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Class AttributionsScene

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class AttributionsScene : Scene
```

Inheritance

[object](#) ← [Scene](#) ← AttributionsScene

Inherited Members

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

Constructors

AttributionsScene(Game)

```
public AttributionsScene(Game game)
```

Parameters

game [Game](#)

Methods

Draw(GameTime, SpriteBatch)

```
public override void Draw(GameTime gameTime, SpriteBatch spriteBatch)
```

Parameters

gameTime GameTime

spriteBatch SpriteBatch

Update(GameTime)

```
public override void Update(GameTime gameTime)
```

Parameters

gameTime GameTime

Class AttributionsUi

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class AttributionsUi
```

Inheritance

[object](#) ← AttributionsUi

Inherited Members

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

Constructors

AttributionsUi(Game)

```
public AttributionsUi(Game game)
```

Parameters

game [Game](#)

Methods

Draw()

```
public void Draw()
```

Class Body

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class Body
```

Inheritance

[object](#) ← Body

Inherited Members

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

Constructors

Body(string, Vector2, Vector2, float, float, Color,
TextureManager)

```
public Body(string name, Vector2 position, Vector2 velocity, float mass, float displaySize,  
Color color, TextureManager textureManager)
```

Parameters

name [string](#)

position Vector2

velocity Vector2

mass [float](#)

displaySize [float](#)

color Color

textureManager [TextureManager](#)

Fields

Destroyed

```
public bool Destroyed
```

Field Value

[bool](#) ↗

Selected

```
public bool Selected
```

Field Value

[bool](#) ↗

Methods

CheckIfDeselected(Point, MouseState)

```
public void CheckIfDeselected(Point mousePosition, MouseState mouseState)
```

Parameters

`mousePosition` Point

`mouseState` MouseState

CheckIfSelected(Point, MouseState)

```
public void CheckIfSelected(Point mousePosition, MouseState mouseState)
```

Parameters

mousePosition Point

mouseState MouseState

ConvertToBodyData(SimulationMediator)

```
public BodyData ConvertToBodyData(SimulationMediator simulationMediator)
```

Parameters

simulationMediator [SimulationMediator](#)

Returns

[BodyData](#)

Draw(SpriteBatch, ShapeBatch, SimulationMediator)

```
public void Draw(SpriteBatch spriteBatch, ShapeBatch shapeBatch,  
SimulationMediator simulationMediator)
```

Parameters

spriteBatch SpriteBatch

shapeBatch ShapeBatch

simulationMediator [SimulationMediator](#)

Edit(string, Vector2, Vector2, float, float, List<Body>)

```
public void Edit(string name, Vector2 position, Vector2 velocity, float mass, float  
displaySize, List<Body> bodies)
```

Parameters

name [string](#)

position Vector2

velocity Vector2

mass [float](#)

displaySize [float](#)

bodies [List](#)<Body>

OffsetPosition(SimulationMediator)

```
public void OffsetPosition(SimulationMediator simulationMediator)
```

Parameters

simulationMediator [SimulationMediator](#)

SetColor(Color)

```
public void SetColor(Color color)
```

Parameters

color Color

Update(List<Body>, int, GameTime)

```
public void Update(List<Body> bodies, int userTimeStep, GameTime gameTime)
```

Parameters

bodies [List](#)<Body>

`userTimeStep` [int ↗](#)

`gameTime` GameTime

Class BodyData

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class BodyData
```

Inheritance

[object](#) ← BodyData

Inherited Members

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

Fields

Name

```
public string Name
```

Field Value

[string](#)

Properties

Color

```
[JsonIgnore]  
public Color Color { get; set; }
```

Property Value

Color

ColorString

```
[JsonProperty("Color")]
public string ColorString { get; set; }
```

Property Value

[string](#)

DisplaySize

```
public float DisplaySize { get; set; }
```

Property Value

[float](#)

Mass

```
public float Mass { get; set; }
```

Property Value

[float](#)

Position

```
public Vector2 Position { get; set; }
```

Property Value

Vector2

Velocity

```
public Vector2 Velocity { get; set; }
```

Property Value

Vector2

Class CreateBodyDialog

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public static class CreateBodyDialog
```

Inheritance

[object](#) ← CreateBodyDialog

Inherited Members

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

Methods

Create(SimulationMediator, Desktop)

```
public static Dialog Create(SimulationMediator simulationMediator, Desktop desktop)
```

Parameters

simulationMediator [SimulationMediator](#)

desktop Desktop

Returns

Dialog

Class EditBodyDialog

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public static class EditBodyDialog
```

Inheritance

[object](#) ← EditBodyDialog

Inherited Members

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

Methods

Create(SimulationMediator, Desktop)

```
public static Dialog Create(SimulationMediator simulationMediator, Desktop desktop)
```

Parameters

simulationMediator [SimulationMediator](#)

desktop Desktop

Returns

Dialog

Class EditModePanel

Namespace: [2dgs](#)

Assembly: 2dgs.dll

```
public static class EditModePanel
```

Inheritance

[object](#) ← EditModePanel

Inherited Members

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

Methods

Create(SimulationMediator, Desktop)

```
public static VerticalStackPanel Create(SimulationMediator simulationMediator,  
Desktop desktop)
```

Parameters

simulationMediator [SimulationMediator](#)

desktop Desktop

Returns

VerticalStackPanel

Class FadeInScene

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class FadeInScene : Scene
```

Inheritance

[object](#) ← [Scene](#) ← FadeInScene

Inherited Members

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

Constructors

FadeInScene(Game, Scene)

```
public FadeInScene(Game game, Scene destinationScene)
```

Parameters

game [Game](#)

destinationScene [Scene](#)

Methods

Draw(GameTime, SpriteBatch)

```
public override void Draw(GameTime gameTime, SpriteBatch spriteBatch)
```

Parameters

gameTime GameTime

spriteBatch SpriteBatch

Update(GameTime)

```
public override void Update(GameTime gameTime)
```

Parameters

gameTime GameTime

Class FadeOutScene

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class FadeOutScene : Scene
```

Inheritance

[object](#) ← [Scene](#) ← FadeOutScene

Inherited Members

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

Constructors

FadeOutScene(Game)

```
public FadeOutScene(Game game)
```

Parameters

game [Game](#)

Methods

Draw(GameTime, SpriteBatch)

```
public override void Draw(GameTime gameTime, SpriteBatch spriteBatch)
```

Parameters

gameTime GameTime

spriteBatch SpriteBatch

Update(GameTime)

```
public override void Update(GameTime gameTime)
```

Parameters

gameTime GameTime

Class FileManager

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class FileManager
```

Inheritance

[object](#) ← FileManager

Inherited Members

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

Methods

DeleteFile(string)

```
public void DeleteFile(string file)
```

Parameters

file [string](#)

RenameFile(string, string)

```
public void RenameFile(string oldPath, string newPath)
```

Parameters

oldPath [string](#)

newPath [string](#)

Class FindWidget

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public static class FindWidget
```

Inheritance

[object](#) ← FindWidget

Inherited Members

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

Methods

DisableWidgets(Widget, string[])

```
public static void DisableWidgets(Widget parent, string[] widgetIds)
```

Parameters

parent Widget

widgetIds [string](#)[]

EnableWidgets(Widget, string[])

```
public static void EnableWidgets(Widget parent, string[] widgetIds)
```

Parameters

parent Widget

widgetIds [string](#)[]

GetWidgetById(Widget, string)

```
public static Widget GetWidgetById(Widget parent, string widgetId)
```

Parameters

parent Widget

widgetId [string](#)

Returns

Widget

HighlightWidget(Widget, string)

```
public static void HighlightWidget(Widget parent, string widgetId)
```

Parameters

parent Widget

widgetId [string](#)

UnhighlightWidget(Widget, string)

```
public static void UnhighlightWidget(Widget parent, string widgetId)
```

Parameters

parent Widget

widgetId [string](#)

Class FontManager

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public static class FontManager
```

Inheritance

[object](#) ← FontManager

Inherited Members

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

Fields

ButtonFontSystem

```
public static readonly FontSystem ButtonFontSystem
```

Field Value

FontSystem

Methods

BoldText(int)

```
public static SpriteFontBase BoldText(int size)
```

Parameters

size [int](#)

Returns

SpriteFontBase

ButtonText(int)

```
public static SpriteFontBase ButtonText(int size)
```

Parameters

size [int](#)

Returns

SpriteFontBase

LightText(int)

```
public static SpriteFontBase LightText(int size)
```

Parameters

size [int](#)

Returns

SpriteFontBase

MediumText(int)

```
public static SpriteFontBase MediumText(int size)
```

Parameters

size [int](#)

Returns

SpriteFontBase

TitleText(int)

```
public static SpriteFontBase TitleText(int size)
```

Parameters

size [int](#)

Returns

SpriteFontBase

Class FpsCounter

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class FpsCounter
```

Inheritance

[object](#) ← FpsCounter

Inherited Members

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

Methods

Draw(SpriteBatch)

```
public void Draw(SpriteBatch spriteBatch)
```

Parameters

spriteBatch SpriteBatch

ToggleFps()

```
public void ToggleFps()
```

Update(GameTime)

```
public void Update(GameTime gameTime)
```

Parameters

gameTime GameTime

Class Game

Namespace: [2dgs](#)

Assembly: 2dgs.dll

```
public class Game : Game, IDisposable
```

Inheritance

[object](#) ← Game ← Game

Implements

[IDisposable](#)

Inherited Members

Game.Dispose() , [Game.Dispose\(bool\)](#) , Game.Exit() , Game.ResetElapsedTime() , Game.SuppressDraw() , Game.RunOneFrame() , Game.Run() , Game.Run(GameRunBehavior) , Game.Tick() , Game.BeginDraw() , Game.EndDraw() , Game.BeginRun() , Game.EndRun() , Game.UnloadContent() , [Game.OnActivated\(object, EventArgs\)](#) , [Game.OnDeactivated\(object, EventArgs\)](#) , Game.LaunchParameters , Game.Components , Game.InactiveSleepTime , Game.MaxElapsedTime , Game.IsActive , Game.IsMouseVisible , Game.TargetElapsedTime , Game.IsFixedTimeStep , Game.Services , Game.Content , Game.GraphicsDevice , Game.Window , Game.Activated , Game.Deactivated , Game.Disposed , Game.Exiting , [object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Constructors

Game()

```
public Game()
```

Fields

SaveSystem

```
public readonly SaveSystem SaveSystem
```

Field Value

[SaveSystem](#)

Properties

FpsCounter

```
public FpsCounter FpsCounter { get; }
```

Property Value

[FpsCounter](#)

Graphics

```
public GraphicsDeviceManager Graphics { get; }
```

Property Value

GraphicsDeviceManager

SceneManager

```
public SceneManager SceneManager { get; }
```

Property Value

[SceneManager](#)

Methods

Draw(GameTime)

Called when the game should draw a frame.

Draws the Microsoft.Xna.Framework.DrawableGameComponent instances attached to this game. Override this to render your game.

```
protected override void Draw(GameTime gameTime)
```

Parameters

gameTime GameTime

A Microsoft.Xna.Framework.GameTime instance containing the elapsed time since the last call to Microsoft.Xna.Framework.Game.Draw(Microsoft.Xna.Framework.GameTime) and the total time elapsed since the game started.

Initialize()

Override this to initialize the game and load any needed non-graphical resources.

Initializes attached Microsoft.Xna.Framework.GameComponent instances and calls Microsoft.Xna.Framework.Game.LoadContent().

```
protected override void Initialize()
```

LoadContent()

Override this to load graphical resources required by the game.

```
protected override void LoadContent()
```

OnExiting(object, ExitingEventArgs)

Called when the game is exiting. Raises the Microsoft.Xna.Framework.Game.Exiting event.

```
protected override void OnExiting(object sender, ExitingEventArgs args)
```

Parameters

sender [object](#)

This Microsoft.Xna.Framework.Game.

args ExitingEventArgs

The arguments to the Microsoft.Xna.Framework.Game.Exiting event.

Update(GameTime)

Called when the game should update.

Updates the Microsoft.Xna.Framework.GameComponent instances attached to this game. Override this to update your game.

```
protected override void Update(GameTime gameTime)
```

Parameters

gameTime GameTime

The elapsed time since the last call to Microsoft.Xna.Framework.Game.Update(Microsoft.Xna.Framework.GameTime).

Class GhostBody

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class GhostBody
```

Inheritance

[object](#) ← GhostBody

Inherited Members

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

Properties

Position

```
public Vector2 Position { get; set; }
```

Property Value

Vector2

Methods

Draw(SpriteBatch, TextureManager, SimulationMediator)

```
public void Draw(SpriteBatch spriteBatch, TextureManager textureManager,  
SimulationMediator simulationMediator)
```

Parameters

spriteBatch SpriteBatch

textureManager [TextureManager](#)

`simulationMediator` [SimulationMediator](#)

Update(SimulationMediator)

`public void Update(SimulationMediator simulationMediator)`

Parameters

`simulationMediator` [SimulationMediator](#)

Class GlobalGameData

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public static class GlobalGameData
```

Inheritance

[object](#) ← GlobalGameData

Inherited Members

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

Fields

FadeSpeed

```
public const float FadeSpeed = 5
```

Field Value

[float](#)

Properties

SfxVolume

```
public static float SfxVolume { get; set; }
```

Property Value

[float](#)

Class KeyEnumConvertor

Namespace: [2dgs](#)

Assembly: 2dgs.dll

```
public class KeyEnumConvertor : JsonConverter<List<Keys>>
```

Inheritance

[object](#) ← JsonConverter ← JsonConverter<[List](#)<Keys>> ← KeyEnumConvertor

Inherited Members

[JsonConverter<List<Keys>>.WriteJson\(JsonWriter, object, JsonSerializer\)](#) ,
[JsonConverter<List<Keys>>.ReadJson\(JsonReader, Type, object, JsonSerializer\)](#) ,
[JsonConverter<List<Keys>>.CanConvert\(Type\)](#) , JsonConverter.CanRead , JsonConverter.CanWrite ,
[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) , [object.GetType\(\)](#) ,
[object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Methods

ReadJson(JsonReader, Type, List<Keys>, bool, JsonSerializer)

Reads the JSON representation of the object.

```
public override List<Keys> ReadJson(JsonReader reader, Type objectType, List<Keys>
existingValue, bool hasExistingValue, JsonSerializer serializer)
```

Parameters

reader JsonReader

The Newtonsoft.Json.JsonReader to read from.

objectType Type

Type of the object.

existingValue List<Keys>

The existing value of object being read. If there is no existing value then **null** will be used.

hasExistingValue [bool](#)

The existing value has a value.

serializer JsonSerializer

The calling serializer.

Returns

[List](#)<Keys>

The object value.

WriteJson(JsonWriter, List<Keys>, JsonSerializer)

Writes the JSON representation of the object.

```
public override void WriteJson(JsonWriter writer, List<Keys> value,
JsonSerializer serializer)
```

Parameters

writer JsonWriter

The Newtonsoft.Json.JsonWriter to write to.

value [List](#)<Keys>

The value.

serializer JsonSerializer

The calling serializer.

Class KeyManager

Namespace: [2dgs](#)

Assembly: 2dgs.dll

```
public static class KeyManager
```

Inheritance

[object](#) ← KeyManager

Inherited Members

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

Methods

Shortcut(List<Keys>, KeyboardState, KeyboardState, Action)

```
public static void Shortcut(List<Keys> keys, KeyboardState current, KeyboardState previous,  
Action action)
```

Parameters

keys [List](#)<Keys>

current KeyboardState

previous KeyboardState

action [Action](#)

Class LessonPage

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class LessonPage
```

Inheritance

[object](#) ← LessonPage

Inherited Members

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

Fields

HighlightWidget

```
public string HighlightWidget
```

Field Value

[string](#)

RestrictWidgets

```
public string[] RestrictWidgets
```

Field Value

[string](#)[]

Text

```
public string Text
```

Field Value

[string](#) ↗

Class LessonPrompt

Namespace: [2dgs](#)

Assembly: 2dgs.dll

```
public class LessonPrompt
```

Inheritance

[object](#) ← LessonPrompt

Inherited Members

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

Constructors

LessonPrompt(SimulationMediator, Button)

```
public LessonPrompt(SimulationMediator simulationMediator, Button showButton)
```

Parameters

simulationMediator [SimulationMediator](#)

showButton Button

Properties

GetLessons

```
public List<LessonPage> GetLessons { get; }
```

Property Value

[List](#) <[LessonPage](#)>

Methods

Show/Desktop, SimulationMediator)

```
public void Show/Desktop desktop, SimulationMediator simulationMediator)
```

Parameters

desktop Desktop

simulationMediator [SimulationMediator](#)

Class MainMenuScene

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class MainMenuScene : Scene
```

Inheritance

[object](#) ← [Scene](#) ← MainMenuScene

Inherited Members

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

Constructors

MainMenuScene(Game)

```
public MainMenuScene(Game game)
```

Parameters

game [Game](#)

Methods

Draw(GameTime, SpriteBatch)

```
public override void Draw(GameTime gameTime, SpriteBatch spriteBatch)
```

Parameters

gameTime GameTime

spriteBatch SpriteBatch

Update(GameTime)

```
public override void Update(GameTime gameTime)
```

Parameters

gameTime GameTime

Class MainMenuUi

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class MainMenuUi
```

Inheritance

[object](#) ← MainMenuUi

Inherited Members

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

Constructors

MainMenuUi(Game)

```
public MainMenuUi(Game game)
```

Parameters

game [Game](#)

Methods

Draw()

```
public void Draw()
```

Class MusicPlayer

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class MusicPlayer
```

Inheritance

[object](#) ← MusicPlayer

Inherited Members

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

Constructors

MusicPlayer(ContentManager)

```
public MusicPlayer(ContentManager contentManager)
```

Parameters

contentManager ContentManager

Methods

Dispose()

```
public void Dispose()
```

Initialize()

```
public void Initialize()
```

Enum Position

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public enum Position
```

Fields

Bottom = 3

Left = 0

Right = 1

Top = 2

Class RemapShortcutsDialog

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public static class RemapShortcutsDialog
```

Inheritance

[object](#) ← RemapShortcutsDialog

Inherited Members

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

Methods

Create(Game, SettingsMediator, SettingsSaveData)

```
public static Dialog Create(Game game, SettingsMediator settingsMediator,  
SettingsSaveData settingsSaveData)
```

Parameters

game [Game](#)

settingsMediator [SettingsMediator](#)

settingsSaveData [SettingsSaveData](#)

Returns

Dialog

Class SaveQuitPanel

Namespace: [2dgs](#)

Assembly: 2dgs.dll

```
public static class SaveQuitPanel
```

Inheritance

[object](#) ← SaveQuitPanel

Inherited Members

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

Methods

Create(SimulationMediator, Game, Desktop)

```
public static VerticalStackPanel Create(SimulationMediator simulationMediator, Game game,  
Desktop desktop)
```

Parameters

simulationMediator [SimulationMediator](#)

game [Game](#)

desktop Desktop

Returns

VerticalStackPanel

Class SaveSystem

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class SaveSystem
```

Inheritance

[object](#) ← SaveSystem

Inherited Members

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

Methods

CreateBlankSimulation(string)

```
public void CreateBlankSimulation(string saveFilePath)
```

Parameters

saveFilePath [string](#)

LoadSettings()

```
public SettingsSaveData LoadSettings()
```

Returns

[SettingsSaveData](#)

LoadSimulation(string)

```
public SimulationSaveData LoadSimulation(string path)
```

Parameters

path [string](#)

Returns

[SimulationSaveData](#)

SaveSettings(SettingsSaveData)

```
public void SaveSettings(SettingsSaveData settingsSaveData)
```

Parameters

settingsSaveData [SettingsSaveData](#)

SaveSimulation(string, SimulationSaveData)

```
public void SaveSimulation(string path, SimulationSaveData simulationSaveData)
```

Parameters

path [string](#)

simulationSaveData [SimulationSaveData](#)

Class Scene

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public abstract class Scene
```

Inheritance

[object](#) ← Scene

Derived

[AttributionsScene](#), [FadeInScene](#), [FadeOutScene](#), [MainMenuScene](#), [SettingsScene](#), [SimulationMenuScene](#),
[SimulationScene](#)

Inherited Members

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

Methods

Draw(GameTime, SpriteBatch)

```
public abstract void Draw(GameTime gameTime, SpriteBatch spriteBatch)
```

Parameters

gameTime GameTime

spriteBatch SpriteBatch

Update(GameTime)

```
public abstract void Update(GameTime gameTime)
```

Parameters

gameTime GameTime

Class SceneManager

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class SceneManager
```

Inheritance

[object](#) ← SceneManager

Inherited Members

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

Methods

ChangeScene(Scene)

```
public void ChangeScene(Scene scene)
```

Parameters

scene [Scene](#)

ClearScenes()

```
public void ClearScenes()
```

Draw(GameTime, SpriteBatch)

```
public void Draw(GameTime gameTime, SpriteBatch spriteBatch)
```

Parameters

`gameTime` GameTime

`spriteBatch` SpriteBatch

PopScene()

```
public void PopScene()
```

PushScene(Scene)

```
public void PushScene(Scene scene)
```

Parameters

`scene` [Scene](#)

Update(GameTime)

```
public void Update(GameTime gameTime)
```

Parameters

`gameTime` GameTime

Class ScreenshotManager

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public static class ScreenshotManager
```

Inheritance

[object](#) ← ScreenshotManager

Inherited Members

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

Methods

Capture(GraphicsDevice)

```
public static void Capture(GraphicsDevice graphicsDevice)
```

Parameters

graphicsDevice GraphicsDevice

Class SettingsMediator

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class SettingsMediator
```

Inheritance

[object](#) ← SettingsMediator

Inherited Members

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

Fields

DefaultShortcuts

```
public Dictionary<string, List<Keys>> DefaultShortcuts
```

Field Value

[Dictionary](#)<[string](#), [List](#)<Keys>>

NewShortcuts

```
public Dictionary<string, List<Keys>> NewShortcuts
```

Field Value

[Dictionary](#)<[string](#), [List](#)<Keys>>

ShortcutPreview

```
public string ShortcutPreview
```

Field Value

[string](#) ↗

WhichShortcut

```
public string WhichShortcut
```

Field Value

[string](#) ↗

Properties

ClearShortcut

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

Property Value

[bool](#) ↗

CurrentResolution

```
public Vector2 CurrentResolution { get; set; }
```

Property Value

Vector2

Remapping

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

Property Value

[bool](#) ↗

ResetShortcuts

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

Property Value

[bool](#) ↗

Methods

ResetNewShortcuts()

```
public void ResetNewShortcuts()
```

Class SettingsMenuUi

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class SettingsMenuUi
```

Inheritance

[object](#) ← SettingsMenuUi

Inherited Members

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

Constructors

SettingsMenuUi(Game, SettingsMediator)

```
public SettingsMenuUi(Game game, SettingsMediator settingsMediator)
```

Parameters

game [Game](#)

settingsMediator [SettingsMediator](#)

Methods

Draw()

```
public void Draw()
```

Class SettingsPanel

Namespace: [2dgs](#)

Assembly: 2dgs.dll

```
public static class SettingsPanel
```

Inheritance

[object](#) ← SettingsPanel

Inherited Members

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

Methods

Create(SimulationMediator)

```
public static VerticalStackPanel Create(SimulationMediator simulationMediator)
```

Parameters

simulationMediator [SimulationMediator](#)

Returns

VerticalStackPanel

Class SettingsSaveData

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class SettingsSaveData
```

Inheritance

[object](#) ← SettingsSaveData

Inherited Members

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

Properties

EditShortcut

```
public List<Keys> EditShortcut { get; set; }
```

Property Value

[List](#)<Keys>

Fullscreen

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

Property Value

[bool](#)

GlowShortcut

```
public List<Keys> GlowShortcut { get; set; }
```

Property Value

[List](#)<Keys>

HorizontalResolution

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

Property Value

[int](#)

NamesShortcut

```
public List<Keys> NamesShortcut { get; set; }
```

Property Value

[List](#)<Keys>

OrbitsShortcut

```
public List<Keys> OrbitsShortcut { get; set; }
```

Property Value

[List](#)<Keys>

PauseShortcut

```
public List<Keys> PauseShortcut { get; set; }
```

Property Value

[List](#)<Keys>

ScreenshotShortcut

```
public List<Keys> ScreenshotShortcut { get; set; }
```

Property Value

[List](#)<Keys>

SpeedDownShortcut

```
public List<Keys> SpeedDownShortcut { get; set; }
```

Property Value

[List](#)<Keys>

SpeedUpShortcut

```
public List<Keys> SpeedUpShortcut { get; set; }
```

Property Value

[List](#)<Keys>

TrailsShortcut

```
public List<Keys> TrailsShortcut { get; set; }
```

Property Value

[List](#)<Keys>

VectorsShortcut

```
public List<Keys> VectorsShortcut { get; set; }
```

Property Value

[List](#)<Keys>

VerticalResolution

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

Property Value

[int](#)

Methods

Refresh(SaveSystem)

```
public void Refresh(SaveSystem saveSystem)
```

Parameters

saveSystem [SaveSystem](#)

Class SettingsScene

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class SettingsScene : Scene
```

Inheritance

[object](#) ← [Scene](#) ← SettingsScene

Inherited Members

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

Constructors

SettingsScene(Game)

```
public SettingsScene(Game game)
```

Parameters

game [Game](#)

Methods

Draw(GameTime, SpriteBatch)

```
public override void Draw(GameTime gameTime, SpriteBatch spriteBatch)
```

Parameters

gameTime GameTime

spriteBatch SpriteBatch

Update(GameTime)

```
public override void Update(GameTime gameTime)
```

Parameters

gameTime GameTime

Class SimulationMediator

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class SimulationMediator
```

Inheritance

[object](#) ← SimulationMediator

Inherited Members

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

Properties

ABodySelected

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

Property Value

[bool](#)

AttemptToFile

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

Property Value

[bool](#)

ColorSelectedBody

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

Property Value

[bool](#)

CreateBodyData

```
public BodyData CreateBodyData { get; set; }
```

Property Value

[BodyData](#)

DeleteSelectedBody

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

Property Value

[bool](#)

EditBodyData

```
public BodyData EditBodyData { get; set; }
```

Property Value

[BodyData](#)

EditMode

```
public boolEditMode { get; set; }
```

Property Value

[bool](#) ↗

EditSelectedBody

```
public boolEditSelectedBody { get; set; }
```

Property Value

[bool](#) ↗

FilePath

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

Property Value

[string](#) ↗

Lesson

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

Property Value

[bool](#) ↗

LessonPages

```
public List<LessonPage> LessonPages { get; set; }
```

Property Value

[List](#) <[LessonPage](#)>

NewBodyColor

```
public Color NewBodyColor { get; set; }
```

Property Value

Color

Paused

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

Property Value

[bool](#)

Position

```
public Position Position { get; set; }
```

Property Value

[Position](#)

ResetSimulation

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

Property Value

[bool](#) ↗

ScreenDimensions

```
public Vector2 ScreenDimensions { get; set; }
```

Property Value

Vector2

SelectedBodyData

```
public BodyData SelectedBodyData { get; set; }
```

Property Value

[BodyData](#)

SimulationTitle

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

Property Value

[string](#) ↗

TimeStep

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

Property Value

[int](#)

ToggleBodyGhost

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

Property Value

[bool](#)

ToggleGlow

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

Property Value

[bool](#)

ToggleNames

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

Property Value

[bool](#)

ToggleOrbits

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

Property Value

[bool](#) ↗

ToggleTrails

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

Property Value

[bool](#) ↗

ToggleVectors

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

Property Value

[bool](#) ↗

TrailLength

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

Property Value

[int](#) ↗

Class SimulationMenuScene

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class SimulationMenuScene : Scene
```

Inheritance

[object](#) ← [Scene](#) ← SimulationMenuScene

Inherited Members

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

Constructors

SimulationMenuScene(Game)

```
public SimulationMenuScene(Game game)
```

Parameters

game [Game](#)

Methods

Draw(GameTime, SpriteBatch)

```
public override void Draw(GameTime gameTime, SpriteBatch spriteBatch)
```

Parameters

gameTime GameTime

spriteBatch SpriteBatch

Update(GameTime)

```
public override void Update(GameTime gameTime)
```

Parameters

gameTime GameTime

Class SimulationMenuUi

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class SimulationMenuUi
```

Inheritance

[object](#) ← SimulationMenuUi

Inherited Members

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

Constructors

SimulationMenuUi(Game)

```
public SimulationMenuUi(Game game)
```

Parameters

game [Game](#)

Methods

Draw()

```
public void Draw()
```

Class SimulationSaveData

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class SimulationSaveData
```

Inheritance

[object](#) ← SimulationSaveData

Inherited Members

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

Fields

Bodies

```
public List<BodyData> Bodies
```

Field Value

[List](#) <[BodyData](#)>

DefaultTimestep

```
public int DefaultTimestep
```

Field Value

[int](#)

Description

```
public string Description
```

Field Value

[string](#)

IsLesson

```
public bool IsLesson
```

Field Value

[bool](#)

LessonPages

```
public List<LessonPage> LessonPages
```

Field Value

[List](#) <[LessonPage](#)>

ThumbnailPath

```
public string ThumbnailPath
```

Field Value

[string](#)

Title

```
public string Title
```

Field Value

[string](#) ↗

Class SimulationScene

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class SimulationScene : Scene
```

Inheritance

[object](#) ← [Scene](#) ← SimulationScene

Inherited Members

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

Constructors

SimulationScene(Game, string)

```
public SimulationScene(Game game, string filePath)
```

Parameters

game [Game](#)

filePath [string](#)

Methods

Draw(GameTime, SpriteBatch)

```
public override void Draw(GameTime gameTime, SpriteBatch spriteBatch)
```

Parameters

gameTime GameTime

spriteBatch SpriteBatch

Update(GameTime)

```
public override void Update(GameTime gameTime)
```

Parameters

gameTime GameTime

Class SimulationUi

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class SimulationUi
```

Inheritance

[object](#) ← SimulationUi

Inherited Members

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

Constructors

SimulationUi(Game, SimulationMediator)

```
public SimulationUi(Game game, SimulationMediator simulationMediator)
```

Parameters

game [Game](#)

simulationMediator [SimulationMediator](#)

Methods

Draw()

```
public void Draw()
```

GetRoot()

```
public Widget GetRoot()
```

Returns

Widget

Class SoundEffectPlayer

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class SoundEffectPlayer
```

Inheritance

[object](#) ← SoundEffectPlayer

Inherited Members

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

Constructors

SoundEffectPlayer(ContentManager)

```
public SoundEffectPlayer(ContentManager contentManager)
```

Parameters

contentManager ContentManager

Methods

PlayCollisionSfx()

```
public void PlayCollisionSfx()
```

Class StringTransformer

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public static class StringTransformer
```

Inheritance

[object](#) ← StringTransformer

Inherited Members

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

Methods

FileNamePrettier(string)

```
public static string FileNamePrettier(string filename)
```

Parameters

filename [string](#)

Returns

[string](#)

KeybindString(List<Keys>)

```
public static string KeybindString(List<Keys> keys)
```

Parameters

keys [List](#)<Keys>

Returns

[string](#) ↗

Class TestRunner

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public static class TestRunner
```

Inheritance

[object](#) ← TestRunner

Inherited Members

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

Methods

AssertApplicationDisplayMode(GraphicsDeviceManager, SettingsSaveData)

```
public static void AssertApplicationDisplayMode(GraphicsDeviceManager graphics,  
SettingsSaveData settingsSaveData)
```

Parameters

graphics GraphicsDeviceManager

settingsSaveData [SettingsSaveData](#)

AssertApplicationName(string, string)

```
public static void AssertApplicationName(string actualName, string expectedName)
```

Parameters

actualName [string](#)

`expectedName` [string](#)

AssertApplicationResolution(GraphicsDeviceManager, SettingsSaveData)

```
public static void AssertApplicationResolution(GraphicsDeviceManager graphics,  
SettingsSaveData settingsSaveData)
```

Parameters

`graphics` GraphicsDeviceManager

`settingsSaveData` [SettingsSaveData](#)

AssertBodiesDataIntegrity(List<Body>, List<BodyData>)

```
public static void AssertBodiesDataIntegrity(List<Body> bodies, List<BodyData> bodiesData)
```

Parameters

`bodies` [List](#)<[Body](#)>

`bodiesData` [List](#)<[BodyData](#)>

AssertBodyCreated(List<Body>, Body)

```
public static void AssertBodyCreated(List<Body> bodies, Body newBody)
```

Parameters

`bodies` [List](#)<[Body](#)>

`newBody` [Body](#)

AssertBodyDeleted(List<Body>, Body)

```
public static void AssertBodyDeleted(List<Body> bodies, Body deletedBody)
```

Parameters

bodies [List](#)<Body>

deletedBody [Body](#)

AssertBodyEdited(List<Body>, Body)

```
public static void AssertBodyEdited(List<Body> bodies, Body editedBody)
```

Parameters

bodies [List](#)<Body>

editedBody [Body](#)

AssertFileDeletion(string)

```
public static void AssertFileDeletion(string filePath)
```

Parameters

filePath [string](#)

AssertFileRename(string, string)

```
public static void AssertFileRename(string oldPath, string newPath)
```

Parameters

oldPath [string](#)

`newPath` [string](#)

AssertLessonDataIntegrity(List<LessonPage>, List<LessonPage>)

```
public static void AssertLessonDataIntegrity(List<LessonPage> lessonPages,  
List<LessonPage> lessonData)
```

Parameters

`lessonPages` [List](#)<[LessonPage](#)>

`lessonData` [List](#)<[LessonPage](#)>

AssertLessonsLoaded(ListView, string)

```
public static void AssertLessonsLoaded(ListView listView, string folderPath)
```

Parameters

`listView` ListView

`folderPath` [string](#)

AssertSimulationSaved(string, SimulationSaveData, SaveSystem)

```
public static void AssertSimulationSaved(string filePath, SimulationSaveData instanceData,  
SaveSystem saveSystem)
```

Parameters

`filePath` [string](#)

`instanceData` [SimulationSaveData](#)

`saveSystem` [SaveSystem](#)

AssertUserSimsLoaded(ListView, string)

```
public static void AssertUserSimsLoaded(ListView listView, string folderPath)
```

Parameters

listView ListView

FolderPath [string](#)

SaveResults()

```
public static void SaveResults()
```

Class TextureManager

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class TextureManager
```

Inheritance

[object](#) ← TextureManager

Inherited Members

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

Constructors

TextureManager(ContentManager, GraphicsDevice)

```
public TextureManager(ContentManager content, GraphicsDevice graphicsDevice)
```

Parameters

content ContentManager

graphicsDevice GraphicsDevice

Properties

AppTitle

```
public Texture2D AppTitle { get; }
```

Property Value

Texture2D

ArrowTip

```
public Texture2D ArrowTip { get; }
```

Property Value

Texture2D

AttributionsBackground

```
public Texture2D AttributionsBackground { get; }
```

Property Value

Texture2D

BaseTexture

```
public Texture2D BaseTexture { get; }
```

Property Value

Texture2D

BodyTexture

```
public Texture2D BodyTexture { get; }
```

Property Value

Texture2D

Gradient

```
public Texture2D Gradient { get; }
```

Property Value

Texture2D

MainMenuBackground

```
public Texture2D MainMenuBackground { get; }
```

Property Value

Texture2D

SettingsBackground

```
public Texture2D SettingsBackground { get; }
```

Property Value

Texture2D

SimulationBackground

```
public Texture2D SimulationBackground { get; }
```

Property Value

Texture2D

SimulationMenuBackground

```
public Texture2D SimulationMenuBackground { get; }
```

Property Value

Texture2D

Methods

PositionAtCenter(float, float, Texture2D)

```
public Vector2 PositionAtCenter(float screenWidth, float screenHeight, Texture2D texture)
```

Parameters

screenWidth [float](#)

screenHeight [float](#)

texture Texture2D

Returns

Vector2

PositionAtTop(float, Texture2D, float, float)

```
public Vector2 PositionAtTop(float screenWidth, Texture2D texture, float padding = 0, float scaleFactor = 1)
```

Parameters

screenWidth [float](#)

texture Texture2D

padding [float](#)

scaleFactor [float](#)

Returns

Vector2

Class UiComponents

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public static class UiComponents
```

Inheritance

[object](#) ← UiComponents

Inherited Members

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

Methods

Button(string, bool, int, int)

```
public static Button Button(string text, bool visible = true, int width = 250, int height  
= 60)
```

Parameters

text [string](#)

visible [bool](#)

width [int](#)

height [int](#)

Returns

Button

ComboView(int)

```
public static ComboView ComboView(int width = 250)
```

Parameters

width [int](#)

Returns

ComboView

CustomColorPicker()

```
public static ColorPickerDialog CustomColorPicker()
```

Returns

ColorPickerDialog

DropdownLabel(string)

```
public static Label DropdownLabel(string text)
```

Parameters

text [string](#)

Returns

Label

Grid(int, int, int)

```
public static Grid Grid(int spacing, int columns, int rows)
```

Parameters

spacing [int](#)

columns [int](#)

rows [int](#)

Returns

Grid

HorizontalSeparator(int, int, int)

```
public static HorizontalSeparator HorizontalSeparator(int width = 250, int height = 5, int margin = 10)
```

Parameters

width [int](#)

height [int](#)

margin [int](#)

Returns

HorizontalSeparator

HorizontalSlider(int, int, int)

```
public static HorizontalSlider HorizontalSlider(int value, int min, int max)
```

Parameters

value [int](#)

min [int](#)

max [int](#)

Returns

HorizontalSlider

KeyBindLabel(string)

```
public static Label KeyBindLabel(string text)
```

Parameters

text [string](#)

Returns

Label

LightLabel(string, int)

```
public static Label LightLabel(string text, int fontSize = 20)
```

Parameters

text [string](#)

fontSize [int](#)

Returns

Label

ListView(int)

```
public static ListView ListView(int width)
```

Parameters

width [int](#)

Returns

ListView

MediumLabel(string, int)

```
public static Label MediumLabel(string text, int fontSize = 20)
```

Parameters

text [string](#)

fontSize [int](#)

Returns

Label

MenuButton(string, bool, int, int)

```
public static Button MenuButton(string text, bool visible = true, int width = 250, int height = 60)
```

Parameters

text [string](#)

visible [bool](#)

width [int](#)

height [int](#)

Returns

Button

ReadOnlyTextBox(string)

```
public static TextBox ReadOnlyTextBox(string text)
```

Parameters

text [string](#)

Returns

TextBox

StyledDialog(string)

```
public static Dialog StyledDialog(string title)
```

Parameters

title [string](#)

Returns

Dialog

TabControl(int, int)

```
public static TabControl TabControl(int width, int height)
```

Parameters

width [int](#)

height [int](#)

Returns

TabControl

TabItem(string)

```
public static TabItem TabItem(string title)
```

Parameters

title [string](#)

Returns

TabItem

TextBox(string)

```
public static TextBox TextBox(string text)
```

Parameters

text [string](#)

Returns

TextBox

TitleLabel(string)

```
public static Label TitleLabel(string text)
```

Parameters

text [string](#)

Returns

Label

ToggleButton(string, bool)

```
public static ToggleButton ToggleButton(string text, bool toggled)
```

Parameters

text [string](#)

toggled [bool](#)

Returns

ToggleButton

ValidationWindow(Label)

```
public static Window ValidationWindow(Label label)
```

Parameters

label Label

Returns

Window

Class UiConstants

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public static class UiConstants
```

Inheritance

[object](#) ← UiConstants

Inherited Members

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

Fields

DefaultButtonHeight

```
public const int DefaultButtonHeight = 60
```

Field Value

[int](#)

DefaultButtonWidth

```
public const int DefaultButtonWidth = 250
```

Field Value

[int](#)

DefaultDialogFontSize

```
public const int DefaultDialogFontSize = 18
```

Field Value

[int ↗](#)

DefaultDialogOpacity

```
public const float DefaultDialogOpacity = 0.5
```

Field Value

[float ↗](#)

DefaultElementWidth

```
public const int DefaultElementWidth = 250
```

Field Value

[int ↗](#)

DefaultFontSize

```
public const int DefaultFontSize = 20
```

Field Value

[int ↗](#)

DefaultGridSpacing

```
public const int DefaultGridSpacing = 10
```

Field Value

[int ↗](#)

DefaultLargePadding

```
public const int DefaultLargePadding = 10
```

Field Value

[int ↗](#)

DefaultLessonOpacity

```
public const float DefaultLessonOpacity = 0.8
```

Field Value

[float ↗](#)

DefaultMainMenuFontSize

```
public const int DefaultMainMenuFontSize = 30
```

Field Value

[int ↗](#)

DefaultMargin

```
public const int DefaultMargin = 20
```

Field Value

[int↗](#)

DefaultMediumPadding

```
public const int DefaultMediumPadding = 8
```

Field Value

[int↗](#)

DefaultMenuButtonWidth

```
public const int DefaultMenuButtonWidth = 320
```

Field Value

[int↗](#)

DefaultSeparatorHeight

```
public const int DefaultSeparatorHeight = 5
```

Field Value

[int↗](#)

DefaultSmallPadding

```
public const int DefaultSmallPadding = 6
```

Field Value

[int ↗](#)

DefaultTextboxWidth

```
public const int DefaultTextboxWidth = 150
```

Field Value

[int ↗](#)

DefaultTitleFontSize

```
public const int DefaultTitleFontSize = 100
```

Field Value

[int ↗](#)

DefaultTitleMargin

```
public const int DefaultTitleMargin = 50
```

Field Value

[int ↗](#)

Class Vector2Converter

Namespace: [_2dgs](#)

Assembly: 2dgs.dll

```
public class Vector2Converter : JsonConverter<Vector2>
```

Inheritance

[object](#) ← JsonConverter ← JsonConverter<Vector2> ← Vector2Converter

Inherited Members

[JsonConverter<Vector2>.WriteJson\(JsonWriter, object, JsonSerializer\)](#) ,
[JsonConverter<Vector2>.ReadJson\(JsonReader, Type, object, JsonSerializer\)](#) ,
[JsonConverter<Vector2>.CanConvert\(Type\)](#) , JsonConverter.CanRead , JsonConverter.CanWrite ,
[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) , [object.GetType\(\)](#) ,
[object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Methods

ReadJson(JsonReader, Type, Vector2, bool, JsonSerializer)

Reads the JSON representation of the object.

```
public override Vector2 ReadJson(JsonReader reader, Type objectType, Vector2 existingValue,  
bool hasExistingValue, JsonSerializer serializer)
```

Parameters

reader JsonReader

The Newtonsoft.Json.JsonReader to read from.

objectType Type

Type of the object.

existingValue Vector2

The existing value of object being read. If there is no existing value then **null** will be used.

hasExistingValue `bool`

The existing value has a value.

serializer `JsonSerializer`

The calling serializer.

Returns

`Vector2`

The object value.

WriteJson(JsonWriter, Vector2, JsonSerializer)

Writes the JSON representation of the object.

```
public override void WriteJson(JsonWriter writer, Vector2 value, JsonSerializer serializer)
```

Parameters

writer `JsonWriter`

The Newtonsoft.Json.JsonWriter to write to.

value `Vector2`

The value.

serializer `JsonSerializer`

The calling serializer.