SOLUTION-WIDE PROPERTIES Reference

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Namespaces

PocketPCRController8, PocketPCRController.Properties64

PocketPCRController Namespace

PocketPCRController: An open source USB serial controller for an open-source and open-hardware portable USB-powered PCR thermalcycling device - the PocketPCR from GaudiLabs

GaudiLabs PocketPCR device: https://gaudi.ch/PocketPCR/

This controller couples to a rewrite of the Arduino-based control software for the GaudiLabs PocketPCR device to allow open-ended programming of the device and computer control of the device through a USB port.

Note: This application requires that the PocketPCR device is first flashed with the PocketPCR Programmable.ino Arduino code from Tom Hall.

The PocketPCR device can be flashed with the Arduino IDE. The PocketPCR device is based on the Adafruit Feather M0 board, and as such, requires that an entry be made in the "Additional Boards Manager URLs:" list accessible from the Arduino IDE File->Preferences menu: Add https://adafruit.github.io/arduino-board-index/package_adafruit_index.json to the list of URLs, then add "Adafruit SAMD Boards" from the Tools->Board->Boards Manager interface. After installation, choose "Adafruit Feather M0 from Tools->Board->Adafruit (32-bits ARM Cortex-M0+ and Cortex-M4) Boards". This should allow flashing updated controller code once the connected COM port is selected under Tools->Port.

Classes

App₈, CyclingEditModel₉, CyclingEditWindow₁₂, EditBlock₂₁, EditCycle₂₆, MainWindow₃₄, PCRBlock₅₆, PCRCycle₅₈, PCRProgram₅₉, PCRProgram₅₉,

App Class

Interaction logic for App.xaml

System.Object

System.Windows.Threading.DispatcherObject System.Windows.Application

PocketPCRController.App

C#

public class App : Application

Requirements

Namespace:PocketPCRController8

Assembly: PocketPCRController (in PocketPCRController.exe)

Properties

Dispatcher (inherited from DispatcherObject), MainWindow (inherited from Application), Properties (inherited from Application), Resources (inherited from Application), ShutdownMode (inherited from Application), StartupUri (inherited from Application), Windows (inherited from Application)

Methods

CheckAccess (inherited from DispatcherObject), Equals (inherited from Object), Finalize (inherited from Object), FindResource (inherited from Application), GetHashCode (inherited from Object), GetType (inherited from Object), MemberwiseClone (inherited from Object), OnActivated (inherited from Application), OnDeactivated (inherited from Application), OnExit (inherited from Application), OnFragmentNavigation (inherited from Application), OnLoadCompleted (inherited from Application), OnNavigating (inherited from Application), OnNavigationFailed (inherited from Application), OnNavigationProgress (inherited from Application), OnNavigationStopped (inherited from Application), OnSessionEnding (inherited from Application), OnStartup (inherited from Application), Run (inherited from Application), Shutdown (inherited from Application), ToString (inherited from Object), TryFindResource (inherited from Application), VerifyAccess (inherited from DispatcherObject)

Events

Activated (inherited from Application), Deactivated (inherited from Application),
DispatcherUnhandledException (inherited from Application), Exit (inherited from Application),
FragmentNavigation (inherited from Application), LoadCompleted (inherited from Application), Navigated
(inherited from Application), Navigating (inherited from Application), NavigationFailed (inherited from Application),
NavigationProgress (inherited from Application), NavigationStopped (inherited from Application),
SessionEnding (inherited from Application), Startup (inherited from Application)

CyclingEditModel Class

Data model and GUI elements for editing a themalcycling program

System.Object

PocketPCRController.CyclingEditModel

C#

public class CyclingEditModel

Requirements

Namespace:PocketPCRController₈

Assembly: PocketPCRController (in PocketPCRController.exe)

Constructors

CyclingEditModel₁₀

Properties

BlockWidth₁₀, EditCycles₁₀, ParentPanel₁₁, ParentWindow₁₁, Program₁₁, ProgramIndex₁₁, TransitionWidth₁₂

Methods

Equals (inherited from Object), Finalize (inherited from Object), GetHashCode (inherited from Object), GetType (inherited from Object), MemberwiseClone (inherited from Object), ToString (inherited from Object)

CyclingEditModel Constructor

Constructor for a CyclingEditModel object

```
public CyclingEditModel(
    CyclingEditWindow _parentWindow,
    int _programIndex,
    Grid _parentPanel,
    PCRProgram _program
)
```

Parameters

```
_parentWindow
Parent Window to display the CyclingEditModel
_programIndex
Index in the Programs list corresponding to the current cycling program
_parentPanel
Grid in which to display GUI elements for the thermalcycling program
_program
```

See Also

Applies to: CyclingEditModel9

CyclingEditModel.BlockWidth Property

Current cycling program to display for editing

Width of cycling step to display on the GUI

currently temperature-time steps are displayed with a constant width

```
public double BlockWidth {get; set;}
```

See Also

Applies to: CyclingEditModel9

CyclingEditModel.EditCycles Property

List of EditCycle objects, each defining a series of themalcycling temperature/time steps

```
public List<EditCycle> EditCycles {get; set;}
```

See Also

Applies to: CyclingEditModel9

CyclingEditModel.ParentPanel Property

Grid in which to display GUI elements

```
public Grid ParentPanel {get; set;}
```

See Also

Applies to: CyclingEditModel9

CyclingEditModel.ParentWindow Property

Parent Window displaying the CyclingEditModel

```
public CyclingEditWindow ParentWindow {get; set;}
```

See Also

Applies to: CyclingEditModel9

CyclingEditModel.Program Property

Current cycling program to display for editing

```
public PCRProgram Program {get; set;}
```

See Also

Applies to: CyclingEditModel9

CyclingEditModel.ProgramIndex Property

Index in the Programs list corresponding to the current cycling program

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

See Also

Applies to: CyclingEditModel9

CyclingEditModel.TransitionWidth Property

A set width between temperature lines to display a diagonal transition line between temperature settings

```
public double TransitionWidth {get; set;}
```

See Also

Applies to: CyclingEditModel9

CyclingEditWindow Class

Interaction logic for CyclingEditWindow.xaml

GUI for editing, adding and removing cycling programs

```
System.Object
```

```
System.Windows.Threading.DispatcherObject
System.Windows.DependencyObject
System.Windows.Media.Visual
System.Windows.UIElement
System.Windows.FrameworkElement
System.Windows.Controls.Control
System.Windows.Controls.ContentControl
System.Windows.Window
```

PocketPCRController.CyclingEditWindow

C#

```
public class CyclingEditWindow : Window,
    IComponentConnector
```

Requirements

Namespace:PocketPCRController₈

Assembly: PocketPCRController (in PocketPCRController.exe)

Constructors

CyclingEditWindow₁₇

Properties

ActualHeight (inherited from FrameworkElement), ActualWidth (inherited from FrameworkElement), AllowDrop (inherited from UIElement), AllowsTransparency (inherited from Window), AreAnyTouchesCaptured (inherited from UIElement), AreAnyTouchesCapturedWithin (inherited from UIElement), AreAnyTouchesDirectlyOver (inherited from UIElement), Background (inherited from Control), BindingGroup (inherited from FrameworkElement), BitmapEffect (inherited from UIElement), BitmapEffectInput (inherited from UIElement), BorderBrush (inherited from Control), BorderThickness (inherited from Control), CacheMode (inherited from UIElement), Clip (inherited from UIElement), ClipToBounds (inherited from UIElement),

CommandBindings (inherited from UIElement), Content (inherited from ContentControl), ContentStringFormat (inherited from ContentControl), ContentTemplate (inherited from ContentControl), ContentTemplateSelector (inherited from ContentControl), ContextMenu (inherited from FrameworkElement), Cursor (inherited from FrameworkElement), DataContext (inherited from FrameworkElement), DependencyObjectType (inherited from DependencyObject), DesiredSize (inherited from UIElement), DialogResult (inherited from Window), Dispatcher (inherited from DispatcherObject), EditModel₁₇, Effect (inherited from UIElement), FlowDirection (inherited from FrameworkElement), FocusVisualStyle (inherited from FrameworkElement), Focusable (inherited from UIElement), FontFamily (inherited from Control), FontSize (inherited from Control), FontStretch (inherited from Control), FontStyle (inherited from Control), FontWeight (inherited from Control), ForceCursor (inherited from FrameworkElement), Foreground (inherited from Control), HasAnimatedProperties (inherited from UlElement), HasContent (inherited from ContentControl), Height (inherited from FrameworkElement), HorizontalAlignment (inherited from FrameworkElement), HorizontalContentAlignment (inherited from Control), Icon (inherited from Window), InputBindings (inherited from UIElement), InputScope (inherited from FrameworkElement), IsActive (inherited from Window), IsArrangeValid (inherited from UIElement), IsEnabled (inherited from UIElement), IsFocused (inherited from UIElement), IsHitTestVisible (inherited from UIElement), IsInitialized (inherited from FrameworkElement), IsInputMethodEnabled (inherited from UIElement), IsKeyboardFocusWithin (inherited from UIElement), IsKeyboardFocused (inherited from UIElement), IsLoaded (inherited from FrameworkElement), IsManipulationEnabled (inherited from UIElement), IsMeasureValid (inherited from UIElement), IsMouseCaptureWithin (inherited from UIElement), IsMouseCaptured (inherited from UIElement), IsMouseDirectlyOver (inherited from UIElement), IsMouseOver (inherited from UIElement), IsSealed (inherited from DependencyObject), IsStylusCaptureWithin (inherited from UIElement), IsStylusCaptured (inherited from UIElement), IsStylusDirectlyOver (inherited from UIElement), IsStylusOver (inherited from UIElement), IsTabStop (inherited from Control), IsVisible (inherited from UIElement), Language (inherited from FrameworkElement), LayoutTransform (inherited from FrameworkElement), Left (inherited from Window), Margin (inherited from FrameworkElement), MaxHeight (inherited from FrameworkElement), MaxWidth (inherited from FrameworkElement), MinHeight (inherited from FrameworkElement), MinWidth (inherited from FrameworkElement), Name (inherited from FrameworkElement), Opacity (inherited from UIElement), OpacityMask (inherited from UIElement), OverridesDefaultStyle (inherited from FrameworkElement), OwnedWindows (inherited from Window), Owner (inherited from Window), Padding (inherited from Control), Parent (inherited from FrameworkElement), ParentWindow₁₈, PersistId (inherited from UIElement), Programs₁₈, RenderSize (inherited from UIElement), RenderTransform (inherited from UIElement), RenderTransformOrigin (inherited from UIElement), ResizeMode (inherited from Window), Resources (inherited from FrameworkElement), RestoreBounds (inherited from Window), ShowActivated (inherited from Window), ShowInTaskbar (inherited from Window), SizeToContent (inherited from Window), SnapsToDevicePixels (inherited from UIElement), Style (inherited from FrameworkElement), TabIndex (inherited from Control), Tag (inherited from FrameworkElement), TaskbarltemInfo (inherited from Window), Template (inherited from Control), TemplatedParent (inherited from FrameworkElement), Title (inherited from Window), ToolTip (inherited from FrameworkElement), Top (inherited from Window), Topmost (inherited from Window), TouchesCaptured (inherited from UIElement), TouchesCapturedWithin (inherited from UIElement), TouchesDirectlyOver (inherited from UIElement), TouchesOver (inherited from UIElement), TransitionCanvas₁₈, Triggers (inherited from FrameworkElement), Uid (inherited from UIElement), UseLayoutRounding (inherited from FrameworkElement), VerticalAlignment (inherited from FrameworkElement), VerticalContentAlignment (inherited from Control), Visibility (inherited from UIElement), Width (inherited from FrameworkElement), WindowStartupLocation (inherited from Window), WindowState (inherited from Window), WindowStyle (inherited from Window)

Methods

Activate (inherited from Window), AddChild (inherited from ContentControl), AddHandler (inherited from UIElement), AddLogicalChild (inherited from FrameworkElement), AddText (inherited from ContentControl), AddToEventRoute (inherited from UIElement), AddVisualChild (inherited from Visual), ApplyAnimationClock (inherited from UIElement), ApplyTemplate (inherited from FrameworkElement), Arrange (inherited from UIElement), ArrangeCore (inherited from FrameworkElement), ArrangeOverride (inherited from Window), BeginAnimation (inherited from UIElement), BeginInit (inherited from FrameworkElement), BeginStoryboard (inherited from FrameworkElement), BringIntoView (inherited from FrameworkElement), CaptureMouse (inherited from UIElement), CaptureStylus (inherited from UIElement), CaptureTouch (inherited from UIElement), CheckAccess (inherited from DispatcherObject), ClearValue (inherited from DependencyObject), Close (inherited from Window), CoerceValue (inherited from DependencyObject), DragMove (inherited from Window), EndInit (inherited from FrameworkElement), Equals (inherited from DependencyObject), FillPrograms₁₈, Finalize (inherited from Object), FindCommonVisualAncestor (inherited from Visual), FindName (inherited from FrameworkElement), FindResource (inherited from FrameworkElement), Focus (inherited from UIElement), GetAnimationBaseValue (inherited from UIElement), GetBindingExpression (inherited from FrameworkElement), GetHashCode (inherited from DependencyObject), GetLayoutClip (inherited from FrameworkElement), GetLocalValueEnumerator (inherited from DependencyObject), GetTemplateChild (inherited from FrameworkElement), GetType (inherited from Object), GetUIParentCore (inherited from FrameworkElement), GetValue (inherited from DependencyObject), GetVisualChild (inherited from FrameworkElement), Hide (inherited from Window), HitTestCore (inherited from UIElement), InputHitTest (inherited from UIElement), InvalidateArrange (inherited from UIElement), InvalidateMeasure (inherited from UIElement), InvalidateProperty (inherited from DependencyObject), InvalidateVisual (inherited from UIElement), IsAncestorOf (inherited from Visual), IsDescendantOf (inherited from Visual), Measure (inherited from UIElement), MeasureCore (inherited from FrameworkElement), MeasureOverride (inherited from Window), MemberwiseClone (inherited from Object), MoveFocus (inherited from FrameworkElement), OnAccessKey (inherited from UIElement), OnActivated (inherited from Window), OnApplyTemplate (inherited from FrameworkElement), OnChildDesiredSizeChanged (inherited from UIElement), OnClosed (inherited from Window), OnClosing (inherited from Window), OnContentChanged (inherited from Window), OnContentRendered (inherited from Window), OnContentStringFormatChanged (inherited from ContentControl), OnContentTemplateChanged (inherited from ContentControl), OnContentTemplateSelectorChanged (inherited from ContentControl), OnContextMenuClosing (inherited from FrameworkElement), OnContextMenuOpening (inherited from FrameworkElement), OnCreateAutomationPeer (inherited from Window), OnDeactivated (inherited from Window), OnDpiChanged (inherited from Window), OnDragEnter (inherited from UIElement), OnDragLeave (inherited from UIElement), OnDragOver (inherited from UIElement), OnDrop (inherited from UIElement), OnGiveFeedback (inherited from UIElement), OnGotFocus (inherited from FrameworkElement), OnGotKeyboardFocus (inherited from UIElement), OnGotMouseCapture (inherited from UIElement), OnGotStylusCapture (inherited from UIElement), OnGotTouchCapture (inherited from UIElement), OnInitialized (inherited from FrameworkElement), OnlsKeyboardFocusWithinChanged (inherited from UIElement), OnlsKeyboardFocusedChanged (inherited from UIElement), OnlsMouseCaptureWithinChanged (inherited from UIElement), OnIsMouseCapturedChanged (inherited from UIElement), OnIsMouseDirectlyOverChanged (inherited from UIElement), OnIsStylusCaptureWithinChanged (inherited from UIElement), OnIsStylusCapturedChanged (inherited from UIElement), OnIsStylusDirectlyOverChanged (inherited from UIElement), OnKeyDown (inherited from UIElement), OnKeyUp (inherited from UIElement), OnLocationChanged (inherited from Window), OnLostFocus (inherited from UIElement), OnLostKeyboardFocus (inherited from UIElement), OnLostMouseCapture (inherited from UIElement), OnLostStylusCapture (inherited from UIElement), OnLostTouchCapture (inherited from UIElement), OnManipulationBoundaryFeedback (inherited from

Window), OnManipulationCompleted (inherited from UIElement), OnManipulationDelta (inherited from UIElement), OnManipulationInertiaStarting (inherited from UIElement), OnManipulationStarted (inherited from UIElement), OnManipulationStarting (inherited from UIElement), OnMouseDoubleClick (inherited from Control), OnMouseDown (inherited from UIElement), OnMouseEnter (inherited from UIElement), OnMouseLeave (inherited from UIElement), OnMouseLeftButtonDown (inherited from UIElement), OnMouseLeftButtonUp (inherited from UIElement), OnMouseMove (inherited from UIElement), OnMouseRightButtonDown (inherited from UIElement), OnMouseRightButtonUp (inherited from UIElement), OnMouseUp (inherited from UIElement), OnMouseWheel (inherited from UIElement), OnPreviewDragEnter (inherited from UIElement), OnPreviewDragLeave (inherited from UIElement), OnPreviewDragOver (inherited from UIElement), OnPreviewDrop (inherited from UIElement), OnPreviewGiveFeedback (inherited from UIElement), OnPreviewGotKeyboardFocus (inherited from UIElement), OnPreviewKeyDown (inherited from UIElement), OnPreviewKeyUp (inherited from UIElement), OnPreviewLostKeyboardFocus (inherited from UIElement), OnPreviewMouseDoubleClick (inherited from Control), OnPreviewMouseDown (inherited from UIElement), OnPreviewMouseLeftButtonDown (inherited from UIElement), OnPreviewMouseLeftButtonUp (inherited from UIElement), OnPreviewMouseMove (inherited from UIElement), OnPreviewMouseRightButtonDown (inherited from UIElement), OnPreviewMouseRightButtonUp (inherited from UIElement), OnPreviewMouseUp (inherited from UIElement), OnPreviewMouseWheel (inherited from UIElement), OnPreviewQueryContinueDrag (inherited from UIElement), OnPreviewStylusButtonDown (inherited from UIElement), OnPreviewStylusButtonUp (inherited from UIElement), OnPreviewStylusDown (inherited from UIElement), OnPreviewStylusInAirMove (inherited from UIElement), OnPreviewStylusInRange (inherited from UIElement), OnPreviewStylusMove (inherited from UIElement), OnPreviewStylusOutOfRange (inherited from UIElement), OnPreviewStylusSystemGesture (inherited from UIElement), OnPreviewStylusUp (inherited from UIElement), OnPreviewTextInput (inherited from UIElement), OnPreviewTouchDown (inherited from UIElement), OnPreviewTouchMove (inherited from UIElement), OnPreviewTouchUp (inherited from UIElement), On Property Changed (inherited from Framework Element), On Query Continue Drag (inherited from UIElement), OnQueryCursor (inherited from UIElement), OnRender (inherited from UIElement), OnRenderSizeChanged (inherited from FrameworkElement), OnSourceInitialized (inherited from Window), OnStateChanged (inherited from Window), OnStyleChanged (inherited from FrameworkElement), OnStylusButtonDown (inherited from UIElement), OnStylusButtonUp (inherited from UIElement), OnStylusDown (inherited from UIElement), OnStylusEnter (inherited from UIElement), OnStylusInAirMove (inherited from UIElement), OnStylusInRange (inherited from UIElement), OnStylusLeave (inherited from UIElement), OnStylusMove (inherited from UIElement), OnStylusOutOfRange (inherited from UIElement), OnStylusSystemGesture (inherited from UIElement), OnStylusUp (inherited from UIElement), OnTemplateChanged (inherited from Control), OnTextInput (inherited from UIElement), OnToolTipClosing (inherited from FrameworkElement), OnToolTipOpening (inherited from FrameworkElement), OnTouchDown (inherited from UIElement), OnTouchEnter (inherited from UIElement), OnTouchLeave (inherited from UIElement), OnTouchMove (inherited from UIElement), OnTouchUp (inherited from UIElement), OnVisualChildrenChanged (inherited from Window), OnVisualParentChanged (inherited from Window), ParentLayoutInvalidated (inherited from FrameworkElement), PointFromScreen (inherited from Visual), PointToScreen (inherited from Visual), PredictFocus (inherited from FrameworkElement), RaiseEvent (inherited from UIElement), ReadLocalValue (inherited from DependencyObject), RegisterName (inherited from FrameworkElement), ReleaseAllTouchCaptures (inherited from UIElement), ReleaseMouseCapture (inherited from UIElement), ReleaseStylusCapture (inherited from UIElement), ReleaseTouchCapture (inherited from UIElement), RemoveHandler (inherited from UIElement), RemoveLogicalChild (inherited from FrameworkElement), RemoveVisualChild (inherited from Visual), ScrollGrid_SizeChanged₁₉, SetBinding (inherited from FrameworkElement), SetCurrentValue (inherited from

DependencyObject), SetResourceReference (inherited from FrameworkElement), SetValue (inherited from DependencyObject), ShouldSerializeCommandBindings (inherited from UIElement), ShouldSerializeContent (inherited from ContentControl), ShouldSerializeInputBindings (inherited from UIElement), ShouldSerializeProperty (inherited from DependencyObject), ShouldSerializeResources (inherited from FrameworkElement), ShouldSerializeStyle (inherited from FrameworkElement), ShouldSerializeTriggers (inherited from FrameworkElement), Show (inherited from Window), ShowDialog (inherited from Window), ToString (inherited from Control), TransformToAncestor (inherited from Visual), TransformToDescendant (inherited from Visual), TransformToVisual (inherited from Visual), TranslatePoint (inherited from UIElement), TryFindResource (inherited from FrameworkElement), UnregisterName (inherited from FrameworkElement), UpdateDefaultStyle (inherited from FrameworkElement), UpdateEditInterface19, UpdateLayout (inherited from UIElement), VerifyAccess (inherited from DispatcherObject), deleteBtn_Click19, drawTransitions20, newBtn_Click20, programBox_SelectionChanged21, updateBtn_Click21

Events

Activated (inherited from Window), Closed (inherited from Window), Closing (inherited from Window), ContentRendered (inherited from Window), ContextMenuClosing (inherited from FrameworkElement), ContextMenuOpening (inherited from FrameworkElement), DataContextChanged (inherited from FrameworkElement), Deactivated (inherited from Window), DpiChanged (inherited from Window), DragEnter (inherited from UIElement), DragLeave (inherited from UIElement), DragOver (inherited from UIElement), Drop (inherited from UIElement), FocusableChanged (inherited from UIElement), GiveFeedback (inherited from UIElement), GotFocus (inherited from UIElement), GotKeyboardFocus (inherited from UIElement), GotMouseCapture (inherited from UIElement), GotStylusCapture (inherited from UIElement), GotTouchCapture (inherited from UIElement), Initialized (inherited from FrameworkElement), IsEnabledChanged (inherited from UIElement), IsHitTestVisibleChanged (inherited from UIElement), IsKeyboardFocusWithinChanged (inherited from UIElement), IsKeyboardFocusedChanged (inherited from UIElement), IsMouseCaptureWithinChanged (inherited from UIElement), IsMouseCapturedChanged (inherited from UIElement), IsMouseDirectlyOverChanged (inherited from UIElement), IsStylusCaptureWithinChanged (inherited from UIElement), IsStylusCapturedChanged (inherited from UIElement), IsStylusDirectlyOverChanged (inherited from UIElement), IsVisibleChanged (inherited from UIElement), KeyDown (inherited from UIElement), KeyUp (inherited from UIElement), LayoutUpdated (inherited from UIElement), Loaded (inherited from FrameworkElement), LocationChanged (inherited from Window), LostFocus (inherited from UIElement), LostKeyboardFocus (inherited from UIElement), LostMouseCapture (inherited from UIElement), LostStylusCapture (inherited from UIElement), LostTouchCapture (inherited from UIElement), ManipulationBoundaryFeedback (inherited from UIElement), ManipulationCompleted (inherited from UIElement), ManipulationDelta (inherited from UIElement), ManipulationInertiaStarting (inherited from UIElement), ManipulationStarted (inherited from UIElement), ManipulationStarting (inherited from UIElement), MouseDoubleClick (inherited from Control), MouseDown (inherited from UIElement), MouseEnter (inherited from UIElement), MouseLeave (inherited from UIElement), MouseLeftButtonDown (inherited from UIElement), MouseLeftButtonUp (inherited from UIElement), MouseMove (inherited from UIElement), MouseRightButtonDown (inherited from UIElement), MouseRightButtonUp (inherited from UIElement), MouseUp (inherited from UIElement), MouseWheel (inherited from UIElement), PreviewDragEnter (inherited from UIElement), PreviewDragLeave (inherited from UIElement), PreviewDragOver (inherited from UIElement), PreviewDrop (inherited from UIElement), PreviewGiveFeedback (inherited from UIElement), PreviewGotKeyboardFocus (inherited from UIElement), PreviewKeyDown (inherited from UIElement), PreviewKeyUp (inherited from UIElement), PreviewLostKeyboardFocus (inherited from UIElement),

PreviewMouseDoubleClick (inherited from Control), PreviewMouseDown (inherited from UIElement), PreviewMouseLeftButtonDown (inherited from UIElement), PreviewMouseLeftButtonUp (inherited from UIElement), PreviewMouseMove (inherited from UIElement), PreviewMouseRightButtonDown (inherited from UIElement), PreviewMouseRightButtonUp (inherited from UIElement), PreviewMouseUp (inherited from UIElement), PreviewMouseWheel (inherited from UIElement), PreviewQueryContinueDrag (inherited from UIElement), PreviewStylusButtonDown (inherited from UIElement), PreviewStylusButtonUp (inherited from UIElement), PreviewStylusDown (inherited from UIElement), PreviewStylusInAirMove (inherited from UIElement), PreviewStylusInRange (inherited from UIElement), PreviewStylusMove (inherited from UIElement), PreviewStylusOutOfRange (inherited from UIElement), PreviewStylusSystemGesture (inherited from UIElement), PreviewStylusUp (inherited from UIElement), PreviewTextInput (inherited from UIElement), PreviewTouchDown (inherited from UIElement), PreviewTouchMove (inherited from UIElement), PreviewTouchUp (inherited from UIElement), QueryContinueDrag (inherited from UIElement), QueryCursor (inherited from UIElement), RequestBringIntoView (inherited from FrameworkElement), SizeChanged (inherited from FrameworkElement), SourceInitialized (inherited from Window), SourceUpdated (inherited from FrameworkElement), StateChanged (inherited from Window), StylusButtonDown (inherited from UIElement), StylusButtonUp (inherited from UIElement), StylusDown (inherited from UIElement), StylusEnter (inherited from UIElement), StylusInAirMove (inherited from UIElement), StylusInRange (inherited from UIElement), StylusLeave (inherited from UIElement), StylusMove (inherited from UIElement), StylusOutOfRange (inherited from UIElement), StylusSystemGesture (inherited from UIElement), StylusUp (inherited from UIElement), TargetUpdated (inherited from FrameworkElement), TextInput (inherited from UIElement), ToolTipClosing (inherited from FrameworkElement), ToolTipOpening (inherited from FrameworkElement), TouchDown (inherited from UIElement), TouchEnter (inherited from UIElement), TouchLeave (inherited from UIElement), TouchMove (inherited from UIElement), TouchUp (inherited from UIElement), Unloaded (inherited from FrameworkElement)

CyclingEditWindow Constructor

Public constructor

```
public CyclingEditWindow(
    MainWindow _parentWindow
)
```

Parameters

_parentWindow

See Also

Applies to: CyclingEditWindow₁₂

CyclingEditWindow.EditModel Property

```
public CyclingEditModel EditModel {get; set;}
```

Applies to: CyclingEditWindow₁₂

CyclingEditWindow.ParentWindow Property

```
public MainWindow ParentWindow {get; set;}
```

See Also

Applies to: CyclingEditWindow₁₂

CyclingEditWindow.Programs Property

```
public PCRPrograms Programs {get; set;}
```

See Also

Applies to: CyclingEditWindow₁₂

CyclingEditWindow.TransitionCanvas Property

```
public Canvas TransitionCanvas {get; set;}
```

See Also

Applies to: CyclingEditWindow₁₂

CyclingEditWindow.FillPrograms Method

Construct drop-down list of cycling programs

```
public void FillPrograms(
    PCRPrograms _programs
)
```

Parameters

_programs

Applies to: CyclingEditWindow₁₂

CyclingEditWindow.ScrollGrid_SizeChanged Method

The size of the drawing Canvas has changed and must be redrawn

```
private void ScrollGrid_SizeChanged(
   object sender,
   SizeChangedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: CyclingEditWindow₁₂

$Cycling Edit Window. Update Edit Interface\ Method$

Clear and redraw the current selected cycling program

```
public void UpdateEditInterface(
   int selectedIndex
)
```

Parameters

selectedIndex

See Also

Applies to: CyclingEditWindow₁₂

CyclingEditWindow.deleteBtn_Click Method

User pressed the Remove Program button

```
private void deleteBtn_Click(
```

```
object sender,
RoutedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: CyclingEditWindow₁₂

CyclingEditWindow.drawTransitions Method

Draw transition lines between cycling steps

```
public void drawTransitions()
```

See Also

Applies to: CyclingEditWindow₁₂

CyclingEditWindow.newBtn_Click Method

User pressed the New Program button

```
private void newBtn_Click(
   object sender,
   RoutedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: CyclingEditWindow₁₂

CyclingEditWindow.programBox_SelectionChanged Method

User changed the selected cycling program in the drop-down list

```
private void programBox_SelectionChanged(
   object sender,
   SelectionChangedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: CyclingEditWindow₁₂

CyclingEditWindow.updateBtn_Click Method

Update the title of the selected cycling program

```
private void updateBtn_Click(
   object sender,
   RoutedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: CyclingEditWindow₁₂

EditBlock Class

Class to display a temperature/time step in a thermalcycling program

System.Object

PocketPCRController.EditBlock

```
public class EditBlock
```

Requirements

Namespace:PocketPCRController₈

Assembly: PocketPCRController (in PocketPCRController.exe)

Constructors

EditBlock₂₂

Properties

Block₂₂, BlockCanvas₂₃, CycleColumn₂₃, ParentCycle₂₃, TempSettingBox₂₃, TempSettingLabel₂₄, TimeSettingBox₂₄, TimeSettingLabel₂₄

Methods

Equals (inherited from Object), Finalize (inherited from Object), GetHashCode (inherited from Object), GetType (inherited from Object), MemberwiseClone (inherited from Object), TempSettingBox_KeyUp₂₄, TempSettingBox_LostFocus₂₅, TimeSettingBox_KeyUp₂₅, TimeSettingBox_LostFocus₂₆, ToString (inherited from Object), updateTempSettingBox₂₆, updateTimeSettingBox₂₆

EditBlock Constructor

Constructor for an EditBlock object

```
public EditBlock(
   EditCycle _parentCycle,
   PCRBlock _block
)
```

Parameters

_parentCycle

Parent EditCycle GUI element within which this temperature/time step is displayed

hlock

PCRBlock object this element corresponds to

See Also

Applies to: EditBlock₂₁

EditBlock.Block Property

PCRBlock object this element corresponds to

```
public PCRBlock Block {get; set;}
```

See Also

Applies to: EditBlock₂₁

EditBlock.BlockCanvas Property

Drawing canvas to display this EditBlock object

```
public Canvas BlockCanvas {get; set;}
```

See Also

Applies to: EditBlock₂₁

EditBlock.CycleColumn Property

Grid column in which this temperature/time step is displayed

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

See Also

Applies to: EditBlock₂₁

EditBlock.ParentCycle Property

Parent EditCycle GUI element within which this temperature/time step is displayed

```
public EditCycle ParentCycle {get; set;}
```

See Also

Applies to: EditBlock₂₁

EditBlock.TempSettingBox Property

TextBox to display and allow modification of the temperature target for the corresponding PCRBlock

```
public TextBox TempSettingBox {get; set;}
```

See Also

Applies to: EditBlock21

EditBlock.TempSettingLabel Property

Label to display "Temp"

```
public Label TempSettingLabel {get; set;}
```

See Also

Applies to: EditBlock₂₁

EditBlock.TimeSettingBox Property

TextBox to display and allow modification of the time (in seconds) target for the corresponding PCRBlock

```
public TextBox TimeSettingBox {get; set;}
```

See Also

Applies to: EditBlock₂₁

EditBlock.TimeSettingLabel Property

Label to display "Time"

```
public Label TimeSettingLabel {get; set;}
```

See Also

Applies to: EditBlock₂₁

EditBlock.TempSettingBox_KeyUp Method

Update the program if the Enter key is pressed after editing the contents of TempSettingBox

```
private void TempSettingBox_KeyUp(
   object sender,
   KeyEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: EditBlock₂₁

EditBlock.TempSettingBox_LostFocus Method

Update the program if focus is removed from TempSettingBox after editing the contents of TempSettingBox

```
private void TempSettingBox_LostFocus(
   object sender,
   RoutedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: EditBlock₂₁

EditBlock.TimeSettingBox_KeyUp Method

Update the program if the Enter key is pressed after editing the contents of TimeSettingBox

```
private void TimeSettingBox_KeyUp(
   object sender,
   KeyEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: EditBlock₂₁

EditBlock.TimeSettingBox_LostFocus Method

Update the program if focus is removed from TimeSettingBox after editing the contents of TimeSettingBox

```
private void TimeSettingBox_LostFocus(
   object sender,
   RoutedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: EditBlock21

EditBlock.updateTempSettingBox Method

Update the program according to a modified value in TempSettingBox

```
public void updateTempSettingBox()
```

See Also

Applies to: EditBlock21

EditBlock.updateTimeSettingBox Method

Update the program according to a modified value in TimeSettingBox

```
public void updateTimeSettingBox()
```

See Also

Applies to: EditBlock₂₁

EditCycle Class

Class to display and allow editing of a PCRCycle object (an open-ended series of themalcycling temperature/time steps that can be repeated an arbitrary number of times)

System.Object

PocketPCRController.EditCycle

```
public class EditCycle
```

Requirements

Namespace:PocketPCRController₈

Assembly: PocketPCRController (in PocketPCRController.exe)

Constructors

EditCycle₂₇

Properties

BlocksLabel₂₈, Cycle₂₈, CycleGrid₂₈, CycleIndex₂₈, CyclesBox₂₈, CyclesLabel₂₉, DeleteBlocksButton₂₉, DeleteStepButton₂₉, EditBlocks₂₉, InsertBlocksButton₃₀, InsertStepButton₃₀, ParentModel₃₀, Removed₃₀

Methods

CyclesBox_KeyUp₃₁, CyclesBox_LostFocus₃₁, DeleteBlocksButton_Click₃₁, DeleteStepButton_Click₃₂, Equals (inherited from Object), Finalize (inherited from Object), GetHashCode (inherited from Object), GetType (inherited from Object), InsertBlocksButton_Click₃₂, InsertStepButton_Click₃₃, MemberwiseClone (inherited from Object), ToString (inherited from Object), updateCyclesBox₃₃

EditCycle Constructor

Constructor for an EditCycle object

```
public EditCycle(
   CyclingEditModel _parentModel,
   PCRCycle _cycle,
   int _cycleIndex
)
```

Parameters

```
_parentModel
```

CyclingEditModel that this EditCycle object belongs to

_cycle

The PCRCycle object in the PCRProgram that this EditCycle object corresponds to

cycleIndex

Index in ParentModel.EditCycles List that this EditCycle object corresponds to

See Also

Applies to: EditCycle₂₆

EditCycle.BlocksLabel Property

A label to display the current number of temperrature/time steps in the Cycle

```
public Label BlocksLabel {get; set;}
```

See Also

Applies to: EditCycle₂₆

EditCycle.Cycle Property

The PCRCycle object in the PCRProgram that this EditCycle object corresponds to

```
public PCRCycle Cycle {get; set;}
```

See Also

Applies to: EditCycle₂₆

EditCycle.CycleGrid Property

The Grid on which to display this EditCycle

```
public Grid CycleGrid {get; set;}
```

See Also

Applies to: EditCycle₂₆

EditCycle.CycleIndex Property

Index in ParentModel.EditCycles List that this EditCycle object corresponds to

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

See Also

Applies to: EditCycle₂₆

EditCycle.CyclesBox Property

TextBox specifying the number of times to repeat this Cycle

```
public TextBox CyclesBox {get; set;}
```

Applies to: EditCycle₂₆

EditCycle.CyclesLabel Property

Label to simply display the word "Cycles" in front of the TextBox specifying the number of times to repeat this Cycle

```
public Label CyclesLabel {get; set;}
```

See Also

Applies to: EditCycle₂₆

EditCycle.DeleteBlocksButton Property

A button to decrease the number of EditBlock by one

```
public Button DeleteBlocksButton {get; set;}
```

See Also

Applies to: EditCycle₂₆

EditCycle.DeleteStepButton Property

```
public Button DeleteStepButton {get; set;}
```

See Also

Applies to: EditCycle₂₆

EditCycle.EditBlocks Property

List of temperature/time steps

C#

```
public List<EditBlock> EditBlocks {get; set;}
```

Applies to: EditCycle₂₆

EditCycle.InsertBlocksButton Property

A button to increase the number of EditBlock by one

```
public Button InsertBlocksButton {get; set;}
```

See Also

Applies to: EditCycle₂₆

EditCycle.InsertStepButton Property

```
public Button InsertStepButton {get; set;}
```

See Also

Applies to: EditCycle₂₆

EditCycle.ParentModel Property

CyclingEditModel that this EditCycle object belongs to

```
public CyclingEditModel ParentModel {get; set;}
```

See Also

Applies to: EditCycle₂₆

EditCycle.Removed Property

Boolean flag specifying if this object has been removed to avoid displaying it prior to garbage collection

```
public bool Removed {get; set;}
```

Applies to: EditCycle₂₆

EditCycle.CyclesBox_KeyUp Method

Update the program if the Enter key is pressed after editing the contents of CyclesBox

```
private void CyclesBox_KeyUp(
   object sender,
   KeyEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: EditCycle₂₆

EditCycle.CyclesBox_LostFocus Method

Update the program if focus is removed from CyclesBox after editing the contents of CyclesBox

```
private void CyclesBox_LostFocus(
   object sender,
   RoutedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: EditCycle₂₆

EditCycle.DeleteBlocksButton_Click Method

The button to decrease the number of steps in this cycling block was pressed

Remove the last step in the cycle

```
private void DeleteBlocksButton_Click(
  object sender,
  RoutedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: EditCycle₂₆

EditCycle.DeleteStepButton_Click Method

User pressed the button specifying deletion of this Cycle

```
private void DeleteStepButton_Click(
   object sender,
   RoutedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: EditCycle₂₆

EditCycle.InsertBlocksButton_Click Method

The button to increase the number of steps in this cycling block was pressed

Replicate the last step in the cycle and allow it to be edited. If there are no steps in the cycle, add a default of 50 degrees Celcius for 20 seconds (this is currently an impossible situation, but the logic is a placeholder for a condition that could arise through a code change).

```
C#
private void InsertBlocksButton_Click(
```

```
object sender,
RoutedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: EditCycle₂₆

EditCycle.InsertStepButton_Click Method

User pressed the button specifying insertion of a Cycle before this Cycle

```
private void InsertStepButton_Click(
  object sender,
  RoutedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: EditCycle₂₆

EditCycle.updateCyclesBox Method

Update the program according to a modified value in CyclesBox

```
public void updateCyclesBox()
```

See Also

Applies to: EditCycle₂₆

MainWindow Class

Interaction logic for MainWindow.xaml

System.Object

System.Windows.Threading.DispatcherObject
System.Windows.DependencyObject
System.Windows.Media.Visual
System.Windows.UIElement
System.Windows.FrameworkElement
System.Windows.Controls.Control
System.Windows.Controls.ContentControl
System.Windows.Window

PocketPCRController.MainWindow

C#

public class MainWindow : Window, IComponentConnector

Requirements

Namespace:PocketPCRController8

Assembly: PocketPCRController (in PocketPCRController.exe)

Constructors

MainWindow₃₉

Properties

ActualHeight (inherited from FrameworkElement), ActualWidth (inherited from FrameworkElement), AllowDrop (inherited from UIElement), AllowsTransparency (inherited from Window), AreAnyTouchesCaptured (inherited from UIElement), AreAnyTouchesCapturedWithin (inherited from UIElement), AreAnyTouchesDirectlyOver (inherited from UIElement), AreAnyTouchesOver (inherited from UIElement), Background (inherited from Control), BindingGroup (inherited from FrameworkElement), BitmapEffect (inherited from UIElement), BitmapEffectInput (inherited from UIElement), BorderBrush (inherited from Control), BorderThickness (inherited from Control), CacheMode (inherited from UIElement), Clip (inherited from UIElement), ClipToBounds (inherited from UIElement), ComPort₃₉, CommandBindings (inherited from UIElement), Content (inherited from ContentControl), ContentStringFormat (inherited from ContentControl), ContentTemplate (inherited from ContentControl), ContentTemplateSelector (inherited from ContentControl), ContextMenu (inherited from FrameworkElement), Cursor (inherited from FrameworkElement), DataContext (inherited from FrameworkElement), DependencyObjectType (inherited from DependencyObject), DesiredSize (inherited from UIElement), DialogResult (inherited from Window), Dispatcher (inherited from DispatcherObject), Effect (inherited from UIElement), FlowDirection (inherited from FrameworkElement), FocusVisualStyle (inherited from FrameworkElement), Focusable (inherited from UIElement), FontFamily (inherited from Control), FontSize (inherited from Control), FontStretch (inherited from Control), FontStyle (inherited from Control), FontWeight (inherited from Control), ForceCursor (inherited from FrameworkElement), Foreground (inherited from Control), HasAnimatedProperties (inherited from UIElement), HasContent (inherited from ContentControl), Height (inherited from FrameworkElement), HorizontalAlignment (inherited from FrameworkElement), HorizontalContentAlignment (inherited from Control), Icon (inherited from Window), InputBindings (inherited

from UIElement), InputScope (inherited from FrameworkElement), ISActive (inherited from Window), IsArrangeValid (inherited from UIElement), IsEnabled (inherited from UIElement), IsFocused (inherited from UIElement), IsHitTestVisible (inherited from UIElement), IsInitialized (inherited from FrameworkElement), IsInputMethodEnabled (inherited from UIElement), IsKeyboardFocusWithin (inherited from UIElement), IsKeyboardFocused (inherited from UIElement), IsLoaded (inherited from FrameworkElement), IsManipulationEnabled (inherited from UIElement), IsMeasureValid (inherited from UIElement), IsMouseCaptureWithin (inherited from UIElement), IsMouseCaptured (inherited from UIElement), IsMouseDirectlyOver (inherited from UIElement), IsMouseOver (inherited from UIElement), IsSealed (inherited from DependencyObject), IsStylusCaptureWithin (inherited from UIElement), IsStylusCaptured (inherited from UIElement), IsStylusDirectlyOver (inherited from UIElement), IsStylusOver (inherited from UIElement), IsTabStop (inherited from Control), IsVisible (inherited from UIElement), Language (inherited from FrameworkElement), LayoutTransform (inherited from FrameworkElement), Left (inherited from Window), Margin (inherited from FrameworkElement), MaxHeight (inherited from FrameworkElement), MaxWidth (inherited from FrameworkElement), MinHeight (inherited from FrameworkElement), MinWidth (inherited from FrameworkElement), Name (inherited from FrameworkElement), Opacity (inherited from UIElement), OpacityMask (inherited from UIElement), OverridesDefaultStyle (inherited from FrameworkElement), OwnedWindows (inherited from Window), Owner (inherited from Window), Padding (inherited from Control), Parent (inherited from FrameworkElement), PersistId (inherited from UIElement), Programs₄₀, RenderSize (inherited from UIElement), RenderTransform (inherited from UIElement), RenderTransformOrigin (inherited from UIElement), ResizeMode (inherited from Window), Resources (inherited from FrameworkElement), RestoreBounds (inherited from Window), ShowActivated (inherited from Window), ShowInTaskbar (inherited from Window), SizeToContent (inherited from Window), SnapsToDevicePixels (inherited from UIElement), Style (inherited from FrameworkElement), TabIndex (inherited from Control), Tag (inherited from FrameworkElement), TaskbarltemInfo (inherited from Window), Template (inherited from Control), TemplatedParent (inherited from FrameworkElement), Title (inherited from Window), ToolTip (inherited from FrameworkElement), Top (inherited from Window), Topmost (inherited from Window), TouchesCaptured (inherited from UIElement), TouchesCapturedWithin (inherited from UIElement), TouchesDirectlyOver (inherited from UIElement), TouchesOver (inherited from UIElement), Triggers (inherited from FrameworkElement), Uid (inherited from UIElement), UseLayoutRounding (inherited from FrameworkElement), VerticalAlignment (inherited from FrameworkElement), VerticalContentAlignment (inherited from Control), Visibility (inherited from UIElement), Width (inherited from FrameworkElement), WindowStartupLocation (inherited from Window), WindowState (inherited from Window), WindowStyle (inherited from Window), monitorTimer₄₀, pcrTimer₄₀

Methods

Activate (inherited from Window), AddChild (inherited from ContentControl), AddHandler (inherited from UIElement), AddLogicalChild (inherited from FrameworkElement), AddText (inherited from ContentControl), AddToEventRoute (inherited from UIElement), AddVisualChild (inherited from Visual), ApplyAnimationClock (inherited from UIElement), ApplyTemplate (inherited from FrameworkElement), Arrange (inherited from UIElement), ArrangeCore (inherited from FrameworkElement), ArrangeOverride (inherited from Window), BeginAnimation (inherited from UIElement), BeginInit (inherited from FrameworkElement), BeginStoryboard (inherited from FrameworkElement), CaptureMouse (inherited from UIElement), CaptureStylus (inherited from UIElement), CaptureTouch (inherited from UIElement), CheckAccess (inherited from DispatcherObject), ClearValue (inherited from DependencyObject), Close (inherited from Window), CoerceValue (inherited from DependencyObject), ComPort_DataReceived40, DragMove (inherited from Window), EndInit (inherited from FrameworkElement), Equals (inherited from DependencyObject), Finalize (inherited

from Object), FindCommonVisualAncestor (inherited from Visual), FindName (inherited from FrameworkElement), FindResource (inherited from FrameworkElement), FOCUS (inherited from UIElement), GetAnimationBaseValue (inherited from UIElement), GetBindingExpression (inherited from FrameworkElement), GetHashCode (inherited from DependencyObject), GetLayoutClip (inherited from FrameworkElement), GetLocalValueEnumerator (inherited from DependencyObject), GetTemplateChild (inherited from FrameworkElement), GetType (inherited from Object), GetUIParentCore (inherited from FrameworkElement), GetValue (inherited from DependencyObject), GetVisualChild (inherited from FrameworkElement), Hide (inherited from Window), HitTestCore (inherited from UIElement), InputHitTest (inherited from UIElement), InvalidateArrange (inherited from UIElement), InvalidateMeasure (inherited from UIElement), InvalidateProperty (inherited from DependencyObject), InvalidateVisual (inherited from UIElement), IsAncestorOf (inherited from Visual), IsDescendantOf (inherited from Visual), Measure (inherited from UIElement), MeasureCore (inherited from FrameworkElement), MeasureOverride (inherited from Window), MemberwiseClone (inherited from Object), MonitorTimer_Tick41, MoveFocus (inherited from FrameworkElement), OnAccessKey (inherited from UIElement), OnActivated (inherited from Window), OnApplyTemplate (inherited from FrameworkElement), OnChildDesiredSizeChanged (inherited from UIElement), OnClosed (inherited from Window), OnClosing (inherited from Window), OnContentChanged (inherited from Window), OnContentRendered (inherited from Window), OnContentStringFormatChanged (inherited from ContentControl), OnContentTemplateChanged (inherited from ContentControl), OnContentTemplateSelectorChanged (inherited from ContentControl), OnContextMenuClosing (inherited from FrameworkElement), OnContextMenuOpening (inherited from FrameworkElement), OnCreateAutomationPeer (inherited from Window), OnDeactivated (inherited from Window), OnDpiChanged (inherited from Window), OnDragEnter (inherited from UIElement), OnDragLeave (inherited from UIElement), OnDragOver (inherited from UIElement), OnDrop (inherited from UIElement), OnGiveFeedback (inherited from UIElement), OnGotFocus (inherited from FrameworkElement), OnGotKeyboardFocus (inherited from UIElement), OnGotMouseCapture (inherited from UIElement), OnGotStylusCapture (inherited from UIElement), OnGotTouchCapture (inherited from UIElement), OnInitialized (inherited from FrameworkElement), OnlsKeyboardFocusWithinChanged (inherited from UIElement), OnlsKeyboardFocusedChanged (inherited from UIElement), OnIsMouseCaptureWithinChanged (inherited from UIElement), OnIsMouseCapturedChanged (inherited from UIElement), OnIsMouseDirectlyOverChanged (inherited from UIElement), OnlsStylusCaptureWithinChanged (inherited from UIElement), OnlsStylusCapturedChanged (inherited from UIElement), OnIsStylusDirectlyOverChanged (inherited from UIElement), OnKeyDown (inherited from UIElement), OnKeyUp (inherited from UIElement), OnLocationChanged (inherited from Window), OnLostFocus (inherited from UIElement), OnLostKeyboardFocus (inherited from UIElement), OnLostMouseCapture (inherited from UIElement), OnLostStylusCapture (inherited from UIElement), OnLostTouchCapture (inherited from UIElement), OnManipulationBoundaryFeedback (inherited from Window), OnManipulationCompleted (inherited from UIElement), OnManipulationDelta (inherited from UIElement), OnManipulationInertiaStarting (inherited from UIElement), OnManipulationStarted (inherited from UIElement), OnManipulationStarting (inherited from UIElement), OnMouseDoubleClick (inherited from Control), OnMouseDown (inherited from UIElement), OnMouseEnter (inherited from UIElement), OnMouseLeave (inherited from UIElement), OnMouseLeftButtonDown (inherited from UIElement), OnMouseLeftButtonUp (inherited from UIElement), OnMouseMove (inherited from UIElement), OnMouseRightButtonDown (inherited from UIElement), OnMouseRightButtonUp (inherited from UIElement), OnMouseUp (inherited from UIElement), OnMouseWheel (inherited from UIElement), OnPreviewDragEnter (inherited from UIElement), OnPreviewDragLeave (inherited from UIElement), OnPreviewDragOver (inherited from UIElement), OnPreviewDrop (inherited from UIElement), OnPreviewGiveFeedback (inherited from UIElement), OnPreviewGotKeyboardFocus (inherited from UIElement), OnPreviewKeyDown (inherited from

UIElement), OnPreviewKeyUp (inherited from UIElement), OnPreviewLostKeyboardFocus (inherited from UIElement), OnPreviewMouseDoubleClick (inherited from Control), OnPreviewMouseDown (inherited from UIElement), OnPreviewMouseLeftButtonDown (inherited from UIElement), OnPreviewMouseLeftButtonUp (inherited from UIElement), OnPreviewMouseMove (inherited from UIElement), OnPreviewMouseRightButtonDown (inherited from UIElement), OnPreviewMouseRightButtonUp (inherited from UIElement), OnPreviewMouseUp (inherited from UIElement), OnPreviewMouseWheel (inherited from UIElement), OnPreviewQueryContinueDrag (inherited from UIElement), OnPreviewStylusButtonDown (inherited from UIElement), OnPreviewStylusButtonUp (inherited from UIElement), OnPreviewStylusDown (inherited from UIElement), OnPreviewStylusInAirMove (inherited from UIElement), OnPreviewStylusInRange (inherited from UIElement), OnPreviewStylusMove (inherited from UIElement), OnPreviewStylusOutOfRange (inherited from UIElement), OnPreviewStylusSystemGesture (inherited from UIElement), OnPreviewStylusUp (inherited from UIElement), OnPreviewTextInput (inherited from UIElement), OnPreviewTouchDown (inherited from UIElement), OnPreviewTouchMove (inherited from UIElement), OnPreviewTouchUp (inherited from UIElement), OnPropertyChanged (inherited from FrameworkElement), OnQueryContinueDrag (inherited from UIElement), OnQueryCursor (inherited from UIElement), OnRender (inherited from UIElement), OnRenderSizeChanged (inherited from FrameworkElement), OnSourceInitialized (inherited from Window), OnStateChanged (inherited from Window), OnStyleChanged (inherited from FrameworkElement), OnStylusButtonDown (inherited from UIElement), OnStylusButtonUp (inherited from UIElement), OnStylusDown (inherited from UIElement), OnStylusEnter (inherited from UIElement), OnStylusInAirMove (inherited from UIElement), OnStylusInRange (inherited from UIElement), OnStylusLeave (inherited from UIElement), OnStylusMove (inherited from UIElement), OnStylusOutOfRange (inherited from UIElement), OnStylusSystemGesture (inherited from UIElement), OnStylusUp (inherited from UIElement), OnTemplateChanged (inherited from Control), OnTextInput (inherited from UIElement), OnToolTipClosing (inherited from FrameworkElement), OnToolTipOpening (inherited from FrameworkElement), OnTouchDown (inherited from UIElement), OnTouchEnter (inherited from UIElement), OnTouchLeave (inherited from UIElement), OnTouchMove (inherited from UIElement), OnTouchUp (inherited from UIElement), OnVisualChildrenChanged (inherited from Window), OnVisualParentChanged (inherited from Window), ParentLayoutInvalidated (inherited from FrameworkElement), PcrTimer_Tick41, PointFromScreen (inherited from Visual), PointToScreen (inherited from Visual), PredictFocus (inherited from FrameworkElement), RaiseEvent (inherited from UIElement), ReadLocalValue (inherited from DependencyObject), RegisterName (inherited from FrameworkElement), ReleaseAllTouchCaptures (inherited from UIElement), ReleaseMouseCapture (inherited from UIElement), ReleaseStylusCapture (inherited from UIElement), ReleaseTouchCapture (inherited from UIElement), RemoveHandler (inherited from UIElement), RemoveLogicalChild (inherited from FrameworkElement), RemoveVisualChild (inherited from Visual), SetBinding (inherited from FrameworkElement), SetCurrentValue (inherited from DependencyObject), SetResourceReference (inherited from FrameworkElement), SetValue (inherited from DependencyObject), ShouldSerializeCommandBindings (inherited from UIElement), ShouldSerializeContent (inherited from ContentControl), ShouldSerializeInputBindings (inherited from UIElement), ShouldSerializeProperty (inherited from DependencyObject), ShouldSerializeResources (inherited from FrameworkElement), ShouldSerializeStyle (inherited from FrameworkElement), ShouldSerializeTriggers (inherited from FrameworkElement), Show (inherited from Window), ShowDialog (inherited from Window), ToString (inherited from Control), TransformToAncestor (inherited from Visual), TransformToDescendant (inherited from Visual), TransformToVisual (inherited from Visual), TranslatePoint (inherited from UIElement), TryFindResource (inherited from FrameworkElement), UnregisterName (inherited from FrameworkElement), UpdateDefaultStyle (inherited from UIElement), VerifyAccess (inherited from UIElement), VerifyAccess (inherited from DispatcherObject), WriteTextToFile42, bytesToFloat42, bytesToShort42, checkBlockTemperature43,

closeSerialBtn_Click₄₃, createProgramSet₄₄, editProgramsBtn_Click₄₄, encodeAndTransmitPrograms₄₄, exportProgramsBtn_Click₄₅, fillProgramList₄₅, finishPCR₄₅, floatToBytes₄₅, getAvailableComPorts₄₆, importProgramsBtn_Click₄₆, loadPrograms₄₇, monitorBlockTemperature₄₇, openSerialBtn_Click₄₇, pushRotaryDial₄₇, rotaryDial_PreviewMouseDown₄₈, rotateDialLeft₄₈, rotateDialRight₄₈, runProgramBtn_Click₄₉, setBlockTempBtn_Click₄₉, setSelectorPosition₅₀, setSelectorPositionAbsolute₅₀, setupPCR₅₀, shortToBytes₅₀, startPCR₅₁, syncDialPositionForward₅₁, turnOffBlockBtn_Click₅₁, uploadProgramsBtn_Click₅₂, waitForDoubleClick₅₂

Events

Activated (inherited from Window), Closed (inherited from Window), Closing (inherited from Window), ContentRendered (inherited from Window), ContextMenuClosing (inherited from FrameworkElement), ContextMenuOpening (inherited from FrameworkElement), DataContextChanged (inherited from FrameworkElement), Deactivated (inherited from Window), DpiChanged (inherited from Window), DragEnter (inherited from UIElement), DragLeave (inherited from UIElement), DragOver (inherited from UIElement), Drop (inherited from UIElement), FocusableChanged (inherited from UIElement), GiveFeedback (inherited from UIElement), GotFocus (inherited from UIElement), GotKeyboardFocus (inherited from UIElement), GotMouseCapture (inherited from UIElement), GotStylusCapture (inherited from UIElement), GotTouchCapture (inherited from UIElement), Initialized (inherited from FrameworkElement), IsEnabledChanged (inherited from UIElement), IsHitTestVisibleChanged (inherited from UIElement), IsKeyboardFocusWithinChanged (inherited from UIElement), IsKeyboardFocusedChanged (inherited from UIElement), IsMouseCaptureWithinChanged (inherited from UIElement), IsMouseCapturedChanged (inherited from UIElement), IsMouseDirectlyOverChanged (inherited from UIElement), IsStylusCaptureWithinChanged (inherited from UIElement), IsStylusCapturedChanged (inherited from UIElement), IsStylusDirectlyOverChanged (inherited from UIElement), IsVisibleChanged (inherited from UIElement), KeyDown (inherited from UIElement), KeyUp (inherited from UIElement), LayoutUpdated (inherited from UIElement), Loaded (inherited from FrameworkElement), LocationChanged (inherited from Window), LostFocus (inherited from UIElement), LostKeyboardFocus (inherited from UIElement), LostMouseCapture (inherited from UIElement), LostStylusCapture (inherited from UIElement), LostTouchCapture (inherited from UIElement), ManipulationBoundaryFeedback (inherited from UIElement), ManipulationCompleted (inherited from UIElement), ManipulationDelta (inherited from UIElement), ManipulationInertiaStarting (inherited from UIElement), ManipulationStarted (inherited from UIElement), ManipulationStarting (inherited from UIElement), MouseDoubleClick (inherited from Control), MouseDown (inherited from UIElement), MouseEnter (inherited from UIElement), MouseLeave (inherited from UIElement), MouseLeftButtonDown (inherited from UIElement), MouseLeftButtonUp (inherited from UIElement), MouseMove (inherited from UIElement), MouseRightButtonDown (inherited from UIElement), MouseRightButtonUp (inherited from UIElement), MouseUp (inherited from UIElement), MouseWheel (inherited from UIElement), PreviewDragEnter (inherited from UIElement), PreviewDragLeave (inherited from UIElement), PreviewDragOver (inherited from UIElement), PreviewDrop (inherited from UIElement), PreviewGiveFeedback (inherited from UIElement), PreviewGotKeyboardFocus (inherited from UIElement), PreviewKeyDown (inherited from UIElement), PreviewKeyUp (inherited from UIElement), PreviewLostKeyboardFocus (inherited from UIElement), PreviewMouseDoubleClick (inherited from Control), PreviewMouseDown (inherited from UIElement), PreviewMouseLeftButtonDown (inherited from UIElement), PreviewMouseLeftButtonUp (inherited from UIElement), PreviewMouseMove (inherited from UIElement), PreviewMouseRightButtonDown (inherited from UIElement), PreviewMouseRightButtonUp (inherited from UIElement), PreviewMouseUp (inherited from UIElement), PreviewMouseWheel (inherited from UIElement), PreviewQueryContinueDrag (inherited from

UIElement), PreviewStylusButtonDown (inherited from UIElement), PreviewStylusButtonUp (inherited from UIElement), PreviewStylusDown (inherited from UIElement), PreviewStylusInAirMove (inherited from UIElement), PreviewStylusInRange (inherited from UIElement), PreviewStylusMove (inherited from UIElement), PreviewStylusOutOfRange (inherited from UIElement), PreviewStylusSystemGesture (inherited from UIElement), PreviewStylusUp (inherited from UIElement), PreviewTextInput (inherited from UIElement), PreviewTouchDown (inherited from UIElement), PreviewTouchMove (inherited from UIElement), PreviewTouchUp (inherited from UIElement), QueryContinueDrag (inherited from UIElement), QueryCursor (inherited from UIElement), RequestBringIntoView (inherited from FrameworkElement), SizeChanged (inherited from FrameworkElement), SourceInitialized (inherited from Window), SourceUpdated (inherited from FrameworkElement), StateChanged (inherited from Window), StylusButtonDown (inherited from UIElement), StylusButtonUp (inherited from UIElement), StylusDown (inherited from UIElement), StylusEnter (inherited from UIElement), StylusInAirMove (inherited from UIElement), StylusInRange (inherited from UIElement), StylusLeave (inherited from UIElement), StylusMove (inherited from UIElement), StylusOutOfRange (inherited from UIElement), StylusSystemGesture (inherited from UIElement), StylusUp (inherited from UIElement), TargetUpdated (inherited from FrameworkElement), TextInput (inherited from UIElement), ToolTipClosing (inherited from FrameworkElement), ToolTipOpening (inherited from FrameworkElement), TouchDown (inherited from UIElement), TouchEnter (inherited from UIElement), TouchLeave (inherited from UIElement), TouchMove (inherited from UIElement), TouchUp (inherited from UIElement), Unloaded (inherited from FrameworkElement)

Enumerations

SelectionMode₅₃

Fields

currentFunction₅₃, currentRotation₅₃, expectingEEPromSize₅₃, leftClicked₅₄, leftClickedAt₅₄, leftDoubleClicked₅₄, pcrRunning₅₄, ports₅₅, runningProgram₅₅, selectedProgram₅₅, selectorPosition₅₅, serialOutput₅₅, showCancel₅₆

MainWindow Constructor

Constructor for a MainWindow

public MainWindow()

See Also

Applies to: MainWindow34

MainWindow.ComPort Property

Serial port connection to the PocketPCR device

```
public SerialPort ComPort {get; set;}
```

See Also

Applies to: MainWindow₃₄

MainWindow.Programs Property

PCR programs stored on the PocketPCR device

```
C#
private PCRPrograms Programs {get; set;}
```

See Also

Applies to: MainWindow₃₄

MainWindow.monitorTimer Property

Time for monitoring the block temperature of a connected device

```
private Timer monitorTimer {get; set;}
```

See Also

Applies to: MainWindow₃₄

MainWindow.pcrTimer Property

Timer for monitoring the state of a running cycling program

```
C#
private Timer pcrTimer {get; set;}
```

See Also

Applies to: MainWindow₃₄

MainWindow.ComPort_DataReceived Method

Data has appeared on the connected COM port

```
private void ComPort_DataReceived(
  object sender,
  SerialDataReceivedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: MainWindow34

MainWindow.MonitorTimer_Tick Method

Check the connected PocketPCR device block temperature

```
private void MonitorTimer_Tick(
   object sender,
   EventArgs e
)
```

Parameters

sender

е

See Also

Applies to: MainWindow₃₄

MainWindow.PcrTimer_Tick Method

Request and display cycling program state information from the PocketPCR device

```
private void PcrTimer_Tick(
   object sender,
   EventArgs e
)
```

Parameters

sender

е

See Also

Applies to: MainWindow34

MainWindow.WriteTextToFile Method

General method to write text to a file

```
public int WriteTextToFile(
   FileStream fs,
   string value
)
```

Parameters

fs

FileStream to write to

value

Text to write to the FileStream fs

See Also

Applies to: MainWindow₃₄

MainWindow.bytesToFloat Method

Combine two bytes into a 16-bit floating point number to two decimal place precision

This is not a standard 16-bit floating point conversion. Instead, two decimal place precision is achieved by converting a floating point number to a short corresponding to 100X the original number. To convert back, divide by 100.

```
private float bytesToFloat(
   byte byte1,
   byte byte2
)
```

Parameters

byte1

byte2

See Also

Applies to: MainWindow34

MainWindow.bytesToShort Method

Combine two bytes into an unsigned short integer

C#

```
private UInt16 bytesToShort(
   byte byte1,
   byte byte2
)
```

Parameters

byte1

byte2

See Also

Applies to: MainWindow₃₄

MainWindow.checkBlockTemperature Method

Request the current block temperature from the PocketPCR device

```
public double checkBlockTemperature()
```

See Also

Applies to: MainWindow₃₄

MainWindow.closeSerialBtn_Click Method

Disconnect from a PocketPCR device currently connected through a COM port

```
private void closeSerialBtn_Click(
  object sender,
  RoutedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: MainWindow₃₄

MainWindow.createProgramSet Method

Decode a PocketPCR EEProm byte stream into a set of PCRProgram objects

```
public void createProgramSet(
   byte[] buffer
)
```

Parameters

buffer

See Also

Applies to: MainWindow₃₄

MainWindow.editProgramsBtn_Click Method

Open Window to edit current cycling programs and set selected program to currently selected program

```
private void editProgramsBtn_Click(
   object sender,
   RoutedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: MainWindow₃₄

MainWindow.encodeAndTransmitPrograms Method

Encode current programs in memory into a byte stream for saving to PocketPCR EEProm.

```
public void encodeAndTransmitPrograms()
```

See Also

Applies to: MainWindow₃₄

MainWindow.exportProgramsBtn_Click Method

Export current programs in memory to an XML file

```
private void exportProgramsBtn_Click(
   object sender,
   RoutedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: MainWindow₃₄

MainWindow.fillProgramList Method

Add currently loaded programs to the programs drop-down list

```
public void fillProgramList()
```

See Also

Applies to: MainWindow₃₄

MainWindow.finishPCR Method

Update interface display back to main display and hide thermalcycling program state information labels

```
public void finishPCR()
```

See Also

Applies to: MainWindow₃₄

MainWindow.floatToBytes Method

Convert a floating point number into a two bytes

This is not a standard 16-bit floating point conversion. Instead, two decimal place precision is achieved by converting a floating point number to a short corresponding to 100X the original number. To convert back, divide by 100.

```
public byte[] floatToBytes(
   double inNumber
)
```

Parameters

inNumber

See Also

Applies to: MainWindow₃₄

MainWindow.getAvailableComPorts Method

Get connected COM ports

```
C#
private void getAvailableComPorts()
```

See Also

Applies to: MainWindow34

MainWindow.importProgramsBtn_Click Method

Wipe current programs from memory and import programs from an XML file

```
private void importProgramsBtn_Click(
  object sender,
  RoutedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: MainWindow₃₄

MainWindow.loadPrograms Method

Request the list of programs from a connected PocketPCR device

```
public void loadPrograms()
```

See Also

Applies to: MainWindow₃₄

MainWindow.monitorBlockTemperature Method

Start a timer to monitor a connected PocketPCR device block temperature

```
public void monitorBlockTemperature()
```

See Also

Applies to: MainWindow34

MainWindow.openSerialBtn_Click Method

Connect to a PocketPCR device through a serial port

```
private void openSerialBtn_Click(
   object sender,
   RoutedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: MainWindow₃₄

MainWindow.pushRotaryDial Method

Send serial command indicating that the rotary dial has been pressed

C#

```
private void pushRotaryDial(
   bool sendSignalOverSerial
)
```

Parameters

sendSignalOverSerial

See Also

Applies to: MainWindow₃₄

MainWindow.rotaryDial_PreviewMouseDown Method

When the left mouse button is pressed, wait for 350 ms to see if it is double-clicked, otherwise treat it like a single mouse click.

```
private void rotaryDial__PreviewMouseDown(
   object sender,
   MouseButtonEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: MainWindow₃₄

MainWindow.rotateDialLeft Method

Rotate virtual PocketPCR rotary dial counter-clockwise

```
private void rotateDialLeft()
```

See Also

Applies to: MainWindow₃₄

MainWindow.rotateDialRight Method

Rotate virtual PocketPCR rotary dial clockwise

```
C#
private void rotateDialRight()
```

See Also

Applies to: MainWindow₃₄

MainWindow.runProgramBtn_Click Method

Run program buttom was pressed

```
private void runProgramBtn_Click(
   object sender,
   RoutedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: MainWindow₃₄

$MainWindow.setBlockTempBtn_Click\ Method$

Set attached PocketPCR device block temperature to a specific target temperature

```
private void setBlockTempBtn_Click(
   object sender,
   RoutedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: MainWindow₃₄

MainWindow.setSelectorPosition Method

Increment virtual PocketPCR rotary dial position

```
private void setSelectorPosition(
   int movement
)
```

Parameters

movement

See Also

Applies to: MainWindow₃₄

MainWindow.setSelectorPositionAbsolute Method

Change virtual PocketPCR rotary dial position to a specific value

```
private void setSelectorPositionAbsolute(
   int value
)
```

Parameters

value

See Also

Applies to: MainWindow₃₄

MainWindow.setupPCR Method

Set up interface display for displaying active thermalcycling state information

```
public void setupPCR()
```

See Also

Applies to: MainWindow₃₄

MainWindow.shortToBytes Method

Covert an unsigned short integer into two bytes

```
public byte[] shortToBytes(
   int inNumber
)
```

Parameters

inNumber

See Also

Applies to: MainWindow₃₄

MainWindow.startPCR Method

Start a thermalcycling program

```
public void startPCR(
    string pcrString
)
```

Parameters

pcrString

See Also

Applies to: MainWindow₃₄

MainWindow.syncDialPositionForward Method

Send serial command to syn the rotary dial with the current virtual position

```
public void syncDialPositionForward()
```

See Also

Applies to: MainWindow₃₄

MainWindow.turnOffBlockBtn_Click Method

Turn off heat block on attached PocketPCR device

```
C#
private void turnOffBlockBtn_Click(
```

```
object sender,
RoutedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: MainWindow₃₄

MainWindow.uploadProgramsBtn_Click Method

Upload currrent cycling programs to an attached PocketPCR device

```
private void uploadProgramsBtn_Click(
   object sender,
   RoutedEventArgs e
)
```

Parameters

sender

е

See Also

Applies to: MainWindow₃₄

MainWindow.waitForDoubleClick Method

When the left mouse button is clicked, first check and see if a flag was set that says the left mouse button was already clicked. If true, it is a double-click. If not, then set a flag that says the left mouse button was pressed. If 350 ms passes, then set that flag back to false.

```
C#
private void waitForDoubleClick()
```

See Also

Applies to: MainWindow₃₄

SelectionMode Enumeration

Rotary dial main selection modes on the PocketPCR device

Constant	Value	Description
RunProgram	0	Rotary dial main selection modes on the PocketPCR device
SelectProgram	1	Rotary dial main selection modes on the PocketPCR device

Requirements

Namespace:PocketPCRController₈

Assembly: PocketPCRController (in PocketPCRController.exe)

See Also

Applies to: MainWindow₃₄

currentFunction Field

Currently selected SelectionMode

C#

private SelectionMode currentFunction

See Also

Applies to: MainWindow₃₄

currentRotation Field

Current position of the virtual PocketPCR rotary dial

C#

private double currentRotation

See Also

Applies to: MainWindow34

expectingEEPromSize Field

Value set when incoming serial data indicates that EEPromSize was requested

C#

private int expectingEEPromSize

See Also

Applies to: MainWindow₃₄

leftClicked Field

Flagged when the left mouse button is clicked

```
private bool leftClicked
```

See Also

Applies to: MainWindow₃₄

leftClickedAt Field

A time marker for timing rotary dial clicks (which individually direct a dial turn) to determine if a double-click has been executed (representing a rotary dial button press)

```
private DateTime leftClickedAt
```

See Also

Applies to: MainWindow₃₄

leftDoubleClicked Field

Flagged when two left clicks happen in close succession

```
C#
private bool leftDoubleClicked
```

See Also

Applies to: MainWindow₃₄

pcrRunning Field

Toggled when a cycling program is started or stopped on the PocketPCR device

```
C#
private bool pcrRunning
```

See Also

Applies to: MainWindow₃₄

ports Field

A list of available COM ports, in case more than one device is connected through a COM port

```
private string[] ports
```

See Also

Applies to: MainWindow₃₄

runningProgram Field

Title of the currently running thermalcycling program

```
C#
private string runningProgram
```

See Also

Applies to: MainWindow34

selectedProgram Field

Currently selected cycling program from the programBox drop-down list

```
private int selectedProgram
```

See Also

Applies to: MainWindow34

selectorPosition Field

The current position on the virtual PocketPCR rotary dial component

```
C# private int selectorPosition
```

See Also

Applies to: MainWindow₃₄

serialOutput Field

String for keeping track of incoming data on the serial port

C#

private string serialOutput

See Also

Applies to: MainWindow₃₄

showCancel Field

Flagged when the rotary dial is turned during active thermalcycling to toggle the option to cancel the currently running cycling program

C#

private bool showCancel

See Also

Applies to: MainWindow₃₄

PCRBlock Class

A temperature and time block for a thermalcycling program

System.Object

PocketPCRController.PCRBlock

C#

public class PCRBlock

Requirements

Namespace:PocketPCRController8

Assembly: PocketPCRController (in PocketPCRController.exe)

Constructors

PCRBlock₅₇

Properties

TargetTemperature₅₇, TargetTimeSeconds₅₇

Methods

Equals (inherited from Object), Finalize (inherited from Object), GetHashCode (inherited from Object), GetType (inherited from Object), MemberwiseClone (inherited from Object), ToString (inherited from Object)

PCRBlock Constructor

```
public PCRBlock()
```

See Also

Applies to: PCRBlock₅₆

PCRBlock(Double, Int32) Constructor

```
public PCRBlock(
   double _targetTemperature,
   int _targetTimeSeconds
)
```

Parameters

_targetTemperature

_targetTimeSeconds

See Also

Applies to: PCRBlock₅₆

PCRBlock.TargetTemperature Property

```
public double TargetTemperature {get; set;}
```

See Also

Applies to: PCRBlock₅₆

PCRBlock.TargetTimeSeconds Property

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

See Also

Applies to: PCRBlock₅₆

PCRCycle Class

An open-ended series of themalcycling block steps that can be repeated an indefinite number of times

System.Object

PocketPCRController.PCRCycle

C#

public class PCRCycle

Requirements

Namespace:PocketPCRController8

Assembly: PocketPCRController (in PocketPCRController.exe)

Constructors

PCRCycle₅₈

Properties

Blocks₅₈, NumberOfCycles₅₉

Methods

Add₅₉, Equals (inherited from Object), Finalize (inherited from Object), GetHashCode (inherited from Object), GetType (inherited from Object), MemberwiseClone (inherited from Object), ToString (inherited from Object)

PCRCycle Constructor

C#

public PCRCycle()

See Also

Applies to: PCRCycle₅₈

PCRCycle.Blocks Property

C#

public List<PCRBlock> Blocks {get; set;}

See Also

Applies to: PCRCycle₅₈

PCRCycle.NumberOfCycles Property

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

See Also

Applies to: PCRCycle₅₈

PCRCycle.Add (Double, Int32) Method

```
public int Add(
   double _targetTemperature,
   int _targetTimeSeconds
)
```

Parameters

_targetTemperature

_targetTimeSeconds

See Also

Applies to: PCRCycle₅₈

PCRCycle.Add (PCRBlock) Method

```
public int Add(
    PCRBlock _newBlock
)
```

Parameters

_newBlock

See Also

Applies to: PCRCycle₅₈

PCRProgram Class

A thermalcycling program consisting of a series of PCRCycle objects

System.Object

PocketPCRController.PCRProgram

```
public class PCRProgram
```

Requirements

Namespace:PocketPCRController8

Assembly: PocketPCRController (in PocketPCRController.exe)

Constructors

PCRProgram₆₀

Properties

Cycles₆₁, NumberOfCycles₆₁, ProgramName₆₁

Methods

Equals (inherited from Object), Finalize (inherited from Object), GetHashCode (inherited from Object), GetType (inherited from Object), MemberwiseClone (inherited from Object), RecountCycles₆₁, ToString (inherited from Object)

PCRProgram(String) Constructor

```
public PCRProgram(
    string _programName
)
```

Parameters

_programName

See Also

Applies to: PCRProgram₅₉

PCRProgram Constructor

```
public PCRProgram()
```

See Also

Applies to: PCRProgram₅₉

PCRProgram.Cycles Property

```
public List<PCRCycle> Cycles {get; set;}
```

See Also

Applies to: PCRProgram₅₉

PCRProgram.NumberOfCycles Property

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

See Also

Applies to: PCRProgram₅₉

PCRProgram.ProgramName Property

```
public string ProgramName {get; set;}
```

See Also

Applies to: PCRProgram₅₉

PCRProgram.RecountCycles Method

```
public void RecountCycles()
```

See Also

Applies to: PCRProgram₅₉

PCRPrograms Class

Class structure for defining themalcycling programs

System.Object

PocketPCRController.PCRPrograms

C#

public class PCRPrograms

Requirements

Namespace:PocketPCRController₈

Assembly: PocketPCRController (in PocketPCRController.exe)

Constructors

PCRPrograms₆₂

Properties

ProgramList₆₂, Programs₆₂

Methods

BuildDictionary₆₃, Equals (inherited from Object), Finalize (inherited from Object), GetHashCode (inherited from Object), GetType (inherited from Object), MemberwiseClone (inherited from Object), ToString (inherited from Object)

PCRPrograms Constructor

Default constructor

```
public PCRPrograms()
```

See Also

Applies to: PCRPrograms₆₁

PCRPrograms.ProgramList Property

List of PCRProgram objects

```
public List<PCRProgram> ProgramList {get; set;}
```

See Also

Applies to: PCRPrograms₆₁

PCRPrograms.Programs Property

Indexed, sorted dictionary of PCRProgram objects

[XmlIgnoreAttribute] declared because a SortedList cannot be serialized with a single command

C#

SOLUTION-WIDE PROPERTIES REFERENCE

```
[XmlIgnore()]
public SortedList<string, PCRProgram> Programs {get; set;}
```

See Also

Applies to: PCRPrograms₆₁

PCRPrograms.BuildDictionary Method

Build a SortedList of PCRProgram objects

```
public void BuildDictionary()
```

See Also

Applies to: PCRPrograms₆₁

PocketPCRController.Properties Namespace

Classes

Resources₆₄, Settings₆₆

Resources Class

A strongly-typed resource class, for looking up localized strings, etc.

System.Object

PocketPCRController.Properties.Resources

```
[global::System.CodeDom.Compiler.GeneratedCode("System.Resources.Tools.StronglyTypedResourceBuilder", "4.0.0.0")]
[global::System.Diagnostics.DebuggerNonUserCode()]
[global::System.Runtime.CompilerServices.CompilerGenerated()]
internal class Resources
```

Requirements

Namespace:PocketPCRController.Properties₆₄

Assembly: PocketPCRController (in PocketPCRController.exe)

Constructors

Resources₆₄

Properties

Culture₆₅, ResourceManager₆₅

Methods

Equals (inherited from Object), Finalize (inherited from Object), GetHashCode (inherited from Object), GetType (inherited from Object), MemberwiseClone (inherited from Object), ToString (inherited from Object)

Fields

resourceCulture₆₅, resourceMan₆₅

Resources Constructor

```
C#
```

```
[global::System.Diagnostics.CodeAnalysis.SuppressMessage("Microsoft.Performance"
, "CA1811:AvoidUncalledPrivateCode")]
internal Resources()
```

See Also

Applies to: Resources₆₄

Resources.Culture Property

Overrides the current thread's CurrentUICulture property for all resource lookups using this strongly typed resource class.

```
[global::System.ComponentModel.EditorBrowsable(global::System.ComponentModel.Edi
torBrowsableState.Advanced)]
internal static CultureInfo Culture {get; set;}
```

See Also

Applies to: Resources₆₄

Resources.ResourceManager Property

Returns the cached ResourceManager instance used by this class.

```
[global::System.ComponentModel.EditorBrowsable(global::System.ComponentModel.Edi
torBrowsableState.Advanced)]
internal static ResourceManager ResourceManager {get;}
```

See Also

Applies to: Resources₆₄

resourceCulture Field

```
C#
private static CultureInfo resourceCulture
```

See Also

Applies to: Resources₆₄

resourceMan Field

C#

private static ResourceManager resourceMan

See Also

Applies to: Resources₆₄

Settings Class

System.Object

System.Configuration.SettingsBase

System.Configuration.ApplicationSettingsBase PocketPCRController.Properties.Settings

```
C#
```

```
[global::System.Runtime.CompilerServices.CompilerGenerated()]
[global::System.CodeDom.Compiler.GeneratedCode("Microsoft.VisualStudio.Editors.S
ettingsDesigner.SettingsSingleFileGenerator", "14.0.0.0")]
internal sealed class Settings : ApplicationSettingsBase
```

Requirements

Namespace:PocketPCRController.Properties₆₄

Assembly: PocketPCRController (in PocketPCRController.exe)

Properties

Context (inherited from ApplicationSettingsBase), Default₆₆, IsSynchronized (inherited from SettingsBase), Item (inherited from ApplicationSettingsBase), Properties (inherited from ApplicationSettingsBase), PropertyValues (inherited from ApplicationSettingsBase), Providers (inherited from ApplicationSettingsBase), SettingsKey (inherited from ApplicationSettingsBase)

Methods

Equals (inherited from Object), Finalize (inherited from Object), GetHashCode (inherited from Object), GetPreviousVersion (inherited from ApplicationSettingsBase), GetType (inherited from Object), Initialize (inherited from SettingsBase), MemberwiseClone (inherited from Object), OnPropertyChanged (inherited from ApplicationSettingsBase), OnSettingChanging (inherited from ApplicationSettingsBase), OnSettingsBase), OnSettingsSaving (inherited from ApplicationSettingsBase), Reload (inherited from ApplicationSettingsBase), Reset (inherited from ApplicationSettingsBase), Save (inherited from ApplicationSettingsBase), ToString (inherited from Object), Upgrade (inherited from ApplicationSettingsBase)

Events

PropertyChanged (inherited from ApplicationSettingsBase), SettingChanging (inherited from ApplicationSettingsBase), SettingsLoaded (inherited from ApplicationSettingsBase), SettingsSaving (inherited from ApplicationSettingsBase)

Fields

defaultInstance₆₇

Settings.Default Property

```
C#
```

```
public static Settings Default {get;}
```

See Also

SOLUTION-WIDE PROPERTIES REFERENCE

Applies to: Settings₆₆

defaultInstance Field

C#

new private static **Settings** defaultInstance

See Also

Applies to: Settings₆₆

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