Rowing Monitor

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5.1 RowingMonitor Namespace Reference

Namespaces

- namespace Model
- namespace Properties
- namespace ViewModel

Classes

- class App

  Interaktionslogik für "App.xaml"
- class MainWindow

  Interaktionslogik für MainWindow.xaml
- class RelayCommand

5.2 RowingMonitor.Model Namespace Reference

Namespaces

- namespace Pipeline
- namespace Util

Classes

- class BodyNotFullyTrackedException
- class CalculatedFrameArrivedEventArgs

  Represents the arguments for a calculated frame arrived event.
- class ColorFrameArrivedEventArgs

  Represents the arguments for a KinectReader's ColorFrameArrived event.
- class FrontalView

  This class shows a frontal view of the tracked skeleton. Also it shows the color image sequence which is recorded by the kinect sensor.
- class KinectFrameArrivedEventArgs

  Represents the arguments for a KinectReader's FrameArrived event.
- class KinectReader

  The KinectReader class connects the application to the Kinect device.
- class KleshnevEventArgs

  Represents the arguments for a finished Kleshnev analysis.
- class LowPassFilter
- class OneEuroFilterSmoothing
- class Plot
- struct PlotData
- class SegmentDetectedEventArgs

  Represents the arguments for a detected segment event.
- class ShiftedFrameArrivedEventArgs

  Represents the arguments for a shifted frame arrived event.
- class Shifter

  Shifts the origin to the middle point between the foot ankle joints. Also rotates all joints until origin and hip joint form a horizontal line.
- class SideView
- class SmoothedFrameArrivedEventArgs

  Represents the arguments for a smoothed joint data arrived event.
- class VelocityCalculator

5.3 RowingMonitor.Model.Pipeline Namespace Reference

Classes

- class DTWSegmentDetector
- class KinectJointFilter

  Adapted default Kinect smoothing filter to work with the pipeline. https://social.msdn.microsoft.↩ com/Forums/en-US/ffbc8ec7-7551-4462-88aa-2fab69eac38f/joint-smoothing-code-c-errors-in-kin
- struct KleshnevData
- class KleshnevVelocityCalculator
- class RowingMonitorPipeline
- class SegmentDetector
- class ZVCSegmentDetector

5.4 RowingMonitor.Model.Util Namespace Reference

Classes

- struct JointData
- class KinectDataHandler
- struct SegmentHit
- struct Subsequence

  Subsequence in a data stream which suits a given template.
- class SubsequenceDTW

  Compares an online data stream with a template stream. Uses the SPRING DTW algorithm.

Enumerations

- enum KleshnevVelocityType { KleshnevVelocityType.Legs, KleshnevVelocityType.HandleRight, KleshnevVelocityType.HandleLeft, KleshnevVelocityType.Trunk, KleshnevVelocityType.ArmsRight, KleshnevVelocityType.ArmsLeft }
- enum DataStreamType { DataStreamType.RawPosition, DataStreamType.SmoothedPosition, DataStreamType.Velocity, DataStreamType.SegmentHits, DataStreamType.Other }
- enum HitType { HitType.SegmentStart, HitType.SegmentInternal, HitType.SegmentEnd, HitType.SegmentEndStart }
- enum SubsequenceStatus { SubsequenceStatus.NOT_SET, SubsequenceStatus.NOT_OPTIMAL, SubsequenceStatus.OPTIMAL }

  Status of detected subsequence.

5.4.1 Enumeration Type Documentation

5.4.1.1 DataStreamType

```
enum RowingMonitor.Model.Util.DataStreamType  [strong]
```

Enumerator

RawPosition	
SmoothedPosition	
Velocity	
SegmentHits	
Other	

5.4.1.2 HitType

enum RowingMonitor.Model.Util.HitType [strong]

Enumerator

SegmentStart	
SegmentInternal	
SegmentEnd	
SegmentEndStart	

5.4.1.3 KleshnevVelocityType

enum RowingMonitor.Model.Util.KleshnevVelocityType [strong]

Enumerator

Legs	
HandleRight	
HandleLeft	
Trunk	
ArmsRight	
ArmsLeft	

5.4.1.4 SubsequenceStatus

enum RowingMonitor.Model.Util.SubsequenceStatus [strong]

Status of detected subsequence.

Enumerator

NOT_SET	No subsequence was detected.
NOT_OPTIMAL	A subsequenece with smaller distance can occur.
OPTIMAL	No more exact subsequenece can occur.

5.5 RowingMonitor.Properties Namespace Reference

Classes

- class **Resources**

  Eine stark typisierte Ressourcenklasse zum Suchen von lokalisierten Zeichenfolgen usw.
- class **Settings**

5.6 RowingMonitor.ViewModel Namespace Reference

Classes

- class MainViewModel

  Represents the view-model for the main window.

5.7 XamlGeneratedNamespace Namespace Reference

Classes

- class GeneratedInternalTypeHelper

  GeneratedInternalTypeHelper

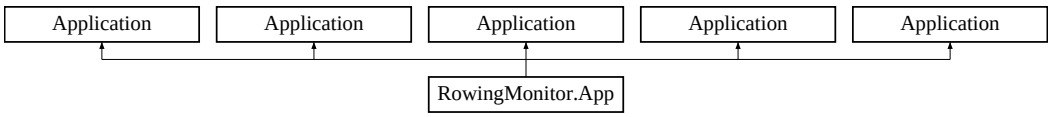
Chapter 6

Class Documentation

6.1 RowingMonitor.App Class Reference

Interaktionslogik für "App.xaml"

Inheritance diagram for RowingMonitor.App:



Public Member Functions

- void InitializeComponent ()

  InitializeComponent
- void InitializeComponent ()

  InitializeComponent
- void InitializeComponent ()

  InitializeComponent
- void InitializeComponent ()

  InitializeComponent

Static Public Member Functions

- static void Main ()

  Application Entry Point.
- static void Main ()

  Application Entry Point.
- static void Main ()

  Application Entry Point.
- static void Main ()

  Application Entry Point.

6.1.1 Detailed Description

Interaktionslogik für "App.xaml"

App

6.1.2 Member Function Documentation

6.1.2.1 InitializeComponent() [1/4]

```
void RowingMonitor.App.InitializeComponent ( )
```

InitializeComponent

6.1.2.2 InitializeComponent() [2/4]

```
void RowingMonitor.App.InitializeComponent ( )
```

InitializeComponent

6.1.2.3 InitializeComponent() [3/4]

```
void RowingMonitor.App.InitializeComponent ( )
```

InitializeComponent

6.1.2.4 InitializeComponent() [4/4]

```
void RowingMonitor.App.InitializeComponent ( )
```

InitializeComponent

6.1.2.5 Main() [1/4]

```
static void RowingMonitor.App.Main ( )  [static]
```

Application Entry Point.

6.1.2.6 Main() [2/4]

```
static void RowingMonitor.App.Main ( )  [static]
```

Application Entry Point.

6.1.2.7 Main() [3/4]

```
static void RowingMonitor.App.Main ( )  [static]
```

Application Entry Point.

6.1.2.8 Main() [4/4]

```
static void RowingMonitor.App.Main ( )  [static]
```

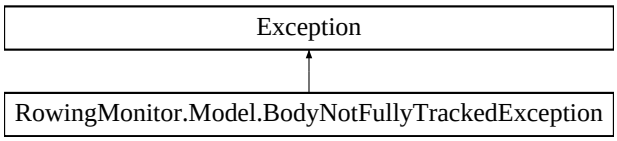
Application Entry Point.

The documentation for this class was generated from the following files:

- App.xaml.cs
- obj/Debug/App.g.cs
- obj/Debug/App.g.i.cs

6.2 RowingMonitor.Model.BodyNotFullyTrackedException Class Reference

Inheritance diagram for RowingMonitor.Model.BodyNotFullyTrackedException:



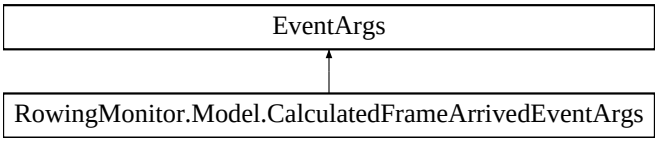
The documentation for this class was generated from the following file:

- Model/Util/BodyNotFullyTrackedException.cs

6.3 RowingMonitor.Model.CalculatedFrameArrivedEventArgs Class Reference

Represents the arguments for a calculated frame arrived event.

Inheritance diagram for RowingMonitor.Model.CalculatedFrameArrivedEventArgs:



Public Member Functions

- CalculatedFrameArrivedEventArgs (JointData calculatedJointData)

Properties

- JointData CalculatedJointData `[get]`

6.3.1 Detailed Description

Represents the arguments for a calculated frame arrived event.

6.3.2 Constructor & Destructor Documentation

6.3.2.1 CalculatedFrameArrivedEventArgs()

```
RowingMonitor.Model.CalculatedFrameArrivedEventArgs.CalculatedFrameArrivedEventArgs (
            JointData calculatedJointData )
```

6.3.3 Property Documentation

6.3.3.1 CalculatedJointData

```
JointData RowingMonitor.Model.CalculatedFrameArrivedEventArgs.CalculatedJointData  [get]
```

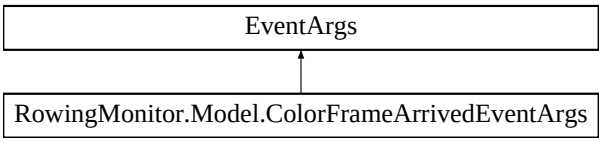
The documentation for this class was generated from the following file:

- Model/EventArgs/CalculatedFrameArrivedEventArgs.cs

6.4 RowingMonitor.Model.ColorFrameArrivedEventArgs Class Reference

Represents the arguments for a KinectReader's ColorFrameArrived event.

Inheritance diagram for RowingMonitor.Model.ColorFrameArrivedEventArgs:



Public Member Functions

- ColorFrameArrivedEventArgs (WriteableBitmap colorBitmap)

Properties

- WriteableBitmap ColorBitmap `[get]`

6.4.1 Detailed Description

Represents the arguments for a KinectReader's ColorFrameArrived event.

6.4.2 Constructor & Destructor Documentation

6.4.2.1 ColorFrameArrivedEventArgs()

```
RowingMonitor.Model.ColorFrameArrivedEventArgs.ColorFrameArrivedEventArgs (
            WriteableBitmap colorBitmap )
```

6.4.3 Property Documentation

6.4.3.1 ColorBitmap

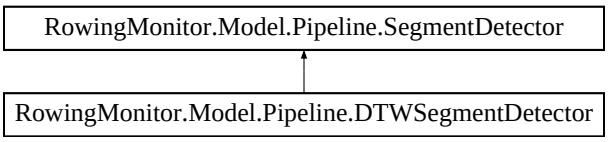
```
WriteableBitmap RowingMonitor.Model.ColorFrameArrivedEventArgs.ColorBitmap  [get]
```

The documentation for this class was generated from the following file:

- Model/EventArgs/ColorFrameArrivedEventArgs.cs

6.5 RowingMonitor.Model.Pipeline.DTWSegmentDetector Class Reference

Inheritance diagram for RowingMonitor.Model.Pipeline.DTWSegmentDetector:



Public Member Functions

- DTWSegmentDetector (float distanceThreshold, int minimumSubsequenceLength)
- override void Update (JointData jointData, JointType jointType, string axis)

Protected Member Functions

- override void OnSegmentDetected (SegmentDetectedEventArgs e)

Additional Inherited Members

6.5.1 Constructor & Destructor Documentation

6.5.1.1 DTWSegmentDetector()

```
RowingMonitor.Model.Pipeline.DTWSegmentDetector.DTWSegmentDetector (
            float distanceThreshold,
            int minimumSubsequenceLength )
```

6.5.2 Member Function Documentation

6.5.2.1 OnSegmentDetected()

```
override void RowingMonitor.Model.Pipeline.DTWSegmentDetector.OnSegmentDetected (
            SegmentDetectedEventArgs e )  [protected], [virtual]
```

Reimplemented from RowingMonitor.Model.Pipeline.SegmentDetector.

6.5.2.2 Update()

```
override void RowingMonitor.Model.Pipeline.DTWSegmentDetector.Update (
            JointData jointData,
            JointType jointType,
            string axis )
```

The documentation for this class was generated from the following file:

- Model/Pipeline/DTWSegmentDetector.cs

6.6 RowingMonitor.Model.Pipeline.KinectJointFilter.FilterDoubleExponentialData Class Reference

Public Attributes

- CameraSpacePoint m_vRawPosition
- CameraSpacePoint m_vFilteredPosition
- CameraSpacePoint m_vTrend
- int m_dwFrameCount

6.6.1 Member Data Documentation

6.6.1.1 m_dwFrameCount

```
int RowingMonitor.Model.Pipeline.KinectJointFilter.FilterDoubleExponentialData.m_dwFrameCount
```

6.6.1.2 m_vFilteredPosition

```
CameraSpacePoint RowingMonitor.Model.Pipeline.KinectJointFilter.FilterDoubleExponentialData.↩
m_vFilteredPosition
```

6.6.1.3 m_vRawPosition

```
CameraSpacePoint RowingMonitor.Model.Pipeline.KinectJointFilter.FilterDoubleExponentialData.↩
m_vRawPosition
```

6.6.1.4 m_vTrend

```
CameraSpacePoint RowingMonitor.Model.Pipeline.KinectJointFilter.FilterDoubleExponentialData.↩
m_vTrend
```

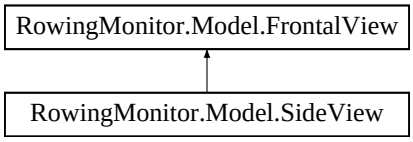
The documentation for this class was generated from the following file:

- Model/Pipeline/KinectJointFilter.cs

6.7 RowingMonitor.Model.FrontalView Class Reference

This class shows a frontal view of the tracked skeleton. Also it shows the color image sequence which is recorded by the kinect sensor.

Inheritance diagram for RowingMonitor.Model.FrontalView:



Public Member Functions

- FrontalView (CoordinateMapper mapper, int width, int height)
- virtual void UpdateSkeleton (IReadOnlyDictionary< JointType, Joint > joints)

  Updates the view with new data.
- void UpdateColorImage (WriteableBitmap colorImage)

Protected Member Functions

- void DrawBody (IReadOnlyDictionary< JointType, Joint > joints, IDictionary< JointType, Point > jointPoints, DrawingContext drawingContext, Pen drawingPen)

  Draws a body

Protected Attributes

- const double JointThickness = 3

  Thickness of drawn joint lines
- const float InferredZPositionClamp = 0.1f

  Constant for clamping Z values of camera space points from being negative
- CoordinateMapper coordinateMapper = null

  Coordinate mapper to map one type of point to another
- int displayWidth

  Width of display (depth space)
- int displayHeight

  Height of display (depth space)
- List< Pen > bodyColors

  List of colors for each body tracked

Properties

- DrawingImage BodyImageSource [get, protected set]
- WriteableBitmap ColorImageSource [get]

6.7.1 Detailed Description

This class shows a frontal view of the tracked skeleton. Also it shows the color image sequence which is recorded by the kinect sensor.

6.7.2 Constructor & Destructor Documentation

6.7.2.1 FrontalView()

```
RowingMonitor.Model.FrontalView.FrontalView (
            CoordinateMapper mapper,
            int width,
            int height )
```

6.7.3 Member Function Documentation

6.7.3.1 DrawBody()

```
void RowingMonitor.Model.FrontalView.DrawBody (
            IReadOnlyDictionary< JointType, Joint > joints,
            IDictionary< JointType, Point > jointPoints,
            DrawingContext drawingContext,
            Pen drawingPen )  [protected]
```

Draws a body

Parameters

joints	joints to draw
jointPoints	translated positions of joints to draw
drawingContext	drawing context to draw to
drawingPen	specifies color to draw a specific body

6.7.3.2 UpdateColorImage()

```
void RowingMonitor.Model.FrontalView.UpdateColorImage (
            WriteableBitmap colorImage )
```

6.7.3.3 UpdateSkeleton()

```
virtual void RowingMonitor.Model.FrontalView.UpdateSkeleton (
            IReadOnlyDictionary< JointType, Joint > joints )  [virtual]
```

Updates the view with new data.

Reimplemented in RowingMonitor.Model.SideView.

6.7.4 Member Data Documentation

6.7.4.1 bodyColors

```
List<Pen> RowingMonitor.Model.FrontalView.bodyColors  [protected]
```

List of colors for each body tracked

6.7.4.2 coordinateMapper

```
CoordinateMapper RowingMonitor.Model.FrontalView.coordinateMapper = null  [protected]
```

Coordinate mapper to map one type of point to another

6.7.4.3 displayHeight

```
int RowingMonitor.Model.FrontalView.displayHeight  [protected]
```

Height of display (depth space)

6.7.4.4 displayWidth

```
int RowingMonitor.Model.FrontalView.displayWidth  [protected]
```

Width of display (depth space)

6.7.4.5 InferredZPositionClamp

```
const float RowingMonitor.Model.FrontalView.InferredZPositionClamp = 0.1f  [protected]
```

Constant for clamping Z values of camera space points from being negative

6.7.4.6 JointThickness

```
const double RowingMonitor.Model.FrontalView.JointThickness = 3  [protected]
```

Thickness of drawn joint lines

6.7.5 Property Documentation

6.7.5.1 BodyImageSource

```
DrawingImage RowingMonitor.Model.FrontalView.BodyImageSource  [get], [protected set]
```

6.7.5.2 ColorImageSource

```
WriteableBitmap RowingMonitor.Model.FrontalView.ColorImageSource  [get]
```

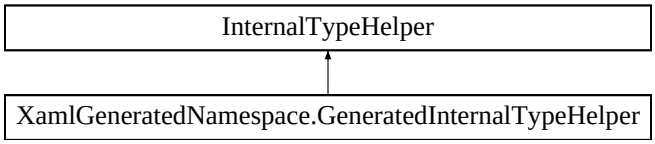
The documentation for this class was generated from the following file:

- Model/Pipeline/FrontalView.cs

6.8 XamlGeneratedNamespace.GeneratedInternalTypeHelper Class Reference

GeneratedInternalTypeHelper

Inheritance diagram for XamlGeneratedNamespace.GeneratedInternalTypeHelper:



Protected Member Functions

- override object CreateInstance (System.Type type, System.Globalization.CultureInfo culture)

  CreateInstance
- override object GetPropertyValue (System.Reflection.PropertyInfo propertyInfo, object target, System.↩ Globalization.CultureInfo culture)

  GetPropertyValue
- override void SetPropertyValue (System.Reflection.PropertyInfo propertyInfo, object target, object value, System.Globalization.CultureInfo culture)

  SetPropertyValue
- override System.Delegate CreateDelegate (System.Type delegateType, object target, string handler)

  CreateDelegate
- override void AddEventHandler (System.Reflection.EventInfo eventInfo, object target, System.Delegate handler)

  AddEventHandler

6.8.1 Detailed Description

GeneratedInternalTypeHelper

6.8.2 Member Function Documentation

6.8.2.1 AddEventHandler()

```
override void XamlGeneratedNamespace.GeneratedInternalTypeHelper.AddEventHandler (
            System.Reflection.EventInfo eventInfo,
            object target,
            System.Delegate handler )  [protected]
```

AddEventHandler

6.8.2.2 CreateDelegate()

```
override System.Delegate XamlGeneratedNamespace.GeneratedInternalTypeHelper.CreateDelegate (
            System.Type delegateType,
            object target,
            string handler )  [protected]
```

CreateDelegate

6.8.2.3 CreateInstance()

```
override object XamlGeneratedNamespace.GeneratedInternalTypeHelper.CreateInstance (
            System.Type type,
            System.Globalization.CultureInfo culture )  [protected]
```

CreateInstance

6.8.2.4 GetPropertyValue()

```
override object XamlGeneratedNamespace.GeneratedInternalTypeHelper.GetPropertyValue (
            System.Reflection.PropertyInfo propertyInfo,
            object target,
            System.Globalization.CultureInfo culture )  [protected]
```

GetPropertyValue

6.8.2.5 SetPropertyValue()

```
override void XamlGeneratedNamespace.GeneratedInternalTypeHelper.SetPropertyValue (
            System.Reflection.PropertyInfo propertyInfo,
            object target,
            object value,
            System.Globalization.CultureInfo culture )  [protected]
```

SetPropertyValue

The documentation for this class was generated from the following file:

- obj/Debug/GeneratedInternalTypeHelper.g.i.cs

6.9 RowingMonitor.Model.Util.JointData Struct Reference

Properties

- double RelTimestamp [get, set]
  Time since Kinect sensor started.
- double AbsTimestamp [get, set]
  Time since first frame.
- IReadOnlyDictionary< JointType, Joint > Joints [get, set]
  Positions of all joints.
- long Index [get, set]
  Incrementing number of frames.
- List< double > Timestamps [get, set]
  List of all timestamps that were set in the pipeline

6.9.1 Property Documentation

6.9.1.1 AbsTimestamp

```
double RowingMonitor.Model.Util.JointData.AbsTimestamp [get], [set]
```

Time since first frame.

6.9.1.2 Index

```
long RowingMonitor.Model.Util.JointData.Index [get], [set]
```

Incrementing number of frames.

6.9.1.3 Joints

```
IReadOnlyDictionary<JointType, Joint> RowingMonitor.Model.Util.JointData.Joints [get], [set]
```

Positions of all joints.

6.9.1.4 RelTimestamp

```
double RowingMonitor.Model.Util.JointData.RelTimestamp [get], [set]
```

Time since Kinect sensor started.

6.9.1.5 Timestamps

```
List<double> RowingMonitor.Model.Util.JointData.Timestamps  [get], [set]
```

List of all timestamps that were set in the pipeline

The documentation for this struct was generated from the following file:

- Model/Util/KinectDataHandler.cs

6.10 RowingMonitor.Model.Util.KinectDataHandler Class Reference

Public Member Functions

- JointData CreateNewJointData (double relTimestamp, double creationTimestamp, IReadOnlyDictionary< JointType, Joint > joints)
- Body GetFirstTrackedBody ()

  Return the longest tracked body.

Static Public Member Functions

- static JointData ReplaceJointsInJointData (JointData oldJointData, double creationTimestamp, IReadOnly↩ Dictionary< JointType, Joint > newJoints)

Properties

- static KinectDataHandler Instance `[get]`
- double RelStartTime `[get, set]`
- long LastIndex `[get, set]`
- Body [] Bodies `[get, set]`

6.10.1 Member Function Documentation

6.10.1.1 CreateNewJointData()

```
JointData RowingMonitor.Model.Util.KinectDataHandler.CreateNewJointData (
            double relTimestamp,
            double creationTimestamp,
            IReadOnlyDictionary< JointType, Joint > joints )
```

6.10.1.2 GetFirstTrackedBody()

```
Body RowingMonitor.Model.Util.KinectDataHandler.GetFirstTrackedBody ( )
```

Return the longest tracked body.

Returns

6.10.1.3 ReplaceJointsInJointData()

```
static JointData RowingMonitor.Model.Util.KinectDataHandler.ReplaceJointsInJointData (
            JointData oldJointData,
            double creationTimestamp,
            IReadOnlyDictionary< JointType, Joint > newJoints )  [static]
```

6.10.2 Property Documentation

6.10.2.1 Bodies

```
Body [] RowingMonitor.Model.Util.KinectDataHandler.Bodies  [get], [set]
```

6.10.2.2 Instance

```
KinectDataHandler RowingMonitor.Model.Util.KinectDataHandler.Instance  [static], [get]
```

6.10.2.3 LastIndex

```
long RowingMonitor.Model.Util.KinectDataHandler.LastIndex  [get], [set]
```

6.10.2.4 RelStartTime

```
double RowingMonitor.Model.Util.KinectDataHandler.RelStartTime  [get], [set]
```

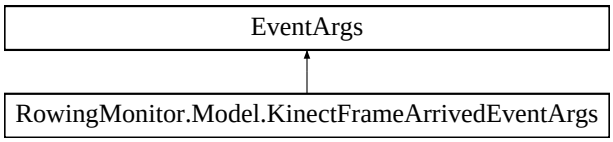
The documentation for this class was generated from the following file:

- Model/Util/KinectDataHandler.cs

6.11 RowingMonitor.Model.KinectFrameArrivedEventArgs Class Reference

Represents the arguments for a KinectReader's FrameArrived event.

Inheritance diagram for RowingMonitor.Model.KinectFrameArrivedEventArgs:



Public Member Functions

- KinectFrameArrivedEventArgs (JointData jointData)

Properties

- JointData JointData [get]

6.11.1 Detailed Description

Represents the arguments for a KinectReader's FrameArrived event.

6.11.2 Constructor & Destructor Documentation

6.11.2.1 KinectFrameArrivedEventArgs()

```
RowingMonitor.Model.KinectFrameArrivedEventArgs.KinectFrameArrivedEventArgs (
            JointData jointData )
```

6.11.3 Property Documentation

6.11.3.1 JointData

```
JointData RowingMonitor.Model.KinectFrameArrivedEventArgs.JointData [get]
```

The documentation for this class was generated from the following file:

- Model/EventArgs/KinectFrameArrivedEventArgs.cs

6.12 RowingMonitor.Model.Pipeline.KinectJointFilter Class Reference

Adapted default Kinect smoothing filter to work with the pipeline. https://social.msdn.microsoft.↩
com/Forums/en-US/ffbc8ec7-7551-4462-88aa-2fab69eac38f/joint-smoothing-code-c-errors-in-k

Classes

- class FilterDoubleExponentialData
- struct TRANSFORM_SMOOTH_PARAMETERS

Public Member Functions

- delegate void SmoothedFrameArrivedEventHandler (Object sender, SmoothedFrameArrivedEventArgs e)
- KinectJointFilter ()
- void Init (float fSmoothing=0.25f, float fCorrection=0.25f, float fPrediction=0.25f, float fJitterRadius=0.03f, float fMaxDeviationRadius=0.05f)
- void Shutdown ()
- void Reset (float fSmoothing=0.25f, float fCorrection=0.25f, float fPrediction=0.25f, float fJitterRadius=0.03f, float fMaxDeviationRadius=0.05f)
- void UpdateFilter (JointData jointData)
- CameraSpacePoint [ ] GetFilteredJoints ()

Events

- SmoothedFrameArrivedEventHandler SmoothedFrameArrived

6.12.1 Detailed Description

Adapted default Kinect smoothing filter to work with the pipeline. https://social.msdn.microsoft.↩
com/Forums/en-US/ffbc8ec7-7551-4462-88aa-2fab69eac38f/joint-smoothing-code-c-errors-in-k

6.12.2 Constructor & Destructor Documentation

6.12.2.1 KinectJointFilter()

```
RowingMonitor.Model.Pipeline.KinectJointFilter.KinectJointFilter ( )
```

6.12.3 Member Function Documentation

6.12.3.1 GetFilteredJoints()

```
CameraSpacePoint [] RowingMonitor.Model.Pipeline.KinectJointFilter.GetFilteredJoints ( )
```

6.12.3.2 Init()

```
void RowingMonitor.Model.Pipeline.KinectJointFilter.Init (
            float fSmoothing = 0.25f,
            float fCorrection = 0.25f,
            float fPrediction = 0.25f,
            float fJitterRadius = 0.03f,
            float fMaxDeviationRadius = 0.05f )
```

6.12.3.3 Reset()

```
void RowingMonitor.Model.Pipeline.KinectJointFilter.Reset (
            float fSmoothing = 0.25f,
            float fCorrection = 0.25f,
            float fPrediction = 0.25f,
            float fJitterRadius = 0.03f,
            float fMaxDeviationRadius = 0.05f )
```

6.12.3.4 Shutdown()

```
void RowingMonitor.Model.Pipeline.KinectJointFilter.Shutdown ( )
```

6.12.3.5 SmoothedFrameArrivedEventHandler()

```
delegate void RowingMonitor.Model.Pipeline.KinectJointFilter.SmoothedFrameArrivedEventHandler
(
            Object sender,
            SmoothedFrameArrivedEventArgs e )
```

6.12.3.6 UpdateFilter()

```
void RowingMonitor.Model.Pipeline.KinectJointFilter.UpdateFilter (
            JointData jointData )
```

6.12.4 Event Documentation

6.12.4.1 SmoothedFrameArrived

`SmoothedFrameArrivedEventHandler RowingMonitor.Model.Pipeline.KinectJointFilter.SmoothedFrameArrived`

The documentation for this class was generated from the following file:

- Model/Pipeline/KinectJointFilter.cs

6.13 RowingMonitor.Model.KinectReader Class Reference

The KinectReader class connects the application to the Kinect device.

Public Member Functions

- delegate void KinectFrameArrivedEventHandler (Object sender, KinectFrameArrivedEventArgs e)
- delegate void ColorFrameArrivedEventHandler (Object sender, ColorFrameArrivedEventArgs e)
- void StartReader ()

  Start the reader to aquire sensor data from the kinect sensor.
- void StopReader ()

  Stop the kinect reader and clean up.

Properties

- CoordinateMapper CoordinateMapper `[get]`
- int DisplayWidth `[get]`
- int DisplayHeight `[get]`
- string StatusText `[get]`
- static KinectReader Instance `[get]`

  Instance of KinectReader singleton

Events

- KinectFrameArrivedEventHandler KinectFrameArrived
- ColorFrameArrivedEventHandler ColorFrameArrived

6.13.1 Detailed Description

The KinectReader class connects the application to the Kinect device.

This class uses the singleton pattern with static initialization.

6.13.2 Member Function Documentation

6.13.2.1 ColorFrameArrivedEventHandler()

```
delegate void RowingMonitor.Model.KinectReader.ColorFrameArrivedEventHandler (
            Object sender,
            ColorFrameArrivedEventArgs e )
```

6.13.2.2 KinectFrameArrivedEventHandler()

```
delegate void RowingMonitor.Model.KinectReader.KinectFrameArrivedEventHandler (
            Object sender,
            KinectFrameArrivedEventArgs e )
```

6.13.2.3 StartReader()

```
void RowingMonitor.Model.KinectReader.StartReader ( )
```

Start the reader to aquire sensor data from the kinect sensor.

6.13.2.4 StopReader()

```
void RowingMonitor.Model.KinectReader.StopReader ( )
```

Stop the kinect reader and clean up.

6.13.3 Property Documentation

6.13.3.1 CoordinateMapper

```
CoordinateMapper RowingMonitor.Model.KinectReader.CoordinateMapper  [get]
```

6.13.3.2 DisplayHeight

```
int RowingMonitor.Model.KinectReader.DisplayHeight  [get]
```

6.13.3.3 DisplayWidth

```
int RowingMonitor.Model.KinectReader.DisplayWidth  [get]
```

6.13.3.4 Instance

```
KinectReader RowingMonitor.Model.KinectReader.Instance  [static], [get]
```

Instance of KinectReader singleton

6.13.3.5 StatusText

```
string RowingMonitor.Model.KinectReader.StatusText  [get]
```

6.13.4 Event Documentation

6.13.4.1 ColorFrameArrived

```
ColorFrameArrivedEventHandler RowingMonitor.Model.KinectReader.ColorFrameArrived
```

6.13.4.2 KinectFrameArrived

```
KinectFrameArrivedEventHandler RowingMonitor.Model.KinectReader.KinectFrameArrived
```

The documentation for this class was generated from the following file:

- Model/Pipeline/KinectReader.cs

6.14 RowingMonitor.Model.Pipeline.KleshnevData Struct Reference

Properties

- double RelTimestamp `[get, set]`
- double AbsTimestamp `[get, set]`
- Dictionary< KleshnevVelocityType, double > Velocities `[get, set]`
- long Index `[get, set]`

6.14.1 Property Documentation

6.14.1.1 AbsTimestamp

```
double RowingMonitor.Model.Pipeline.KleshnevData.AbsTimestamp [get], [set]
```

6.14.1.2 Index

```
long RowingMonitor.Model.Pipeline.KleshnevData.Index [get], [set]
```

6.14.1.3 RelTimestamp

```
double RowingMonitor.Model.Pipeline.KleshnevData.RelTimestamp [get], [set]
```

6.14.1.4 Velocities

```
Dictionary<KleshnevVelocityType, double> RowingMonitor.Model.Pipeline.KleshnevData.Velocities
[get], [set]
```

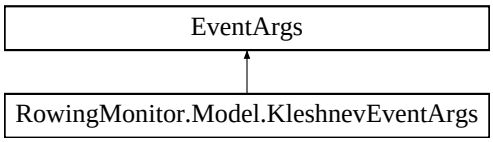
The documentation for this struct was generated from the following file:

- Model/Pipeline/KleshnevVelocityCalculator.cs

6.15 RowingMonitor.Model.KleshnevEventArgs Class Reference

Represents the arguments for a finished Kleshnev analysis.

Inheritance diagram for RowingMonitor.Model.KleshnevEventArgs:



Public Member Functions

- KleshnevEventArgs (List< KleshnevData > kleshnevData)

6.15.1 Detailed Description

Represents the arguments for a finished Kleshnev analysis.

6.15.2 Constructor & Destructor Documentation

6.15.2.1 KleshnevEventArgs()

```
RowingMonitor.Model.KleshnevEventArgs.KleshnevEventArgs (
            List< KleshnevData > kleshnevData )
```

The documentation for this class was generated from the following file:

- Model/EventArgs/KleshnevEventArgs.cs

6.16 RowingMonitor.Model.Pipeline.KleshnevVelocityCalculator Class Reference

Public Member Functions

- delegate void KleshnevCalculationFinishedEventHandler (Object sender, KleshnevEventArgs e)
- void CalculateKleshnevVelocities (JointData velocityJointData)

Events

- KleshnevCalculationFinishedEventHandler KleshnevCalculationFinished

6.16.1 Member Function Documentation

6.16.1.1 CalculateKleshnevVelocities()

```
void RowingMonitor.Model.Pipeline.KleshnevVelocityCalculator.CalculateKleshnevVelocities (
            JointData velocityJointData )
```

6.16.1.2 KleshnevCalculationFinishedEventHandler()

```
delegate void RowingMonitor.Model.Pipeline.KleshnevVelocityCalculator.KleshnevCalculation↩
FinishedEventHandler (
            Object sender,
            KleshnevEventArgs e )
```

6.16.2 Event Documentation

6.16.2.1 KleshnevCalculationFinished

```
KleshnevCalculationFinishedEventHandler RowingMonitor.Model.Pipeline.KleshnevVelocityCalculator.↩
KleshnevCalculationFinished
```

The documentation for this class was generated from the following file:

- Model/Pipeline/KleshnevVelocityCalculator.cs

6.17 RowingMonitor.Model.LowPassFilter Class Reference

Public Member Functions

- LowPassFilter ()
- Dictionary< JointType, Joint > Filter (Dictionary< JointType, Joint > joints, Dictionary< JointType, Dictionary< String, Double >> alpha)

Properties

- Dictionary< JointType, Joint > Hatxprev [get]

6.17.1 Constructor & Destructor Documentation

6.17.1.1 LowPassFilter()

```
RowingMonitor.Model.LowPassFilter.LowPassFilter ( )
```

6.17.2 Member Function Documentation

6.17.2.1 Filter()

```
Dictionary<JointType, Joint> RowingMonitor.Model.LowPassFilter.Filter (
            Dictionary< JointType, Joint > joints,
            Dictionary< JointType, Dictionary< String, Double >> alpha )
```

6.17.3 Property Documentation

6.17.3.1 Hatxprev

```
Dictionary<JointType, Joint> RowingMonitor.Model.LowPassFilter.Hatxprev  [get]
```

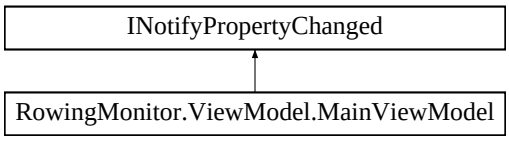
The documentation for this class was generated from the following file:

- Model/Util/LowPassFilter.cs

6.18 RowingMonitor.ViewModel.MainViewModel Class Reference

Represents the view-model for the main window.

Inheritance diagram for RowingMonitor.ViewModel.MainViewModel:



Public Member Functions

- MainViewModel ()

  Initializes a new instance of the MainViewModel class.

Protected Member Functions

- void RaisePropertyChanged (string property)

Properties

- ICommand WindowLoaded `[get]`
- ICommand WindowClosing `[get]`
- ImageSource BodyImageSource `[get, set]`
- ImageSource SideBodyImageSource `[get, set]`
- ImageSource ColorImageSource `[get, set]`
- double Beta `[get, set]`
- double Fcmin `[get, set]`
- List< JointType > PlotJointTypes `[get, set]`
- List< Model.Util.DataStreamType > PlotMeasuredVariables `[get, set]`
- bool UseKinectJointFilter `[get, set]`
- bool UseZVC `[get, set]`
- PlotModel DefaultPlotModel `[get]`
- PlotModel KlshLastSegmentPlotModel `[get]`
- PlotModel KlshCurrentSegmentPlotModel `[get]`

Events

- PropertyChangedEventHandler PropertyChanged

  INotifyPropertyChangedPropertyChanged event to allow window controls to bind to changeable data

6.18.1 Detailed Description

Represents the view-model for the main window.

6.18.2 Constructor & Destructor Documentation

6.18.2.1 MainViewModel()

```
RowingMonitor.ViewModel.MainViewModel.MainViewModel ( )
```

Initializes a new instance of the MainViewModel class.

6.18.3 Member Function Documentation

6.18.3.1 RaisePropertyChanged()

```
void RowingMonitor.ViewModel.MainViewModel.RaisePropertyChanged (
            string property )  [protected]
```

6.18.4 Property Documentation

6.18.4.1 Beta

```
double RowingMonitor.ViewModel.MainViewModel.Beta  [get], [set]
```

6.18.4.2 BodyImageSource

```
ImageSource RowingMonitor.ViewModel.MainViewModel.BodyImageSource  [get], [set]
```

6.18.4.3 ColorImageSource

```
ImageSource RowingMonitor.ViewModel.MainViewModel.ColorImageSource  [get], [set]
```

6.18.4.4 DefaultPlotModel

```
PlotModel RowingMonitor.ViewModel.MainViewModel.DefaultPlotModel  [get]
```

6.18.4.5 Fcmin

```
double RowingMonitor.ViewModel.MainViewModel.Fcmin  [get], [set]
```

6.18.4.6 KlshCurrentSegmentPlotModel

```
PlotModel RowingMonitor.ViewModel.MainViewModel.KlshCurrentSegmentPlotModel  [get]
```

6.18.4.7 KlshLastSegmentPlotModel

```
PlotModel RowingMonitor.ViewModel.MainViewModel.KlshLastSegmentPlotModel  [get]
```

6.18.4.8 PlotJointTypes

```
List<JointType> RowingMonitor.ViewModel.MainViewModel.PlotJointTypes  [get], [set]
```

6.18.4.9 PlotMeasuredVariables

```
List<Model.Util.DataStreamType> RowingMonitor.ViewModel.MainViewModel.PlotMeasuredVariables
[get], [set]
```

6.18.4.10 SideBodyImageSource

```
ImageSource RowingMonitor.ViewModel.MainViewModel.SideBodyImageSource  [get], [set]
```

6.18.4.11 UseKinectJointFilter

```
bool RowingMonitor.ViewModel.MainViewModel.UseKinectJointFilter  [get], [set]
```

6.18.4.12 UseZVC

```
bool RowingMonitor.ViewModel.MainViewModel.UseZVC  [get], [set]
```

6.18.4.13 WindowClosing

```
ICommand RowingMonitor.ViewModel.MainViewModel.WindowClosing  [get]
```

6.18.4.14 WindowLoaded

```
ICommand RowingMonitor.ViewModel.MainViewModel.WindowLoaded  [get]
```

6.18.5 Event Documentation

6.18.5.1 PropertyChanged

```
PropertyChangedEventHandler RowingMonitor.ViewModel.MainViewModel.PropertyChanged
```

INotifyPropertyChangedPropertyChanged event to allow window controls to bind to changeable data

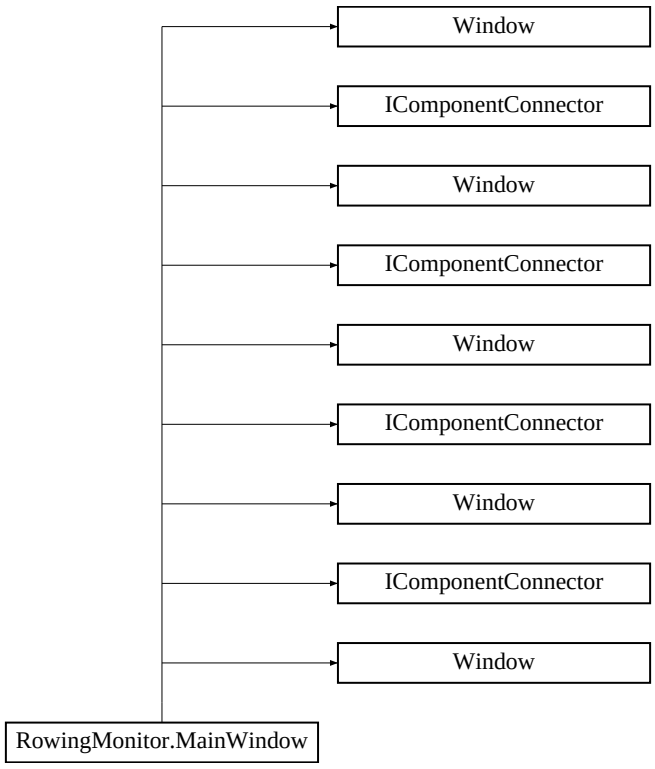
The documentation for this class was generated from the following file:

- ViewModel/MainViewModel.cs

6.19 RowingMonitor.MainWindow Class Reference

Interaktionslogik für MainWindow.xaml

Inheritance diagram for RowingMonitor.MainWindow:



Public Member Functions

- MainWindow ()
- void InitializeComponent ()
  InitializeComponent
- void InitializeComponent ()
  InitializeComponent
- void InitializeComponent ()
  InitializeComponent
- void InitializeComponent ()
  InitializeComponent

6.19.1 Detailed Description

Interaktionslogik für MainWindow.xaml

MainWindow

6.19.2 Constructor & Destructor Documentation

6.19.2.1 MainWindow()

```
RowingMonitor.MainWindow.MainWindow ( )
```

6.19.3 Member Function Documentation

6.19.3.1 InitializeComponent() [1/4]

```
void RowingMonitor.MainWindow.InitializeComponent ( )
```

InitializeComponent

6.19.3.2 InitializeComponent() [2/4]

```
void RowingMonitor.MainWindow.InitializeComponent ( )
```

InitializeComponent

6.19.3.3 InitializeComponent() [3/4]

```
void RowingMonitor.MainWindow.InitializeComponent ( )
```

InitializeComponent

6.19.3.4 InitializeComponent() [4/4]

```
void RowingMonitor.MainWindow.InitializeComponent ( )
```

InitializeComponent

The documentation for this class was generated from the following files:

- MainWindow.xaml.cs
- obj/Debug/MainWindow.g.cs
- obj/Debug/MainWindow.g.i.cs

6.20 RowingMonitor.Model.OneEuroFilterSmoothing Class Reference

Public Member Functions

- delegate void SmoothedFrameArrivedEventHandler (Object sender, SmoothedFrameArrivedEventArgs e)
- OneEuroFilterSmoothing ()
- void UpdateFilter (JointData jointData)

Static Public Member Functions

- static Dictionary< JointType, Dictionary< String, Double > > InitCutoffDictionary (Double value)

  Initliazies a dictionary of all joint types with a given value.

Properties

- Double Beta [get, set]
- double Fcmin [get, set]
- Dictionary< JointType, Dictionary< string, double > > Mincutoff [get, set]

Events

- SmoothedFrameArrivedEventHandler SmoothedFrameArrived

6.20.1 Constructor & Destructor Documentation

6.20.1.1 OneEuroFilterSmoothing()

```
RowingMonitor.Model.OneEuroFilterSmoothing.OneEuroFilterSmoothing ( )
```

6.20.2 Member Function Documentation

6.20.2.1 InitCutoffDictionary()

```
static Dictionary<JointType, Dictionary<String, Double> > RowingMonitor.Model.OneEuroFilter↩
Smoothing.InitCutoffDictionary (
            Double value )  [static]
```

Initliazies a dictionary of all joint types with a given value.

Parameters

value	

Returns

6.20.2.2 SmoothedFrameArrivedEventHandler()

```
delegate void RowingMonitor.Model.OneEuroFilterSmoothing.SmoothedFrameArrivedEventHandler (
            Object sender,
            SmoothedFrameArrivedEventArgs e )
```

6.20.2.3 UpdateFilter()

```
void RowingMonitor.Model.OneEuroFilterSmoothing.UpdateFilter (
            JointData jointData )
```

6.20.3 Property Documentation

6.20.3.1 Beta

```
Double RowingMonitor.Model.OneEuroFilterSmoothing.Beta  [get], [set]
```

6.20.3.2 Fcmin

```
double RowingMonitor.Model.OneEuroFilterSmoothing.Fcmin  [get], [set]
```

6.20.3.3 Mincutoff

```
Dictionary<JointType, Dictionary<string, double> > RowingMonitor.Model.OneEuroFilterSmoothing.↩
Mincutoff  [get], [set]
```

6.20.4 Event Documentation

6.20.4.1 SmoothedFrameArrived

```
SmoothedFrameArrivedEventHandler RowingMonitor.Model.OneEuroFilterSmoothing.SmoothedFrame↩
Arrived
```

The documentation for this class was generated from the following file:

- Model/Pipeline/OneEuroFilterSmoothing.cs

6.21 RowingMonitor.Model.Plot Class Reference

Public Member Functions

- Plot ()

  Creates a plot for the view.
- Plot (float range)

  Creates a plot for the view.
- void UpdatePlot (Dictionary< String, List< PlotData >> dataPoints, String title, Dictionary< String, OxyColor > colors=null)

  Draws a plot of given data points.
- void Init (String title, Dictionary< String, OxyColor > colors=null)
- void AddDataPoint (string series, double[ ] values)

Properties

- PlotModel PlotModel [get]
- Dictionary< string, OxyColor > Colors [get, set]

6.21.1 Constructor & Destructor Documentation

6.21.1.1 Plot() [1/2]

```
RowingMonitor.Model.Plot.Plot ( )
```

Creates a plot for the view.

6.21.1.2 Plot() [2/2]

```
RowingMonitor.Model.Plot.Plot (
            float range )
```

Creates a plot for the view.

If the number data points for one line series reaches the max threshold, all older data points will not be shown.

Parameters

range	Range of values along the x axis.

6.21.2 Member Function Documentation

6.21.2.1 AddDataPoint()

```
void RowingMonitor.Model.Plot.AddDataPoint (
            string series,
            double [] values )
```

6.21.2.2 Init()

```
void RowingMonitor.Model.Plot.Init (
            String title,
            Dictionary< String, OxyColor > colors = null )
```

6.21.2.3 UpdatePlot()

```
void RowingMonitor.Model.Plot.UpdatePlot (
            Dictionary< String, List< PlotData >> dataPoints,
            String title,
            Dictionary< String, OxyColor > colors = null )
```

Draws a plot of given data points.

The RaisePropertyChanged event must be raised after the update to refresh the plot view.

Parameters

dataPoints	Set of data points (x,y). The Key will be used as title of the line series.
title	Title of the plot.

6.21.3 Property Documentation

6.21.3.1 Colors

```
Dictionary<string, OxyColor> RowingMonitor.Model.Plot.Colors  [get], [set]
```

6.21.3.2 PlotModel

```
PlotModel RowingMonitor.Model.Plot.PlotModel  [get]
```

The documentation for this class was generated from the following file:

- Model/Pipeline/Plot.cs

6.22 RowingMonitor.Model.PlotData Struct Reference

Properties

- double X [get, set]
- double Y [get, set]
- string Annotation [get, set]
- DataStreamType DataStreamType [get, set]

6.22.1 Property Documentation

6.22.1.1 Annotation

```
string RowingMonitor.Model.PlotData.Annotation  [get], [set]
```

6.22.1.2 DataStreamType

```
DataStreamType RowingMonitor.Model.PlotData.DataStreamType  [get], [set]
```

6.22.1.3 X

```
double RowingMonitor.Model.PlotData.X  [get], [set]
```

6.22.1.4 Y

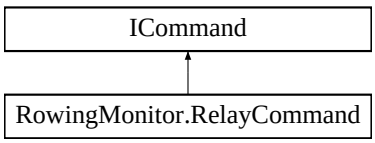
```
double RowingMonitor.Model.PlotData.Y  [get], [set]
```

The documentation for this struct was generated from the following file:

- Model/Pipeline/Plot.cs

6.23 RowingMonitor.RelayCommand Class Reference

Inheritance diagram for RowingMonitor.RelayCommand:



Public Member Functions

- RelayCommand (Action< object > execute)
- RelayCommand (Action< object > execute, Predicate< object > canExecute)
- void Execute (object parameter)
- bool CanExecute (object parameter)

Properties

- EventHandler CanExecuteChanged

6.23.1 Constructor & Destructor Documentation

6.23.1.1 RelayCommand() [1/2]

```
RowingMonitor.RelayCommand.RelayCommand (
            Action< object > execute )
```

6.23.1.2 RelayCommand() [2/2]

```
RowingMonitor.RelayCommand.RelayCommand (
            Action< object > execute,
            Predicate< object > canExecute )
```

6.23.2 Member Function Documentation

6.23.2.1 CanExecute()

```
bool RowingMonitor.RelayCommand.CanExecute (
            object parameter )
```

6.23.2.2 Execute()

```
void RowingMonitor.RelayCommand.Execute (
            object parameter )
```

6.23.3 Property Documentation

6.23.3.1 CanExecuteChanged

```
EventHandler RowingMonitor.RelayCommand.CanExecuteChanged  [add], [remove]
```

The documentation for this class was generated from the following file:

- Model/Util/RelayCommand.cs

6.24 RowingMonitor.Model.Pipeline.RowingMonitorPipeline Class Reference

Public Member Functions

- RowingMonitorPipeline ()
- void UpdateDefaultPlot ()
- void UpdateKleshnevPlots ()
- void StartPipeline ()
- void StopPipeline ()

Properties

- ImageSource FrontalBodyImageSource `[get, set]`
- ImageSource SideBodyImageSource `[get, set]`
- ImageSource ColorBodyImageSource `[get, set]`
- PlotModel DefaultPlotModel `[get]`
- List< JointType > PlotJointTypes `[get, set]`
- List< Util.DataStreamType > PlotMeasuredVariables `[get, set]`
- bool UseKinectJointFilter `[get, set]`
- bool UseZVC `[get, set]`
- PlotModel KlshLastSegmentPlotModel `[get]`
- PlotModel KlshCurrentSegmentPlotModel `[get]`
- float PlotRange `[get, set]`
- bool SegmentDetectorChanged `[get, set]`

6.24.1 Constructor & Destructor Documentation

6.24.1.1 RowingMonitorPipeline()

```
RowingMonitor.Model.Pipeline.RowingMonitorPipeline.RowingMonitorPipeline ( )
```

6.24.2 Member Function Documentation

6.24.2.1 StartPipeline()

```
void RowingMonitor.Model.Pipeline.RowingMonitorPipeline.StartPipeline ( )
```

6.24.2.2 StopPipeline()

```
void RowingMonitor.Model.Pipeline.RowingMonitorPipeline.StopPipeline ( )
```

6.24.2.3 UpdateDefaultPlot()

```
void RowingMonitor.Model.Pipeline.RowingMonitorPipeline.UpdateDefaultPlot ( )
```

6.24.2.4 UpdateKleshnevPlots()

```
void RowingMonitor.Model.Pipeline.RowingMonitorPipeline.UpdateKleshnevPlots ( )
```

6.24.3 Property Documentation

6.24.3.1 ColorBodyImageSource

```
ImageSource RowingMonitor.Model.Pipeline.RowingMonitorPipeline.ColorBodyImageSource [get],
[set]
```

6.24.3.2 DefaultPlotModel

```
PlotModel RowingMonitor.Model.Pipeline.RowingMonitorPipeline.DefaultPlotModel [get]
```

6.24.3.3 FrontalBodyImageSource

```
ImageSource RowingMonitor.Model.Pipeline.RowingMonitorPipeline.FrontalBodyImageSource [get],
[set]
```

6.24.3.4 KlshCurrentSegmentPlotModel

```
PlotModel RowingMonitor.Model.Pipeline.RowingMonitorPipeline.KlshCurrentSegmentPlotModel [get]
```

6.24.3.5 KlshLastSegmentPlotModel

```
PlotModel RowingMonitor.Model.Pipeline.RowingMonitorPipeline.KlshLastSegmentPlotModel [get]
```

6.24.3.6 PlotJointTypes

```
List<JointType> RowingMonitor.Model.Pipeline.RowingMonitorPipeline.PlotJointTypes  [get],
[set]
```

6.24.3.7 PlotMeasuredVariables

```
List<Util.DataStreamType> RowingMonitor.Model.Pipeline.RowingMonitorPipeline.PlotMeasured↩
Variables  [get], [set]
```

6.24.3.8 PlotRange

```
float RowingMonitor.Model.Pipeline.RowingMonitorPipeline.PlotRange  [get], [set]
```

6.24.3.9 SegmentDetectorChanged

```
bool RowingMonitor.Model.Pipeline.RowingMonitorPipeline.SegmentDetectorChanged  [get], [set]
```

6.24.3.10 SideBodyImageSource

```
ImageSource RowingMonitor.Model.Pipeline.RowingMonitorPipeline.SideBodyImageSource  [get],
[set]
```

6.24.3.11 UseKinectJointFilter

```
bool RowingMonitor.Model.Pipeline.RowingMonitorPipeline.UseKinectJointFilter  [get], [set]
```

6.24.3.12 UseZVC

```
bool RowingMonitor.Model.Pipeline.RowingMonitorPipeline.UseZVC  [get], [set]
```

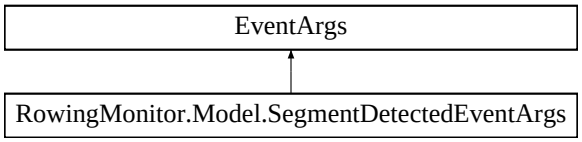
The documentation for this class was generated from the following file:

- Model/Pipeline/RowingMonitorPipeline.cs

6.25 RowingMonitor.Model.SegmentDetectedEventArgs Class Reference

Represents the arguments for a detected segment event.

Inheritance diagram for RowingMonitor.Model.SegmentDetectedEventArgs:



Public Member Functions

- SegmentDetectedEventArgs (List< SegmentHit > hits)

Properties

- List< SegmentHit > Hits [get]

6.25.1 Detailed Description

Represents the arguments for a detected segment event.

6.25.2 Constructor & Destructor Documentation

6.25.2.1 SegmentDetectedEventArgs()

```
RowingMonitor.Model.SegmentDetectedEventArgs.SegmentDetectedEventArgs (
            List< SegmentHit > hits )
```

6.25.3 Property Documentation

6.25.3.1 Hits

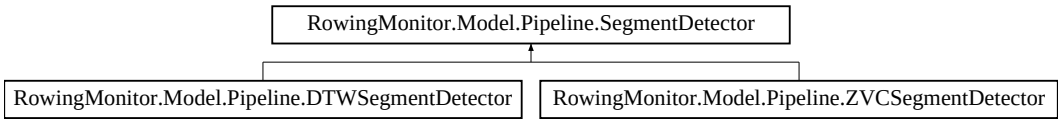
```
List<SegmentHit> RowingMonitor.Model.SegmentDetectedEventArgs.Hits [get]
```

The documentation for this class was generated from the following file:

- Model/EventArgs/SegmentDetectedEventArgs.cs

6.26 RowingMonitor.Model.Pipeline.SegmentDetector Class Reference

Inheritance diagram for RowingMonitor.Model.Pipeline.SegmentDetector:



Public Member Functions

- delegate void SegmentDetectedEventHandler (Object sender, SegmentDetectedEventArgs e)
- abstract void Update (JointData jointData, JointType jointType, String axis)

Protected Member Functions

- float GetJointDataValue (JointData jointData, JointType jointType, String axis)
- virtual void OnSegmentDetected (SegmentDetectedEventArgs e)

Protected Attributes

- List< SegmentHit > hits = new List<SegmentHit>()

Events

- SegmentDetectedEventHandler SegmentDetected

6.26.1 Member Function Documentation

6.26.1.1 GetJointDataValue()

```
float RowingMonitor.Model.Pipeline.SegmentDetector.GetJointDataValue (
            JointData jointData,
            JointType jointType,
            String axis )  [protected]
```

6.26.1.2 OnSegmentDetected()

```
virtual void RowingMonitor.Model.Pipeline.SegmentDetector.OnSegmentDetected (
            SegmentDetectedEventArgs e )  [protected], [virtual]
```

Reimplemented in RowingMonitor.Model.Pipeline.ZVCSegmentDetector, and RowingMonitor.Model.Pipeline.DTWSegmentDetector.

6.26.1.3 SegmentDetectedEventHandler()

```
delegate void RowingMonitor.Model.Pipeline.SegmentDetector.SegmentDetectedEventHandler (
            Object sender,
            SegmentDetectedEventArgs e )
```

6.26.1.4 Update()

```
abstract void RowingMonitor.Model.Pipeline.SegmentDetector.Update (
            JointData jointData,
            JointType jointType,
            String axis )  [pure virtual]
```

Implemented in RowingMonitor.Model.Pipeline.ZVCSegmentDetector.

6.26.2 Member Data Documentation

6.26.2.1 hits

```
List<SegmentHit> RowingMonitor.Model.Pipeline.SegmentDetector.hits = new List<SegmentHit>()
[protected]
```

6.26.3 Event Documentation

6.26.3.1 SegmentDetected

```
SegmentDetectedEventHandler RowingMonitor.Model.Pipeline.SegmentDetector.SegmentDetected
```

The documentation for this class was generated from the following file:

- Model/Pipeline/SegmentDetector.cs

6.27 RowingMonitor.Model.Util.SegmentHit Struct Reference

Properties

- long Index [get, set]
  Index of the joint data that this hit belongs to.
- long DetectionIndex [get, set]
  Index of the joint data where this hit was detected.
- double AbsTimestamp [get, set]
  Absolute timestamp of the joint data that this hit belongs to.
- double DetectionAbsTimestamp [get, set]
  Absolute timestamp of the joint data where this hit was detected.
- HitType HitType [get, set]
  Type of this hit in the context of a segment.

6.27.1 Property Documentation

6.27.1.1 AbsTimestamp

```
double RowingMonitor.Model.Util.SegmentHit.AbsTimestamp  [get], [set]
```

Absolute timestamp of the joint data that this hit belongs to.

6.27.1.2 DetectionAbsTimestamp

```
double RowingMonitor.Model.Util.SegmentHit.DetectionAbsTimestamp  [get], [set]
```

Absolute timestamp of the joint data where this hit was detected.

6.27.1.3 DetectionIndex

```
long RowingMonitor.Model.Util.SegmentHit.DetectionIndex  [get], [set]
```

Index of the joint data where this hit was detected.

6.27.1.4 HitType

```
HitType RowingMonitor.Model.Util.SegmentHit.HitType  [get], [set]
```

Type of this hit in the context of a segment.

6.27.1.5 Index

```
long RowingMonitor.Model.Util.SegmentHit.Index  [get], [set]
```

Index of the joint data that this hit belongs to.

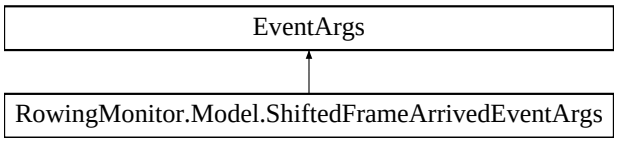
The documentation for this struct was generated from the following file:

- Model/Util/KinectDataHandler.cs

6.28 RowingMonitor.Model.ShiftedFrameArrivedEventArgs Class Reference

Represents the arguments for a shifted frame arrived event.

Inheritance diagram for RowingMonitor.Model.ShiftedFrameArrivedEventArgs:



Public Member Functions

- ShiftedFrameArrivedEventArgs (JointData shiftedJointData)

Properties

- JointData ShiftedJointData [get]

6.28.1 Detailed Description

Represents the arguments for a shifted frame arrived event.

6.28.2 Constructor & Destructor Documentation

6.28.2.1 ShiftedFrameArrivedEventArgs()

```
RowingMonitor.Model.ShiftedFrameArrivedEventArgs.ShiftedFrameArrivedEventArgs (
            JointData shiftedJointData )
```

6.28.3 Property Documentation

6.28.3.1 ShiftedJointData

```
JointData RowingMonitor.Model.ShiftedFrameArrivedEventArgs.ShiftedJointData [get]
```

The documentation for this class was generated from the following file:

- Model/EventArgs/ShiftedFrameArrivedEventArgs.cs

6.29 RowingMonitor.Model.Shifter Class Reference

Shifts the origin to the middle point between the foot ankle joints. Also rotates all joints until origin and hip joint form a horizontal line.

Public Member Functions

- delegate void ShiftedFrameArrivedEventHandler (Object sender, ShiftedFrameArrivedEventArgs e)
- void ShiftAndRotate (JointData jointData)

Events

- ShiftedFrameArrivedEventHandler ShiftedFrameArrived

6.29.1 Detailed Description

Shifts the origin to the middle point between the foot ankle joints. Also rotates all joints until origin and hip joint form a horizontal line.

6.29.2 Member Function Documentation

6.29.2.1 ShiftAndRotate()

```
void RowingMonitor.Model.Shifter.ShiftAndRotate (
            JointData jointData )
```

6.29.2.2 ShiftedFrameArrivedEventHandler()

```
delegate void RowingMonitor.Model.Shifter.ShiftedFrameArrivedEventHandler (
            Object sender,
            ShiftedFrameArrivedEventArgs e )
```

6.29.3 Event Documentation

6.29.3.1 ShiftedFrameArrived

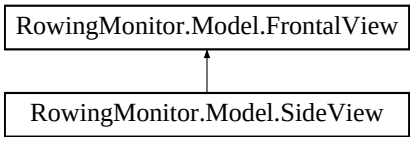
```
ShiftedFrameArrivedEventHandler RowingMonitor.Model.Shifter.ShiftedFrameArrived
```

The documentation for this class was generated from the following file:

- Model/Pipeline/Shifter.cs

6.30 RowingMonitor.Model.SideView Class Reference

Inheritance diagram for RowingMonitor.Model.SideView:



Public Member Functions

- SideView (CoordinateMapper mapper, int width, int height)
- override void UpdateSkeleton (IReadOnlyDictionary< JointType, Joint > joints)

  Updates the view with new data.

Additional Inherited Members

6.30.1 Constructor & Destructor Documentation

6.30.1.1 SideView()

```
RowingMonitor.Model.SideView.SideView (
            CoordinateMapper mapper,
            int width,
            int height )
```

6.30.2 Member Function Documentation

6.30.2.1 UpdateSkeleton()

```
override void RowingMonitor.Model.SideView.UpdateSkeleton (
            IReadOnlyDictionary< JointType, Joint > joints )  [virtual]
```

Updates the view with new data.

Reimplemented from RowingMonitor.Model.FrontalView.

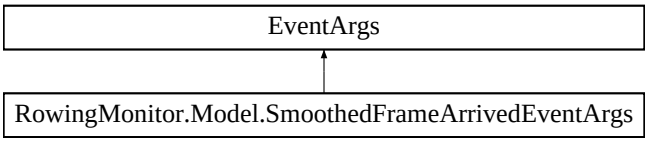
The documentation for this class was generated from the following file:

- Model/Pipeline/SideView.cs

6.31 RowingMonitor.Model.SmoothedFrameArrivedEventArgs Class Reference

Represents the arguments for a smoothed joint data arrived event.

Inheritance diagram for RowingMonitor.Model.SmoothedFrameArrivedEventArgs:



Public Member Functions

- SmoothedFrameArrivedEventArgs (JointData rawJointData, JointData smoothedJointData)

Properties

- JointData RawJointData [get]
- JointData SmoothedJointData [get]

6.31.1 Detailed Description

Represents the arguments for a smoothed joint data arrived event.

6.31.2 Constructor & Destructor Documentation

6.31.2.1 SmoothedFrameArrivedEventArgs()

```
RowingMonitor.Model.SmoothedFrameArrivedEventArgs.SmoothedFrameArrivedEventArgs (
            JointData rawJointData,
            JointData smoothedJointData )
```

6.31.3 Property Documentation

6.31.3.1 RawJointData

```
JointData RowingMonitor.Model.SmoothedFrameArrivedEventArgs.RawJointData [get]
```

6.31.3.2 SmoothedJointData

```
JointData RowingMonitor.Model.SmoothedFrameArrivedEventArgs.SmoothedJointData [get]
```

The documentation for this class was generated from the following file:

- Model/EventArgs/SmoothedFrameArrivedEventArgs.cs

6.32 RowingMonitor.Model.Util.Subsequence Struct Reference

Subsequence in a data stream which suits a given template.

Properties

- double Distance `[get, set]`
  Calculates distance between the template and the data stream.
- int TStart `[get, set]`
  Starttime of data stream which fits to the template.
- int TEnd `[get, set]`
  Endtime of data stream which fits to the template.
- SubsequenceStatus Status `[get, set]`
  Status of detected subsequence.
- int TDetected `[get, set]`
  Time of detection.

6.32.1 Detailed Description

Subsequence in a data stream which suits a given template.

6.32.2 Property Documentation

6.32.2.1 Distance

```
double RowingMonitor.Model.Util.Subsequence.Distance  [get], [set]
```

Calculates distance between the template and the data stream.

6.32.2.2 Status

```
SubsequenceStatus RowingMonitor.Model.Util.Subsequence.Status  [get], [set]
```

Status of detected subsequence.

6.32.2.3 TDetected

```
int RowingMonitor.Model.Util.Subsequence.TDetected  [get], [set]
```

Time of detection.

6.32.2.4 TEnd

```
int RowingMonitor.Model.Util.Subsequence.TEnd  [get], [set]
```

Endtime of data stream which fits to the template.

6.32.2.5 TStart

```
int RowingMonitor.Model.Util.Subsequence.TStart  [get], [set]
```

Starttime of data stream which fits to the template.

The documentation for this struct was generated from the following file:

- Model/Util/SubsequenceDTW.cs

6.33 RowingMonitor.Model.Util.SubsequenceDTW Class Reference

Compares an online data stream with a template stream. Uses the SPRING DTW algorithm.

Public Member Functions

- SubsequenceDTW (List< double > template, float distanceThreshold, int minimumSubsequenceLength=2)

  Creates a new instance of the SubsequenceDTW class.
- Subsequence compareDataStream (double xT, int t)

  Compare the value x at time t of the data stream with the template. Returns an unset, not optimal or optimal subsequence with its distance, starttime and endtime. Uses the SPRING DTW algorithm.

6.33.1 Detailed Description

Compares an online data stream with a template stream. Uses the SPRING DTW algorithm.

6.33.2 Constructor & Destructor Documentation

6.33.2.1 SubsequenceDTW()

```
RowingMonitor.Model.Util.SubsequenceDTW.SubsequenceDTW (
            List< double > template,
            float distanceThreshold,
            int minimumSubsequenceLength = 2 )
```

Creates a new instance of the SubsequenceDTW class.

Parameters

template	

Template stream for comparison.

Parameters

distanceThreshold	

Distance threshold which describes the maximum distance that reports a detected subsequence.

Parameters

minimumSubsequenceLength	

Minimum length of a detected subsequence.

6.33.3 Member Function Documentation

6.33.3.1 compareDataStream()

```
Subsequence RowingMonitor.Model.Util.SubsequenceDTW.compareDataStream (
            double xT,
            int t )
```

Compare the value x at time t of the data stream with the template. Returns an unset, not optimal or optimal subsequence with its distance, starttime and endtime. Uses the SPRING DTW algorithm.

Parameters

xT	

Value x of data stream at time t.

Parameters

t	

Time t of value x. Time starts with 1.

Returns

A subsequence with its distance, starttime and endtime.

The documentation for this class was generated from the following file:

- Model/Util/SubsequenceDTW.cs

6.34 RowingMonitor.Model.Pipeline.KinectJointFilter.TRANSFORM_SMOOTH_PARAMETERS Struct Reference

Public Attributes

- float fSmoothing
- float fCorrection
- float fPrediction
- float fJitterRadius
- float fMaxDeviationRadius

6.34.1 Member Data Documentation

6.34.1.1 fCorrection

```
float RowingMonitor.Model.Pipeline.KinectJointFilter.TRANSFORM_SMOOTH_PARAMETERS.fCorrection
```

6.34.1.2 fJitterRadius

```
float RowingMonitor.Model.Pipeline.KinectJointFilter.TRANSFORM_SMOOTH_PARAMETERS.fJitterRadius
```

6.34.1.3 fMaxDeviationRadius

```
float RowingMonitor.Model.Pipeline.KinectJointFilter.TRANSFORM_SMOOTH_PARAMETERS.fMaxDeviation↩
Radius
```

6.34.1.4 fPrediction

```
float RowingMonitor.Model.Pipeline.KinectJointFilter.TRANSFORM_SMOOTH_PARAMETERS.fPrediction
```

6.34.1.5 fSmoothing

```
float RowingMonitor.Model.Pipeline.KinectJointFilter.TRANSFORM_SMOOTH_PARAMETERS.fSmoothing
```

The documentation for this struct was generated from the following file:

- Model/Pipeline/KinectJointFilter.cs

6.35 RowingMonitor.Model.VelocityCalculator Class Reference

Public Member Functions

- delegate void CalculatedFrameArrivedEventHandler (Object sender, CalculatedFrameArrivedEventArgs e)
- void CalculateVelocity (JointData jointData)

  Calculates the velocity as 1st derivative (gradient) of position. Calculation needs one frame as buffer.

Events

- CalculatedFrameArrivedEventHandler CalculatedFrameArrived

6.35.1 Member Function Documentation

6.35.1.1 CalculatedFrameArrivedEventHandler()

```
delegate void RowingMonitor.Model.VelocityCalculator.CalculatedFrameArrivedEventHandler (
            Object sender,
            CalculatedFrameArrivedEventArgs e )
```

6.35.1.2 CalculateVelocity()

```
void RowingMonitor.Model.VelocityCalculator.CalculateVelocity (
            JointData jointData )
```

Calculates the velocity as 1st derivative (gradient) of position. Calculation needs one frame as buffer.

Parameters

jointData	

6.35.2 Event Documentation

6.35.2.1 CalculatedFrameArrived

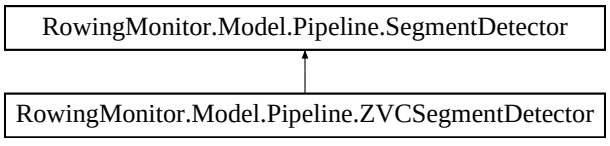
```
CalculatedFrameArrivedEventHandler RowingMonitor.Model.VelocityCalculator.CalculatedFrame↩
Arrived
```

The documentation for this class was generated from the following file:

- Model/Pipeline/VelocityCalculator.cs

6.36 RowingMonitor.Model.Pipeline.ZVCSegmentDetector Class Reference

Inheritance diagram for RowingMonitor.Model.Pipeline.ZVCSegmentDetector:



Public Member Functions

- ZVCSegmentDetector (int minimumHitGap, bool startSegmentWithRisingVelocity=true)

  Creates a new zero velocity segment detector.
- override void Update (JointData jointData, JointType jointType, String axis)

Protected Member Functions

- override void OnSegmentDetected (SegmentDetectedEventArgs e)

Additional Inherited Members

6.36.1 Constructor & Destructor Documentation

6.36.1.1 ZVCSegmentDetector()

```
RowingMonitor.Model.Pipeline.ZVCSegmentDetector.ZVCSegmentDetector (
            int minimumHitGap,
            bool startSegmentWithRisingVelocity = true )
```

Creates a new zero velocity segment detector.

Parameters

minimumHitGap	Minimum count ouf indices between two hits.
startSegmentWithRisingVelocity	Define if the start/end point of a segment has a rising or falling slope

6.36.2 Member Function Documentation

6.36.2.1 OnSegmentDetected()

```
override void RowingMonitor.Model.Pipeline.ZVCSegmentDetector.OnSegmentDetected (
            SegmentDetectedEventArgs e )  [protected], [virtual]
```

Reimplemented from RowingMonitor.Model.Pipeline.SegmentDetector.

6.36.2.2 Update()

```
override void RowingMonitor.Model.Pipeline.ZVCSegmentDetector.Update (
            JointData jointData,
            JointType jointType,
            String axis )  [virtual]
```

Implements RowingMonitor.Model.Pipeline.SegmentDetector.

The documentation for this class was generated from the following file:

- Model/Pipeline/ZVCSegmentDetector.cs

Chapter 7

File Documentation

7.1 App.xaml.cs File Reference

Classes

- class RowingMonitor.App

  Interaktionslogik für "App.xaml"

Namespaces

- namespace RowingMonitor

7.2 MainWindow.xaml.cs File Reference

Classes

- class RowingMonitor.MainWindow

  Interaktionslogik für MainWindow.xaml

Namespaces

- namespace RowingMonitor

7.3 Model/EventArgs/CalculatedFrameArrivedEventArgs.cs File Reference

Classes

- class RowingMonitor.Model.CalculatedFrameArrivedEventArgs

  Represents the arguments for a calculated frame arrived event.

Namespaces

- namespace RowingMonitor.Model

7.4 Model/EventArgs/ColorFrameArrivedEventArgs.cs File Reference

Classes

- class RowingMonitor.Model.ColorFrameArrivedEventArgs

  Represents the arguments for a KinectReader's ColorFrameArrived event.

Namespaces

- namespace RowingMonitor.Model

7.5 Model/EventArgs/KinectFrameArrivedEventArgs.cs File Reference

Classes

- class RowingMonitor.Model.KinectFrameArrivedEventArgs

  Represents the arguments for a KinectReader's FrameArrived event.

Namespaces

- namespace RowingMonitor.Model

7.6 Model/EventArgs/KleshnevEventArgs.cs File Reference

Classes

- class RowingMonitor.Model.KleshnevEventArgs

  Represents the arguments for a finished Kleshnev analysis.

Namespaces

- namespace RowingMonitor.Model

7.7 Model/EventArgs/SegmentDetectedEventArgs.cs File Reference

Classes

- class RowingMonitor.Model.SegmentDetectedEventArgs

  Represents the arguments for a detected segment event.

Namespaces

- namespace RowingMonitor.Model

7.8 Model/EventArgs/ShiftedFrameArrivedEventArgs.cs File Reference

Classes

- class RowingMonitor.Model.ShiftedFrameArrivedEventArgs

  Represents the arguments for a shifted frame arrived event.

Namespaces

- namespace RowingMonitor.Model

7.9 Model/EventArgs/SmoothedFrameArrivedEventArgs.cs File Reference

Classes

- class RowingMonitor.Model.SmoothedFrameArrivedEventArgs

  Represents the arguments for a smoothed joint data arrived event.

Namespaces

- namespace RowingMonitor.Model

7.10 Model/Pipeline/DTWSegmentDetector.cs File Reference

Classes

- class RowingMonitor.Model.Pipeline.DTWSegmentDetector

Namespaces

- namespace RowingMonitor.Model.Pipeline

7.11 Model/Pipeline/FrontalView.cs File Reference

Classes

- class RowingMonitor.Model.FrontalView

  This class shows a frontal view of the tracked skeleton. Also it shows the color image sequence which is recorded by the kinect sensor.

Namespaces

- namespace RowingMonitor.Model

7.12 Model/Pipeline/KinectJointFilter.cs File Reference

Classes

- class RowingMonitor.Model.Pipeline.KinectJointFilter

  Adapted default Kinect smoothing filter to work with the pipeline. https://social.msdn.microsoft.↩ com/Forums/en-US/ffbc8ec7-7551-4462-88aa-2fab69eac38f/joint-smoothing-code-c-errors-in-kin
- struct RowingMonitor.Model.Pipeline.KinectJointFilter.TRANSFORM_SMOOTH_PARAMETERS
- class RowingMonitor.Model.Pipeline.KinectJointFilter.FilterDoubleExponentialData

Namespaces

- namespace RowingMonitor.Model.Pipeline

7.13 Model/Pipeline/KinectReader.cs File Reference

Classes

- class RowingMonitor.Model.KinectReader

  The KinectReader class connects the application to the Kinect device.

Namespaces

- namespace RowingMonitor.Model

7.14 Model/Pipeline/KleshnevVelocityCalculator.cs File Reference

Classes

- class RowingMonitor.Model.Pipeline.KleshnevVelocityCalculator
- struct RowingMonitor.Model.Pipeline.KleshnevData

Namespaces

- namespace RowingMonitor.Model.Pipeline

7.15 Model/Pipeline/OneEuroFilterSmoothing.cs File Reference

Classes

- class RowingMonitor.Model.OneEuroFilterSmoothing

Namespaces

- namespace RowingMonitor.Model

7.16 Model/Pipeline/Plot.cs File Reference

Classes

- class RowingMonitor.Model.Plot
- struct RowingMonitor.Model.PlotData

Namespaces

- namespace RowingMonitor.Model

7.17 Model/Pipeline/RowingMonitorPipeline.cs File Reference

Classes

- class RowingMonitor.Model.Pipeline.RowingMonitorPipeline

Namespaces

- namespace RowingMonitor.Model.Pipeline

7.18 Model/Pipeline/SegmentDetector.cs File Reference

Classes

- class RowingMonitor.Model.Pipeline.SegmentDetector

Namespaces

- namespace RowingMonitor.Model.Pipeline

7.19 Model/Pipeline/Shifter.cs File Reference

Classes

- class RowingMonitor.Model.Shifter

  Shifts the origin to the middle point between the foot ankle joints. Also rotates all joints until origin and hip joint form a horizontal line.

Namespaces

- namespace RowingMonitor.Model

7.20 Model/Pipeline/SideView.cs File Reference

Classes

- class RowingMonitor.Model.SideView

Namespaces

- namespace RowingMonitor.Model

7.21 Model/Pipeline/VelocityCalculator.cs File Reference

Classes

- class RowingMonitor.Model.VelocityCalculator

Namespaces

- namespace RowingMonitor.Model

7.22 Model/Pipeline/ZVCSegmentDetector.cs File Reference

Classes

- class RowingMonitor.Model.Pipeline.ZVCSegmentDetector

Namespaces

- namespace RowingMonitor.Model.Pipeline

7.23 Model/Util/BodyNotFullyTrackedException.cs File Reference

Classes

- class RowingMonitor.Model.BodyNotFullyTrackedException

Namespaces

- namespace RowingMonitor.Model

7.24 Model/Util/Enums.cs File Reference

Namespaces

- namespace RowingMonitor.Model.Util

Enumerations

- enum RowingMonitor.Model.Util.KleshnevVelocityType { RowingMonitor.Model.Util.KleshnevVelocityType.Legs, RowingMonitor.Model.Util.KleshnevVelocityType.HandleRight, RowingMonitor.Model.Util.KleshnevVelocityType.HandleLeft, RowingMonitor.Model.Util.KleshnevVelocityType.Trunk, RowingMonitor.Model.Util.KleshnevVelocityType.ArmsRight, RowingMonitor.Model.Util.KleshnevVelocityType.ArmsLeft }
- enum RowingMonitor.Model.Util.DataStreamType { RowingMonitor.Model.Util.DataStreamType.RawPosition, RowingMonitor.Model.Util.DataStreamType.SmoothedPosition, RowingMonitor.Model.Util.DataStreamType.Velocity, RowingMonitor.Model.Util.DataStreamType.SegmentHits, RowingMonitor.Model.Util.DataStreamType.Other }
- enum RowingMonitor.Model.Util.HitType { RowingMonitor.Model.Util.HitType.SegmentStart, RowingMonitor.Model.Util.HitType.SegmentInternal, RowingMonitor.Model.Util.HitType.SegmentEnd, RowingMonitor.Model.Util.HitType.SegmentEndStart }

7.25 Model/Util/KinectDataHandler.cs File Reference

Classes

- class RowingMonitor.Model.Util.KinectDataHandler
- struct RowingMonitor.Model.Util.JointData
- struct RowingMonitor.Model.Util.SegmentHit

Namespaces

- namespace RowingMonitor.Model.Util

7.26 Model/Util/LowPassFilter.cs File Reference

Classes

- class RowingMonitor.Model.LowPassFilter

Namespaces

- namespace RowingMonitor.Model

7.27 Model/Util/RelayCommand.cs File Reference

Classes

- class RowingMonitor.RelayCommand

Namespaces

- namespace RowingMonitor

7.28 Model/Util/SubsequenceDTW.cs File Reference

Classes

- class RowingMonitor.Model.Util.SubsequenceDTW

  Compares an online data stream with a template stream. Uses the SPRING DTW algorithm.
- struct RowingMonitor.Model.Util.Subsequence

  Subsequence in a data stream which suits a given template.

Namespaces

- namespace RowingMonitor.Model.Util

Enumerations

- enum RowingMonitor.Model.Util.SubsequenceStatus { RowingMonitor.Model.Util.SubsequenceStatus.NOT_SET, RowingMonitor.Model.Util.SubsequenceStatus.NOT_OPTIMAL, RowingMonitor.Model.Util.SubsequenceStatus.OPTIMAL }

  Status of detected subsequence.

7.29 obj/Debug/App.g.cs File Reference

Classes

- class RowingMonitor.App

  Interaktionslogik für "App.xaml"

Namespaces

- namespace RowingMonitor

7.30 obj/Release/App.g.cs File Reference

Classes

- class RowingMonitor.App
  Interaktionslogik für "App.xaml"

Namespaces

- namespace RowingMonitor

7.31 obj/Debug/App.g.i.cs File Reference

Classes

- class RowingMonitor.App
  Interaktionslogik für "App.xaml"

Namespaces

- namespace RowingMonitor

7.32 obj/Release/App.g.i.cs File Reference

Classes

- class RowingMonitor.App
  Interaktionslogik für "App.xaml"

Namespaces

- namespace RowingMonitor

7.33 obj/Debug/GeneratedInternalTypeHelper.g.i.cs File Reference

Classes

- class XamlGeneratedNamespace.GeneratedInternalTypeHelper
  GeneratedInternalTypeHelper

Namespaces

- namespace XamlGeneratedNamespace

7.34 obj/Debug/MainWindow.g.cs File Reference

Classes

- class RowingMonitor.MainWindow

  Interaktionslogik für MainWindow.xaml

Namespaces

- namespace RowingMonitor

7.35 obj/Release/MainWindow.g.cs File Reference

Classes

- class RowingMonitor.MainWindow

  Interaktionslogik für MainWindow.xaml

Namespaces

- namespace RowingMonitor

7.36 obj/Debug/MainWindow.g.i.cs File Reference

Classes

- class RowingMonitor.MainWindow

  Interaktionslogik für MainWindow.xaml

Namespaces

- namespace RowingMonitor

7.37 obj/Release/MainWindow.g.i.cs File Reference

Classes

- class RowingMonitor.MainWindow

  Interaktionslogik für MainWindow.xaml

Namespaces

- namespace RowingMonitor

7.38 obj/Debug/TemporaryGeneratedFile_036C0B5B-1481-4323-8D20-8F5ADCB23D92.cs File Reference

7.39 obj/Release/TemporaryGeneratedFile_036C0B5B-1481-4323-8D20-8F5ADCB23D92.cs File Reference

7.40 obj/Debug/TemporaryGeneratedFile_5937a670-0e60-4077-877b-f7221da3dda1.cs File Reference

7.41 obj/Release/TemporaryGeneratedFile_5937a670-0e60-4077-877b-f7221da3dda1.cs File Reference

7.42 obj/Debug/TemporaryGeneratedFile_E7A71F73-0F8D-4B9B-B56E-8E70B10BC5D3.cs File Reference

7.43 obj/Release/TemporaryGeneratedFile_E7A71F73-0F8D-4B9B-B56E-8E70B10BC5D3.cs File Reference

7.44 Properties/AssemblyInfo.cs File Reference

7.45 Properties/Resources.Designer.cs File Reference

Classes

- class **RowingMonitor.Properties.Resources**

  Eine stark typisierte Ressourcenklasse zum Suchen von lokalisierten Zeichenfolgen usw.

Namespaces

- namespace RowingMonitor.Properties

7.46 Properties/Settings.Designer.cs File Reference

Classes

- class **RowingMonitor.Properties.Settings**

Namespaces

- namespace RowingMonitor.Properties

7.47 ViewModel/MainViewModel.cs File Reference

Classes

- class RowingMonitor.ViewModel.MainViewModel

  Represents the view-model for the main window.

Namespaces

- namespace RowingMonitor.ViewModel

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