

Test

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Contents

1	src	1
2	Hierarchical Index	3
2.1	Class Hierarchy	3
3	Class Index	5
3.1	Class List	5
4	Class Documentation	7
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	9
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	10
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	13
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	15
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	16

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	10
Player	12
Mage	9
Soldier	13
Thief	13
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:

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

Chapter 4

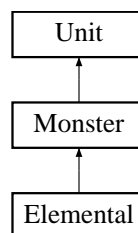
Class Documentation

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:

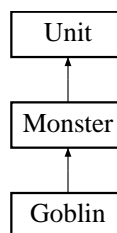
- Task5(Bonus)/Form.h

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 ()

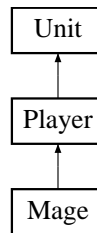
Constructor for **Goblin** (p. 8) class sets the stats and respective "class" of **Goblin** (p. 8).

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).

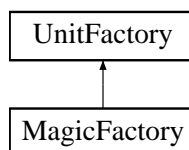
The documentation for this class was generated from the following files:

- 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:

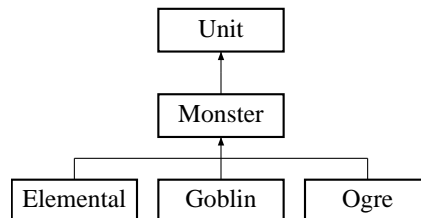
- MagicFactory.h

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. 15).

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

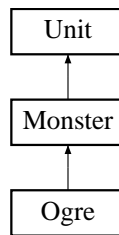
- Monster.h
- Monster.cpp

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. 10) class sets the stats and respective "class" of Ogre.

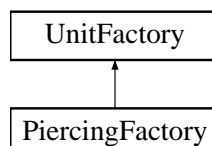
The documentation for this class was generated from the following files:

- 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:

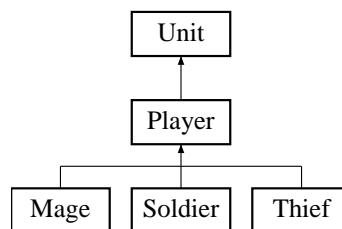
- PiercingFactory.h

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. 15).

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

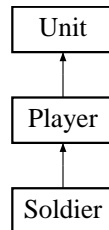
- Player.h
- Player.cpp

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:

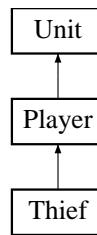
- Soldier.h
- Soldier.cpp

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. 13) class sets the stats and respective "class" of **Thief** (p. 13).

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

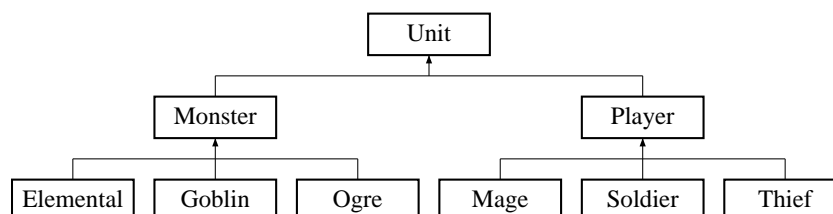
- Thief.h
- Thief.cpp

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.

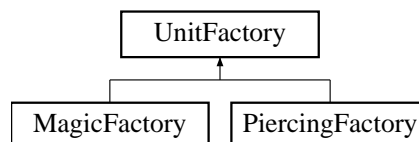
The documentation for this class was generated from the following files:

- 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