Mensch ärgere dich nicht

Schnittstellenbeschreibung



Package de.spareripsproduction.madn.client

"Mensch aergere dich nicht" Package

Contains all the stuff that is necessary, for a computer version of "Mensch aergere dich nicht"

de.spareripsproduction.madn.client Class Game

All Implemented Interfaces:

UpdateInterface, RenderInterface

public class Game

extends Game

implements RenderInterface, UpdateInterface

This Class is responsible for showing the correct Scene (Game, Settings, Credits, etc) Created by marian on 12/03/14.

Fields

ENV_DEV

public static final java.lang.String ENV_DEV

DEV environment shows FPS Constant value: **DEV**

ENV_PROD

public static final java.lang.String ENV_PROD

PROD does not show FPS Constant value: **PROD**

ENV_TEST

public static final java.lang.String ENV_TEST

for testing purposes Constant value: **TEST**

Constructors

Game

public Game()

Default Constructor

Methods

getInstance

public static Game getInstance()

(continued on next page)

Singleton of the Game

Returns:

Singleton

getInstance

```
public static Game getInstance(String environment)
```

Singleton of the Game with environment variable

Returns:

Singleton

render

public void render(java.awt.Graphics2D context)

update

public void update()

loadScene

public boolean loadScene(String sceneName)

Loads a specific scene, and unloads the old one

Parameters:

sceneName - Name of the Scene

Returns:

true if Scene was found false if not

getEnvironment

public String getEnvironment()

Returns:

current environment

de.spareripsproduction.madn.client Class Main

public class **Main** extends Object

Created by marian on 08/02/14.

Constructors

Main

public Main()

Methods

main

public static void main(String[] args)

Starting point of the game

Parameters:

args - Application Start Args

Package

de.spareripsproduction.madn.client.grap hics

Lorem ipsum

de.spareripsproduction.madn.client.graphics Class Board

All Implemented Interfaces:

 $Render And Update able \, , \;\; Update Interface \, , \;\; Render Interface \, , \;$

public class **Board** extends **Entity**

implements RenderInterface, UpdateInterface, RenderAndUpdateable

Created by marian on 12/03/14.

Constructors

Board

Parameters:

 ${\bf x}$ - x-coordinate

y - y-coordinate

Methods

getInstance

```
public static Board getInstance()
```

Returns:

Singleton instance of the game

update

```
public void update()
```

render

```
public void render(java.awt.Graphics2D g)
```

getGameFigures

public ArrayList getGameFigures()

Returns:

a list of all GameFigures

getPlayers

```
public ArrayList getPlayers()
```

Returns:

a list of all players

getActivePlayer

```
public Player getActivePlayer()
```

getDice

```
public Dice getDice()
```

Returns:

the dice for this board

isGameOver

public boolean isGameOver()

de.spareripsproduction.madn.client.graphics Class BoardEntity

All Implemented Interfaces:

UpdateInterface, RenderInterface

Direct Known Subclasses:

GameFigure, Field

public class **BoardEntity** extends **Entity**

Since:

2014-04-13

Fields

FIELD_SIZE

public static final int FIELD_SIZE

Field Size in px Constant value: **48**

id

protected int id

boardPosition

protected java.awt.Point boardPosition

hover

protected boolean hover

clicked

protected boolean clicked

Constructors

BoardEntity

Parameters:

spriteRef - path to a sprite image
id - id-position of the board

Methods

getX

```
public float getX()
```

getY

```
public float getY()
```

update

public void update()

getBoardPosition

```
public java.awt.Point getBoardPosition()
```

Returns:

the position of this entity, in a matrix of fields

setId

```
protected void setId(int id)
```

Every accessible Field on the board has a unique id

Parameters:

id - id-position

getId

```
public int getId()
```

Every accessible Field on the board has a unique id

Returns

id-position of the this entity

update Board Position

protected java.awt.Point updateBoardPosition()

isHover

protected boolean isHover()

Returns:

true if the entity is hovered by the mouse

isClicked

public boolean isClicked()

Returns:

true if this entity is clicked

insideView

protected boolean insideView(java.awt.Point p)

de.spareripsproduction.madn.client.graphics Interface RenderAndUpdateable

All Known Implementing Classes:

Scene, Dice, Player, GameFigure, Field, Board

public interface **RenderAndUpdateable** extends

Created by marian on 12/03/14.

Methods

update

public void update()

This Method will called during the Update Cycle, before the rendering starts

render

public void render(java.awt.Graphics2D g)

This function gets called every circle and draws the object

Parameters:

context - on which we draw

Package

de.spareripsproduction.madn.client.grap hics.field

Lorem ipsum

de.spareripsproduction.madn.client.graphics.field Class Field

All Implemented Interfaces:

RenderAndUpdateable, UpdateInterface, RenderInterface

Direct Known Subclasses:

NormalField, SpawnField

public abstract class **Field** extends BoardEntity

implements RenderInterface, UpdateInterface, RenderAndUpdateable

Created by marian on 12/03/14.

Fields

SPRITE_NORMAL

public static final java.lang.String SPRITE_NORMAL

Reference to the sprite image of the **normal** Field Constant value: **sprites/normalField.png**

SPRITE RED

public static final java.lang.String SPRITE_RED

Reference to the sprite image of the **red** Field Constant value: **sprites/SpawnFieldRed.png**

SPRITE_YELLOW

public static final java.lang.String SPRITE_YELLOW

Reference to the sprite image of the **yellow** Field Constant value: **sprites/SpawnFieldYellow.png**

SPRITE_BLUE

public static final java.lang.String SPRITE_BLUE

Reference to the sprite image of the **blze** Field Constant value: **sprites/SpawnFieldBlue.png**

SPRITE_GREEN

public static final java.lang.String SPRITE_GREEN

Reference to the sprite image of the **green** Field Constant value: **sprites/SpawnFieldGreen.png**

Constructors

Field

de.spareripsproduction.madn.client.graphics.field Class HomeEntryField

```
java.lang.Object

-de.spareripsproduction.tinyengine.entity.Entity

-de.spareripsproduction.madn.client.graphics.BoardEntity

-de.spareripsproduction.madn.client.graphics.field.Field

-de.spareripsproduction.madn.client.graphics.field.SpawnField

-de.spareripsproduction.madn.client.graphics.field.HomeEntryField
```

All Implemented Interfaces:

UpdateInterface, RenderInterface, RenderAndUpdateable

public class **HomeEntryField** extends SpawnField

Created by marian on 12/03/14.

Constructors

HomeEntryField

de.spareripsproduction.madn.client.graphics.field Class NormalField

All Implemented Interfaces:

UpdateInterface, RenderInterface, RenderAndUpdateable

public class **NormalField** extends Field

Created by marian on 12/03/14.

Constructors

NormalField

public NormalField(int id)

NormalField

de.spareripsproduction.madn.client.graphics.field Class SpawnField

All Implemented Interfaces:

UpdateInterface, RenderInterface, RenderAndUpdateable

Direct Known Subclasses:

HomeEntryField

public class **SpawnField** extends Field

Created by marian on 12/03/14.

Constructors

SpawnField

Package

de.spareripsproduction.madn.client.grap hics.figure

This Package contains the GameFigure related code

de.spareripsproduction.madn.client.graphics.figure Class BlueFigure

```
java.lang.Object

+-de.spareripsproduction.tinyengine.entity.Entity

+-de.spareripsproduction.madn.client.graphics.BoardEntity

+-de.spareripsproduction.madn.client.graphics.figure.GameFigure

+-de.spareripsproduction.madn.client.graphics.figure.BlueFigure
```

All Implemented Interfaces:

UpdateInterface, RenderInterface, RenderAndUpdateable

public class **BlueFigure** extends GameFigure

Since:

2014-04-13

Fields

startId

protected int startId

homeStartId

protected int homeStartId

Constructors

BlueFigure

public BlueFigure(int index)

Methods

updateBoardPosition

protected java.awt.Point updateBoardPosition()

getStartId

protected int getStartId()

${\tt getHomeStartId}$

public int getHomeStartId()

getPlayerType

protected int getPlayerType()

de.spareripsproduction.madn.client.graphics.figure Class GameFigure

All Implemented Interfaces:

RenderAndUpdateable, UpdateInterface, RenderInterface

Direct Known Subclasses:

BlueFigure, GreenFigure, RedFigure, YellowFigure

public abstract class GameFigure

extends BoardEntity

implements RenderInterface, UpdateInterface, RenderAndUpdateable

Created by marian on 12/03/14.

Fields

SPRITE_RED

public static final java.lang.String SPRITE_RED

Reference to the sprite image of the red GameFigure Constant value: sprites/figureRed

SPRITE YELLOW

public static final java.lang.String SPRITE_YELLOW

Reference to the sprite image of the yellow GameFigure Constant value: sprites/figureYellow

SPRITE BLUE

public static final java.lang.String SPRITE_BLUE

Reference to the sprite image of the red GameFigure Constant value: sprites/figureBlue

SPRITE_GREEN

public static final java.lang.String SPRITE_GREEN

Reference to the sprite image of the green GameFigure Constant value: sprites/figureGreen

IN_HOUSE_ID

public static final int ${\tt IN_HOUSE_ID}$

id-position for GameFigures in house Constant value: **-1**

index

protected int index

hoverSprite

protected de.spareripsproduction.tinyengine.graphics.Sprite hoverSprite

owner

protected de.spareripsproduction.madn.client.logic.Player owner

last

protected long last

Constructors

GameFigure

Parameters:

spriteRef - sprite of the figure
id - position on the field
index - figure index 0 to 3

Methods

update

public void update()

getY

public float getY()

getX

public float getX()

kick

public void kick()

Gamefigure gets place into the beginning house

move

move

public boolean move(int delta)

Parameters:

delta - number of fields to move (1-6)

Returns:

true if move is successful, false if not

isFieldOccupied

public boolean isFieldOccupied(int id)

Checks if Field is occupied by GameFigure from the same Owner

Parameters:

id - id-position

Returns:

true if the field is occupied, false if not

isStartIdOccupied

public boolean isStartIdOccupied()

canMove

public boolean canMove(int delta)

Parameters:

delta - number of fields to move (1-6)

Returns:

true if GameFigure can make the move of delta steps, false if not

getStartId

```
protected abstract int {\tt getStartId}(\ )
```

getHomeStartId

```
public abstract int getHomeStartId()
```

getPlayerType

```
protected abstract int getPlayerType()
```

render

```
public void render(java.awt.Graphics2D g)
```

setId

```
protected void setId(int id)
```

Every accessible Field on the board has a unique id

getOwner

```
protected Player getOwner()
```

isActive

```
protected boolean isActive()
```

easeInOut

toPixel

```
protected java.awt.Point toPixel(java.awt.Point boardPosition)
```



de.spareripsproduction.madn.client.graphics.figure Class GreenFigure

```
java.lang.Object

-de.spareripsproduction.tinyengine.entity.Entity

-de.spareripsproduction.madn.client.graphics.BoardEntity

-de.spareripsproduction.madn.client.graphics.figure.GameFigure

-de.spareripsproduction.madn.client.graphics.figure.GreenFigure
```

All Implemented Interfaces:

UpdateInterface, RenderInterface, RenderAndUpdateable

public class **GreenFigure** extends **GameFigure**

Since:

2014-04-13

Fields

startId

protected int startId

homeStartId

protected int homeStartId

Constructors

GreenFigure

public GreenFigure(int index)

Methods

updateBoardPosition

protected java.awt.Point updateBoardPosition()

getStartId

protected int getStartId()

${\tt getHomeStartId}$

public int getHomeStartId()

getPlayerType

protected int getPlayerType()

de.spareripsproduction.madn.client.graphics.figure Class RedFigure

All Implemented Interfaces:

UpdateInterface, RenderInterface, RenderAndUpdateable

public class **RedFigure** extends **GameFigure**

Since:

2014-04-13

Fields

startId

protected int startId

homeStartId

protected int homeStartId

Constructors

RedFigure

public RedFigure(int index)

Methods

updateBoardPosition

protected java.awt.Point updateBoardPosition()

getStartId

protected int getStartId()

${\tt getHomeStartId}$

public int getHomeStartId()

getPlayerType

protected int getPlayerType()

de.spareripsproduction.madn.client.graphics.figure Class YellowFigure

```
java.lang.Object

-de.spareripsproduction.tinyengine.entity.Entity

-de.spareripsproduction.madn.client.graphics.BoardEntity

-de.spareripsproduction.madn.client.graphics.figure.GameFigure

-de.spareripsproduction.madn.client.graphics.figure.YellowFigure
```

All Implemented Interfaces:

UpdateInterface, RenderInterface, RenderAndUpdateable

public class **YellowFigure** extends **GameFigure**

Since:

2014-04-13

Fields

startId

protected int startId

homeStartId

protected int homeStartId

Constructors

YellowFigure

public YellowFigure(int index)

Methods

updateBoardPosition

protected java.awt.Point updateBoardPosition()

getStartId

protected int getStartId()

${\tt getHomeStartId}$

public int getHomeStartId()

getPlayerType

protected int getPlayerType()

Package de.spareripsproduction.madn.client.logic

This package contains some logic heavy entities

de.spareripsproduction.madn.client.logic Class AIPlayer

All Implemented Interfaces:

RenderAndUpdateable

public class **AIPlayer** extends **Player**

Since:

2014-04-19

Constructors

AIPlayer

public AIPlayer(int type)

Methods

makeMove

public void makeMove()

called when player is active, process player input to make next move

de.spareripsproduction.madn.client.logic Class Dice

All Implemented Interfaces:

RenderAndUpdateable

public class **Dice** extends Object implements RenderAndUpdateable

The Dice Created by marian on 12/03/14.

Fields

hover

protected boolean hover

clicked

protected boolean clicked

locked

protected boolean locked

Constructors

Dice

Default Constructor

Parameters:

x - x-coordinate y - y-coordinate

Methods

getNextNumber

```
public int getNextNumber()
```

Rolls the dice again

Returns:

the next randomly generated number

reset

```
public void reset()
```

Resets the dice, so no number is displayed

update

```
public void update()
```

setX

public void setX(int x)

setY

public void setY(int y)

render

public void render(java.awt.Graphics2D g)

renderOne

protected void renderOne(java.awt.Graphics2D g)

renderTwo

protected void renderTwo(java.awt.Graphics2D g)

renderThree

protected void renderThree(java.awt.Graphics2D g)

renderFour

protected void renderFour(java.awt.Graphics2D g)

renderFive

protected void renderFive(java.awt.Graphics2D g)

renderSix

protected void renderSix(java.awt.Graphics2D g)

renderCircle

getLastNumber

public int getLastNumber()

getX

public int getX()

getY

public int getY()

getWidth

public int getWidth()

getHeight

public int getHeight()

isHover

protected boolean isHover()

isClicked

protected boolean isClicked()

insideView

protected boolean insideView(java.awt.Point p)

unlock

public void unlock()

frees the dice, then the dice can be rolled again

isLocked

public boolean isLocked()

checks if the dice can be rolled

Returns:

true if dice can be rolled false if not

lock

public void lock()

de.spareripsproduction.madn.client.logic Class Player

java.lang.Object

+-de.spareripsproduction.madn.client.logic.Player

All Implemented Interfaces:

RenderAndUpdateable

Direct Known Subclasses:

AIPlayer

public class **Player** extends Object implements RenderAndUpdateable

Player Class Created by marian on 12/03/14.

Fields

RED_PLAYER

public static final int RED_PLAYER

Constant value: 0

BLUE_PLAYER

public static final int BLUE_PLAYER

Constant value: 1

GREEN_PLAYER

public static final int GREEN_PLAYER

Constant value: 2

YELLOW_PLAYER

public static final int YELLOW_PLAYER

Constant value: 3

type

protected int type

active

protected boolean active

rollCount

protected int rollCount

name

protected java.lang.String name

last

protected static long last

nameLabel

protected de.spareripsproduction.tinyengine.gui.TELabel nameLabel

position

protected int position

winner

protected static int winner

Constructors

Player

public Player(int type)

Parameters:

 ${\tt type-Player.RED_PLAYER, Player.BLUE_PLAYER, Player.GREEN_PLAYER, Player.YELLOW_PLAYER}$

Methods

makeMove

```
public void makeMove()
```

called when player is active, process player input to make next move

update

```
public void update()
```

canRollDiceThreeTimes

protected boolean canRollDiceThreeTimes()

canRollDiceAgain

protected boolean canRollDiceAgain()

canMove

protected boolean canMove()

getDice

protected Dice getDice()

activate

public void activate()

Activates player, so he can roll the dice and move

nextPlayer

public void nextPlayer()

Activates next player

render

public void render(java.awt.Graphics2D g)

getGameFigures

public ArrayList getGameFigures()

Returns:

a list of gameFigures from this player

isActive

```
public boolean isActive()
```

Returns:

true if active, false if not

getType

```
public int getType()
```

Returns:

Player.RED_PLAYER or Player.BLUE_PLAYER or Player.GREEN_PLAYER or Player.YELLOW_PLAYER

isFinished

public boolean isFinished()

getPosition

public int getPosition()

scoreLabelStr

public String scoreLabelStr()

de.spareripsproduction.madn.client.logic Class Settings

public class **Settings** extends Object

Stores Settings Created by atissen on 26.03.14.

Fields

Player1Name

public static java.lang.String Player1Name

Stores Name for Player One

Player2Name

public static java.lang.String Player2Name

Stores Name for Player One

Player3Name

public static java.lang.String Player3Name

Stores Name for Player One

Player4Name

public static java.lang.String Player4Name

Stores Name for Player One

playerCount

public static int playerCount

Stores How many People are playing

Constructors

Settings

public Settings()

Package

de.spareripsproduction.madn.client.scen e

This package holds the scenes.

A scene is responsible for displaying a certain part of the game. For instance the Settings or the Intro.

de.spareripsproduction.madn.client.scene Class CreditsScene

All Implemented Interfaces:

RenderAndUpdateable

public class **CreditsScene** extends **Scene**

Since:

2014-04-15

Fields

background

protected de.spareripsproduction.tinyengine.entity.Entity background

fatRaccoon

protected javax.swing.ImageIcon fatRaccoon

showRaccoon

protected boolean showRaccoon

backButton

protected de.spareripsproduction.tinyengine.gui.TEButton backButton

title

protected de.spareripsproduction.tinyengine.gui.TELabel title

creditsCollection

 $\verb|protected| de.spareripsproduction.tinyengine.gui.TECollection Vertical | \textbf{creditsCollection}|$

Constructors

CreditsScene

public CreditsScene()

Methods

load

public void load()

Loads this scene, is called when the scene is to be showed

unload

public void unload()

Unloads this scene, is called when the scene disappears

update

public void update()

render

public void render(java.awt.Graphics2D g)

de.spareripsproduction.madn.client.scene Class GameScene

All Implemented Interfaces:

RenderAndUpdateable

public class **GameScene** extends **Scene**

Created by marian on 12/03/14.

Constructors

GameScene

public GameScene()

Methods

load

public void load()

Loads this scene, is called when the scene is to be showed

unload

public void unload()

Unloads this scene, is called when the scene disappears

update

public void update()

render

public void render(java.awt.Graphics2D g)

getBoard

public Board getBoard()

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the board on this scene

de.spareripsproduction.madn.client.scene Class IntroScene

All Implemented Interfaces:

RenderAndUpdateable

public class **IntroScene** extends **Scene**

Since:

2014-03-19

Constructors

IntroScene

public IntroScene()

Methods

load

public void load()

Loads this scene, is called when the scene is to be showed

unload

public void unload()

Unloads this scene, is called when the scene disappears

update

public void update()

render

public void render(java.awt.Graphics2D g)

de.spareripsproduction.madn.client.scene Class MenuScene

All Implemented Interfaces:

Render And Update able

public class **MenuScene** extends **Scene**

Menu Scene Created by marian on 12/03/14.

Constructors

MenuScene

public MenuScene()

Methods

load

public void load()

Loads this scene, is called when the scene is to be showed

unload

public void unload()

Unloads this scene, is called when the scene disappears

update

public void update()

render

public void render(java.awt.Graphics2D g)

de.spareripsproduction.madn.client.scene Class Scene

java.lang.Object

+-de.spareripsproduction.madn.client.scene.Scene

All Implemented Interfaces:

RenderAndUpdateable

Direct Known Subclasses:

CreditsScene, GameScene, IntroScene, MenuScene, ScoreScene, SettingsScene

public abstract class **Scene** extends Object implements RenderAndUpdateable

The base scene Created by marian on 12/03/14.

Fields

SCENE_GAME

public static final java.lang.String SCENE_GAME

Game scene, actual game play happens here Constant value: game

SCENE_MENU

public static final java.lang.String SCENE_MENU

Menu scene, the Menu Constant value: menu

SCENE SCORE

public static final java.lang.String SCENE_SCORE

Score scene, after the game ended Constant value: **score**

SCENE_INTRO

public static final java.lang.String SCENE_INTRO

Intro scene, first scene Constant value: intro

SCENE_SETTINGS

public static final java.lang.String SCENE_SETTINGS

Settings scene, configure the player count and player names Constant value: **settings**

SCENE_CREDITS

public static final java.lang.String SCENE_CREDITS

Constant value: credits

Constructors

Scene

public Scene()

Methods

load

public abstract void load()

Loads this scene, is called when the scene is to be showed

unload

public abstract void unload()

Unloads this scene, is called when the scene disappears

de.spareripsproduction.madn.client.scene Class ScoreScene

All Implemented Interfaces:

RenderAndUpdateable

public class **ScoreScene** extends **Scene**

Created by marian on 12/03/14.

Fields

background

protected de.spareripsproduction.tinyengine.entity.Entity background

title

protected de.spareripsproduction.tinyengine.gui.TELabel title

Constructors

ScoreScene

public ScoreScene()

Methods

load

public void load()

Loads this scene, is called when the scene is to be showed

unload

public void unload()

Unloads this scene, is called when the scene disappears

update

public void update()

render

public void render(java.awt.Graphics2D g)

de.spareripsproduction.madn.client.scene Class SettingsScene

All Implemented Interfaces:

RenderAndUpdateable

public class **SettingsScene** extends **Scene**

Created by atissen on 26.03.14.

Constructors

SettingsScene

public SettingsScene()

Methods

load

public void load()

Loads this scene, is called when the scene is to be showed

unload

public void unload()

Unloads this scene, is called when the scene disappears

update

public void update()

render

public void render(java.awt.Graphics2D g)

Package

de.spareripsproduction.tinyengine

Provides the basic functionality to display graphics and ui, typically used by a 2D Game.

TinyEngine on Github

Initial purpose for this library was the Game "Mensch ärgere dich nicht"

de.spareripsproduction.tinyengine Class Core

Deprecated.

public class **Core** extends Object

Core class should no longer be used, will be removed **Since:**

2014-03-08

Constructors

Core

public Core()

Deprecated.

Methods

log

public static void log(String s)

Deprecated.

log a message

Parameters:

s - Message to log

exit

public static void exit(int code)

Deprecated.

Exits the program

Parameters:

code - ExitCode

de.spareripsproduction.tinyengine Class FontManager

public class **FontManager** extends Object

The FontManager Class is responsible loading fonts **Since:**

2014-03-11

Fields

FONT_PRESS_START_2P

public static final java.lang.String FONT_PRESS_START_2P

Reference to the *Press Start 2P* True Type Font File, used by TinyEngine Constant value: **fonts/PressStart2P-Regular.ttf**

FONT_COMIC_NEUE

public static final java.lang.String FONT_COMIC_NEUE

Reference to the *Comic Neue* True Type Font File Constant value: **fonts/ComicNeue-Regular.ttf**

FONT_COMIC_NEUE_BOLD

public static final java.lang.String FONT_COMIC_NEUE_BOLD

Reference to the *Comic Neue* True Type Font File Constant value: **fonts/ComicNeue-Bold-Oblique.ttf**

Constructors

FontManager

public FontManager()

Methods

getFont

Parameters:

 $\label{eq:resourceRef} \begin{picture}(0,0) \put(0,0){\line(0,0){100}} \put(0,0){\line(0,0){100}}$

Returns:

the Font

de.spareripsproduction.tinyengine Class Game

Game

public class **Game** extends Object

Main Class for the Game, handles logic updates und rendering **Since:**

2014-03-10

Constructors

Game

Default constructor

Parameters:

title - of the Window width - of the Window in px height - of the Window in px

Game

Constructor with update und render objects

Parameters:

```
title - of the Window
width - of the Window in px
height - of the Window in px
updater - Updates the Logic
renderer - Renders the window
```

Methods

run

```
public void run()
the game loop
```

setRenderer

public void setRenderer(RenderInterface renderer)

Sets the render

Parameters:

renderer - is responsible for rendering

setUpdater

public void setUpdater(UpdateInterface updater)

Sets the updater

Parameters:

updater - is responsible for updating

getWindow

public GameWindow getWindow()

the game window

Returns:

the Window

de.spareripsproduction.tinyengine Class GameWindow

All Implemented Interfaces:

Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, javax.accessibility.Accessible

public class **GameWindow** extends java.awt.Canvas

Responsible for the Game Window Since:

2014-03-08

Constructors

GameWindow

Constructor for the Game Window, should not be used, use getInstance() instead

Parameters:

```
title - of the Window width - of the Window in px height - of the Window in px
```

Methods

getInstance

```
public static GameWindow getInstance()
```

Singleton method with no params, should be used for getting the singleton

Returns:

Window singleton

getInstance

Single method should be used for creating a new Window

Parameters:

title - of the Window width - of the Window in px height - of the Window in px

Returns:

Window singleton

getGraphicsContext

```
public java.awt.Graphics2D getGraphicsContext()
```

Returns the context on which we draw

Returns:

the Graphics Context

repaint

```
public void repaint()
```

Repaints the window

setTitle

public void setTitle(String title)

Sets the Title of the window

Parameters:

title - new Title

getFrame

public javax.swing.JFrame getFrame()

Returns:

the frame of the Window

de.spareripsproduction.tinyengine Class Timer

public class **Timer** extends Object

The Standard Timer Class **Since:**

2014-03-10

Constructors

Timer

public Timer()

Methods

getTime

```
public static long getTime()

Get current Time in milliseconds
```

Returns:

current Time in milliseconds

sleep

public static void sleep(long ms)

Pauses execution

Parameters:

ms - milliseconds to pause

Package de.spareripsproduction.tinyengine.entity

Contains the Entity related things

de.spareripsproduction.tinyengine.entity Class Entity

All Implemented Interfaces:

UpdateInterface, RenderInterface

Direct Known Subclasses:

Board, BoardEntity

public class **Entity** extends Object implements RenderInterface, UpdateInterface

Entity Object **Since:**

2014-03-08

Fields

X

protected float x

٧

protected float y

width

protected float width

height

protected float height

sprite

protected de.spareripsproduction.tinyengine.graphics.Sprite sprite

Constructors

Entity

```
public Entity(String spriteRef)
```

Entity

Entity

Methods

getIntX

```
public int getIntX()
```

getIntY

public int getIntY()

getIntHeight

public int getIntHeight()

getIntWidth

```
public int getIntWidth()
```

getX

```
public float getX()
```

getY

```
public float getY()
```

getHeight

```
public float getHeight()
```

getWidth

```
public float getWidth()
```

setLocation

setSize

move

height - in pixel

dx - delta length dy - delta height

getHitBox

```
protected java.awt.Rectangle getHitBox()
```

collidesWith

```
public boolean collidesWith(Entity e)
```

Collision detection

Parameters:

e - other entity

Returns:

true if entities collide, false if not

render

public void render(java.awt.Graphics2D context)

update

public void update()

Package

de.spareripsproduction.tinyengine.graphics

This package contians graphic elements

de.spareripsproduction.tinyengine.graphics Interface RenderInterface

All Known Implementing Classes:

Fps, TEView, Entity, Game

public interface **RenderInterface** extends

Enables objects to render things on the screen **Since:**

2014-03-10

Methods

render

public void render(java.awt.Graphics2D context)

This function gets called every circle and draws the object

Parameters:

context - on which we draw

de.spareripsproduction.tinyengine.graphics Class Sprite

public class **Sprite** extends Object

Responsible for drawing simple images **Since**:

2014-03-09

Constructors

Sprite

```
public Sprite(java.net.URL url)
```

Create a new sprite based on an image

Parameters:

url - The url that is the path th sprite

Methods

getWidth

```
public int getWidth()
```

Get the width of the drawn sprite

Returns:

The width in pixels of this sprite

getHeight

```
public int getHeight()
```

Get the height of the drawn sprite

Returns:

The height in pixels of this sprite

render

Draw the sprite onto the graphics context provided

Parameters:

g - The graphics context on which to draw the sprite

- ${\bf x}$ The x location at which to draw the sprite ${\bf y}$ The y location at which to draw the sprite

de.spareripsproduction.tinyengine.graphics Class SpriteStore

public class **SpriteStore** extends Object

Holds all sprites in a HashMap, so they don't need to be created more than once **Since:**

2014-03-09

Methods

getInstance

```
public static <u>SpriteStore</u> getInstance()

Get the singleton SpriteStore

Returns:
    singleton
```

get

```
public Sprite get(String ref)

get a Sprite from the store

Parameters:
    ref - Reference to the spriteImage

Returns:
    Sprite
```

Package de.spareripsproduction.tinyengine.gui

this contains basic User Interface Elements, like Buttons, Labels and Textfields.

de.spareripsproduction.tinyengine.gui **Class TEButton**

```
java.lang.Object
   +-de.spareripsproduction.tinyengine.gui.TEView
       -de.spareripsproduction.tinyengine.gui.TEButton
```

All Implemented Interfaces:

UpdateInterface, RenderInterface

Direct Known Subclasses:

TESwitch

public class TEButton extends TEView

A Button Since:

2014-03-21

Fields

label

protected de.spareripsproduction.tinyengine.gui.TELabel label

Constructors

TEButton

```
public TEButton(String label,
                  int x,
                  int y, int width,
                  int height,
                  int borderSize,
                  java.awt.Font labelFont)
```

Construct with default colors

Parameters:

```
label - Label
x - x-coordinate
y - y-coordinate
width - in pixel
height - in pixel
borderSize - border thickness in pixel
labelFont - Font for the label
```

TEButton

Default Constructor

Parameters:

label - Label
x - x-coordinate
y - y-coordinate
width - in pixel
height - in pixel
borderSize - border thickness in pixel
labelFont - Font for the label
color - Color of the button
clickedColor - border color when clicked
highlightColor - color when button is hovered

Methods

getBorderSize

```
public int getBorderSize()
```

setBorderSize

public void setBorderSize(int borderSize)

render

```
public void render(java.awt.Graphics2D context)
```

update

```
public void update()
```

isClicked

```
public boolean isClicked()
```

Checks if button is clicked

Returns:

true if clicked

isHighlighted

public boolean isHighlighted()

Checks if button is highlighted

Returns:

true if highlighted

getColor

public java.awt.Color getColor()

Returns:

Color of this button

getClickedColor

public java.awt.Color getClickedColor()

Returns:

color of this button in clicked state

de.spareripsproduction.tinyengine.gui Class TECollection

All Implemented Interfaces:

UpdateInterface, RenderInterface

Direct Known Subclasses:

TECollectionVertical

public class **TECollection** extends **TEView**

Collection of Views **Since:**

2014-03-22

Fields

collection

protected java.util.ArrayList collection

margin

protected int margin

Constructors

TECollection

Default constructor

Parameters:

x - x-coordinate y - y-coordinate margin - margin between the views

Methods

addView

```
public void addView(TEView view)
```

Adds a TEView to the collection

Parameters:

view - View to be added

removeView

```
public void removeView(TEView view)
```

Removes a view form the collection

Parameters:

view - View to be removed

clearCollection

```
public void clearCollection()
```

Empty the collection

get

```
public TEView get(int index)
```

Get a view by index

Parameters:

index - of the view in the collection

Returns:

the View at the index

getCollection

```
public ArrayList getCollection()
```

render

```
public void render(java.awt.Graphics2D context)
```

update

```
public void update()
```

de.spareripsproduction.tinyengine.gui Class TECollectionVertical

All Implemented Interfaces:

UpdateInterface, RenderInterface

public class **TECollectionVertical**

extends TECollection

Collection of views vertical stacked **Since**:

2014-03-22

Constructors

TECollectionVertical

```
\begin{array}{c} \text{public } \textbf{TECollectionVertical}(\text{int } \textbf{x}, \\ & \text{int } \textbf{y}, \\ & \text{int } \text{margin}) \end{array}
```

Default constructor

Parameters:

x - x-coordinate y - y-coordinate

margin - vertical margin between the views

Methods

addView

```
public void addView(TEView view)
```

Adds a TEView to the collection

removeView

```
public void removeView(TEView view)
```

Removes a view form the collection

setX

```
public void setX(int x)
```

Sets the x-coordinate

setY

```
public void setY(int y)
```

Sets the y-coordinate

verticalAlignCenter

Aligns the View vertical between two coordinates

horizontalAlignCenter

Aligns the View horizontal between two coordinates

verticalAlignRight

```
public void verticalAlignRight(int x)
```

Aligns the View horizontal right on

getHeight

```
public int getHeight()
```

Current height

getWidth

```
public int getWidth()
```

Current width

de.spareripsproduction.tinyengine.gui Class TELabel

All Implemented Interfaces:

UpdateInterface, RenderInterface

public class **TELabel** extends **TEView**

Label Since:

2014-03-21

Fields

textColor

protected java.awt.Color textColor

Constructors

TELabel

Parameters:

text x y font

Methods

getHeight

```
public int getHeight()
Current height
```

getWidth

```
public int getWidth()
```

Current width

getText

public String getText()

setText

public void setText(String text)

getFont

public java.awt.Font getFont()

getY

setFont

public void setFont(java.awt.Font font)

render

public void render(java.awt.Graphics2D context)

de.spareripsproduction.tinyengine.gui Class TESwitch

All Implemented Interfaces:

UpdateInterface, RenderInterface

public class **TESwitch** extends **TEButton**

Since:

2014-03-23

Constructors

TESwitch

constructor with default state off

Parameters:

x - in pixel
y - in pixel
width - in pixel
height - in pixel
borderSize - in pixel
font - Font

TESwitch

Default Constructor

Parameters:

```
x-in pixel
y-in pixel
width-in pixel
height-in pixel
```

borderSize-in pixel
font-Font
state-off=false, on = true

Methods

render

public void render(java.awt.Graphics2D context)

update

public void update()

de.spareripsproduction.tinyengine.gui Class TETextField

All Implemented Interfaces:

java.awt.event.KeyListener, UpdateInterface, RenderInterface

public class TETextField

extends TEView

implements RenderInterface, UpdateInterface, java.awt.event.KeyListener

Textfield **Since:**

2014-03-25

Fields

label

protected de.spareripsproduction.tinyengine.gui.TELabel label

active

public boolean active

hover

protected boolean hover

size

protected int size

borderSize

protected int borderSize

borderColor

```
protected java.awt.Color borderColor
```

activeBorderColor

```
protected java.awt.Color activeBorderColor
```

hoverBorderColor

```
protected java.awt.Color hoverBorderColor
```

backgroundColor

```
protected java.awt.Color backgroundColor
```

textColor

```
protected java.awt.Color textColor
```

Constructors

TETextField

Default Constructor

Parameters:

```
text
x
y
width
height
font
size
borderSize
borderColor
backgroundColor
textColor
```

TETextField

constructor with default colors

Parameters:

text
x
y
width
height
font
size
borderSize

Methods

update

```
public void update()
```

render

```
public void render(java.awt.Graphics2D context)
```

isActive

```
public boolean isActive()
     currently selected and accepts input
     Returns:
          true if active
```

getBorderSize

```
public int getBorderSize()
    returns borderthickness
    Returns:
          in pixel
```

${\tt getBackgroundColor}$

```
public java.awt.Color getBackgroundColor()
```

getActiveBorderColor

public java.awt.Color getActiveBorderColor()

isHover

```
public boolean isHover()
```

currently hovered by the mouse

Returns:

true if hovered

getSize

public int getSize()

keyTyped

public void keyTyped(java.awt.event.KeyEvent keyEvent)

keyPressed

public void keyPressed(java.awt.event.KeyEvent keyEvent)

keyReleased

public void keyReleased(java.awt.event.KeyEvent keyEvent)

getText

public String getText()

Text in the textfield

Returns:

textfield text

de.spareripsproduction.tinyengine.gui Class TEView

public class **TEView** extends Object implements RenderInterface, UpdateInterface

Base Class for all views **Since:**

2014-03-21

Constructors

TEView

```
public TEView(int x, int y, int width, int height)

Default Constructor

Parameters:
    x - X-Coordinate
    y - Y-Coordinate
    width - in pixel
```

height - in pixel

TEView

```
\begin{array}{c} \text{public } \textbf{TEView}(\text{int } \texttt{x},\\ \text{int } \texttt{y}) \end{array}
```

Constructor for views with no height an width

Parameters:

x - X-Coordinate y - Y-Coordinate

Methods

getX

```
public int getX()
```

Current x-coordinate

Returns:

x-coordinate

getY

```
public int getY()
```

current y-coordinate

Returns:

y-coordinate

getWidth

```
public int getWidth()
```

Current width

Returns:

width in pixel

getHeight

```
public int getHeight()
```

Current height

Returns:

height in pixel

setX

```
public void setX(int x)
```

Sets the x-coordinate

Parameters:

x - x-coordinate

setY

```
public void setY(int y)
```

Sets the y-coordinate

Parameters:

y - y-coordinate

setWidth

```
public void setWidth(int width)
```

Sets the width

Parameters:

 $\verb|width-inpixel||$

setHeight

```
public void setHeight(int height)
```

Sets the height

Parameters:

height - in px

render

```
public void render(java.awt.Graphics2D context)
```

update

```
public void update()
```

verticalAlignCenter

Aligns the View vertical between two coordinates

Parameters:

x1 - top coordinate x2 - bottom coordinate

verticalAlignRight

```
public void verticalAlignRight(int x)
```

Aligns the View horizontal right on

Parameters:

 ${\bf x}$ - right coordinate

horizontalAlignCenter

Aligns the View horizontal between two coordinates

Parameters:

y1 - left coordinate y2 - right coordinate

insideView

```
protected boolean insideView(java.awt.Point p)
```

Checks if a point is inside this view

Parameters:

p - Point

Returns:

obvious

Package de.spareripsproduction.tinyengine.input

This Package contains functionality, to respond to ser input (Keyboard, Mouse Interaction)

de.spareripsproduction.tinyengine.input Class Keyboard

java.lang.Object

+-de.spareripsproduction.tinyengine.input.Keyboard

All Implemented Interfaces:

java.awt.event.AWTEventListener

public class Keyboard

extends Object

implements java.awt.event.AWTEventListener

Keeps track of the Keyboard Input

Provides central access to *Keyboard Input*, without additional binding to the Keyboard Events

Since:

2014-03-10

Methods

getInstance

protected static Keyboard getInstance()

isPressed

public static boolean isPressed(int key)

Checks if a certain key is pressed

Parameters:

key-KeyEvent Code

Returns:

true if pressed, false if not

isKeyPressed

protected boolean isKeyPressed(int key)

keyPressed

protected void keyPressed(java.awt.event.KeyEvent e)

Notification of a key press

Parameters:

e - The event details

keyReleased

protected void keyReleased(java.awt.event.KeyEvent e)

Notification of a key release

Parameters:

e - The event details

eventDispatched

public void eventDispatched(java.awt.AWTEvent e)

Notification of an AWT event

Parameters:

e - The event details

de.spareripsproduction.tinyengine.input Class Mouse

All Implemented Interfaces:

java.awt.event.AWTEventListener

public class **Mouse** extends Object implements java.awt.event.AWTEventListener

Since:

2014-03-22

Constructors

Mouse

public Mouse()

Methods

getInstance

public static Mouse getInstance()

position

public static java.awt.Point position(int button)

isClicked

public static boolean isClicked(int button)

location

public static java.awt.Point location()

buttonReleased

public void buttonReleased(java.awt.event.MouseEvent e)

Notification of a key release

Parameters:

e - The event details

moved

public void moved(java.awt.event.MouseEvent e)

eventDispatched

public void eventDispatched(java.awt.AWTEvent e)

Notification that an event has occured in the AWT event system

Parameters:

e - The event details

Package de.spareripsproduction.tinyengine.logic

Tis package contains the logic of TinyEngine

de.spareripsproduction.tinyengine.logic Class Fps

All Implemented Interfaces:

RenderInterface

public class **Fps** extends Object implements RenderInterface

Objects from this Class, can measure the current $\mbox{{\bf FPS}}$ of the Game Since:

2014-03-11

Constructors

Fps

public Fps()

Constructs the FPS-Meter

Methods

render

public void render(java.awt.Graphics2D context)

getFps

public int getFps()

Calculates the current Frame per Seconds of the Game

Returns:

Frames Per Second

de.spareripsproduction.tinyengine.logic Interface UpdateInterface

All Known Implementing Classes:

TEView, Entity, Game

public interface **UpdateInterface** extends

The UpdateInterface enables Objects, to get called during the update-Cycle of the Game Since:

2014-03-10

Methods

update

public void update()

This Method will called during the Update Cycle, before the rendering starts

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