, bool\)](#) , [Control.Invoke\(Action\)](#) ,
[Control.Invoke\(Delegate\)](#) , [Control.Invoke\(Delegate, params object\[\]\)](#) ,
[Control.Invoke<T>\(Func<T>\)](#) , [Control.InvokePaint\(Control, PaintEventArgs\)](#) ,
[Control.InvokePaintBackground\(Control, PaintEventArgs\)](#) , [Control.IsKeyLocked\(Keys\)](#) ,
[Control.IsInputChar\(char\)](#) , [Control.IsInputKey\(Keys\)](#) , [Control.IsMnemonic\(char, string\)](#) ,
[Control.LogicalToDeviceUnits\(int\)](#) , [Control.LogicalToDeviceUnits\(Size\)](#) ,
[Control.ScaleBitmapLogicalToDevice\(ref Bitmap\)](#) , [Control.NotifyInvalidate\(Rectangle\)](#) ,
[Control.InvokeOnClick\(Control, EventArgs\)](#) , [Control.OnAutoSizeChanged\(EventArgs\)](#) ,
[Control.OnBackColorChanged\(EventArgs\)](#) , [Control.OnBindingContextChanged\(EventArgs\)](#) ,
[Control.OnCausesValidationChanged\(EventArgs\)](#) , [Control.OnContextMenuStripChanged\(EventArgs\)](#) ,
[Control.OnCursorChanged\(EventArgs\)](#) , [Control.OnDataContextChanged\(EventArgs\)](#) ,
[Control.OnDockChanged\(EventArgs\)](#) , [Control.OnForeColorChanged\(EventArgs\)](#) ,

[Control.OnNotifyMessage\(Message\)](#), [Control.OnParentBackColorChanged\(EventArgs\)](#),
[Control.OnParentBackgroundImageChanged\(EventArgs\)](#),
[Control.OnParentBindingContextChanged\(EventArgs\)](#), [Control.OnParentCursorChanged\(EventArgs\)](#),
[Control.OnParentDataContextChanged\(EventArgs\)](#), [Control.OnParentEnabledChanged\(EventArgs\)](#),
[Control.OnParentFontChanged\(EventArgs\)](#), [Control.OnParentForeColorChanged\(EventArgs\)](#),
[Control.OnParentRightToLeftChanged\(EventArgs\)](#), [Control.OnParentVisibleChanged\(EventArgs\)](#),
[Control.OnPrint\(PaintEventArgs\)](#), [Control.OnTabIndexChanged\(EventArgs\)](#),
[Control.OnTabStopChanged\(EventArgs\)](#), [Control.OnClick\(EventArgs\)](#),
[Control.OnClientSizeChanged\(EventArgs\)](#), [Control.OnControlAdded\(ControlEventArgs\)](#),
[Control.OnControlRemoved\(ControlEventArgs\)](#), [Control.OnLocationChanged\(EventArgs\)](#),
[Control.OnDoubleClick\(EventArgs\)](#), [Control.OnDragEnter\(DragEventArgs\)](#),
[Control.OnDragOver\(DragEventArgs\)](#), [Control.OnDragLeave\(EventArgs\)](#),
[Control.OnDragDrop\(DragEventArgs\)](#), [Control.OnGiveFeedback\(GiveFeedbackEventArgs\)](#),
[Control.InvokeGotFocus\(Control, EventArgs\)](#), [Control.OnHelpRequested\(HelpEventArgs\)](#),
[Control.OnInvalidated\(InvalidateEventArgs\)](#), [Control.OnKeyDown\(KeyEventArgs\)](#),
[Control.OnKeyPress\(KeyPressEventArgs\)](#), [Control.OnKeyUp\(KeyEventArgs\)](#),
[Control.OnLeave\(EventArgs\)](#), [Control.InvokeLostFocus\(Control, EventArgs\)](#),
[Control.OnLostFocus\(EventArgs\)](#), [Control.OnMarginChanged\(EventArgs\)](#),
[Control.OnMouseDown\(MouseEventArgs\)](#), [Control.OnMouseClick\(MouseEventArgs\)](#),
[Control.OnMouseCaptureChanged\(EventArgs\)](#), [Control.OnMouseDown\(MouseEventArgs\)](#),
[Control.OnMouseEnter\(EventArgs\)](#), [Control.OnMouseLeave\(EventArgs\)](#),
[Control.OnDpiChangedBeforeParent\(EventArgs\)](#), [Control.OnDpiChangedAfterParent\(EventArgs\)](#),
[Control.OnMouseHover\(EventArgs\)](#), [Control.OnMouseMove\(MouseEventArgs\)](#),
[Control.OnMouseUp\(MouseEventArgs\)](#),
[Control.OnQueryContinueDrag\(QueryContinueDragEventArgs\)](#),
[Control.OnRegionChanged\(EventArgs\)](#), [Control.OnPreviewKeyDown\(PreviewKeyDownEventArgs\)](#),
[Control.OnSizeChanged\(EventArgs\)](#), [Control.OnChangeUICues\(UICuesEventArgs\)](#),
[Control.OnSystemColorsChanged\(EventArgs\)](#), [Control.OnValidating\(CancelEventArgs\)](#),
[Control.OnValidated\(EventArgs\)](#), [Control.PerformLayout\(\)](#), [Control.PerformLayout\(Control, string\)](#),
[Control.PointToClient\(Point\)](#), [Control.PointToScreen\(Point\)](#),
[Control.PreProcessMessage\(ref Message\)](#), [Control.PreProcessControlMessage\(ref Message\)](#),
[Control.ProcessKeyEventArgs\(ref Message\)](#), [Control.ProcessKeyMessage\(ref Message\)](#),
[Control.RaiseDragEvent\(object, DragEventArgs\)](#), [Control.RaisePaintEvent\(object, PaintEventArgs\)](#),
[Control.RecreateHandle\(\)](#), [Control.RectangleToClient\(Rectangle\)](#),
[Control.RectangleToScreen\(Rectangle\)](#), [Control.ReflectMessage\(nint, ref Message\)](#),
[Control.Refresh\(\)](#), [Control.ResetMouseEventArgs\(\)](#), [Control.ResetText\(\)](#), [Control.ResumeLayout\(\)](#),
[Control.ResumeLayout\(bool\)](#), [Control.Scale\(SizeF\)](#), [Control.Select\(\)](#),
[Control.SelectNextControl\(Control, bool, bool, bool, bool\)](#), [Control.SendToBack\(\)](#),
[Control.SetBounds\(int, int, int, int\)](#), [Control.SetBounds\(int, int, int, int, BoundsSpecified\)](#),
[Control.SizeFromClientSize\(Size\)](#), [Control.SetStyle\(ControlStyles, bool\)](#), [Control.SetTopLevel\(bool\)](#),

[Control.RtlTranslateAlignment\(HorizontalAlignment\)](#),
[Control.RtlTranslateAlignment\(LeftRightAlignment\)](#),
[Control.RtlTranslateAlignment\(ContentAlignment\)](#),
[Control.RtlTranslateHorizontal\(HorizontalAlignment\)](#),
[Control.RtlTranslateLeftRight\(LeftRightAlignment\)](#), [Control.RtlTranslateContent\(ContentAlignment\)](#),
[Control.Show\(\)](#), [Control.SuspendLayout\(\)](#), [Control.Update\(\)](#), [Control.UpdateBounds\(\)](#),
[Control.UpdateBounds\(int, int, int, int\)](#), [Control.UpdateBounds\(int, int, int, int, int, int\)](#),
[Control.UpdateZOrder\(\)](#), [Control.UpdateStyles\(\)](#), [Control.OnImeModeChanged\(EventArgs\)](#),
[Control.AccessibilityObject](#), [Control.AccessibleDefaultActionDescription](#),
[Control.AccessibleDescription](#), [Control.AccessibleName](#), [Control.AccessibleRole](#),
[Control.AllowDrop](#), [Control.Anchor](#), [Control.AutoScrollOffset](#), [Control.LayoutEngine](#),
[Control.DataContext](#), [Control.BackgroundImage](#), [Control.BackgroundImageLayout](#),
[Control.Bottom](#), [Control.Bounds](#), [Control.CanFocus](#), [Control.CanRaiseEvents](#),
[Control.CanSelect](#), [Control.Capture](#), [Control.CausesValidation](#),
[Control.CheckForIllegalCrossThreadCalls](#), [Control.ClientRectangle](#), [Control.CompanyName](#),
[Control.ContainsFocus](#), [Control.ContextMenuStrip](#), [Control.Controls](#), [Control.Created](#),
[Control.Cursor](#), [Control.DataBindings](#), [Control.DefaultBackColor](#), [Control.DefaultCursor](#),
[Control.DefaultFont](#), [Control.DefaultForeColor](#), [Control.DefaultMargin](#),
[Control.DefaultMaximumSize](#), [Control.DefaultMinimumSize](#), [Control.DefaultPadding](#),
[Control.DeviceDpi](#), [Control.IsDisposed](#), [Control.Disposing](#), [Control.Dock](#),
[Control.DoubleBuffered](#), [Control.Enabled](#), [Control.Focused](#), [Control.Font](#),
[Control.FontHeight](#), [Control.ForeColor](#), [Control.Handle](#), [Control.HasChildren](#), [Control.Height](#),
[Control.IsHandleCreated](#), [Control.InvokeRequired](#), [Control.IsAccessible](#),
[Control.IsAncestorSiteInDesignMode](#), [Control.IsMirrored](#), [Control.Left](#), [Control.Margin](#),
[Control.ModifierKeys](#), [Control.MouseButtons](#), [Control.MousePosition](#), [Control.Name](#),
[Control.Parent](#), [Control.ProductName](#), [Control.ProductVersion](#), [Control.RecreatingHandle](#),
[Control.Region](#), [Control.RenderRightToLeft](#), [Control.ResizeRedraw](#), [Control.Right](#),
[Control.RightToLeft](#), [Control.ScaleChildren](#), [Control.Site](#), [Control.TabIndex](#), [Control.TabStop](#),
[Control.Tag](#), [Control.Top](#), [Control.TopLevelControl](#), [Control.ShowKeyboardCues](#),
[Control.ShowFocusCues](#), [Control.UseWaitCursor](#), [Control.Visible](#), [Control.Width](#),
[Control.PreferredSize](#), [Control.Padding](#), [Control.ImeMode](#), [Control.ImeModeBase](#),
[Control.PropagatingImeMode](#), [Control.BackColorChanged](#), [Control.BackgroundImageChanged](#),
[Control.BackgroundImageLayoutChanged](#), [Control.BindingContextChanged](#),
[Control.CausesValidationChanged](#), [Control.ClientSizeChanged](#),
[Control.ContextMenuStripChanged](#), [Control.CursorChanged](#), [Control.DockChanged](#),
[Control.EnabledChanged](#), [Control.FontChanged](#), [Control.ForeColorChanged](#),
[Control.LocationChanged](#), [Control.MarginChanged](#), [Control.RegionChanged](#),
[Control.RightToLeftChanged](#), [Control.SizeChanged](#), [Control.TabIndexChanged](#),
[Control.TabStopChanged](#), [Control.TextChanged](#), [Control.VisibleChanged](#), [Control.Click](#),
[Control.ControlAdded](#), [Control.ControlRemoved](#), [Control.DataContextChanged](#),

[Control.DragDrop](#) , [Control.DragEnter](#) , [Control.DragOver](#) , [Control.DragLeave](#) ,
[Control.GiveFeedback](#) , [Control.HandleCreated](#) , [Control.HandleDestroyed](#) ,
[Control.HelpRequested](#) , [Control.Invalidated](#) , [Control.PaddingChanged](#) , [Control.Paint](#) ,
[Control.QueryContinueDrag](#) , [Control.QueryAccessibilityHelp](#) , [Control.DoubleClick](#) ,
[Control.Enter](#) , [Control.GotFocus](#) , [Control.KeyDown](#) , [Control.KeyPress](#) , [Control.KeyUp](#) ,
[Control.Layout](#) , [Control.Leave](#) , [Control.LostFocus](#) , [Control.MouseClick](#) ,
[Control.MouseDoubleClick](#) , [Control.MouseCaptureChanged](#) , [Control.MouseDown](#) ,
[Control.MouseEnter](#) , [Control.MouseLeave](#) , [Control.DpiChangedBeforeParent](#) ,
[Control.DpiChangedAfterParent](#) , [Control.MouseHover](#) , [Control.MouseMove](#) , [Control.MouseUp](#) ,
[Control.MouseWheel](#) , [Control.Move](#) , [Control.PreviewKeyDown](#) , [Control.Resize](#) ,
[Control.ChangeUICues](#) , [Control.StyleChanged](#) , [Control.SystemColorsChanged](#) ,
[Control.Validating](#) , [Control.Validated](#) , [Control.ParentChanged](#) , [Control.ImeModeChanged](#) ,
[Component.Dispose\(\)](#) , [Component.GetService\(Type\)](#) , [Component.Container](#) ,
[Component.DesignMode](#) , [Component.Events](#) , [Component.Disposed](#) ,
[MarshalByRefObject.GetLifetimeService\(\)](#) , [MarshalByRefObject.InitializeLifetimeService\(\)](#) ,
[MarshalByRefObject.MemberwiseClone\(bool\)](#) , [object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) ,
[object.GetHashCode\(\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#)

Constructors

Form1()

```
public Form1()
```

Methods

Dispose(bool)

Clean up any resources being used.

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

Parameters

disposing [bool](#)

true if managed resources should be disposed; otherwise, false.

WriteText(string)

Updates the exception label on the form notifying the user with details of any errors or exceptions that they are being faced with.

```
public void WriteText(string message)
```

Parameters

message [string](#)

Class MyParser

Namespace: [BOOSE assignment](#)

Assembly: BOOSE-assignment.dll

```
public class MyParser : IParse
```

Inheritance

[object](#) ← MyParser

Implements

IParse

Inherited Members

[object.Equals\(object\)](#), [object.Equals\(object, object\)](#), [object.GetHashCode\(\)](#), [object.GetType\(\)](#), [object.MemberwiseClone\(\)](#), [object.ReferenceEquals\(object, object\)](#), [object.ToString\(\)](#)

Constructors

MyParser(CommandFactory, StoredProgram)

```
public MyParser(CommandFactory factory, StoredProgram program)
```

Parameters

factory CommandFactory

program StoredProgram

Methods

ParseCommand(string)

```
public ICommand ParseCommand(string line)
```

Parameters

line [string](#)

Returns

ICommand

ParseProgram(string)

```
public void ParseProgram(string ProgramText)
```

Parameters

ProgramText [string](#)


Class MyTriangle

Namespace: [BOOSE assignment](#)

Assembly: BOOSE-assignment.dll

```
public class MyTriangle : CommandTwoParameters, ICommand
```








Inheritance

[object](#)  ← Command ← CanvasCommand ← CommandOneParameter ← CommandTwoParameters ← MyTriangle

Implements

ICommand

Inherited Members

CommandTwoParameters.param2 , CommandTwoParameters.param2unprocessed ,
CommandOneParameter.param1 , CommandOneParameter.param1unprocessed ,
CanvasCommand.yPos , CanvasCommand.xPos , CanvasCommand.canvas , CanvasCommand.Canvas ,
Command.program , Command.parameterList , Command.parameters , Command.paramsint ,
Command.Compile() , [Command.ProcessParameters\(string\)](#)  , Command.ToString() ,
Command.Program , Command.Name , Command.ParameterList , Command.Parameters ,
Command.Paramsint , [object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  , [object.GetHashCode\(\)](#)  ,
[object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  , [object.ReferenceEquals\(object, object\)](#) 

Constructors

MyTriangle(Canvas)

```
public MyTriangle(Canvas canvas)
```

Parameters

canvas [Canvas](#)

Methods

CheckParameters(string[])

```
public override void CheckParameters(string[] parameters)
```

Parameters

parameters [string](#)[]

Execute()

```
public override void Execute()
```

Set(StoredProgram, string)

```
public void Set(StoredProgram Program, string Params)
```

Parameters

Program StoredProgram

Params [string](#)

Class MyWrite

Namespace: [BOOSE assignment](#)

Assembly: BOOSE-assignment.dll

```
public class MyWrite : CommandOneParameter, ICommand
```









Inheritance

[object](#)  ← Command ← CanvasCommand ← CommandOneParameter ← MyWrite

Implements

ICommand

Inherited Members

CommandOneParameter.param1 , CommandOneParameter.param1unprocessed ,
CanvasCommand.yPos , CanvasCommand.xPos , CanvasCommand.canvas , CanvasCommand.Canvas ,
Command.program , Command.parameterList , Command.parameters , Command.paramsint ,
[Command.Set\(StoredProgram, string\)](#)  , Command.Compile() , [Command.ProcessParameters\(string\)](#)  ,
Command.ToString() , Command.Program , Command.Name , Command.ParameterList ,
Command.Parameters , Command.Paramsint , [object.Equals\(object\)](#)  , [object.Equals\(object, object\)](#)  ,
[object.GetHashCode\(\)](#)  , [object.GetType\(\)](#)  , [object.MemberwiseClone\(\)](#)  ,
[object.ReferenceEquals\(object, object\)](#) 

Constructors

MyWrite(Canvas)

```
public MyWrite(Canvas canvas)
```

Parameters

canvas [Canvas](#)

Methods

CheckParameters(string[])

```
public override void CheckParameters(string[] parameters)
```

Parameters

```
parameters string[]
```

Execute()

```
public override void Execute()
```


Class myCommandFactory

Namespace: [BOOSE assignment](#)

Assembly: BOOSE-assignment.dll

```
public class myCommandFactory : CommandFactory, ICommandFactory
```








Inheritance

[object](#)  ← CommandFactory ← myCommandFactory

Implements

ICommandFactory

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) , [object.GetType\(\)](#) ,
[object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#) 

Constructors

myCommandFactory(Canvas)

```
public myCommandFactory(Canvas canvas)
```

Parameters

canvas [Canvas](#)

Methods

MakeCommand(string)

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

Parameters

commandType [string](#) 

Returns

ICommand