

Test

Generated by Doxygen 1.8.10

Wed Sep 23 2015 10:11:08



# Contents

|          |  |          |
|----------|--|----------|
| <b>1</b> | <b>src</b>                                       | <b>1</b> |
| <b>2</b> | <b>Hierarchical Index</b>                        | <b>3</b> |
| 2.1      | Class Hierarchy . . . . .                        | 3        |
| <b>3</b> | <b>Class Index</b>                               | <b>5</b> |
| 3.1      | Class List . . . . .                             | 5        |
| <b>4</b> | <b>Class Documentation</b>                       | <b>7</b> |
| 4.1      | Elemental Class Reference . . . . .              | 7        |
| 4.1.1    | Detailed Description . . . . .                   | 7        |
| 4.1.2    | Constructor & Destructor Documentation . . . . . | 7        |
| 4.1.2.1  | Elemental() . . . . .                            | 7        |
| 4.2      | Form Class Reference . . . . .                   | 8        |
| 4.3      | Goblin Class Reference . . . . .                 | 8        |
| 4.3.1    | Detailed Description . . . . .                   | 8        |
| 4.3.2    | Constructor & Destructor Documentation . . . . . | 8        |
| 4.3.2.1  | Goblin() . . . . .                               | 8        |
| 4.4      | Mage Class Reference . . . . .                   | 9        |
| 4.4.1    | Constructor & Destructor Documentation . . . . . | 9        |
| 4.4.1.1  | Mage() . . . . .                                 | 9        |
| 4.5      | MagicFactory Class Reference . . . . .           | 9        |
| 4.5.1    | Detailed Description . . . . .                   | 10       |
| 4.6      | Monster Class Reference . . . . .                | 10       |
| 4.6.1    | Detailed Description . . . . .                   | 10       |
| 4.6.2    | Member Function Documentation . . . . .          | 10       |
| 4.6.2.1  | clone() . . . . .                                | 10       |
| 4.7      | Ogre Class Reference . . . . .                   | 11       |
| 4.7.1    | Detailed Description . . . . .                   | 11       |
| 4.7.2    | Constructor & Destructor Documentation . . . . . | 11       |
| 4.7.2.1  | Ogre() . . . . .                                 | 11       |
| 4.8      | PiercingFactory Class Reference . . . . .        | 11       |

|          |  |    |
|----------|--|----|
| 4.8.1    | Detailed Description . . . . .                   | 12 |
| 4.9      | Player Class Reference . . . . .                 | 12 |
| 4.9.1    | Detailed Description . . . . .                   | 12 |
| 4.9.2    | Member Function Documentation . . . . .          | 12 |
| 4.9.2.1  | clone() . . . . .                                | 12 |
| 4.10     | Soldier Class Reference . . . . .                | 13 |
| 4.10.1   | Detailed Description . . . . .                   | 13 |
| 4.10.2   | Constructor & Destructor Documentation . . . . . | 13 |
| 4.10.2.1 | Soldier() . . . . .                              | 13 |
| 4.11     | Thief Class Reference . . . . .                  | 14 |
| 4.11.1   | Detailed Description . . . . .                   | 14 |
| 4.11.2   | Constructor & Destructor Documentation . . . . . | 14 |
| 4.11.2.1 | Thief() . . . . .                                | 14 |
| 4.12     | Unit Class Reference . . . . .                   | 14 |
| 4.12.1   | Detailed Description . . . . .                   | 15 |
| 4.12.2   | Member Function Documentation . . . . .          | 15 |
| 4.12.2.1 | attack(Unit &inputUnit)=0 . . . . .              | 15 |
| 4.12.2.2 | clone()=0 . . . . .                              | 16 |
| 4.12.2.3 | getClass() . . . . .                             | 16 |
| 4.12.2.4 | getDamage() . . . . .                            | 16 |
| 4.12.2.5 | getHealth() . . . . .                            | 16 |
| 4.13     | UnitFactory Class Reference . . . . .            | 16 |
| 4.13.1   | Detailed Description . . . . .                   | 17 |

# Chapter 1

## src

#Source Folder

This folder contains all source files for the project. :sunglasses:

### Structure of the Project

This is the structure of the project, when we are complete with a task we can put a :heavy\_check\_mark: next to it. I think that we should work outside the folders, and then copy files into the folders when the tasks are done.

#### Task1

This task is concerned with the unit hierarchy, and therefore includes the creational design patterns.

#### Task2

This task is about the Game Master and the U

#### Task3

This task is concerned with tying the whole system together.

#### Task4

I have no idea what we have to do for task 4 yet :joy:

#### Task5 (Bonus)

This is a bonus task for getting graphics to work in the game.



## Chapter 2

# Hierarchical Index

### 2.1 Class Hierarchy

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

|                           |    |
|---------------------------|----|
| Form . . . . .            | 8  |
| Unit . . . . .            | 14 |
| Monster . . . . .         | 10 |
| Elemental . . . . .       | 7  |
| Goblin . . . . .          | 8  |
| Ogre . . . . .            | 11 |
| Player . . . . .          | 12 |
| Mage . . . . .            | 9  |
| Soldier . . . . .         | 13 |
| Thief . . . . .           | 14 |
| UnitFactory . . . . .     | 16 |
| MagicFactory . . . . .    | 9  |
| PiercingFactory . . . . . | 11 |





## Chapter 3

# Class Index

### 3.1 Class List

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

|  |    |
|--|----|
| <b>Elemental</b>   |    |
| A concrete <b>Unit</b> (p. 14); Inherits from <b>Monster</b> (p. 10)                   | 7  |
| <b>Form</b>  | 8  |
| <b>Goblin</b>  |    |
| A concrete <b>Unit</b> (p. 14); Inherits from <b>Monster</b> (p. 10)                   | 8  |
| <b>Mage</b>  | 9  |
| <b>MagicFactory</b>  | 9  |
| <b>Monster</b>   |    |
| Is the class from which all concrete Monsters derive inherits from <b>Unit</b> (p. 14) | 10 |
| <b>Ogre</b>  |    |
| A concrete <b>Unit</b> (p. 14); Inherits from <b>Monster</b> (p. 10)                   | 11 |
| <b>PiercingFactory</b>   | 11 |
| <b>Player</b>  |    |
| Is the class from which all concrete Monsters derive inherits from <b>Unit</b> (p. 14) | 12 |
| <b>Soldier</b>   |    |
| A concrete <b>Unit</b> (p. 14); Inherits from <b>Player</b> (p. 12)                    | 13 |
| <b>Thief</b>   |    |
| A concrete <b>Unit</b> (p. 14); Inherits from <b>Player</b> (p. 12)                    | 14 |
| <b>Unit</b>  |    |
| Is the class from which all concrete Units derive                                      | 14 |
| <b>UnitFactory</b>   | 16 |



## Chapter 4

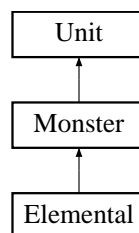
# Class Documentation

### 4.1 Elemental Class Reference

A concrete **Unit** (p. 14); Inherits from **Monster** (p. 10).

```
#include <Elemental.h>
```

Inheritance diagram for Elemental:



#### Public Member Functions

- **Elemental** ()

#### Additional Inherited Members

##### 4.1.1 Detailed Description

A concrete **Unit** (p. 14); Inherits from **Monster** (p. 10).

See also

- **Monster** (p. 10) ()

##### 4.1.2 Constructor & Destructor Documentation

###### 4.1.2.1 Elemental::Elemental ( )

Constructor for **Elemental** (p. 7) class sets the stats and respective "class" of **Elemental** (p. 7).

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

- Elemental.h
- Elemental.cpp

## 4.2 Form Class Reference

### Public Member Functions

- **Form** (int inputMaxX=300, int inputMaxY=80)
- void **putPixel** (int x, int y)
- void **flush** ()
- void **draw** ()

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

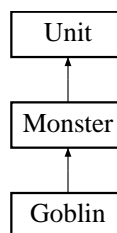
- Task5(Bonus)/Form.h

## 4.3 Goblin Class Reference

A concrete **Unit** (p. 14); Inherits from **Monster** (p. 10).

```
#include <Goblin.h>
```

Inheritance diagram for Goblin:



### Public Member Functions

- **Goblin** ()

### Additional Inherited Members

#### 4.3.1 Detailed Description

A concrete **Unit** (p. 14); Inherits from **Monster** (p. 10).

See also

**Monster** (p. 10) ()

#### 4.3.2 Constructor & Destructor Documentation

##### 4.3.2.1 Goblin::Goblin ( )

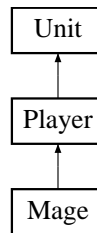
Constructor for **Goblin** (p. 8) class sets the stats and respective "class" of **Goblin** (p. 8).

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

- Goblin.h
- Goblin.cpp

## 4.4 Mage Class Reference

Inheritance diagram for Mage:



### Public Member Functions

- **Mage** ()

### Additional Inherited Members

#### 4.4.1 Constructor & Destructor Documentation

##### 4.4.1.1 Mage::Mage ( )

Constructor for **Mage** (p. 9) class sets the stats and respective "class" of **Mage** (p. 9).

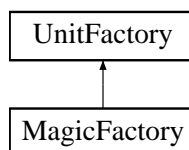
The documentation for this class was generated from the following files:

- Mage.h
- Mage.cpp

## 4.5 MagicFactory Class Reference

```
#include <MagicFactory.h>
```

Inheritance diagram for MagicFactory:



### Public Member Functions

- **Unit \* makeLight** ()
- **Unit \* makeDark** ()

#### 4.5.1 Detailed Description

DOXYGEN COMMENT HERE.

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

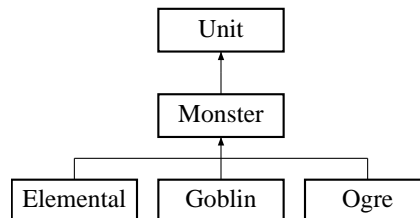
- MagicFactory.h

## 4.6 Monster Class Reference

Is the class from which all concrete Monsters derive inherits from **Unit** (p. 14).

```
#include <Monster.h>
```

Inheritance diagram for Monster:



### Public Member Functions

- **Unit \* clone ()**  
*Implementation of inherited virtual function.*
- void **attack (Unit &inputUnit)**  
*Implementation of inherited virtual function.*

### Additional Inherited Members

#### 4.6.1 Detailed Description

Is the class from which all concrete Monsters derive inherits from **Unit** (p. 14).

See also

**Unit** (p. 14)

#### 4.6.2 Member Function Documentation

##### 4.6.2.1 Unit \* Monster::clone ( ) [virtual]

Implementation of inherited virtual function.

Returns

Unit\* containing a deep copy of this object.

Implements **Unit** (p. 16).

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

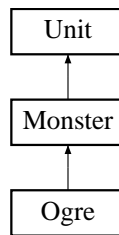
- Monster.h
- Monster.cpp

## 4.7 Ogre Class Reference

A concrete **Unit** (p. 14); Inherits from **Monster** (p. 10).

```
#include <Ogre.h>
```

Inheritance diagram for Ogre:



### Public Member Functions

- **Ogre** ()

### Additional Inherited Members

#### 4.7.1 Detailed Description

A concrete **Unit** (p. 14); Inherits from **Monster** (p. 10).

See also

**Monster** (p. 10) ()

#### 4.7.2 Constructor & Destructor Documentation

##### 4.7.2.1 Ogre::Ogre ( )

Constructor for **Ogre** (p. 11) class sets the stats and respective "class" of Ogre.

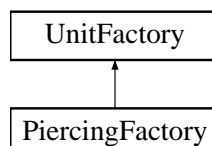
The documentation for this class was generated from the following files:

- Ogre.h
- Ogre.cpp

## 4.8 PiercingFactory Class Reference

```
#include <PiercingFactory.h>
```

Inheritance diagram for PiercingFactory:



### Public Member Functions

- **Unit \* makeLight** ()
- **Unit \* makeDark** ()

### 4.8.1 Detailed Description

DOXYGEN COMMENT HERE.

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

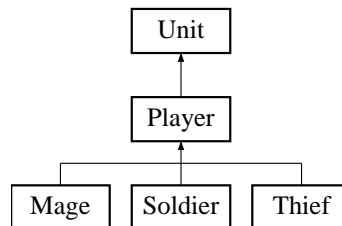
- PiercingFactory.h

## 4.9 Player Class Reference

Is the class from which all concrete Monsters derive inherits from **Unit** (p. 14).

```
#include <Player.h>
```

Inheritance diagram for Player:



### Public Member Functions

- **Unit \* clone ()**  
*Implementation of inherited virtual function.*
- void **attack (Unit &inputUnit)**  
*Implementation of inherited virtual function.*

### Additional Inherited Members

#### 4.9.1 Detailed Description

Is the class from which all concrete Monsters derive inherits from **Unit** (p. 14).

See also

**Unit** (p. 14)

#### 4.9.2 Member Function Documentation

##### 4.9.2.1 Unit \* Player::clone ( ) [virtual]

Implementation of inherited virtual function.

Returns

Unit\* containing a deep copy of this object.

Implements **Unit** (p. 16).

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

- Player.h
- Player.cpp

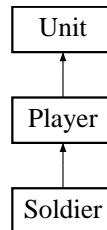


## 4.10 Soldier Class Reference

A concrete **Unit** (p. 14); Inherits from **Player** (p. 12).

```
#include <Mage.h>
```

Inheritance diagram for Soldier:



### Public Member Functions

- **Soldier** ()

### Additional Inherited Members

#### 4.10.1 Detailed Description

A concrete **Unit** (p. 14); Inherits from **Player** (p. 12).

See also

**Player** (p. 12) ()

#### 4.10.2 Constructor & Destructor Documentation

##### 4.10.2.1 Soldier::Soldier ( )

Constructor for **Soldier** (p. 13) class sets the stats and respective "class" of **Soldier** (p. 13).

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

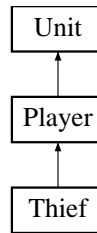
- Soldier.h
- Soldier.cpp

## 4.11 Thief Class Reference

A concrete **Unit** (p. 14); Inherits from **Player** (p. 12).

```
#include <Thief.h>
```

Inheritance diagram for Thief:



## Public Member Functions

- **Thief** ()

## Additional Inherited Members

### 4.11.1 Detailed Description

A concrete **Unit** (p. 14); Inherits from **Player** (p. 12).

See also

**Player** (p. 12) ()

### 4.11.2 Constructor & Destructor Documentation

#### 4.11.2.1 Thief::Thief ( )

Constructor for **Thief** (p. 14) class sets the stats and respective "class" of **Thief** (p. 14).

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

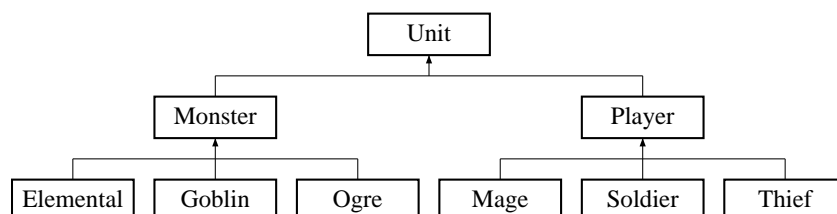
- Thief.h
- Thief.cpp

## 4.12 Unit Class Reference

Is the class from which all concrete Units derive.

```
#include <Unit.h>
```

Inheritance diagram for Unit:



## Public Member Functions

- virtual  $\sim$ **Unit** ()

- virtual destructor*
- virtual **Unit** \* **clone** ()=0  
*pure virtual function that allows prototypes of Units to be clone.*
- virtual void **attack** (**Unit** &inputUnit)=0  
*pure virtual function that allows prototypes of Units to be clone.*
- int **getDamage** ()  
*Public interface to damage member variable.*
- int **getHealth** ()  
*Public interface to health member variable.*
- string **getClass** ()  
*Public interface to "class" member variable.*

### Protected Member Functions

- void **setDamage** (int inputDamage)  
*Protected interface to modify damage member.*
- void **setHealth** (int inputHealth)  
*Protected interface to modify health member.*
- void **setClass** (string inputClass)  
*Protected interface to modify "class" member.*

### Protected Attributes

- string **unitClass**
- int **damage**
- int **health**

#### 4.12.1 Detailed Description

Is the class from which all concrete Units derive.

#### 4.12.2 Member Function Documentation

##### 4.12.2.1 virtual void Unit::attack ( Unit & inputUnit ) [pure virtual]

pure virtual function that allows prototypes of Units to be clone.

##### Returns

a new **Unit** (p. 14) cloned from member variables.

Implemented in **Monster** (p. 10), and **Player** (p. 12).

##### 4.12.2.2 virtual Unit\* Unit::clone ( ) [pure virtual]

pure virtual function that allows prototypes of Units to be clone.

##### Returns

a new **Unit** (p. 14) cloned from member variables.

Implemented in **Monster** (p. 10), and **Player** (p. 12).

#### 4.12.2.3 string Unit::getClass ( )

Public interface to "class" member variable.

##### Returns

string containing the class of object.

#### 4.12.2.4 int Unit::getDamage ( )

Public interface to damage member variable.

##### Returns

int containing value of damage.

#### 4.12.2.5 int Unit::getHealth ( )

Public interface to health member variable.

##### Returns

int containing value of health.

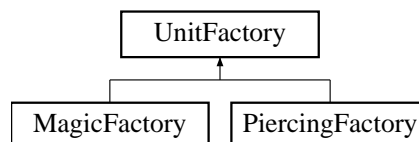
The documentation for this class was generated from the following files:

- Unit.h
- Unit.cpp

## 4.13 UnitFactory Class Reference

```
#include <BludgeoningFactory.h>
```

Inheritance diagram for UnitFactory:



### Public Member Functions

- **Unit \* makeLight ()**
- **Unit \* makeDark ()**
- virtual **Unit \* makeLight ()=0**
- virtual **Unit \* makeDark ()=0**

#### 4.13.1 Detailed Description

DOXYGEN COMMENT HERE.

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

- BludgeoningFactory.h
- UnitFactory.h