Xamarin Equations App

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Chapter 1

Namespace Index

1.1 Packages

Here are the packages with brief descriptions (if available):

Chapter 2

Hierarchical Index

2.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

Chapter 3

Class Index

3.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

Chapter 4

File Index

4.1 File List

Here is a list of all files with brief descriptions:

Chapter 5

Namespace Documentation

5.1 MobileXamarin Namespace Reference

Namespaces

- namespace AppResources
- namespace Enums
- namespace EquationResolvers
- namespace IModels
- namespace IViewModels
- namespace Models
- namespace Repository
- namespace ViewModels
- namespace Views

Classes

- class App

  Core class for Xamarin app

5.2 MobileXamarin.AppResources Namespace Reference

Namespaces

- namespace Localization

5.3 MobileXamarin.AppResources.Localization Namespace Reference

Classes

- class Resources

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

5.4 MobileXamarin.Enums Namespace Reference

Enumerations

- enum EquationType { EquationType.Kinetic, EquationType.Lagrange, EquationType.Rocket, EquationType.Unknown }

  Types of equations
- enum Units { Units.Meter, Units.Kilometer, Units.Second, Units.Hour, Units.KilometerPerHour, Units.MeterForSecond, Units.Kilogram, Units.Gram, Units.KilogramPerSecond, Units.Celsius, Units.Kelvin, Units.Unknown }

  Units used in program

5.4.1 Enumeration Type Documentation

5.4.1.1 EquationType

`enum MobileXamarin.Enums.EquationType [strong]`

Types of equations

Enumerator

Kinetic	Kinetic energy equation
Lagrange	Lagrange Interpolation equation
Rocket	Vertical start of rocket equation
Unknown	Unknown equation

Definition at line 10 of file EquationType.cs.

5.4.1.2 Units

`enum MobileXamarin.Enums.Units [strong]`

Units used in program

Enumerator

Meter	Meter [m]
Kilometer	Kilometer [km]
Second	Second [s]
Hour	Hour [h]
KilometerPerHour	Kilometer per hour [km/h]
MeterForSecond	Meter per second [m/s]

Enumerator

Kilogram	Kilogram [kg]
Gram	Gram [g]
KilogramPerSecond	Kilogram per second [kg/s]
Celsius	Celsius [C]
Kelvin	Kelvin [K]
Unknown	Unknown unit

Definition at line 10 of file Units.cs.

5.5 MobileXamarin.EquationResolvers Namespace Reference

Classes

- interface IKineticEquationResolver

  Resolver for kinetic energy equation
- interface ILagrangeResolver

  Resolver for Lagrange interpolation equation
- interface IRocketEquationResolver

  Resolver for vertical rocket start equation
- class KineticEquationResolver
- class LagrangeResolver

  Lagrange resolver
- class **Normalization**

  Normalization class
- class RocketEquationResolver

5.6 MobileXamarin.IModels Namespace Reference

Classes

- interface IEquation

  Equation model interface

5.7 MobileXamarin.IViewModels Namespace Reference

Classes

- interface IEquationViewModelBase

  Base interface for equation view models
- interface IHomeViewModel

  View model for HomeView
- interface IKineticEnergyEquationViewModel

  View model for Kinetic Energy Equation View
- interface ILagrangeEquationViewModel

  Lagrange interpolation equation viewmodel
- interface IResultViewModel

  Result viewmodel
- interface IRocketEquationViewModel

  Rocket equation view model

5.8 MobileXamarin.Models Namespace Reference

Classes

- class Equation

  Equation model
- class Point

  Point with double type parameters
- class Result

  Result holder for any equations
- class RocketParameter

  Parameters of the rocket

5.9 MobileXamarin.Repository Namespace Reference

Classes

- class EquationRepository
- interface IEquationRepository

  Repository for equations
- class **UnitRepository**

  Repository for units

5.10 MobileXamarin.ViewModels Namespace Reference

Classes

- class BaseViewModel

  Base class for view models
- class EquationViewModelBase

  Abstract base class for equation view models
- class HomeViewModel

  Home view model IHomeViewModel
- class KineticEnergyEquationViewModel

  Kinetic Energy Equation ViewModel
- class LagrangeEquationViewModel

  Lagrange interpolation viewmodel
- class ResultViewModel

  Result viewmodel
- class RocketEquationViewModel

  Rocket equation viewmodel
- class ViewModelLocator

  IoC container

5.11 MobileXamarin.Views Namespace Reference

Classes

- class DetailsView
- class ForgotPasswordView
- class HomeView

  Home view class
- class KineticEnergyEquationView

  Kinetic energy view
- class LagrangeEquationView

  Lagrange view
- class ResultView

  Result view
- class RocketEquationView

  Rocket view
- class SignInView
- class SignUpView

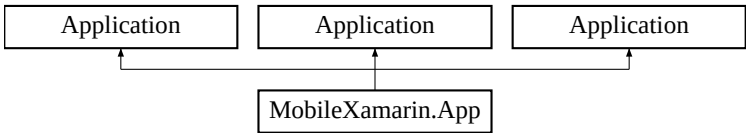
Chapter 6

Class Documentation

6.1 MobileXamarin.App Class Reference

Core class for Xamarin app

Inheritance diagram for MobileXamarin.App:



Public Member Functions

- App ()
  Constructor for App

Protected Member Functions

- override void OnStart ()
  Handle when your app starts
- override void OnSleep ()
  Handle when your app sleeps
- override void OnResume ()
  Handle when your app resumes

6.1.1 Detailed Description

Core class for Xamarin app

Definition at line 12 of file App.xaml.cs.

6.1.2 Constructor & Destructor Documentation

6.1.2.1 App()

```
MobileXamarin.App.App ( )
```

Constructor for App

Definition at line 17 of file App.xaml.cs.

6.1.3 Member Function Documentation

6.1.3.1 OnResume()

```
override void MobileXamarin.App.OnResume ( )  [protected]
```

Handle when your app resumes

Definition at line 54 of file App.xaml.cs.

6.1.3.2 OnSleep()

```
override void MobileXamarin.App.OnSleep ( )  [protected]
```

Handle when your app sleeps

Definition at line 46 of file App.xaml.cs.

6.1.3.3 OnStart()

```
override void MobileXamarin.App.OnStart ( )  [protected]
```

Handle when your app starts

Definition at line 38 of file App.xaml.cs.

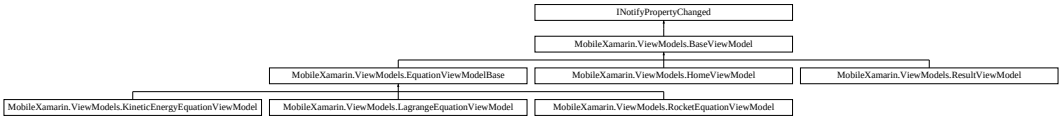
The documentation for this class was generated from the following files:

- App.xaml.cs
- obj/Debug/netstandard2.0/App.xaml.g.cs
- obj/Debug/netstandard2.0/MobileXamarin.App.xaml.g.cs

6.2 MobileXamarin.ViewModels.BaseViewModel Class Reference

Base class for view models

Inheritance diagram for MobileXamarin.ViewModels.BaseViewModel:



Public Member Functions

- void OnPropertyChanged ([CallerMemberName] string propertyName="")

  OnPropertyChanged - raises PropertyChanged event

Protected Attributes

- IPopupsService PopupService

  Popup service for displaying popups
- INavigationService NavigationService

  Navigation service for navigation through pages

Events

- PropertyChangedEventHandler PropertyChanged

  Property changed event handler

6.2.1 Detailed Description

Base class for view models

Definition at line 11 of file BaseViewModel.cs.

6.2.2 Member Function Documentation

6.2.2.1 OnPropertyChanged()

```
void MobileXamarin.ViewModels.BaseViewModel.OnPropertyChanged (
            [CallerMemberName] string propertyName = "" )
```

OnPropertyChanged - raises PropertyChanged event

Parameters

propertyName	

Definition at line 33 of file BaseViewModel.cs.

6.2.3 Member Data Documentation

6.2.3.1 NavigationService

```
INavigationService MobileXamarin.ViewModels.BaseViewModel.NavigationService  [protected]
```

Navigation service for navigation through pages

Definition at line 21 of file BaseViewModel.cs.

6.2.3.2 PopupService

```
IPopupsService MobileXamarin.ViewModels.BaseViewModel.PopupService  [protected]
```

Popup service for displaying popups

Definition at line 16 of file BaseViewModel.cs.

6.2.4 Event Documentation

6.2.4.1 PropertyChanged

```
PropertyChangedEventHandler MobileXamarin.ViewModels.BaseViewModel.PropertyChanged
```

Property changed event handler

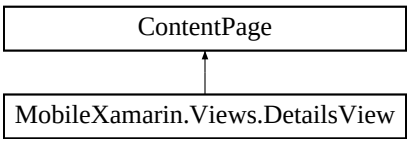
Definition at line 27 of file BaseViewModel.cs.

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

- ViewModels/BaseViewModel.cs

6.3 MobileXamarin.Views.DetailsView Class Reference

Inheritance diagram for MobileXamarin.Views.DetailsView:



6.3.1 Detailed Description

Definition at line 16 of file MobileXamarin.Views.DetailsView.xaml.g.cs.

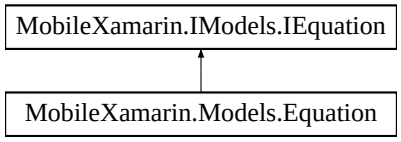
The documentation for this class was generated from the following file:

- obj/Debug/netstandard2.0/MobileXamarin.Views.DetailsView.xaml.g.cs

6.4 MobileXamarin.Models.Equation Class Reference

Equation model

Inheritance diagram for MobileXamarin.Models.Equation:



Public Member Functions

- Equation (string name, string imageName, EquationType type)
  Constructor for equation model
- override string ToString ()

Public Attributes

- ImageSource Image => ImageSource.FromResource($"MobileXamarin.AppResources.Assets.{imageName}")
  Gets the image of that equation

Properties

- string Name [get]
  Name of the equation
- EquationType EquationType [get]
  Type of equation

6.4.1 Detailed Description

Equation model

Definition at line 14 of file Equation.cs.

6.4.2 Constructor & Destructor Documentation

6.4.2.1 Equation()

```
MobileXamarin.Models.Equation.Equation (
            string name,
            string imageName,
            EquationType type )
```

Constructor for equation model

Parameters

name	Name of the equation
imageName	Image name which is in Assets for the equation
type	Type of equation

Definition at line 40 of file Equation.cs.

6.4.3 Member Function Documentation

6.4.3.1 ToString()

```
override string MobileXamarin.Models.Equation.ToString ( )
```

Definition at line 48 of file Equation.cs.

6.4.4 Member Data Documentation

6.4.4.1 Image

```
ImageSource MobileXamarin.Models.Equation.Image => ImageSource.FromResource($"MobileXamarin.↩
AppResources.Assets.{imageName}")
```

Gets the image of that equation

Definition at line 31 of file Equation.cs.

6.4.5 Property Documentation

6.4.5.1 EquationType

```
EquationType MobileXamarin.Models.Equation.EquationType  [get]
```

Type of equation

Definition at line 26 of file Equation.cs.

6.4.5.2 Name

```
string MobileXamarin.Models.Equation.Name  [get]
```

Name of the equation

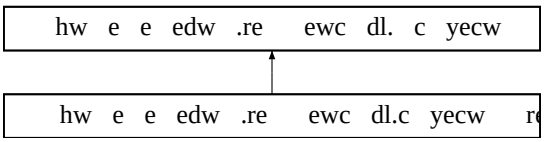
Definition at line 21 of file Equation.cs.

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

- Models/Equation.cs

6.5 MobileXamarin.Repository.EquationRepository Class Reference

Inheritance diagram for MobileXamarin.Repository.EquationRepository:



Public Member Functions

- EquationRepository ()
  Constructor for Equation repository
- IEnumerable< IEquation > GetEquations ()
  Get all saved equations

6.5.1 Detailed Description

Definition at line 13 of file EquationRepository.cs.

6.5.2 Constructor & Destructor Documentation

6.5.2.1 EquationRepository()

```
MobileXamarin.Repository.EquationRepository.EquationRepository ( )
```

Constructor for Equation repository

Definition at line 20 of file EquationRepository.cs.

6.5.3 Member Function Documentation

6.5.3.1 GetEquations()

```
IEnumerable<IEquation> MobileXamarin.Repository.EquationRepository.GetEquations ( )
```

Get all saved equations

Returns

Returns all equations

Implements MobileXamarin.Repository.IEquationRepository.

Definition at line 39 of file EquationRepository.cs.

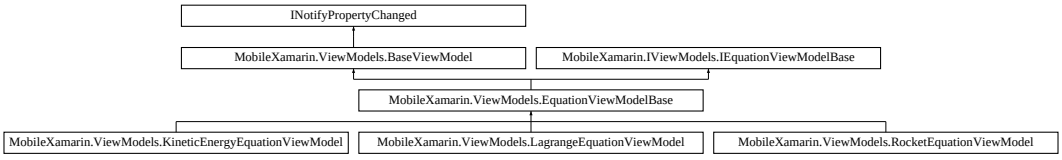
The documentation for this class was generated from the following file:

- Repository/EquationRepository.cs

6.6 MobileXamarin.ViewModels.EquationViewModelBase Class Reference

Abstract base class for equation view models

Inheritance diagram for MobileXamarin.ViewModels.EquationViewModelBase:



Protected Member Functions

- EquationViewModelBase ()

  Constructor for base class for equation view models
- abstract bool ResolveCanExecute ()

  Determines if can execute Resolve command
- abstract Task ResolveExecute ()

  Executes Resolve command

Properties

- bool IsBusy `[get, set]`

  Indicates when to show busy indication
- RelayCommand Resolve `[get]`

  Gets command for resolving equation

Additional Inherited Members

6.6.1 Detailed Description

Abstract base class for equation view models

Definition at line 14 of file EquationViewModelBase.cs.

6.6.2 Constructor & Destructor Documentation

6.6.2.1 EquationViewModelBase()

```
MobileXamarin.ViewModels.EquationViewModelBase.EquationViewModelBase ( )  [protected]
```

Constructor for base class for equation view models

Definition at line 42 of file EquationViewModelBase.cs.

6.6.3 Member Function Documentation

6.6.3.1 ResolveCanExecute()

```
abstract bool MobileXamarin.ViewModels.EquationViewModelBase.ResolveCanExecute ( )  [protected],
[pure virtual]
```

Determines if can execute Resolve command

Returns

True when can execute Resolve command, False if not

Implemented in MobileXamarin.ViewModels.RocketEquationViewModel, MobileXamarin.ViewModels.KineticEnergyEquationViewMod and MobileXamarin.ViewModels.LagrangeEquationViewModel.

6.6.3.2 ResolveExecute()

```
abstract Task MobileXamarin.ViewModels.EquationViewModelBase.ResolveExecute ( )  [protected],
[pure virtual]
```

Executes Resolve command

Returns

Task which execute command

Implemented in MobileXamarin.ViewModels.RocketEquationViewModel, MobileXamarin.ViewModels.KineticEnergyEquationViewMod and MobileXamarin.ViewModels.LagrangeEquationViewModel.

6.6.4 Property Documentation

6.6.4.1 IsBusy

```
bool MobileXamarin.ViewModels.EquationViewModelBase.IsBusy  [get], [set]
```

Indicates when to show busy indication

Definition at line 22 of file EquationViewModelBase.cs.

6.6.4.2 Resolve

```
RelayCommand MobileXamarin.ViewModels.EquationViewModelBase.Resolve  [get]
```

Gets command for resolving equation

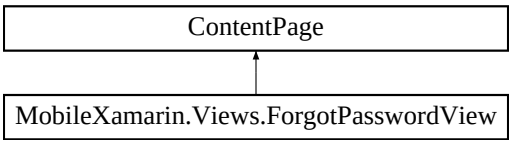
Definition at line 37 of file EquationViewModelBase.cs.

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

- ViewModels/EquationViewModelBase.cs

6.7 MobileXamarin.Views.ForgotPasswordView Class Reference

Inheritance diagram for MobileXamarin.Views.ForgotPasswordView:



6.7.1 Detailed Description

Definition at line 16 of file MobileXamarin.Views.ForgotPasswordView.xaml.g.cs.

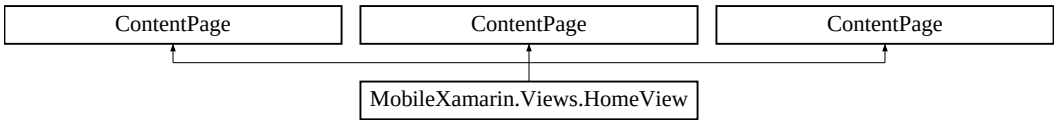
The documentation for this class was generated from the following file:

- obj/Debug/netstandard2.0/MobileXamarin.Views.ForgotPasswordView.xaml.g.cs

6.8 MobileXamarin.Views.HomeView Class Reference

Home view class

Inheritance diagram for MobileXamarin.Views.HomeView:



Public Member Functions

- HomeView ()

  Constructor for Home view

6.8.1 Detailed Description

Home view class

Definition at line 16 of file MobileXamarin.Views.HomeView.xaml.g.cs.

6.8.2 Constructor & Destructor Documentation

6.8.2.1 HomeView()

```
MobileXamarin.Views.HomeView.HomeView ( )
```

Constructor for Home view

Definition at line 15 of file HomeView.xaml.cs.

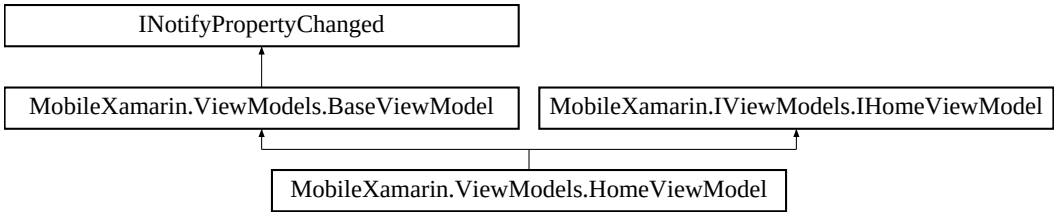
The documentation for this class was generated from the following files:

- obj/Debug/netstandard2.0/MobileXamarin.Views.HomeView.xaml.g.cs
- obj/Debug/netstandard2.0/Views/HomeView.xaml.g.cs
- Views/HomeView.xaml.cs

6.9 MobileXamarin.ViewModels.HomeViewModel Class Reference

Home view model IHomeViewModel

Inheritance diagram for MobileXamarin.ViewModels.HomeViewModel:



Public Member Functions

- HomeViewModel (IEquationRepository equationRepository, INavigationService navigationService)
  Constructor for HomeViewModel

Properties

- IEquation SelectedEquation `[get, set]`
  Selected equation from the list
- IEnumerable< IEquation > Equations `[get]`
  Gets all equations
- RelayCommand NextPageCommand `[get]`
  Command for navigating to the next page when equation has been selected

Additional Inherited Members

6.9.1 Detailed Description

Home view model IHomeViewModel

Definition at line 17 of file HomeViewModel.cs.

6.9.2 Constructor & Destructor Documentation

6.9.2.1 HomeViewModel()

```
MobileXamarin.ViewModels.HomeViewModel.HomeViewModel (
            IEquationRepository equationRepository,
            INavigationService navigationService )
```

Constructor for HomeViewModel

Parameters

equationRepository	Equation repository IEquationRepository
navigationService	Navigation service INavigationService

Definition at line 53 of file HomeViewModel.cs.

6.9.3 Property Documentation

6.9.3.1 Equations

```
IEnumerable<IEquation> MobileXamarin.ViewModels.HomeViewModel.Equations  [get]
```

Gets all equations

Definition at line 41 of file HomeViewModel.cs.

6.9.3.2 NextPageCommand

```
RelayCommand MobileXamarin.ViewModels.HomeViewModel.NextPageCommand  [get]
```

Command for navigating to the next page when equation has been selected

Definition at line 46 of file HomeViewModel.cs.

6.9.3.3 SelectedEquation

```
IEquation MobileXamarin.ViewModels.HomeViewModel.SelectedEquation  [get], [set]
```

Selected equation from the list

Definition at line 25 of file HomeViewModel.cs.

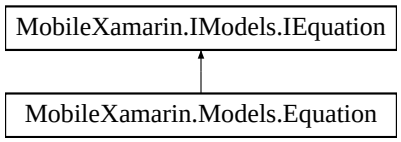
The documentation for this class was generated from the following file:

- ViewModels/HomeViewModel.cs

6.10 MobileXamarin.IModels.IEquation Interface Reference

Equation model interface

Inheritance diagram for MobileXamarin.IModels.IEquation:



Properties

- string Name [get]

  Name of the equation
- ImageSource Image [get]

  Gets the image of that equation
- EquationType EquationType [get]

  Type of equation

6.10.1 Detailed Description

Equation model interface

Definition at line 13 of file IEquation.cs.

6.10.2 Property Documentation

6.10.2.1 EquationType

```
EquationType MobileXamarin.IModels.IEquation.EquationType  [get]
```

Type of equation

Definition at line 28 of file IEquation.cs.

6.10.2.2 Image

```
ImageSource MobileXamarin.IModels.IEquation.Image  [get]
```

Gets the image of that equation

Definition at line 23 of file IEquation.cs.

6.10.2.3 Name

```
string MobileXamarin.IModels.IEquation.Name  [get]
```

Name of the equation

Definition at line 18 of file IEquation.cs.

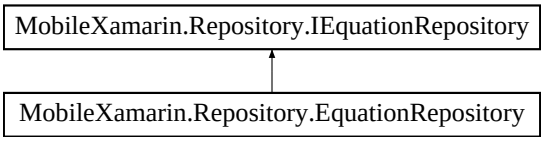
The documentation for this interface was generated from the following file:

- IModels/IEquation.cs

6.11 MobileXamarin.Repository.IEquationRepository Interface Reference

Repository for equations

Inheritance diagram for MobileXamarin.Repository.IEquationRepository:



Public Member Functions

- IEnumerable< IEquation > GetEquations ()

  Get all saved equations

6.11.1 Detailed Description

Repository for equations

Definition at line 13 of file IEquationRepository.cs.

6.11.2 Member Function Documentation

6.11.2.1 GetEquations()

```
IEnumerable<IEquation> MobileXamarin.Repository.IEquationRepository.GetEquations ( )
```

Get all saved equations

Returns

Returns all equations

Implemented in MobileXamarin.Repository.EquationRepository.

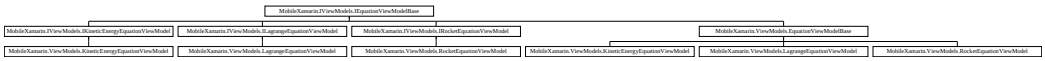
The documentation for this interface was generated from the following file:

- Repository/IEquationRepository.cs

6.12 MobileXamarin.IViewModels.IEquationViewModelBase Interface Reference

Base interface for equation view models

Inheritance diagram for MobileXamarin.IViewModels.IEquationViewModelBase:



Properties

- RelayCommand Resolve `[get]`
  Gets command for resolving equation
- bool IsBusy `[get, set]`
  Indicates when to show busy indication

6.12.1 Detailed Description

Base interface for equation view models

Definition at line 12 of file IEquationViewModelBase.cs.

6.12.2 Property Documentation

6.12.2.1 IsBusy

```
bool MobileXamarin.IViewModels.IEquationViewModelBase.IsBusy  [get], [set]
```

Indicates when to show busy indication

Definition at line 22 of file IEquationViewModelBase.cs.

6.12.2.2 Resolve

```
RelayCommand MobileXamarin.IViewModels.IEquationViewModelBase.Resolve  [get]
```

Gets command for resolving equation

Definition at line 17 of file IEquationViewModelBase.cs.

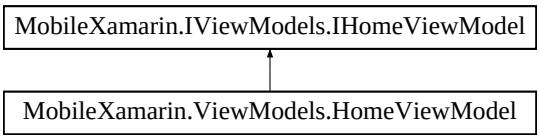
The documentation for this interface was generated from the following file:

- IViewModels/IEquationViewModelBase.cs

6.13 MobileXamarin.IViewModels.IHomeViewModel Interface Reference

View model for HomeView

Inheritance diagram for MobileXamarin.IViewModels.IHomeViewModel:



Properties

- IEnumerable< IEquation > Equations [get]
  Gets all equations

6.13.1 Detailed Description

View model for HomeView

Definition at line 10 of file IHomeViewModel.cs.

6.13.2 Property Documentation

6.13.2.1 Equations

```
IEnumerable<IEquation> MobileXamarin.IViewModels.IHomeViewModel.Equations  [get]
```

Gets all equations

Definition at line 15 of file IHomeViewModel.cs.

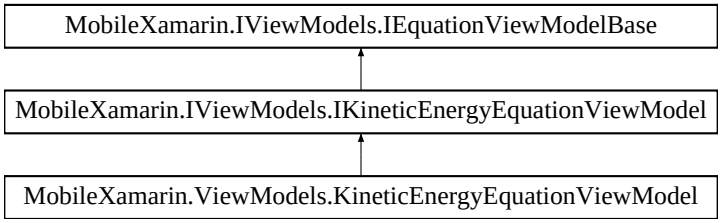
The documentation for this interface was generated from the following file:

- IViewModels/IHomeViewModel.cs

6.14 MobileXamarin.IViewModels.IKineticEnergyEquationViewModel Interface Reference

View model for Kinetic Energy Equation View

Inheritance diagram for MobileXamarin.IViewModels.IKineticEnergyEquationViewModel:



Properties

- double Weight [get, set]
  Gets or sets weight of the object
- double Speed [get, set]
  Gets or sets speed of the object
- string SelectedWeightUnit [get, set]
  Gets or sets unit for the weight of the object
- string SelectedSpeedUnit [get, set]
  Gets or sets unit for the speed of the object

6.14.1 Detailed Description

View model for Kinetic Energy Equation View

Definition at line 10 of file IKineticEnergyEquationViewModel.cs.

6.14.2 Property Documentation

6.14.2.1 SelectedSpeedUnit

```
string MobileXamarin.IViewModels.IKineticEnergyEquationViewModel.SelectedSpeedUnit  [get],
[set]
```

Gets or sets unit for the speed of the object

Definition at line 30 of file IKineticEnergyEquationViewModel.cs.

6.14.2.2 SelectedWeightUnit

```
string MobileXamarin.IViewModels.IKineticEnergyEquationViewModel.SelectedWeightUnit  [get],
[set]
```

Gets or sets unit for the weight of the object

Definition at line 25 of file IKineticEnergyEquationViewModel.cs.

6.14.2.3 Speed

```
double MobileXamarin.IViewModels.IKineticEnergyEquationViewModel.Speed  [get], [set]
```

Gets or sets speed of the object

Definition at line 20 of file IKineticEnergyEquationViewModel.cs.

6.14.2.4 Weight

```
double MobileXamarin.IViewModels.IKineticEnergyEquationViewModel.Weight  [get], [set]
```

Gets or sets weight of the object

Definition at line 15 of file IKineticEnergyEquationViewModel.cs.

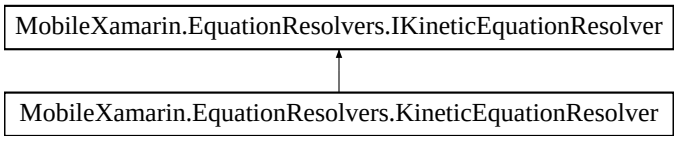
The documentation for this interface was generated from the following file:

- IViewModels/IKineticEnergyEquationViewModel.cs

6.15 MobileXamarin.EquationResolvers.IKineticEquationResolver Interface Reference

Resolver for kinetic energy equation

Inheritance diagram for MobileXamarin.EquationResolvers.IKineticEquationResolver:



Public Member Functions

- Task< Result > Resolve (double weight, Units weightUnit, double speed, Units speedUnit)
  Resolves kinetic energy equation

6.15.1 Detailed Description

Resolver for kinetic energy equation

Definition at line 14 of file IKineticEquationResolver.cs.

6.15.2 Member Function Documentation

6.15.2.1 Resolve()

```
Task<Result> MobileXamarin.EquationResolvers.IKineticEquationResolver.Resolve (
            double weight,
            Units weightUnit,
            double speed,
            Units speedUnit )
```

Resolves kinetic energy equation

Parameters

weight	Weight of the object
weightUnit	Unit of object's weight
speed	Speed of object
speedUnit	Unit of object's speed

Returns

Returns step by step in Latex format result of the equation resolving

Implemented in MobileXamarin.EquationResolvers.KineticEquationResolver.

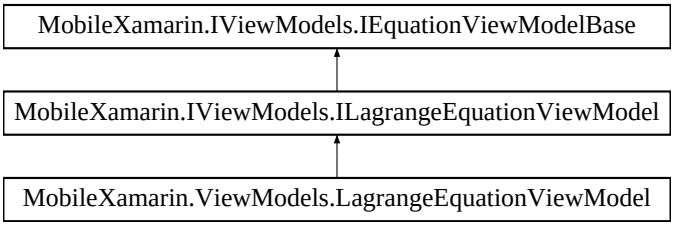
The documentation for this interface was generated from the following file:

- EquationResolvers/IKineticEquationResolver.cs

6.16 MobileXamarin.IViewModels.ILagrangeEquationViewModel Interface Reference

Lagrange interpolation equation viewmodel

Inheritance diagram for MobileXamarin.IViewModels.ILagrangeEquationViewModel:



Properties

- ObservableCollection< Point > ControlPoints `[get, set]`
  Gets or sets start control points for interpolation
- RelayCommand AddControlPointCommand `[get, set]`
  Gets or sets command which adds new control point
- RelayCommand RemoveControlPointCommand `[get, set]`
  Gets or sets command which removes last control point
- double NewX `[get, set]`
  Gets or sets x position of new control point
- double NewY `[get, set]`
  Gets or sets y position of new control point

6.16.1 Detailed Description

Lagrange interpolation equation viewmodel

Definition at line 14 of file ILagrangeEquationViewModel.cs.

6.16.2 Property Documentation

6.16.2.1 AddControlPointCommand

```
RelayCommand MobileXamarin.IViewModels.ILagrangeEquationViewModel.AddControlPointCommand [get],
[set]
```

Gets or sets command which adds new control point

Definition at line 24 of file ILagrangeEquationViewModel.cs.

6.16.2.2 ControlPoints

```
ObservableCollection<Point> MobileXamarin.IViewModels.ILagrangeEquationViewModel.ControlPoints
[get], [set]
```

Gets or sets start control points for interpolation

Definition at line 19 of file ILagrangeEquationViewModel.cs.

6.16.2.3 NewX

```
double MobileXamarin.IViewModels.ILagrangeEquationViewModel.NewX [get], [set]
```

Gets or sets x position of new control point

Definition at line 34 of file ILagrangeEquationViewModel.cs.

6.16.2.4 NewY

```
double MobileXamarin.IViewModels.ILagrangeEquationViewModel.NewY [get], [set]
```

Gets or sets y position of new control point

Definition at line 39 of file ILagrangeEquationViewModel.cs.

6.16.2.5 RemoveControlPointCommand

```
RelayCommand MobileXamarin.IViewModels.ILagrangeEquationViewModel.RemoveControlPointCommand
[get], [set]
```

Gets or sets command which removes last control point

Definition at line 29 of file ILagrangeEquationViewModel.cs.

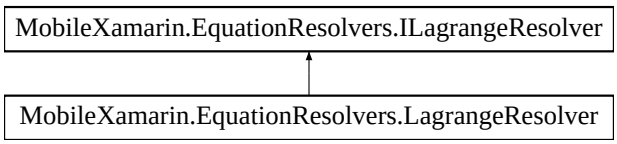
The documentation for this interface was generated from the following file:

- IViewModels/ILagrangeEquationViewModel.cs

6.17 MobileXamarin.EquationResolvers.ILagrangeResolver Interface Reference

Resolver for Lagrange interpolation equation

Inheritance diagram for MobileXamarin.EquationResolvers.ILagrangeResolver:



Public Member Functions

- Task< Result > Resolve (IEnumerable< Point > controlPoints)
  Resolves lagrange interpolation

6.17.1 Detailed Description

Resolver for Lagrange interpolation equation

Definition at line 14 of file ILagrangeResolver.cs.

6.17.2 Member Function Documentation

6.17.2.1 Resolve()

```
Task<Result> MobileXamarin.EquationResolvers.ILagrangeResolver.Resolve (
            IEnumerable< Point > controlPoints )
```

Resolves lagrange interpolation

Parameters

controlPoints	Control points based on interpolation is calculated

Returns

Points which can be displayed on the chart

Implemented in MobileXamarin.EquationResolvers.LagrangeResolver.

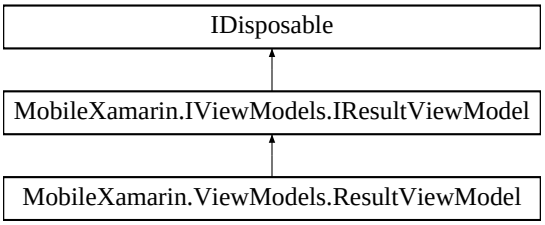
The documentation for this interface was generated from the following file:

- EquationResolvers/ILagrangeResolver.cs

6.18 MobileXamarin.IViewModels.IResultViewModel Interface Reference

Result viewmodel

Inheritance diagram for MobileXamarin.IViewModels.IResultViewModel:



Properties

- ObservableCollection< MathSource > Solution `[get, set]`

  Gets or sets collection of step results for the equation in MathSource type to display math symbols correctly
- ObservableCollection< Point > ControlPoints `[get, set]`

  Control points for chart
- RelayCommand Finish `[get, set]`

  Gets or sets command which finish this equation resolving and goes to the start page
- Chart Chart `[get, set]`

  Gets or sets chart (right now we use Telerik, so it is not used
- ObservableCollection< Point > StartPoints `[get, set]`

  Start points before calculation

6.18.1 Detailed Description

Result viewmodel

Definition at line 17 of file IResultViewModel.cs.

6.18.2 Property Documentation

6.18.2.1 Chart

```
Chart MobileXamarin.IViewModels.IResultViewModel.Chart [get], [set]
```

Gets or sets chart (right now we use Telerik, so it is not used

Definition at line 37 of file IResultViewModel.cs.

6.18.2.2 ControlPoints

```
ObservableCollection<Point> MobileXamarin.IViewModels.IResultViewModel.ControlPoints [get],
[set]
```

Control points for chart

Definition at line 27 of file IResultViewModel.cs.

6.18.2.3 Finish

```
RelayCommand MobileXamarin.IViewModels.IResultViewModel.Finish [get], [set]
```

Gets or sets command which finish this equation resolving and goes to the start page

Definition at line 32 of file IResultViewModel.cs.

6.18.2.4 Solution

```
ObservableCollection<MathSource> MobileXamarin.IViewModels.IResultViewModel.Solution [get],
[set]
```

Gets or sets collection of step results for the equation in MathSource type to display math symbols correctly

Definition at line 22 of file IResultViewModel.cs.

6.18.2.5 StartPoints

```
ObservableCollection<Point> MobileXamarin.IViewModels.IResultViewModel.StartPoints [get],
[set]
```

Start points before calculation

Definition at line 42 of file IResultViewModel.cs.

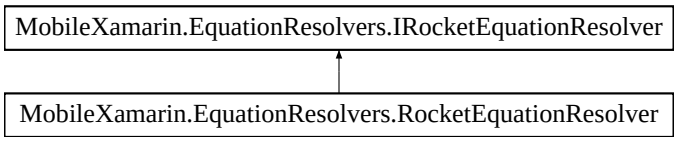
The documentation for this interface was generated from the following file:

- IViewModels/IResultViewModel.cs

6.19 MobileXamarin.EquationResolvers.IRocketEquationResolver Interface Reference

Resolver for vertical rocket start equation

Inheritance diagram for MobileXamarin.EquationResolvers.IRocketEquationResolver:



Public Member Functions

- Task< Result > Resolve (RocketParameter rocketParameter)
  Resolves rocket equation

6.19.1 Detailed Description

Resolver for vertical rocket start equation

Definition at line 13 of file IRocketEquationResolver.cs.

6.19.2 Member Function Documentation

6.19.2.1 Resolve()

```
Task<Result> MobileXamarin.EquationResolvers.IRocketEquationResolver.Resolve (
            RocketParameter rocketParameter )
```

Resolves rocket equation

Parameters

rocketParameter	Parameters of the rocket

Returns

Result

Implemented in MobileXamarin.EquationResolvers.RocketEquationResolver.

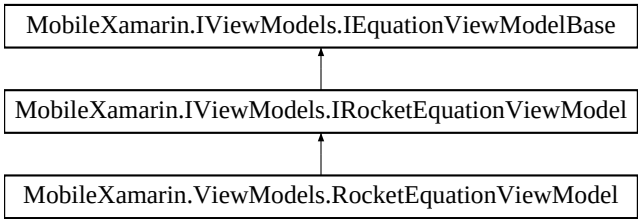
The documentation for this interface was generated from the following file:

- EquationResolvers/IRocketEquationResolver.cs

6.20 MobileXamarin.IViewModels.IRocketEquationViewModel Interface Reference

Rocket equation view model

Inheritance diagram for MobileXamarin.IViewModels.IRocketEquationViewModel:



Properties

- double MassOfTheRocket [get, set]

  Gets or sets mass of the rocket
- double MassOfTheFuel [get, set]

  Gets or sets mass of the fuel in the rocket
- double FlightTime [get, set]

  Gets or sets for how long of the rocket's trip the result is calculating
- double ProperImpulse [get, set]

  Gets or sets value of how much fuel is throwing out from the rocket
- double AmountOfThrownFuel [get, set]

  Amount of thrown fuel away for period of time eg kg/s
- ObservableCollection< string > MassOfTheRocketUnits [get, set]

  Gets or sets units for mass of the rocket
- ObservableCollection< string > MassOfTheFuelUnits [get, set]

  Gets or sets units for mass of the fuel
- ObservableCollection< string > FlightTimeUnits [get, set]

  Gets or sets units for the flight time
- ObservableCollection< string > ProperImpulseUnits [get, set]

  Gets or sets units for the proper impulse
- ObservableCollection< string > AmountOfThrownFuelUnits [get, set]

  Gets or sets units for amount of thrown fuel
- string SelectedMassOfTheRocketUnit [get, set]

  Selected unit for mass of the rocket
- string SelectedMassOfTheFuelUnit [get, set]

  Selected unit for mass of the fuel
- string SelectedFlightTimeUnit [get, set]

  Selected unit for the flight time
- string SelectedProperImpulseUnit [get, set]

  Selected unit for the proper impulse
- string SelectedAmountOfThrownFuelUnit [get, set]

  Unit for thrown fuel away eg. kg/s

6.20.1 Detailed Description

Rocket equation view model

Definition at line 12 of file IRocketEquationViewModel.cs.

6.20.2 Property Documentation

6.20.2.1 AmountOfThrownFuel

```
double MobileXamarin.IViewModels.IRocketEquationViewModel.AmountOfThrownFuel  [get], [set]
```

Amount of thrown fuel away for period of time eg kg/s

Definition at line 37 of file IRocketEquationViewModel.cs.

6.20.2.2 AmountOfThrownFuelUnits

```
ObservableCollection<string> MobileXamarin.IViewModels.IRocketEquationViewModel.AmountOf↩
ThrownFuelUnits  [get], [set]
```

Gets or sets units for amount of thrown fuel

Definition at line 62 of file IRocketEquationViewModel.cs.

6.20.2.3 FlightTime

```
double MobileXamarin.IViewModels.IRocketEquationViewModel.FlightTime  [get], [set]
```

Gets or sets for how long of the rocket's trip the result is calculating

Definition at line 27 of file IRocketEquationViewModel.cs.

6.20.2.4 FlightTimeUnits

```
ObservableCollection<string> MobileXamarin.IViewModels.IRocketEquationViewModel.FlightTime↩
Units  [get], [set]
```

Gets or sets units for the flight time

Definition at line 52 of file IRocketEquationViewModel.cs.

6.20.2.5 MassOfTheFuel

```
double MobileXamarin.IViewModels.IRocketEquationViewModel.MassOfTheFuel  [get], [set]
```

Gets or sets mass of the fuel in the rocket

Definition at line 22 of file IRocketEquationViewModel.cs.

6.20.2.6 MassOfTheFuelUnits

```
ObservableCollection<string> MobileXamarin.IViewModels.IRocketEquationViewModel.MassOfThe↩
FuelUnits  [get], [set]
```

Gets or sets units for mass of the fuel

Definition at line 47 of file IRocketEquationViewModel.cs.

6.20.2.7 MassOfTheRocket

```
double MobileXamarin.IViewModels.IRocketEquationViewModel.MassOfTheRocket  [get], [set]
```

Gets or sets mass of the rocket

Definition at line 17 of file IRocketEquationViewModel.cs.

6.20.2.8 MassOfTheRocketUnits

```
ObservableCollection<string> MobileXamarin.IViewModels.IRocketEquationViewModel.MassOfThe↩
RocketUnits  [get], [set]
```

Gets or sets units for mass of the rocket

Definition at line 42 of file IRocketEquationViewModel.cs.

6.20.2.9 ProperImpulse

```
double MobileXamarin.IViewModels.IRocketEquationViewModel.ProperImpulse  [get], [set]
```

Gets or sets value of how much fuel is throwing out from the rocket

Definition at line 32 of file IRocketEquationViewModel.cs.

6.20.2.10 ProperImpulseUnits

```
ObservableCollection<string> MobileXamarin.IViewModels.IRocketEquationViewModel.ProperImpulse↩
Units  [get], [set]
```

Gets or sets units for the proper impulse

Definition at line 57 of file IRocketEquationViewModel.cs.

6.20.2.11 SelectedAmountOfThrownFuelUnit

```
string MobileXamarin.IViewModels.IRocketEquationViewModel.SelectedAmountOfThrownFuelUnit  [get],
[set]
```

Unit for thrown fuel away eg. kg/s

Definition at line 87 of file IRocketEquationViewModel.cs.

6.20.2.12 SelectedFlightTimeUnit

```
string MobileXamarin.IViewModels.IRocketEquationViewModel.SelectedFlightTimeUnit  [get], [set]
```

Selected unit for the flight time

Definition at line 77 of file IRocketEquationViewModel.cs.

6.20.2.13 SelectedMassOfTheFuelUnit

```
string MobileXamarin.IViewModels.IRocketEquationViewModel.SelectedMassOfTheFuelUnit  [get],
[set]
```

Selected unit for mass of the fuel

Definition at line 72 of file IRocketEquationViewModel.cs.

6.20.2.14 SelectedMassOfTheRocketUnit

```
string MobileXamarin.IViewModels.IRocketEquationViewModel.SelectedMassOfTheRocketUnit  [get],
[set]
```

Selected unit for mass of the rocket

Definition at line 67 of file IRocketEquationViewModel.cs.

6.20.2.15 SelectedProperImpulseUnit

```
string MobileXamarin.IViewModels.IRocketEquationViewModel.SelectedProperImpulseUnit  [get],
[set]
```

Selected unit for the proper impulse

Definition at line 82 of file IRocketEquationViewModel.cs.

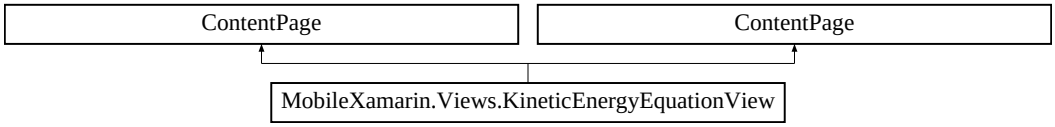
The documentation for this interface was generated from the following file:

- IViewModels/IRocketEquationViewModel.cs

6.21 MobileXamarin.Views.KineticEnergyEquationView Class Reference

Kinetic energy view

Inheritance diagram for MobileXamarin.Views.KineticEnergyEquationView:



Public Member Functions

- KineticEnergyEquationView ()
  Constructor for kinetic energy

6.21.1 Detailed Description

Kinetic energy view

Definition at line 17 of file KineticEnergyEquationView.xaml.g.cs.

6.21.2 Constructor & Destructor Documentation

6.21.2.1 KineticEnergyEquationView()

```
MobileXamarin.Views.KineticEnergyEquationView.KineticEnergyEquationView ( )
```

Constructor for kinetic energy

Definition at line 15 of file KineticEnergyEquationView.xaml.cs.

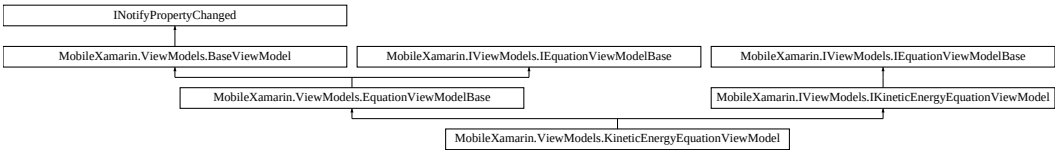
The documentation for this class was generated from the following files:

- obj/Debug/netstandard2.0/Views/KineticEnergyEquationView.xaml.g.cs
- Views/KineticEnergyEquationView.xaml.cs

6.22 MobileXamarin.ViewModels.KineticEnergyEquationViewModel Class Reference

Kinetic Energy Equation ViewModel

Inheritance diagram for MobileXamarin.ViewModels.KineticEnergyEquationViewModel:



Public Member Functions

- KineticEnergyEquationViewModel (IKineticEquationResolver resolver, INavigationService navigationService, IMessenger messenger)

  Constructor for KineticEnergyEquationViewModel

Protected Member Functions

- override bool ResolveCanExecute ()

  Determines if can execute Resolve command
- override async Task ResolveExecute ()

  Executes Resolve command

Properties

- double Weight `[get, set]`

  Gets or sets weight of the object
- double Speed `[get, set]`

  Gets or sets speed of the object
- ObservableCollection< string > WeightUnits `[get, set]`

  Gets or sets all units for the weight
- ObservableCollection< string > SpeedUnits `[get, set]`

  Gets or sets all units for the speed
- string SelectedWeightUnit `[get, set]`

  Gets or sets unit for the weight of the object
- string SelectedSpeedUnit `[get, set]`

  Gets or sets unit for the speed of the object

Additional Inherited Members

6.22.1 Detailed Description

Kinetic Energy Equation ViewModel

Definition at line 22 of file KineticEnergyEquationViewModel.cs.

6.22.2 Constructor & Destructor Documentation

6.22.2.1 KineticEnergyEquationViewModel()

```
MobileXamarin.ViewModels.KineticEnergyEquationViewModel.KineticEnergyEquationViewModel (
            IKineticEquationResolver resolver,
            INavigationService navigationService,
            IMessenger messenger )
```

Constructor for KineticEnergyEquationViewModel

Parameters

resolver	Resolver for kinetic energy equation IKineticEquationResolver
navigationService	Navigation service INavigationService
messenger	Messenger IMessenger

Definition at line 111 of file KineticEnergyEquationViewModel.cs.

6.22.3 Member Function Documentation

6.22.3.1 ResolveCanExecute()

```
override bool MobileXamarin.ViewModels.KineticEnergyEquationViewModel.ResolveCanExecute ( )
[protected], [virtual]
```

Determines if can execute Resolve command

Returns

True when can execute Resolve command, False if not

Implements MobileXamarin.ViewModels.EquationViewModelBase.

Definition at line 148 of file KineticEnergyEquationViewModel.cs.

6.22.3.2 ResolveExecute()

```
override async Task MobileXamarin.ViewModels.KineticEnergyEquationViewModel.ResolveExecute ( )
[protected], [virtual]
```

Executes Resolve command

Returns

Task which execute command

Implements MobileXamarin.ViewModels.EquationViewModelBase.

Definition at line 162 of file KineticEnergyEquationViewModel.cs.

6.22.4 Property Documentation

6.22.4.1 SelectedSpeedUnit

```
string MobileXamarin.ViewModels.KineticEnergyEquationViewModel.SelectedSpeedUnit  [get], [set]
```

Gets or sets unit for the speed of the object

Definition at line 93 of file KineticEnergyEquationViewModel.cs.

6.22.4.2 SelectedWeightUnit

```
string MobileXamarin.ViewModels.KineticEnergyEquationViewModel.SelectedWeightUnit  [get], [set]
```

Gets or sets unit for the weight of the object

Definition at line 77 of file KineticEnergyEquationViewModel.cs.

6.22.4.3 Speed

```
double MobileXamarin.ViewModels.KineticEnergyEquationViewModel.Speed  [get], [set]
```

Gets or sets speed of the object

Definition at line 51 of file KineticEnergyEquationViewModel.cs.

6.22.4.4 SpeedUnits

```
ObservableCollection<string> MobileXamarin.ViewModels.KineticEnergyEquationViewModel.Speed↩
Units  [get], [set]
```

Gets or sets all units for the speed

Definition at line 71 of file KineticEnergyEquationViewModel.cs.

6.22.4.5 Weight

```
double MobileXamarin.ViewModels.KineticEnergyEquationViewModel.Weight  [get], [set]
```

Gets or sets weight of the object

Definition at line 35 of file KineticEnergyEquationViewModel.cs.

6.22.4.6 WeightUnits

```
ObservableCollection<string> MobileXamarin.ViewModels.KineticEnergyEquationViewModel.Weight↩
Units  [get], [set]
```

Gets or sets all units for the weight

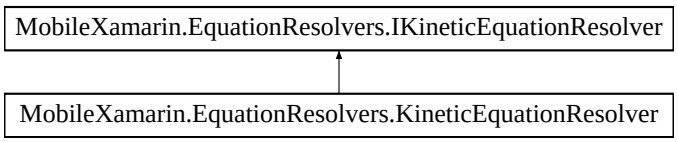
Definition at line 66 of file KineticEnergyEquationViewModel.cs.

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

- ViewModels/KineticEnergyEquationViewModel.cs

6.23 MobileXamarin.EquationResolvers.KineticEquationResolver Class Reference

Inheritance diagram for MobileXamarin.EquationResolvers.KineticEquationResolver:



Public Member Functions

- async Task< Result > Resolve (double weight, Units weightUnit, double speed, Units speedUnit)
  Resolves kinetic energy equation

6.23.1 Detailed Description

Definition at line 14 of file KineticEquotionResolver.cs.

6.23.2 Member Function Documentation

6.23.2.1 Resolve()

```
async Task<Result> MobileXamarin.EquationResolvers.KineticEquationResolver.Resolve (
            double weight,
            Units weightUnit,
            double speed,
            Units speedUnit )
```

Resolves kinetic energy equation

Parameters

weight	Weight of the object
weightUnit	Unit of object's weight
speed	Speed of object
speedUnit	Unit of object's speed

Returns

Returns step by step in Latex format result of the equation resolving

Implements MobileXamarin.EquationResolvers.IKineticEquationResolver.

Definition at line 25 of file KineticEquotionResolver.cs.

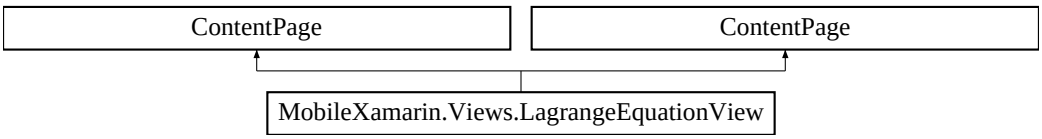
The documentation for this class was generated from the following file:

- EquationResolvers/KineticEquotionResolver.cs

6.24 MobileXamarin.Views.LagrangeEquationView Class Reference

Lagrange view

Inheritance diagram for MobileXamarin.Views.LagrangeEquationView:



Public Member Functions

- LagrangeEquationView ()
  Lagrange Equation View Constructor

Public Attributes

- ILagrangeEquationViewModel ViewModel => BindingContext as ILagrangeEquationViewModel
  View Model which is context for that view

6.24.1 Detailed Description

Lagrange view

Definition at line 17 of file LagrangeEquationView.xaml.g.cs.

6.24.2 Constructor & Destructor Documentation

6.24.2.1 LagrangeEquationView()

```
MobileXamarin.Views.LagrangeEquationView.LagrangeEquationView ( )
```

Lagrange Equation View Constructor

Definition at line 23 of file LagrangeEquationView.xaml.cs.

6.24.3 Member Data Documentation

6.24.3.1 ViewModel

```
ILagrangeEquationViewModel MobileXamarin.Views.LagrangeEquationView.ViewModel => Binding↩
Context as ILagrangeEquationViewModel
```

View Model which is context for that view

Definition at line 18 of file LagrangeEquationView.xaml.cs.

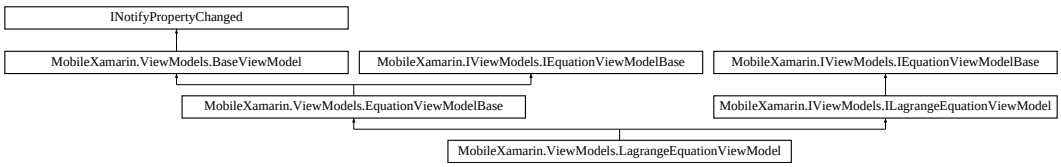
The documentation for this class was generated from the following files:

- obj/Debug/netstandard2.0/Views/LagrangeEquationView.xaml.g.cs
- Views/LagrangeEquationView.xaml.cs

6.25 MobileXamarin.ViewModels.LagrangeEquationViewModel Class Reference

Lagrange interpolation viewmodel

Inheritance diagram for MobileXamarin.ViewModels.LagrangeEquationViewModel:



Public Member Functions

- LagrangeEquationViewModel (ILagrangeResolver resolver, IMessenger messenger, INavigationService navigationService)

  Constructor for LagrangeEquationViewModel

Protected Member Functions

- override bool ResolveCanExecute ()

  Determines if can execute Resolve command
- override async Task ResolveExecute ()

  Executes Resolve command

Properties

- ObservableCollection< Point > ControlPoints `[get, set]`

  Gets or sets start control points for interpolation
- double NewX `[get, set]`

  Gets or sets x position of new control point
- double NewY `[get, set]`

  Gets or sets y position of new control point
- RelayCommand AddControlPointCommand `[get, set]`

  Gets or sets command which adds new control point
- RelayCommand RemoveControlPointCommand `[get, set]`

  Gets or sets command which removes last control point

Additional Inherited Members

6.25.1 Detailed Description

Lagrange interpolation viewmodel

Definition at line 23 of file LagrangeEquationViewModel.cs.

6.25.2 Constructor & Destructor Documentation

6.25.2.1 LagrangeEquationViewModel()

```
MobileXamarin.ViewModels.LagrangeEquationViewModel.LagrangeEquationViewModel (
            ILagrangeResolver resolver,
            IMessenger messenger,
            INavigationService navigationService )
```

Constructor for LagrangeEquationViewModel

Parameters

resolver	Lagrange interpolation equation resolver ILagrangeResolver
messenger	Messenger IMessenger
navigationService	Navigation service INavigationService

Definition at line 100 of file LagrangeEquationViewModel.cs.

6.25.3 Member Function Documentation

6.25.3.1 ResolveCanExecute()

```
override bool MobileXamarin.ViewModels.LagrangeEquationViewModel.ResolveCanExecute ( )  [protected],
[virtual]
```

Determines if can execute Resolve command

Returns

True when can execute Resolve command, False if not

Implements MobileXamarin.ViewModels.EquationViewModelBase.

Definition at line 128 of file LagrangeEquationViewModel.cs.

6.25.3.2 ResolveExecute()

```
override async Task MobileXamarin.ViewModels.LagrangeEquationViewModel.ResolveExecute ( )
[protected], [virtual]
```

Executes Resolve command

Returns

Task which execute command

Implements MobileXamarin.ViewModels.EquationViewModelBase.

Definition at line 137 of file LagrangeEquationViewModel.cs.

6.25.4 Property Documentation

6.25.4.1 AddControlPointCommand

```
RelayCommand MobileXamarin.ViewModels.LagrangeEquationViewModel.AddControlPointCommand  [get],
[set]
```

Gets or sets command which adds new control point

Definition at line 86 of file LagrangeEquationViewModel.cs.

6.25.4.2 ControlPoints

```
ObservableCollection<Point> MobileXamarin.ViewModels.LagrangeEquationViewModel.ControlPoints
[get], [set]
```

Gets or sets start control points for interpolation

Definition at line 35 of file LagrangeEquationViewModel.cs.

6.25.4.3 NewX

```
double MobileXamarin.ViewModels.LagrangeEquationViewModel.NewX  [get], [set]
```

Gets or sets x position of new control point

Definition at line 53 of file LagrangeEquationViewModel.cs.

6.25.4.4 NewY

```
double MobileXamarin.ViewModels.LagrangeEquationViewModel.NewY  [get], [set]
```

Gets or sets y position of new control point

Definition at line 70 of file LagrangeEquationViewModel.cs.

6.25.4.5 RemoveControlPointCommand

```
RelayCommand MobileXamarin.ViewModels.LagrangeEquationViewModel.RemoveControlPointCommand
[get], [set]
```

Gets or sets command which removes last control point

Definition at line 91 of file LagrangeEquationViewModel.cs.

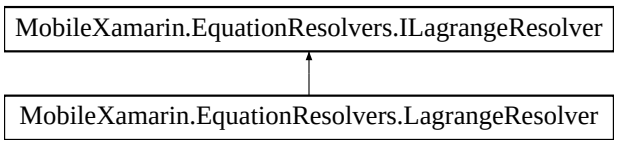
The documentation for this class was generated from the following file:

- ViewModels/LagrangeEquationViewModel.cs

6.26 MobileXamarin.EquationResolvers.LagrangeResolver Class Reference

Lagrange resolver

Inheritance diagram for MobileXamarin.EquationResolvers.LagrangeResolver:



Public Member Functions

- async Task< Result > Resolve (IEnumerable< Point > controlPoints)

  Resolves lagrange interpolation

6.26.1 Detailed Description

Lagrange resolver

Definition at line 16 of file LagrangeResolver.cs.

6.26.2 Member Function Documentation

6.26.2.1 Resolve()

```
async Task<Result> MobileXamarin.EquationResolvers.LagrangeResolver.Resolve (
            IEnumerable< Point > controlPoints )
```

Resolves lagrange interpolation

Parameters

controlPoints	Control points based on interpolation is calculated

Returns

Points which can be displayed on the chart

Implements MobileXamarin.EquationResolvers.ILagrangeResolver.

Definition at line 23 of file LagrangeResolver.cs.

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

- EquationResolvers/LagrangeResolver.cs

6.27 MobileXamarin.Models.Point Class Reference

Point with double type parameters

Public Member Functions

- Point (double x, double y)
  Point constructor
- override string ToString ()

Properties

- double X `[get, set]`
  X value
- double Y `[get, set]`
  Y value

6.27.1 Detailed Description

Point with double type parameters

Definition at line 10 of file Point.cs.

6.27.2 Constructor & Destructor Documentation

6.27.2.1 Point()

```
MobileXamarin.Models.Point.Point (
            double x,
            double y )
```

Point constructor

Parameters

x	X value
y	Y value

Definition at line 26 of file Point.cs.

6.27.3 Member Function Documentation

6.27.3.1 ToString()

```
override string MobileXamarin.Models.Point.ToString ( )
```

Definition at line 33 of file Point.cs.

6.27.4 Property Documentation

6.27.4.1 X

```
double MobileXamarin.Models.Point.X  [get], [set]
```

X value

Definition at line 15 of file Point.cs.

6.27.4.2 Y

```
double MobileXamarin.Models.Point.Y  [get], [set]
```

Y value

Definition at line 19 of file Point.cs.

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

- Models/Point.cs

6.28 MobileXamarin.AppResources.Localization.Resources Class Reference

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

6.28.1 Detailed Description

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

Definition at line 25 of file Resources.Designer.cs.

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

- AppResources/Localization/Resources.Designer.cs

6.29 MobileXamarin.Models.Result Class Reference

Result holder for any equations

Public Member Functions

- Result (IEnumerable< Point > controlPoints, IEnumerable< string > solution)

  Constructor for Result
- Result (IEnumerable< Point > controlPoints, IEnumerable< string > solution, IEnumerable< Point > start↩ Points)

  Constructor for Result

Properties

- IEnumerable< Point > ControlPoints `[get]`

  Control points for the chart
- IEnumerable< string > Solution `[get]`

  Latex representation of the velocity at the end of the rocket's flight time
- IEnumerable< Point > StartPoints `[get]`

  Points before calculation

6.29.1 Detailed Description

Result holder for any equations

Definition at line 13 of file Result.cs.

6.29.2 Constructor & Destructor Documentation

6.29.2.1 Result() `[1/2]`

```
MobileXamarin.Models.Result.Result (
            IEnumerable< Point > controlPoints,
            IEnumerable< string > solution )
```

Constructor for Result

Parameters

controlPoints	Control points for chart
solution	Latex representation of the velocity at the end of the rocket's flight

Definition at line 35 of file Result.cs.

6.29.2.2 Result() [2/2]

```
MobileXamarin.Models.Result.Result (
            IEnumerable< Point > controlPoints,
            IEnumerable< string > solution,
            IEnumerable< Point > startPoints )
```

Constructor for Result

Parameters

controlPoints	Control points for chart
solution	Latex representation of the velocity at the end of the rocket's flight
startPoints	Points before calculation

Definition at line 48 of file Result.cs.

6.29.3 Property Documentation

6.29.3.1 ControlPoints

```
IEnumerable<Point> MobileXamarin.Models.Result.ControlPoints  [get]
```

Control points for the chart

Definition at line 18 of file Result.cs.

6.29.3.2 Solution

```
IEnumerable<string> MobileXamarin.Models.Result.Solution  [get]
```

Latex representation of the velocity at the end of the rocket's flight time

Definition at line 23 of file Result.cs.

6.29.3.3 StartPoints

```
IEnumerable<Point> MobileXamarin.Models.Result.StartPoints  [get]
```

Points before calculation

Definition at line 28 of file Result.cs.

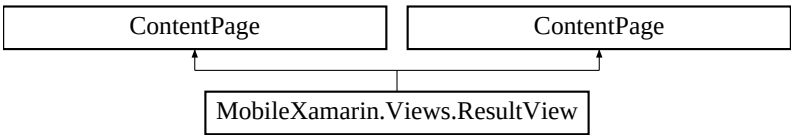
The documentation for this class was generated from the following file:

- Models/Result.cs

6.30 MobileXamarin.Views.ResultView Class Reference

Result view

Inheritance diagram for MobileXamarin.Views.ResultView:



Public Member Functions

- ResultView ()
  Constructor for result view

Protected Member Functions

- override void OnAppearing ()
  Handle when view is appearing
- override bool OnBackButtonPressed ()
  Handle when back button pressed

Properties

- IResultViewModel ViewModel `[get]`
  View model for that view

6.30.1 Detailed Description

Result view

Definition at line 17 of file ResultView.xaml.g.cs.

6.30.2 Constructor & Destructor Documentation

6.30.2.1 ResultView()

```
MobileXamarin.Views.ResultView.ResultView ( )
```

Constructor for result view

Definition at line 21 of file ResultView.xaml.cs.

6.30.3 Member Function Documentation

6.30.3.1 OnAppearing()

```
override void MobileXamarin.Views.ResultView.OnAppearing ( )  [protected]
```

Handle when view is appearing

Definition at line 31 of file ResultView.xaml.cs.

6.30.3.2 OnBackButtonPressed()

```
override bool MobileXamarin.Views.ResultView.OnBackButtonPressed ( )  [protected]
```

Handle when back button pressed

Returns

True if pressed

Definition at line 42 of file ResultView.xaml.cs.

6.30.4 Property Documentation

6.30.4.1 ViewModel

`IResultViewModel MobileXamarin.Views.ResultView.ViewModel [get]`

View model for that view

Definition at line 17 of file ResultView.xaml.cs.

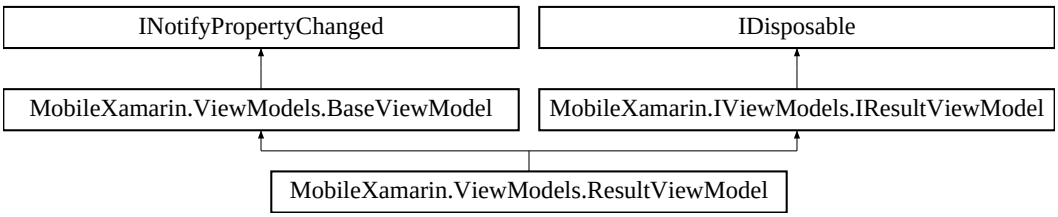
The documentation for this class was generated from the following files:

- obj/Debug/netstandard2.0/Views/ResultView.xaml.g.cs
- Views/ResultView.xaml.cs

6.31 MobileXamarin.ViewModels.ResultViewModel Class Reference

Result viewmodel

Inheritance diagram for MobileXamarin.ViewModels.ResultViewModel:



Public Member Functions

- ResultViewModel (INavigationService navigationService, IPopupsService popupsService, IMessenger messenger)

  Constructor for ResultViewModel
- void Dispose ()

Protected Member Functions

- virtual void Dispose (bool disposing)

  Dispose this when it's not whi;e disposing

Properties

- ObservableCollection< MathSource > Solution `[get, set]`

  Gets or sets collection of step results for the equation in MathSource type to display math symbols correctly
- ObservableCollection< Point > ControlPoints `[get, set]`

  Control points for chart
- ObservableCollection< Point > StartPoints `[get, set]`

  Start points before calculation
- Chart Chart `[get, set]`

  Gets or sets chart (right now we use Telerik, so it is not used
- RelayCommand Finish `[get, set]`

  Gets or sets command which finish this equation resolving and goes to the start page

Additional Inherited Members

6.31.1 Detailed Description

Result viewmodel

Definition at line 27 of file ResultViewModel.cs.

6.31.2 Constructor & Destructor Documentation

6.31.2.1 ResultViewModel()

```
MobileXamarin.ViewModels.ResultViewModel.ResultViewModel (
            INavigationService navigationService,
            IPopupsService popupsService,
            IMessenger messenger )
```

Constructor for ResultViewModel

Parameters

navigationService	Navigation service INavigationService
popupsService	Popup service IPopupsService
messenger	Messenger IMessenger

Definition at line 88 of file ResultViewModel.cs.

6.31.3 Member Function Documentation

6.31.3.1 Dispose() [1/2]

```
void MobileXamarin.ViewModels.ResultViewModel.Dispose ( )
```

Definition at line 179 of file ResultViewModel.cs.

6.31.3.2 Dispose() [2/2]

```
virtual void MobileXamarin.ViewModels.ResultViewModel.Dispose (
            bool disposing )  [protected], [virtual]
```

Dispose this when it's not whi;e disposing

Parameters

disposing	Is disposing

Definition at line 189 of file ResultViewModel.cs.

6.31.4 Property Documentation

6.31.4.1 Chart

```
Chart MobileXamarin.ViewModels.ResultViewModel.Chart  [get], [set]
```

Gets or sets chart (right now we use Telerik, so it is not used

Definition at line 65 of file ResultViewModel.cs.

6.31.4.2 ControlPoints

```
ObservableCollection<Point> MobileXamarin.ViewModels.ResultViewModel.ControlPoints  [get],
[set]
```

Control points for chart

Definition at line 54 of file ResultViewModel.cs.

6.31.4.3 Finish

```
RelayCommand MobileXamarin.ViewModels.ResultViewModel.Finish  [get], [set]
```

Gets or sets command which finish this equation resolving and goes to the start page

Definition at line 80 of file ResultViewModel.cs.

6.31.4.4 Solution

```
ObservableCollection<MathSource> MobileXamarin.ViewModels.ResultViewModel.Solution  [get],
[set]
```

Gets or sets collection of step results for the equation in MathSource type to display math symbols correctly

Definition at line 39 of file ResultViewModel.cs.

6.31.4.5 StartPoints

```
ObservableCollection<Point> MobileXamarin.ViewModels.ResultViewModel.StartPoints  [get], [set]
```

Start points before calculation

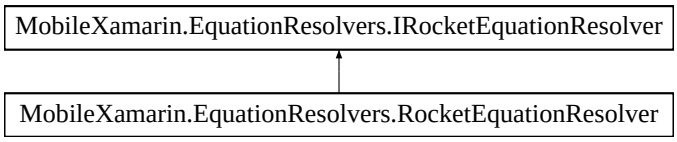
Definition at line 59 of file ResultViewModel.cs.

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

- ViewModels/ResultViewModel.cs

6.32 MobileXamarin.EquationResolvers.RocketEquationResolver Class Reference

Inheritance diagram for MobileXamarin.EquationResolvers.RocketEquationResolver:



Public Member Functions

- async Task< Result > Resolve (RocketParameter rocketParameter)
  Resolves rocket equation

6.32.1 Detailed Description

Definition at line 13 of file RocketEquationResolver.cs.

6.32.2 Member Function Documentation

6.32.2.1 Resolve()

```
async Task<Result> MobileXamarin.EquationResolvers.RocketEquationResolver.Resolve (
            RocketParameter rocketParameter )
```

Resolves rocket equation

Parameters

rocketParameter	Parameters of the rocket

Returns

Result

Implements MobileXamarin.EquationResolvers.IRocketEquationResolver.

Definition at line 20 of file RocketEquationResolver.cs.

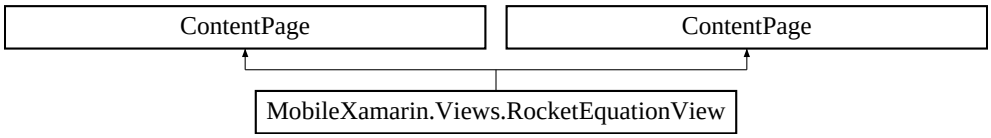
The documentation for this class was generated from the following file:

- EquationResolvers/RocketEquationResolver.cs

6.33 MobileXamarin.Views.RocketEquationView Class Reference

Rocket view

Inheritance diagram for MobileXamarin.Views.RocketEquationView:



Public Member Functions

- RocketEquationView ()
  Constructor for a rocket

6.33.1 Detailed Description

Rocket view

Definition at line 17 of file RocketEquationView.xaml.g.cs.

6.33.2 Constructor & Destructor Documentation

6.33.2.1 RocketEquationView()

```
MobileXamarin.Views.RocketEquationView.RocketEquationView ( )
```

Constructor for a rocket

Definition at line 15 of file RocketEquationView.xaml.cs.

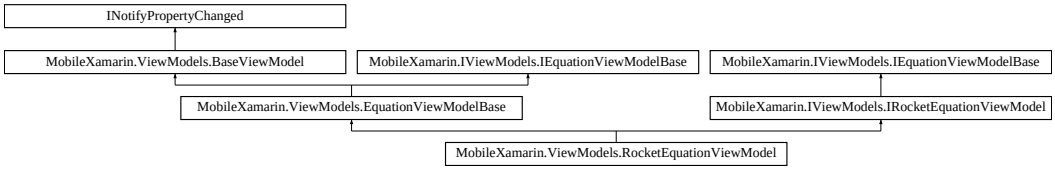
The documentation for this class was generated from the following files:

- obj/Debug/netstandard2.0/Views/RocketEquationView.xaml.g.cs
- Views/RocketEquationView.xaml.cs

6.34 MobileXamarin.ViewModels.RocketEquationViewModel Class Reference

Rocket equation viewmodel

Inheritance diagram for MobileXamarin.ViewModels.RocketEquationViewModel:



Public Member Functions

- RocketEquationViewModel (IRocketEquationResolver resolver, INavigationService navigationService, I↩ Messenger messenger)

  Constructor for RocketEquationViewModel

Protected Member Functions

- override bool ResolveCanExecute ()

  Determines if can execute Resolve command
- override async Task ResolveExecute ()

  Executes Resolve command

Properties

- double MassOfTheRocket `[get, set]`

  Gets or sets mass of the rocket
- double MassOfTheFuel `[get, set]`

  Gets or sets mass of the fuel in the rocket
- double FlightTime `[get, set]`

  Gets or sets for how long of the rocket's trip the result is calculating
- double ProperImpulse `[get, set]`

  Gets or sets value of how much fuel is throwing out from the rocket
- double AmountOfThrownFuel `[get, set]`

  Amount of thrown fuel away for period of time eg kg/s
- string SelectedMassOfTheRocketUnit `[get, set]`

  Selected unit for mass of the rocket
- string SelectedMassOfTheFuelUnit `[get, set]`

  Selected unit for mass of the fuel
- string SelectedFlightTimeUnit `[get, set]`

  Selected unit for the flight time
- string SelectedProperImpulseUnit `[get, set]`

  Selected unit for the proper impulse
- string SelectedAmountOfThrownFuelUnit `[get, set]`

  Unit for thrown fuel away eg. kg/s
- ObservableCollection< string > MassOfTheRocketUnits `[get, set]`

Gets or sets units for mass of the rocket

- ObservableCollection< string > MassOfTheFuelUnits `[get, set]`

  Gets or sets units for mass of the fuel

- ObservableCollection< string > FlightTimeUnits `[get, set]`

  Gets or sets units for the flight time

- ObservableCollection< string > ProperImpulseUnits `[get, set]`

  Gets or sets units for the proper impulse

- ObservableCollection< string > AmountOfThrownFuelUnits `[get, set]`

  Gets or sets units for amount of thrown fuel

Additional Inherited Members

6.34.1 Detailed Description

Rocket equation viewmodel

Definition at line 23 of file RocketEquationViewModel.cs.

6.34.2 Constructor & Destructor Documentation

6.34.2.1 RocketEquationViewModel()

```
MobileXamarin.ViewModels.RocketEquationViewModel.RocketEquationViewModel (
            IRocketEquationResolver resolver,
            INavigationService navigationService,
            IMessenger messenger )
```

Constructor for RocketEquationViewModel

Parameters

resolver	Equation resolver for rocket
navigationService	Navigation service
messenger	Messenger

Definition at line 231 of file RocketEquationViewModel.cs.

6.34.3 Member Function Documentation

6.34.3.1 ResolveCanExecute()

```
override bool MobileXamarin.ViewModels.RocketEquationViewModel.ResolveCanExecute ( )  [protected],
[virtual]
```

Determines if can execute Resolve command

Returns

True when can execute Resolve command, False if not

Implements MobileXamarin.ViewModels.EquationViewModelBase.

Definition at line 289 of file RocketEquationViewModel.cs.

6.34.3.2 ResolveExecute()

```
override async Task MobileXamarin.ViewModels.RocketEquationViewModel.ResolveExecute ( )  [protected],
[virtual]
```

Executes Resolve command

Returns

Task which execute command

Implements MobileXamarin.ViewModels.EquationViewModelBase.

Definition at line 307 of file RocketEquationViewModel.cs.

6.34.4 Property Documentation

6.34.4.1 AmountOfThrownFuel

```
double MobileXamarin.ViewModels.RocketEquationViewModel.AmountOfThrownFuel  [get], [set]
```

Amount of thrown fuel away for period of time eg kg/s

Definition at line 106 of file RocketEquationViewModel.cs.

6.34.4.2 AmountOfThrownFuelUnits

```
ObservableCollection<string> MobileXamarin.ViewModels.RocketEquationViewModel.AmountOfThrown↩
FuelUnits  [get], [set]
```

Gets or sets units for amount of thrown fuel

Definition at line 221 of file RocketEquationViewModel.cs.

6.34.4.3 FlightTime

```
double MobileXamarin.ViewModels.RocketEquationViewModel.FlightTime  [get], [set]
```

Gets or sets for how long of the rocket's trip the result is calculating

Definition at line 74 of file RocketEquationViewModel.cs.

6.34.4.4 FlightTimeUnits

```
ObservableCollection<string> MobileXamarin.ViewModels.RocketEquationViewModel.FlightTimeUnits
[get], [set]
```

Gets or sets units for the flight time

Definition at line 211 of file RocketEquationViewModel.cs.

6.34.4.5 MassOfTheFuel

```
double MobileXamarin.ViewModels.RocketEquationViewModel.MassOfTheFuel  [get], [set]
```

Gets or sets mass of the fuel in the rocket

Definition at line 58 of file RocketEquationViewModel.cs.

6.34.4.6 MassOfTheFuelUnits

```
ObservableCollection<string> MobileXamarin.ViewModels.RocketEquationViewModel.MassOfTheFuel↩
Units  [get], [set]
```

Gets or sets units for mass of the fuel

Definition at line 206 of file RocketEquationViewModel.cs.

6.34.4.7 MassOfTheRocket

```
double MobileXamarin.ViewModels.RocketEquationViewModel.MassOfTheRocket  [get], [set]
```

Gets or sets mass of the rocket

Definition at line 42 of file RocketEquationViewModel.cs.

6.34.4.8 MassOfTheRocketUnits

```
ObservableCollection<string> MobileXamarin.ViewModels.RocketEquationViewModel.MassOfThe↩
RocketUnits  [get], [set]
```

Gets or sets units for mass of the rocket

Definition at line 201 of file RocketEquationViewModel.cs.

6.34.4.9 ProperImpulse

```
double MobileXamarin.ViewModels.RocketEquationViewModel.ProperImpulse  [get], [set]
```

Gets or sets value of how much fuel is throwing out from the rocket

Definition at line 90 of file RocketEquationViewModel.cs.

6.34.4.10 ProperImpulseUnits

```
ObservableCollection<string> MobileXamarin.ViewModels.RocketEquationViewModel.ProperImpulse↩
Units  [get], [set]
```

Gets or sets units for the proper impulse

Definition at line 216 of file RocketEquationViewModel.cs.

6.34.4.11 SelectedAmountOfThrownFuelUnit

```
string MobileXamarin.ViewModels.RocketEquationViewModel.SelectedAmountOfThrownFuelUnit  [get],
[set]
```

Unit for thrown fuel away eg. kg/s

Definition at line 186 of file RocketEquationViewModel.cs.

6.34.4.12 SelectedFlightTimeUnit

```
string MobileXamarin.ViewModels.RocketEquationViewModel.SelectedFlightTimeUnit  [get], [set]
```

Selected unit for the flight time

Definition at line 154 of file RocketEquationViewModel.cs.

6.34.4.13 SelectedMassOfTheFuelUnit

```
string MobileXamarin.ViewModels.RocketEquationViewModel.SelectedMassOfTheFuelUnit  [get], [set]
```

Selected unit for mass of the fuel

Definition at line 138 of file RocketEquationViewModel.cs.

6.34.4.14 SelectedMassOfTheRocketUnit

```
string MobileXamarin.ViewModels.RocketEquationViewModel.SelectedMassOfTheRocketUnit  [get],
[set]
```

Selected unit for mass of the rocket

Definition at line 122 of file RocketEquationViewModel.cs.

6.34.4.15 SelectedProperImpulseUnit

```
string MobileXamarin.ViewModels.RocketEquationViewModel.SelectedProperImpulseUnit  [get], [set]
```

Selected unit for the proper impulse

Definition at line 170 of file RocketEquationViewModel.cs.

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

- ViewModels/RocketEquationViewModel.cs

6.35 MobileXamarin.Models.RocketParameter Class Reference

Parameters of the rocket

Public Member Functions

- RocketParameter (double massOfTheRocket, Units massOfTheRocketUnit, double massOfTheFuel, Units massOfTheFuelUnit, double properImpulse, Units properImpulseUnit, double flightTime, Units flightTimeUnit, double amountOfThrownFuel, Units amountOfThrownFuelUnit)

  Parameters of the rocket

Properties

- double MassOfTheRocket `[get]`

  Gets Mass of the rocket
- Units MassOfTheRocketUnit `[get]`

  Gets Mass of the rocket unit
- double MassOfTheFuel `[get]`

  Gets mass of the fuel
- Units MassOfTheFuelUnit `[get]`

  Gets mass of the fuel unit
- double ProperImpulse `[get]`

  Gets proper impulse
- Units ProperImpulseUnit `[get]`

  Gets proper impulse unit
- double FlightTime `[get]`

  Gets flight time
- Units FlightTimeUnit `[get]`

  Gets flight time unit
- double AmountOfThrownFuel `[get]`

  Amount of thrown fuel in period of time eg every second [kg/s]
- Units AmountOfThrownFuelUnit `[get]`

  Unit for thrown fuel

6.35.1 Detailed Description

Parameters of the rocket

Definition at line 12 of file RocketParameter.cs.

6.35.2 Constructor & Destructor Documentation

6.35.2.1 RocketParameter()

```
MobileXamarin.Models.RocketParameter.RocketParameter (
            double massOfTheRocket,
            Units massOfTheRocketUnit,
            double massOfTheFuel,
            Units massOfTheFuelUnit,
            double properImpulse,
            Units properImpulseUnit,
            double flightTime,
            Units flightTimeUnit,
            double amountOfThrownFuel,
            Units amountOfThrownFuelUnit )
```

Parameters of the rocket

Parameters

massOfTheRocket	Mass of the rocket
massOfTheRocketUnit	Mass rocket unit
massOfTheFuel	Mass of the fuel
massOfTheFuelUnit	Mass of the fuel unit
properImpulse	Proper impulse
properImpulseUnit	Proper impulse unit
flightTime	Flight time
flightTimeUnit	Flight time unit
amountOfThrownFuel	Amount of thrown fuel in period of time eg every second [kg/s]
amountOfThrownFuelUnit	Unit for thrown fuel

Definition at line 77 of file RocketParameter.cs.

6.35.3 Property Documentation

6.35.3.1 AmountOfThrownFuel

```
double MobileXamarin.Models.RocketParameter.AmountOfThrownFuel  [get]
```

Amount of thrown fuel in period of time eg every second [kg/s]

Definition at line 57 of file RocketParameter.cs.

6.35.3.2 AmountOfThrownFuelUnit

```
Units MobileXamarin.Models.RocketParameter.AmountOfThrownFuelUnit  [get]
```

Unit for thrown fuel

Definition at line 62 of file RocketParameter.cs.

6.35.3.3 FlightTime

```
double MobileXamarin.Models.RocketParameter.FlightTime  [get]
```

Gets flight time

Definition at line 47 of file RocketParameter.cs.

6.35.3.4 FlightTimeUnit

```
Units MobileXamarin.Models.RocketParameter.FlightTimeUnit  [get]
```

Gets flight time unit

Definition at line 52 of file RocketParameter.cs.

6.35.3.5 MassOfTheFuel

```
double MobileXamarin.Models.RocketParameter.MassOfTheFuel  [get]
```

Gets mass of the fuel

Definition at line 27 of file RocketParameter.cs.

6.35.3.6 MassOfTheFuelUnit

```
Units MobileXamarin.Models.RocketParameter.MassOfTheFuelUnit  [get]
```

Gets mass of the fuel unit

Definition at line 32 of file RocketParameter.cs.

6.35.3.7 MassOfTheRocket

```
double MobileXamarin.Models.RocketParameter.MassOfTheRocket  [get]
```

Gets Mass of the rocket

Definition at line 17 of file RocketParameter.cs.

6.35.3.8 MassOfTheRocketUnit

```
Units MobileXamarin.Models.RocketParameter.MassOfTheRocketUnit  [get]
```

Gets Mass of the rocket unit

Definition at line 22 of file RocketParameter.cs.

6.35.3.9 ProperImpulse

```
double MobileXamarin.Models.RocketParameter.ProperImpulse  [get]
```

Gets proper impulse

Definition at line 37 of file RocketParameter.cs.

6.35.3.10 ProperImpulseUnit

```
Units MobileXamarin.Models.RocketParameter.ProperImpulseUnit  [get]
```

Gets proper impulse unit

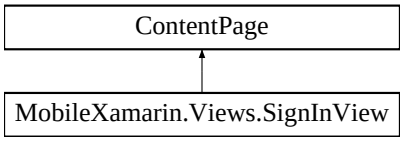
Definition at line 42 of file RocketParameter.cs.

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

- Models/RocketParameter.cs

6.36 MobileXamarin.Views.SignInView Class Reference

Inheritance diagram for MobileXamarin.Views.SignInView:



6.36.1 Detailed Description

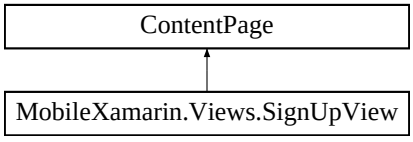
Definition at line 16 of file MobileXamarin.Views.SignInView.xaml.g.cs.

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

- obj/Debug/netstandard2.0/MobileXamarin.Views.SignInView.xaml.g.cs

6.37 MobileXamarin.Views.SignUpView Class Reference

Inheritance diagram for MobileXamarin.Views.SignUpView:



6.37.1 Detailed Description

Definition at line 16 of file MobileXamarin.Views.SignUpView.xaml.g.cs.

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

- obj/Debug/netstandard2.0/MobileXamarin.Views.SignUpView.xaml.g.cs

6.38 MobileXamarin.ViewModels.ViewModelLocator Class Reference

IoC container

Public Member Functions

- ViewModelLocator ()
  Constructor for ViewModelLocator

Public Attributes

- IHomeViewModel Home => ServiceLocator.Current.GetInstance<IHomeViewModel>()
  Gets an instance for IHomeViewModel HomeViewModel
- IKineticEnergyEquationViewModel Kinetic
  Gets an instance for IKineticEnergyEquationViewModel KineticEnergyEquationViewModel
- IResultViewModel Result => ServiceLocator.Current.GetInstance<IResultViewModel>()
  Gets an instance for IResultViewModel ResultViewModel
- ILagrangeEquationViewModel Lagrange => ServiceLocator.Current.GetInstance<ILagrangeEquationViewModel>()
  Gets an instance for ILagrangeEquationViewModel LagrangeEquationViewModel
- IRocketEquationViewModel Rocket => ServiceLocator.Current.GetInstance<IRocketEquationViewModel>()
  Gets an instance for IRocketEquationViewModel RocketEquationViewModel

6.38.1 Detailed Description

IoC container

Definition at line 16 of file ViewModelLocator.cs.

6.38.2 Constructor & Destructor Documentation

6.38.2.1 ViewModelLocator()

```
MobileXamarin.ViewModels.ViewModelLocator.ViewModelLocator ( )
```

Constructor for ViewModelLocator

Definition at line 22 of file ViewModelLocator.cs.

6.38.3 Member Data Documentation

6.38.3.1 Home

```
IHomeViewModel MobileXamarin.ViewModels.ViewModelLocator.Home => ServiceLocator.Current.Get↩
Instance<IHomeViewModel>()
```

Gets an instance for IHomeViewModel HomeViewModel

Definition at line 45 of file ViewModelLocator.cs.

6.38.3.2 Kinetic

```
IKineticEnergyEquationViewModel MobileXamarin.ViewModels.ViewModelLocator.Kinetic
```

Initial value:

```
=>
            ServiceLocator.Current.GetInstance<IKineticEnergyEquationViewModel>()
```

Gets an instance for IKineticEnergyEquationViewModel KineticEnergyEquationViewModel

Definition at line 50 of file ViewModelLocator.cs.

6.38.3.3 Lagrange

```
ILagrangeEquationViewModel MobileXamarin.ViewModels.ViewModelLocator.Lagrange => Service↩
Locator.Current.GetInstance<ILagrangeEquationViewModel>()
```

Gets an instance for ILagrangeEquationViewModel LagrangeEquationViewModel

Definition at line 61 of file ViewModelLocator.cs.

6.38.3.4 Result

```
IResultViewModel MobileXamarin.ViewModels.ViewModelLocator.Result => ServiceLocator.Current.↩
GetInstance<IResultViewModel>()
```

Gets an instance for IResultViewModel ResultViewModel

Definition at line 56 of file ViewModelLocator.cs.

6.38.3.5 Rocket

```
IRocketEquationViewModel MobileXamarin.ViewModels.ViewModelLocator.Rocket => ServiceLocator.↩
Current.GetInstance<IRocketEquationViewModel>()
```

Gets an instance for IRocketEquationViewModel RocketEquationViewModel

Definition at line 66 of file ViewModelLocator.cs.

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

- ViewModels/ViewModelLocator.cs

Chapter 7

File Documentation

7.1 App.xaml.cs File Reference

Classes

- class MobileXamarin.App

  Core class for Xamarin app

Namespaces

- namespace MobileXamarin

7.2 AppResources/Localization/Resources.Designer.cs File Reference

Classes

- class MobileXamarin.AppResources.Localization.Resources

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

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.AppResources
- namespace MobileXamarin.AppResources.Localization

7.3 Enums/EquationType.cs File Reference

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Enums

Enumerations

- enum MobileXamarin.Enums.EquationType { MobileXamarin.Enums.EquationType.Kinetic, MobileXamarin.Enums.EquationTyp MobileXamarin.Enums.EquationType.Rocket, MobileXamarin.Enums.EquationType.Unknown }

  Types of equations

7.4 Enums/Units.cs File Reference

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Enums

Enumerations

- enum MobileXamarin.Enums.Units { MobileXamarin.Enums.Units.Meter, MobileXamarin.Enums.Units.Kilometer, MobileXamarin.Enums.Units.Second, MobileXamarin.Enums.Units.Hour, MobileXamarin.Enums.Units.KilometerPerHour, MobileXamarin.Enums.Units.MeterForSecond, MobileXamarin.Enums.Units.Ki MobileXamarin.Enums.Units.Gram, MobileXamarin.Enums.Units.KilogramPerSecond, MobileXamarin.Enums.Units.Celsius, MobileXamarin.Enums.Units.Kelvin, MobileXamarin.Enums.Units.Unknown }

  Units used in program

7.5 EquationResolvers/IKineticEquationResolver.cs File Reference

Classes

- interface MobileXamarin.EquationResolvers.IKineticEquationResolver

  Resolver for kinetic energy equation

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.EquationResolvers

7.6 EquationResolvers/ILagrangeResolver.cs File Reference

Classes

- interface MobileXamarin.EquationResolvers.ILagrangeResolver

  Resolver for Lagrange interpolation equation

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.EquationResolvers

7.7 EquationResolvers/IRocketEquationResolver.cs File Reference

Classes

- interface MobileXamarin.EquationResolvers.IRocketEquationResolver

  Resolver for vertical rocket start equation

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.EquationResolvers

7.8 EquationResolvers/KineticEquotionResolver.cs File Reference

Classes

- class MobileXamarin.EquationResolvers.KineticEquationResolver

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.EquationResolvers

7.9 EquationResolvers/LagrangeResolver.cs File Reference

Classes

- class MobileXamarin.EquationResolvers.LagrangeResolver

  Lagrange resolver

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.EquationResolvers

7.10 EquationResolvers/Normalization.cs File Reference

Classes

- class **MobileXamarin.EquationResolvers.Normalization**

  Normalization class

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.EquationResolvers

7.11 EquationResolvers/RocketEquationResolver.cs File Reference

Classes

- class MobileXamarin.EquationResolvers.RocketEquationResolver

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.EquationResolvers

7.12 IModels/IEquation.cs File Reference

Classes

- interface MobileXamarin.IModels.IEquation

  Equation model interface

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.IModels

7.13 IViewModels/IEquationViewModelBase.cs File Reference

Classes

- interface MobileXamarin.IViewModels.IEquationViewModelBase

  Base interface for equation view models

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.IViewModels

7.14 IViewModels/IHomeViewModel.cs File Reference

Classes

- interface MobileXamarin.IViewModels.IHomeViewModel

  View model for HomeView

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.IViewModels

7.15 IViewModels/IKineticEnergyEquationViewModel.cs File Reference

Classes

- interface MobileXamarin.IViewModels.IKineticEnergyEquationViewModel

  View model for Kinetic Energy Equation View

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.IViewModels

7.16 IViewModels/ILagrangeEquationViewModel.cs File Reference

Classes

- interface MobileXamarin.IViewModels.ILagrangeEquationViewModel

  Lagrange interpolation equation viewmodel

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.IViewModels

Typedefs

- using Point = MobileXamarin.Models.Point

7.16.1 Typedef Documentation

7.16.1.1 Point

```
using Point = MobileXamarin.Models.Point
```

Definition at line 7 of file ILagrangeEquationViewModel.cs.

7.17 IViewModels/IResultViewModel.cs File Reference

Classes

- interface MobileXamarin.IViewModels.IResultViewModel

  Result viewmodel

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.IViewModels

7.18 IViewModels/IRocketEquationViewModel.cs File Reference

Classes

- interface MobileXamarin.IViewModels.IRocketEquationViewModel

  Rocket equation view model

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.IViewModels

7.19 Models/Equation.cs File Reference

Classes

- class MobileXamarin.Models.Equation

  Equation model

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Models

7.20 Models/Point.cs File Reference

Classes

- class MobileXamarin.Models.Point

  Point with double type parameters

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Models

7.21 Models/Result.cs File Reference

Classes

- class MobileXamarin.Models.Result

  Result holder for any equations

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Models

7.22 Models/RocketParameter.cs File Reference

Classes

- class MobileXamarin.Models.RocketParameter

  Parameters of the rocket

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Models

7.23 obj/Debug/netstandard2.0/App.xaml.g.cs File Reference

Classes

- class MobileXamarin.App
  Core class for Xamarin app

Namespaces

- namespace MobileXamarin

7.24 obj/Debug/netstandard2.0/MobileXamarin.App.xaml.g.cs File Reference

Classes

- class MobileXamarin.App
  Core class for Xamarin app

Namespaces

- namespace MobileXamarin

7.25 obj/Debug/netstandard2.0/MobileXamarin.AssemblyInfo.cs File Reference

7.26 obj/Debug/netstandard2.0/MobileXamarin.Views.DetailsView.xaml.g.cs File Reference

Classes

- class MobileXamarin.Views.DetailsView

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Views

7.27 obj/Debug/netstandard2.0/MobileXamarin.Views.ForgotPasswordView.xaml.g.cs File Reference

Classes

- class MobileXamarin.Views.ForgotPasswordView

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Views

7.28 obj/Debug/netstandard2.0/MobileXamarin.Views.HomeView.xaml.g.cs File Reference

Classes

- class MobileXamarin.Views.HomeView

  Home view class

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Views

7.29 obj/Debug/netstandard2.0/MobileXamarin.Views.SignInView.xaml.g.cs File Reference

Classes

- class MobileXamarin.Views.SignInView

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Views

7.30 obj/Debug/netstandard2.0/MobileXamarin.Views.SignUpView.xaml.g.cs File Reference

Classes

- class MobileXamarin.Views.SignUpView

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Views

7.31 obj/Debug/netstandard2.0/Views/HomeView.xaml.g.cs File Reference

Classes

- class MobileXamarin.Views.HomeView
  Home view class

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Views

7.32 obj/Debug/netstandard2.0/Views/KineticEnergyEquationView.xaml.g.cs File Reference

Classes

- class MobileXamarin.Views.KineticEnergyEquationView
  Kinetic energy view

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Views

7.33 obj/Debug/netstandard2.0/Views/LagrangeEquationView.xaml.g.cs File Reference

Classes

- class MobileXamarin.Views.LagrangeEquationView
  Lagrange view

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Views

7.34 obj/Debug/netstandard2.0/Views/ResultView.xaml.g.cs File Reference

Classes

- class MobileXamarin.Views.ResultView
  Result view

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Views

7.35 obj/Debug/netstandard2.0/Views/RocketEquationView.xaml.g.cs File Reference

Classes

- class MobileXamarin.Views.RocketEquationView

  Rocket view

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Views

7.36 Repository/EquationRepository.cs File Reference

Classes

- class MobileXamarin.Repository.EquationRepository

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Repository

7.37 Repository/IEquationRepository.cs File Reference

Classes

- interface MobileXamarin.Repository.IEquationRepository

  Repository for equations

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Repository

7.38 Repository/UnitRepository.cs File Reference

Classes

- class **MobileXamarin.Repository.UnitRepository**

  Repository for units

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Repository

7.39 ViewModels/BaseViewModel.cs File Reference

Classes

- class MobileXamarin.ViewModels.BaseViewModel

  Base class for view models

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.ViewModels

7.40 ViewModels/EquationViewModelBase.cs File Reference

Classes

- class MobileXamarin.ViewModels.EquationViewModelBase

  Abstract base class for equation view models

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.ViewModels

7.41 ViewModels/HomeViewModel.cs File Reference

Classes

- class MobileXamarin.ViewModels.HomeViewModel

  Home view model IHomeViewModel

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.ViewModels

Typedefs

- using INavigationService = Xamarin.Forms.Navigation.INavigationService

7.41.1 Typedef Documentation

7.41.1.1 INavigationService

```
using INavigationService = Xamarin.Forms.Navigation.INavigationService
```

Definition at line 10 of file HomeViewModel.cs.

7.42 ViewModels/KineticEnergyEquationViewModel.cs File Reference

Classes

- class MobileXamarin.ViewModels.KineticEnergyEquationViewModel

  Kinetic Energy Equation ViewModel

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.ViewModels

7.43 ViewModels/LagrangeEquationViewModel.cs File Reference

Classes

- class MobileXamarin.ViewModels.LagrangeEquationViewModel

  Lagrange interpolation viewmodel

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.ViewModels

Typedefs

- using Point = MobileXamarin.Models.Point

7.43.1 Typedef Documentation

7.43.1.1 Point

```
using Point = MobileXamarin.Models.Point
```

Definition at line 16 of file LagrangeEquationViewModel.cs.

7.44 ViewModels/ResultViewModel.cs File Reference

Classes

- class MobileXamarin.ViewModels.ResultViewModel

  Result viewmodel

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.ViewModels

7.45 ViewModels/RocketEquationViewModel.cs File Reference

Classes

- class MobileXamarin.ViewModels.RocketEquationViewModel

  Rocket equation viewmodel

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.ViewModels

7.46 ViewModels/ViewModelLocator.cs File Reference

Classes

- class MobileXamarin.ViewModels.ViewModelLocator

  IoC container

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.ViewModels

7.47 Views/HomeView.xaml.cs File Reference

Classes

- class MobileXamarin.Views.HomeView

  Home view class

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Views

7.48 Views/KineticEnergyEquationView.xaml.cs File Reference

Classes

- class MobileXamarin.Views.KineticEnergyEquationView

  Kinetic energy view

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Views

7.49 Views/LagrangeEquationView.xaml.cs File Reference

Classes

- class MobileXamarin.Views.LagrangeEquationView

  Lagrange view

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Views

Typedefs

- using Point = MobileXamarin.Models.Point

7.49.1 Typedef Documentation

7.49.1.1 Point

```
using Point = MobileXamarin.Models.Point
```

Definition at line 5 of file LagrangeEquationView.xaml.cs.

7.50 Views/ResultView.xaml.cs File Reference

Classes

- class MobileXamarin.Views.ResultView
  Result view

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Views

7.51 Views/RocketEquationView.xaml.cs File Reference

Classes

- class MobileXamarin.Views.RocketEquationView
  Rocket view

Namespaces

- namespace MobileXamarin
- namespace MobileXamarin.Views

Index