

Namespace Session_1

Classes

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A class that implements the abstract commands of ICanvas.

[AsCommandFactory](#)

A Class of BOOSE Commands

[Clear](#)

Class to implement the Clear() command from the AsCommandFactory.

[Form1](#)

Form1

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[WriteText](#)

A class that implements the WriteText() command from the AsCommandFactory.

Class AsCanvas


Namespace: [Session 1](#)

Assembly: Session 1.dll

A class that implements the abstract commands of ICanvas.

```
public class AsCanvas : ICanvas
```








Inheritance

[object](#)  ← AsCanvas

Implements

ICanvas

Inherited Members

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

Constructors

AsCanvas()

Constructor that calls Set().

```
public AsCanvas()
```

Properties

PenColour

Gets or sets the color of the pen used for drawing.

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

Property Value

[object](#)

Xpos

Gets or sets the X position on the canvas.

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

Property Value

[int](#)

Ypos

Gets or sets the Y position on the canvas.

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

Property Value

[int](#)

Methods

Circle(int, bool)

Draws a circle on the canvas/bitmap.

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

Parameters

radius [int](#)

The radius of the circle.

filled [bool](#)

Indicates whether the circle is filled or not.

Exceptions

CanvasException

Thrown if the radius is invalid.

Clear()

Clears the canvas/bitmap

```
public void Clear()
```

DrawTo(int, int)

Draws a line from the current position to a specified (x, y) position.

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

Parameters

x [int](#)

The x-coordinate.

y [int](#)

The y-coordinate.

Exceptions

CanvasException

Thrown if the position is invalid.

MoveTo(int, int)

Moves the current position on the canvas to the specified (x, y) coordinates.

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

Parameters

x [int](#)

The x-coordinate.

y [int](#)

The y-coordinate.

Exceptions

CanvasException

Thrown if the position is invalid.

Rect(int, int, bool)

Draws a rectangle on the canvas/bitmap.

```
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](#)

Indicates whether the rectangle is filled or not.

Exceptions

CanvasException

Thrown if the dimensions are invalid.

Reset()

Resets the position on the canvas/bitmap

```
public void Reset()
```

Set(int, int)

Initializes the canvas with specified dimensions.

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

Parameters

width [int](#)

The width of the PictureBox.

height [int](#)

The height of the PictureBox.

SetColour(int, int, int)

Sets the color of the pen using RGB values.

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

Parameters

red [int](#)

The red component (0-255).

green [int](#)

The green component (0-255).

blue [int](#)

The blue component (0-255).

Exceptions

CanvasException

Thrown if RGB values are invalid.

Tri(int, int)

Draws a triangle on the canvas/bitmap.

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

Parameters

width [int](#)

The width of the triangle.

height [int](#)

The height of the triangle.

Exceptions

CanvasException

Thrown if the values are not valid.

WriteText(string)

Writes text onto the canvas/bitmap.

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

Parameters

text [string](#) 

The text to write.

getBitmap()

Returns the bitmap containing the graphics.

```
public object getBitmap()
```

Returns

[object](#) 

The Bitmap

Class AsCommandFactory

Namespace: [Session 1](#)

Assembly: Session 1.dll

A Class of BOOSE Commands

```
public class AsCommandFactory : CommandFactory, ICommandFactory
```








Inheritance

[object](#)  ← CommandFactory ← AsCommandFactory

Implements

ICommandFactory

Inherited Members

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

Methods

MakeCommand(string)

This is a class off all the commands

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

Parameters

commandType [string](#) 

Returns

ICommand

Exceptions

FactoryException

Class Clear

Namespace: [Session 1](#)

Assembly: Session 1.dll

Class to implement the Clear() command from the AsCommandFactory.

```
public class Clear : CommandOneParameter, ICommand
```

Inheritance

[object](#) ↗ ← Command ← CanvasCommand ← CommandOneParameter ← Clear

Implements

ICommand

Inherited Members

CommandOneParameter.param1 , CommandOneParameter.param1unprocessed , [CommandOneParameter.CheckParameters\(string\[\]\)](#) ↗ , 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

Clear()

Default constructor that is called from AsCommandFactory.

```
public Clear()
```

Clear(Canvas)

Constructor that initializes the Clear command with a specific canvas.

```
public Clear(Canvas c)
```

Parameters

c Canvas

The canvas on which the clear operation will be performed.

Methods

Execute()

Executes the Clear command by calling the Clear() method of the AsCanvas class.

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

Class Form1

Namespace: [Session 1](#)

Assembly: Session 1.dll

Form1

```
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.OnMouseDoubleClick\(MouseEventArgs\)](#), [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.

Class Rect


Namespace: [Session 1](#)

Assembly: Session 1.dll

Class to implement the Rect() command from the AsCommandFactory.

```
public class Rect : CommandTwoParameters, ICommand
```









Inheritance

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

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.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

Rect()

Default constructor.

```
public Rect()
```

Rect(Canvas, int, int)

Constructor that initializes the Rect command with a specific canvas and dimensions.

```
public Rect(Canvas c, int width, int height)
```

Parameters

c Canvas

The canvas on which the rectangle will be drawn.

width [int](#)

The width of the rectangle.

height [int](#)

The height of the rectangle.

Methods

CheckParameters(string[])

Checks the number of parameters provided for the Rect command.

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

Parameters

parameterList [string](#)[]

The list of parameters to check.

Exceptions

CommandException

Thrown if the number of parameters is invalid.

Execute()

Executes the Rect command by drawing a rectangle on the canvas.

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

Exceptions

RestrictionException

Thrown if the rectangle size exceeds allowed limits.

Class Reset


Namespace: [Session 1](#)

Assembly: Session 1.dll

A class that implements the Reset() command from the AsCommandFactory.

```
public class Reset : CommandOneParameter, ICommand
```










Inheritance

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

Implements

ICommand

Inherited Members

CommandOneParameter.param1 , CommandOneParameter.param1unprocessed ,
[CommandOneParameter.CheckParameters\(string\[\]\)](#)  , 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

Reset()

Default constructor.

```
public Reset()
```

Reset(Canvas)

Constructor that initializes the Reset command with a specific canvas.

```
public Reset(Canvas c)
```

Parameters

c Canvas

The canvas to be reset.

Methods

Execute()

Executes the Reset command by calling the Reset method on the canvas.

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

Class Tri

Namespace: [Session 1](#)

Assembly: Session 1.dll

A class that implements the Tri() command from the AsCommandFactory.

```
public class Tri : CommandTwoParameters, ICommand
```

Inheritance

[object](#) < Command < CanvasCommand < CommandOneParameter < CommandTwoParameters < Tri

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.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

Tri()

Default constructor.

```
public Tri()
```

Tri(Canvas, int, int)

Constructor that initializes the Tri command with a specific canvas and dimensions.


```
public Tri(Canvas c, int width, int height)
```

Parameters

c Canvas

The canvas on which the triangle will be drawn.

width [int](#)

The width of the triangle.

height [int](#)

The height of the triangle.

Methods

CheckParameters(string[])

Checks the number of parameters provided for the Tri command.

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

Parameters

parameterList [string](#)[]

The list of parameters to check.

Exceptions

CommandException

Thrown if the number of parameters is invalid.

Execute()

Executes the Tri command by calling the Tri method on the canvas.

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

Exceptions

RestrictionException

Thrown if the dimensions exceed allowed limits.

Class WriteText




Namespace: [Session 1](#)

Assembly: Session 1.dll

A class that implements the WriteText() command from the AsCommandFactory.

```
public class WriteText : CommandOneParameter, ICommand
```









Inheritance

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

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

WriteText()

Default constructor.

```
public WriteText()
```

WriteText(Canvas, string)

Constructor that initializes the WriteText command with a specific canvas and text.

```
public WriteText(Canvas c, string text)
```

Parameters

c Canvas

The canvas where text will be written.

text [string](#)

The text to be written.

Methods

CheckParameters(string[])

Checks the number of parameters provided for the WriteText command.

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

Parameters

parameterList [string](#)[]

The list of parameters to check.

Exceptions

CommandException

Thrown if the number of parameters is invalid.

Execute()

Executes the WriteText command by calling the WriteText method on the canvas.

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

Exceptions

RestrictionException

Thrown if the text is empty.