My Project

Alpha

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

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

Chapter 2

Class Index

2.1 Class List

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

Chapter 3

Class Documentation

3.1 Axe Class Reference

Inheritance diagram for Axe:

3.2 Coconut Class Reference

Inheritance diagram for Coconut:

Collaboration diagram for Coconut:

Public Member Functions

- **Coconut** (string name, string id, Vector2D< int >pos, bool isOnFloor=true)
- **Coconut** (const Coconut &copy)

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

- Items/Coconut/Coconut.h
- Items/Coconut/Coconut.cpp

3.3 CSVRow Class Reference

Public Member Functions

- std::string const & **operator[ ]** (std::size_t index) const
- std::size_t **size** () const
- void **readNextRow** (std::istream &str)
- std::string const & **operator[ ]** (std::size_t index) const
- std::size_t **size** () const
- void **readNextRow** (std::istream &str)

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

- CSVRow/CSVRow.h
- IO/csv_parser.cpp

3.4 DynamicArray< T > Class Template Reference

templates. Stroustroup " C++".

`#include <DynamicArray.h>`

Classes

- class iterator

Public Types

- using size_type = size_t
- using iterator = T *
- using reference = T &

Public Member Functions

- void swap (DynamicArray< T > &rhs)
  swap .
- DynamicArray () noexcept
  DynamicArray. constructor m_capacity. .
- DynamicArray (std::initializer_list< T > init)
  DynamicArray. initializer_list initialize dynamicVector<int> a({1,3,2});.
- DynamicArray< T > & **operator=** (const DynamicArray< T > &origin)
- DynamicArray< T > & **operator=** (DynamicArray< T > &&origin)
- **DynamicArray** (const DynamicArray< T > &origin)
- void **clear** () noexcept
- template<typename... Args>
  DynamicArray< T >::reference **emplace_back** (Args &&... args)
- void **push_back** (const T &val)
- DynamicArray< T >::iterator **erase** (DynamicArray< T >::iterator iter)
- void **reallocate** ()
- void **move_storage** (T *dest, T *from, size_type n)
- DynamicArray< T >::iterator **begin** () noexcept
- DynamicArray< T >::iterator **end** () const noexcept
- size_t **size** ()
- size_t **capacity** ()
- T & **operator[ ]** (size_t N)
- T **pop_back** ()
- void **insert** (const T &datum, size_t N)
- void **remove** (size_t N)
- void **push_back** (Item *)
- void **push_back** (Item &)
- void **erase** (int index)
- void **erase** (Item *)
- DynamicArray & **operator=** (DynamicArray &copy)
- void **clear** ()
- Item & **operator[ ]** (int)
- vector< Item > **toVector** ()
- int **getSize** ()
- DynamicArray::iterator **begin** ()
- DynamicArray::iterator **end** ()

Friends

- void **swap** (DynamicArray< T > &lhs, DynamicArray< T > &rhs)

3.4.1 Detailed Description

template<typename T>
class DynamicArray< T >

templates. Stroustroup " C++".

3.4.2 Member Typedef Documentation

3.4.2.1 iterator

```
template<typename T >
using DynamicArray< T >::iterator = T *
```

T*

3.4.2.2 reference

```
template<typename T >
using DynamicArray< T >::reference = T &
```

reference

3.4.2.3 size_type

```
template<typename T >
using DynamicArray< T >::size_type = size_t
```

size_t

3.4.3 Constructor & Destructor Documentation

3.4.3.1 DynamicArray() [1/2]

```
template<typename T >
DynamicArray< T >::DynamicArray ( )  [inline], [noexcept]
```

DynamicArray. constructor m_capacity. .

3.4.3.2 DynamicArray() [2/2]

```
template<typename T >
DynamicArray< T >::DynamicArray (
            std::initializer_list< T > init )  [inline]
```

DynamicArray. initializer_list initialize dynamicVector<int> a({1,3,2});.

Parameters

init	

3.4.4 Member Function Documentation

3.4.4.1 swap()

```
template<typename T >
void DynamicArray< T >::swap (
            DynamicArray< T > & rhs )  [inline]
```

swap .

Parameters

rhs	swap

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

- DynamicArray/DynamicArray.h
- DynamicArray_legacy/DynamicArray.cpp

3.5 Environment Class Reference

Public Member Functions

- **Environment** (const Environment &env)
- **Environment** (Player &player, int X, int Y)
- char ** **getGrid** ()
- void **movePlayer** (int x, int y)
- void **addItemToInv** (Item &itemPtr)
- void **addItemToGround** (Item &item)
- void **addItemToGround** (vector< Item > items)
- void **removeFromPlayerInv** (Item &itemptr)
- void **removeItem** (Item &itemptr)
- void **clearAll** ()
- void **generateGrid** (int numberOfEntities)
- vector< Item > **getGroundItems** ()
- DynamicArray< Item > **getPlayerItems** ()
- Player & **getPlayer** ()
- Item & **getItemAt** (int X, int Y)
- void **handleLoadedData** (vector< Item > ldata, bool isStartup)
- int **getX** ()
- int **getY** ()
- int **checkOccurences** (Item &item)
- Item & **getPlayerItem** (int index)
- vector< Item > **getItemsNearPlayer** ()
- DynamicArray< Item > **getPlayerCraft** ()

Static Public Attributes

- static int **lastID** = 0

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

- Environment/Environment.h
- Environment/Environment.cpp

3.6 GameScene Class Reference

Public Member Functions

- **GameScene** (IoClass ∗ioManager, Environment ∗env)
- **GameScene** (const GameScene &copy)
- GameState **getState** ()
- void **checkHunger** (chrono::minutes::rep &, chrono::_V2::system_clock::time_point &)
- void **setState** (GameState state)
- string **startupScreen** ()
- void **Play** ()
- void **parseSelection** (int c)
- void **handleMainMenu** (int menuSelection)
- void **handleInventoryMenu** (int menuSelection)
- void **handleCraftingMenu** (int menuSelection)
- void **handleEndingMenu** (int menuSelection)

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

- GameScene/GameScene.h
- GameScene/GameScene.cpp

3.7 Hut Class Reference

Inheritance diagram for Hut:

Collaboration diagram for Hut:

Public Member Functions

- **Hut** (string name, string id, Vector2D< int > pos, bool isOnFloor=true)
- **Hut** (const Hut &copy)

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

- Items/Hut/Hut.h
- Items/Hut/Hut.cpp

3.8 Inventory Class Reference

Public Member Functions

- **Inventory** (Item *items, int itemCount)
- **Inventory** (const Inventory &copy)
- void **addItem** (Item &item)
- DynamicArray< Item > **getInventoryItems** ()
- Item & **getItemAt** (int index)
- void **removeItemAt** (int index)
- DynamicArray< int > **itemTypeCount** ()
- size_t **getSize** ()
- Inventory & **operator=** (Inventory &inv)
- void **removeAll** ()
- DynamicArray< Item > **removeAfterCrafting** (itemType itemCraftedType)

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

- Inventory/Inventory.h
- Inventory/Inventory.cpp

3.9 IoClass Class Reference

Public Member Functions

- vector< Item > **loadFromFile** (string fileName)
- void **saveToFile** (string fileName, Environment &env)
- string **readString** ()
- void **printToCoordsAnimated** (int x, int y, string stringToPrint, std::initializer_list< string > a_args, int speed)
- int **showMenu** (std::vector< string > selections)
- void **printEnvironment** (Environment &env)
- void **printPlayerStats** (Player &player)
- int **getMaxX** ()
- int **getMaxY** ()
- int **getInput** ()

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

- IO/IoClass.h
- IO/IoClass.cpp

3.10 Item Class Reference

Inheritance diagram for Item:

Public Member Functions

- **Item** (string name, string id, Vector2D< int > position, bool isOnFloor=true)
- **Item** (const Item &copy)
- string **getName** () const
- string **getId** () const
- bool **getIfOnFloor** () const
- itemType **getType** () const
- Vector2D< int > **getPosition** () const
- void **setType** (itemType type)
- void **setisOnFloor** (bool value)
- Item **operator+** (Item &item)

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

- Items/Item/Item.h
- Items/Item/Item.cpp

3.11 DynamicArray< T >::iterator Class Reference

Public Member Functions

- **iterator** (Item *p)
- bool **operator==** (const iterator &rhs) const
- bool **operator!=** (const iterator &rhs) const
- Item **operator*** () const
- iterator & **operator++** ()
- iterator **operator++** (int)
- iterator **begin** ()
- iterator **end** ()

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

- DynamicArray_legacy/DynamicArray.h

3.12 Leafs Class Reference

Inheritance diagram for Leafs:

Collaboration diagram for Leafs:

Public Member Functions

- **Leafs** (string name, string id, Vector2D< int >pos, bool isOnFloor=true)
- **Leafs** (const Leafs &copy)

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

- Items/Leafs/Leafs.h
- Items/Leafs/Leafs.cpp

3.13 LightedTorch Class Reference

Inheritance diagram for LightedTorch:

Collaboration diagram for LightedTorch:

Public Member Functions

- **LightedTorch** (string name, string id, Vector2D< int >pos, bool isOnFloor=true)
- **LightedTorch** (const LightedTorch &copy)

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

- Items/LightedTorch/LightedTorch.h
- Items/LightedTorch/LightedTorch.cpp

3.14 Lighter Class Reference

Inheritance diagram for Lighter:

Collaboration diagram for Lighter:

Public Member Functions

- **Lighter** (string name, string id, Vector2D< int >pos, bool isOnFloor=true)
- **Lighter** (const Lighter &copy)

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

- Items/Lighter/Lighter.h
- Items/Lighter/Lighter.cpp

3.15 OpenCoconut Class Reference

Inheritance diagram for OpenCoconut:

Collaboration diagram for OpenCoconut:

Public Member Functions

- **OpenCoconut** (string name, string id, Vector2D< int >pos, bool isOnFloor=true)
- **OpenCoconut** (const OpenCoconut &copy)

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

- Items/OpenCoconut/OpenCoconut.h
- Items/OpenCoconut/OpenCoconut.cpp

3.16 Person Class Reference

Public Member Functions

- **Person** (string n, string s)
- string **getString** ()
- string **getSurname** ()

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

- DynamicArray/main.cpp

3.17 Player Class Reference

Public Member Functions

- **Player** (Vector2D< int > position, Inventory inv, string name="P")
- **Player** (const Player &copy)
- int **getHunger** ()
- void **setHunger** (int h)
- void **addToInventory** (Item &item)
- void **deallocateItem** (Item &item)
- void **showInventory** (ostream &stream)
- string **getName** ()
- const Vector2D< int > & **getPosition** ()
- Inventory & **getInventory** ()
- Item & **getItemAt** (int index)
- void **setName** (string newName)
- DynamicArray< Item > **getItems** ()
- void **moveToCoordinates** (int X, int Y)
- void **moveToCoordinates** (Vector2D< int > newPosition)
- void **removeFromInventory** (int index)
- Player **operator=** (const Player &copy)
- DynamicArray< Item > **getCrafted** ()
- void **removeAllFromPlayer** ()
- DynamicArray< Item > **removeAfterCrafting** (itemType itemCraftedType)

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

- Player/Player.h
- Player/Player.cpp

3.18 Rock Class Reference

Inheritance diagram for Rock:

Collaboration diagram for Rock:

Public Member Functions

- **Rock** (string name, string id, Vector2D< int >pos, bool isOnFloor=true)
- **Rock** (const Rock &copy)

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

- Items/Rock/Rock.h
- Items/Rock/Rock.cpp

3.19 Vector2D< T > Class Template Reference

Public Member Functions

- **Vector2D** (T x, T y)
- **Vector2D** (const Vector2D &v)
- Vector2D & **operator=** (const Vector2D &v)
- Vector2D **operator+** (Vector2D &v)
- Vector2D **operator-** (Vector2D &v)
- Vector2D & **operator+=** (Vector2D &v)
- Vector2D & **operator-=** (Vector2D &v)
- Vector2D **operator+** (double s)
- Vector2D **operator-** (double s)
- Vector2D **operator*** (double s)
- Vector2D **operator/** (double s)
- Vector2D & **operator+=** (double s)
- Vector2D & **operator-=** (double s)
- Vector2D & **operator*=** (double s)
- Vector2D & **operator/=** (double s)
- void **set** (T x, T y)
- void **rotate** (double deg)
- Vector2D & **normalize** ()
- float **dist** (Vector2D v) const
- float **length** () const
- void **truncate** (double length)
- Vector2D **ortho** () const

Static Public Member Functions

- static float **dot** (Vector2D v1, Vector2D v2)
- static float **cross** (Vector2D v1, Vector2D v2)

Public Attributes

- T **x**
- T **y**

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

- Vector2D/Vector2D.h

3.20 WoodStick Class Reference

Inheritance diagram for WoodStick:

Collaboration diagram for WoodStick:

Public Member Functions

- **WoodStick** (string name, string id, Vector2D< int >pos, bool isOnFloor=true)
- **WoodStick** (const WoodStick &copy)

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

- Items/WoodStick/WoodStick.h
- Items/WoodStick/WoodStick.cpp