

Namespace BOOSE_App

Classes

[AppCanvas](#)

Simple bitmap canvas implementation of ICanvas from BOOSE Provides basic drawing methods like moveto, drawto, circle, rect, tri, writetext.

[AppCircle](#)

Circle command to enable unrestricted circle drawing. Lets user input higher radius values.

[AppCommandFactory](#)

Factory that creates application-specific BOOSE.ICommand instances. Returns restricted command implementations for commands the application overrides (for example "circle", "rect", "moveto") and delegates to the base BOOSE.CommandFactory for any other command names.

[Form1](#)

Main application form for the BOOSE interpreter UI. Hosts the program inout textbox, a run button, an error log and a picture box that displays the drawing canvas.

Class AppCanvas


Namespace: [BOOSE App](#)

Assembly: BOOSE_App.dll

Simple bitmap canvas implementation of ICanvas from BOOSE Provides basic drawing methods like moveto, drawto, circle, rect, tri, writetext.

```
public class AppCanvas : ICanvas
```








Inheritance

[object](#)  ← AppCanvas

Implements

ICanvas

Inherited Members

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

Constructors

AppCanvas(int, int)

Initializes a new instance of the [AppCanvas](#) class.

```
public AppCanvas(int xsize, int ysize)
```

Parameters

xsize [int](#) 

The width of the bitmap in pixels.

ysize [int](#) 

The height of the bitmap in pixels.

Properties

PenColour

Gets or sets the current pen colour. Accepts a [Color](#) or an ARGB integer.

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

Property Value

[object](#)

The pen colour.

Xpos

Gets or sets the xpos.

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

Property Value

[int](#)

The xpos.

Ypos

Gets or sets the ypos.

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

Property Value

[int](#)

The ypos.

Methods

Circle(int, bool)

Draws Circle with the specified radius.

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

Parameters

radius [int](#)

Radius in pixels, must be greater than or equal to 1.

filled [bool](#)

if set to `true` [filled], else it just draws the outline.

Clear()

Clears the canvas and text box.

```
public void Clear()
```

DrawTo(int, int)

Draws from one point to another. Provide the x and y coordinates to draw to.

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

Parameters

x [int](#)

Target X coordinate.

y [int](#)

Target Y coordinate.

MoveTo(int, int)

Moves the pen point to the specified coordinates without drawing.

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

Parameters

x [int](#)

Provide X coordinate.

y [int](#)

Provide Y coordinate.

Rect(int, int, bool)

Draws Rectangle at the current pen position with the specified width and height.

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

Parameters

width [int](#)

The width measured in pixels, must be greater than or equal to 1.

height [int](#)

The height measured in pixels, must be greater than or equal to 1.

filled [bool](#)

if set to `true` [filled], else, draws only the outline.

Reset()

Resets the pen position, colour and width to defaults and clears canvas.

```
public void Reset()
```

Set(int, int)

Sets the specified width.

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

Parameters

width [int](#)

The width.

height [int](#)

The height.

SetColour(int, int, int)

Sets the colour.

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

Parameters

red [int](#)

The red.

green [int](#)

The green.

blue [int](#)

The blue.

Tri(int, int)

Draws triangle using the pen position as the top vertex.

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

Parameters

width [int](#)

The base width in pixels.

height [int](#)

The height in pixels.

WriteText(string)

Draws text at the current pen position using a default font.

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

Parameters

text [string](#)

Text to draw.

getBitmap()

Gets the bitmap used for rendering.

```
public object getBitmap()
```

Returns

[object](#)

The internal [Bitmap](#) instance.

See Also

ICanvas

Class AppCircle


Namespace: [BOOSE App](#)

Assembly: BOOSE_App.dll

Circle command to enable unrestricted circle drawing. Lets user input higher radius values.

```
public class AppCircle : CommandOneParameter, ICommand
```










Inheritance

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

Implements

ICommand

Inherited Members

[CommandOneParameter.param1](#) , [CommandOneParameter.param1unprocessed](#) ,
[CommandOneParameter.CheckParameters\(string\[\]\)](#)  , [CanvasCommand.yPos](#) , [CanvasCommand.xPos](#) ,
[CanvasCommand.canvas](#) , [CanvasCommand.Canvas](#) , [Command.IsDouble](#) , [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\(object, object\)](#) 

Remarks

This class derives from [BOOSE.CommandOneParameter](#) to handle a single integer parameter for the circle radius.

Constructors

AppCircle()

Initializes a new instance of the [AppCircle](#) class. It also validates parameters and throws exceptions if invalid.

```
public AppCircle()
```

AppCircle(Canvas, int)

Initializes a new instance of the [AppCircle](#) class.

```
public AppCircle(Canvas c, int radius)
```

Parameters

c Canvas

Canvas instance used to draw the circle.

radius [int](#)

Initial radius for the command.

Methods

Execute()

Executes the circle drawing command.

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

Remarks

Execution reads the parsed parameter (from the base class), then validates it and then draws an unfilled circle using [Circle\(int, bool\)](#)."/>

Exceptions

CanvasException

An exception is thrown when the command was given double parameters or when the radius is less than 1. The messages will be displayed to the user in the UI error log box.

Class AppCommandFactory


Namespace: [BOOSE App](#)

Assembly: BOOSE_App.dll

Factory that creates application-specific BOOSE.ICommand instances. Returns restricted command implementations for commands the application overrides (for example "circle", "rect", "moveto") and delegates to the base BOOSE.CommandFactory for any other command names.

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








Inheritance

[object](#)  ← [CommandFactory](#) ← [AppCommandFactory](#)

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)

Create an BOOSE.ICommand for the specified command keyword.

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

Parameters

commandType [string](#) 

The command keyword (expected lower-case, e.g. "circle", "rect", "moveto").

Returns

ICommand

A new BOOSE.ICommand instance appropriate for `commandType`. Returns application-specific command classes ([AppCircle](#), BOOSE_App.AppRect, BOOSE_App.AppMoveTo) when the command is handled by the application, else, it returns the result from the base BOOSE.CommandFactory implementation.

See Also

CommandFactory

Class Form1

Namespace: [BOOSE App](#)

Assembly: BOOSE_App.dll

Main application form for the BOOSE interpreter UI. Hosts the program input textbox, a run button, an error log and a picture box that displays the drawing canvas.

```
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.OnMouseClicked\(MouseEventArgs\)](#),
[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\(object, object\)](#)

Remarks

The form creates as [AppCanvas](#), provides an [AppCommandFactory](#) to the parser and displays concise, user-facing error messages in BOOSE_App.Form1.txtErrors.

Constructors

Form1()

Initializes a new instance of the [Form1](#) class. Creates canvas and parser/factory instances and writes BOOSE about info to the debug output and error log.

```
public Form1()
```

Methods

Dispose(bool)

Clean up any resources being used.

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

Parameters

disposing [bool](#)

True when called from user code to release both managed and unmanaged resources; false when called from a finalizer to release only unmanaged resources.

Namespace BOOSE_Test

Classes

[BOOSE_Tests](#)

Unit tests for the BOOSE_App drawing commands and integration with [AppCanvas](#). Tests verify that command execution updates canvas state (pen position) as expected.

Class BOOSE_Tests


Namespace: [BOOSE_Test](#)

Assembly: BOOSE_Test.dll








Unit tests for the BOOSE_App drawing commands and integration with [AppCanvas](#). Tests verify that command execution updates canvas state (pen position) as expected.

```
[TestClass]
public class BOOSE_Tests
```

Inheritance

[object](#)  ← BOOSE_Tests

Inherited Members

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

Methods

DrawTo_Command_Test()

Verifies that a **drawto** following a **moveto** updates the canvas pen position to the draw target.

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

MoveTo_Command_Test()

Verifies that the **moveto** **x,y** command sets the canvas pen X and Y coordinates.

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

Multiline_Program_Test()

Runs a short multiline program and asserts that program state (final pen position) is preserved across multiple commands and equals the last moveto in the program.

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