Arcade

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

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

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2 Hierarchical Index

Chapter 2

Class Index

2.1 Class List

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

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DyLib< T >	7
Arcade::DyLibException	8
Arcade::DynamicTile	9
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HighScore	10
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AvandouTilo	0.4

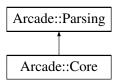
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Chapter 3

Class Documentation

3.1 Arcade::Core Class Reference

Inheritance diagram for Arcade::Core:



Public Member Functions

- Core (int ac, char **av)
- void prevDisplay ()
- void nextDisplay ()
- void prevGame ()
- void nextGame ()
- bool menu ()

Additional Inherited Members

3.1.1 Constructor & Destructor Documentation

3.1.1.1 Core()

```
Arcade::Core::Core (
          int ac,
          char ** av )
```

The Core class takes the program arguments as parameters. It is the bridge between graphic libraries and games

Parameters

ac	arguments counter
av	arguments value

3.1.2 Member Function Documentation

3.1.2.1 menu()

```
bool Arcade::Core::menu ( )
```

Loads the menu

Returns

false if the user exited, true otherwise

3.1.2.2 nextDisplay()

```
void Arcade::Core::nextDisplay ( )
```

Loads the next graphical library available

3.1.2.3 nextGame()

```
void Arcade::Core::nextGame ( )
```

Loads the next game library available

3.1.2.4 prevDisplay()

```
void Arcade::Core::prevDisplay ( )
```

Loads the previous graphical library available

3.1.2.5 prevGame()

```
void Arcade::Core::prevGame ( )
```

Loads the previous game library available

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

- include/Core.hpp
- src/Core.cpp

3.2 DyLib < T > Class Template Reference

Public Member Functions

- DyLib () noexcept=default
- DyLib (const std::string &path)
- DyLib (const DyLib &)=delete
- DyLib (DyLib &&)=delete
- DyLib & operator= (const DyLib &)=delete
- DyLib & operator= (DyLib &&)=delete
- void loadLib (const std::string &path)
- void releaseLib () noexcept
- T * get ()

3.2.1 Constructor & Destructor Documentation

3.2.1.1 DyLib() [1/2]

```
template<typename T >
DyLib< T >::DyLib ( ) [default], [noexcept]
```

Creates a dynamic library object

3.2.1.2 DyLib() [2/2]

Creates a dynamic library instance

Parameters

template	type of the entity returned by entry_point function inside library
path	path to the dynamic library to load (.so, .dll, .dylib)

3.2.2 Member Function Documentation

3.2.2.1 loadLib()

Load a dynamic library into the object. If a dynamic library was already opened, it will be unload and replaced

Parameters

template	type of the entity returned by entry_point function inside library
path	path to the dynamic library to load (.so, .dll, .dylib)

3.2.2.2 releaseLib()

```
template<typename T >
void DyLib< T >::releaseLib ( ) [inline], [noexcept]
```

Close the dynamic library currently loaded in the object. This function will be automatically called by the class destructor

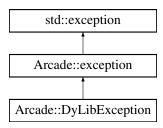
The documentation for this class was generated from the following file:

· include/DyLib.hpp

3.3 Arcade::DyLibException Class Reference

```
#include <Exception.hpp>
```

Inheritance diagram for Arcade::DyLibException:



Public Member Functions

• DyLibException (std::string error)

Additional Inherited Members

3.3.1 Detailed Description

Exception thrown when an error occured when loading a dynamic library at runtime. Inherits from Arcade::exception

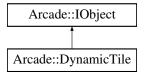
The documentation for this class was generated from the following file:

include/Exception.hpp

3.4 Arcade::DynamicTile Class Reference

#include <Object.hpp>

Inheritance diagram for Arcade::DynamicTile:



Public Member Functions

- **DynamicTile** (const Tile &main_tile, unsigned int recurence=0)
- std::pair< float, float > getPosition () const
- unsigned int getRotation () const
- Arcade::Tile * getActualTile ()
- void setPosition (float x, float y)
- void setRotation (unsigned int angle)
- void addTile (const Arcade::Tile &tile)
- void animate ()

3.4.1 Detailed Description

Class that contains multiple tiles of size <getTileSize()> use animate() member to animate the tile

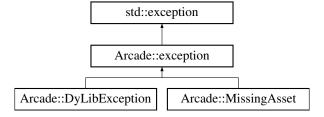
The documentation for this class was generated from the following file:

· include/Object.hpp

3.5 Arcade::exception Class Reference

#include <Exception.hpp>

Inheritance diagram for Arcade::exception:



Public Member Functions

- exception (std::string error)
- const char * what () const noexcept override

Protected Attributes

• const std::string m_error

3.5.1 Detailed Description

Exception class for Arcade

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

• include/Exception.hpp

3.6 HighScore Class Reference

Public Member Functions

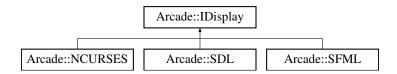
- **HighScore** (const std::string &file)
- void **load** (const std::string &file)
- void writeNewScore ()
- void **setNewScore** (std::string score)
- void dump ()
- std::vector< std::string > getContent ()

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

- lib/Game/include/HighScore.hpp
- lib/Game/src/HighScore.cpp

3.7 Arcade::IDisplay Class Reference

Inheritance diagram for Arcade::IDisplay:



Public Member Functions

- virtual Arcade::Input event ()=0
- virtual void clear ()=0
- virtual void refresh ()=0
- virtual void draw (std::shared_ptr< Arcade::IObject > object)=0

3.7.1 Member Function Documentation

3.7.1.1 clear()

```
virtual void Arcade::IDisplay::clear ( ) [pure virtual]
```

clear the screen of the current graphical library

Implemented in Arcade::SFML, Arcade::SDL, and Arcade::NCURSES.

3.7.1.2 draw()

Draw the Arcade::IObject into the current graphical library

Parameters

object to be draw into the current graphical library

Implemented in Arcade::SFML, Arcade::SDL, and Arcade::NCURSES.

3.7.1.3 event()

```
virtual Arcade::Input Arcade::IDisplay::event ( ) [pure virtual]
```

Returns

Arcade::Input that corresponds to the last event from the current graphical library

Implemented in Arcade::SFML, Arcade::SDL, and Arcade::NCURSES.

3.7.1.4 refresh()

```
virtual void Arcade::IDisplay::refresh ( ) [pure virtual]
```

refresh the screen of the current graphical library

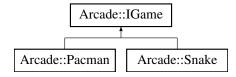
Implemented in Arcade::SFML, Arcade::SDL, and Arcade::NCURSES.

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

• lib/Display/include/IDisplay.hpp

3.8 Arcade::IGame Class Reference

Inheritance diagram for Arcade::IGame:



Public Member Functions

- virtual std::vector< std::shared_ptr< Arcade::IObject >> loop (Arcade::Input event)=0
- virtual int getScore ()=0
- virtual void reset ()=0

3.8.1 Member Function Documentation

3.8.1.1 getScore()

```
virtual int Arcade::IGame::getScore ( ) [pure virtual]
```

Returns

the actual score of the current game library

Implemented in Arcade::Snake, and Arcade::Pacman.

3.8.1.2 loop()

Parameters

event Arcade::Input event received to be processed by the game

Returns

a vector of Arcade::IObject to be draw into the current graphical library

Implemented in Arcade::Snake, and Arcade::Pacman.

3.8.1.3 reset()

virtual void Arcade::IGame::reset () [pure virtual]

Reset the current game library

Implemented in Arcade::Snake, and Arcade::Pacman.

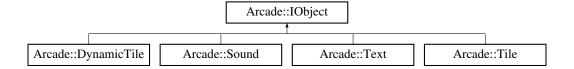
The documentation for this class was generated from the following file:

• lib/Game/include/IGame.hpp

3.9 Arcade::IObject Class Reference

```
#include <Object.hpp>
```

Inheritance diagram for Arcade::IObject:



3.9.1 Detailed Description

Pure virtual class that can be polymorfed into:

Tile DynamicTile Sound Text

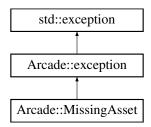
The documentation for this class was generated from the following file:

· include/Object.hpp

3.10 Arcade::MissingAsset Class Reference

#include <Exception.hpp>

Inheritance diagram for Arcade::MissingAsset:



Public Member Functions

· MissingAsset (std::string error)

Additional Inherited Members

3.10.1 Detailed Description

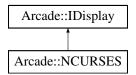
Exception thrown when a missing asset is detected at runtime. Inherits from Arcade::exception

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

• include/Exception.hpp

3.11 Arcade::NCURSES Class Reference

Inheritance diagram for Arcade::NCURSES:



Public Member Functions

- Arcade::Input event ()
- void clear ()
- void refresh ()
- void draw (std::shared_ptr< Arcade::IObject > object)
- void drawTile (Arcade::Tile *tile)
- void drawText (Arcade::Text *text)
- void playSound (Arcade::Sound *)

3.11.1 Member Function Documentation

```
3.11.1.1 clear()
```

```
void Arcade::NCURSES::clear ( ) [virtual]
```

clear the screen of the current graphical library

Implements Arcade::IDisplay.

3.11.1.2 draw()

Draw the Arcade::IObject into the current graphical library

Parameters

object	to be draw into the current graphical library

Implements Arcade::IDisplay.

3.11.1.3 event()

```
Arcade::Input Arcade::NCURSES::event ( ) [virtual]
```

Returns

Arcade::Input that corresponds to the last event from the current graphical library

Implements Arcade::IDisplay.

3.11.1.4 refresh()

```
void Arcade::NCURSES::refresh ( ) [virtual]
```

refresh the screen of the current graphical library

Implements Arcade::IDisplay.

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

- lib/Display/Ncurses/include/NCURSES.hpp
- lib/Display/Ncurses/src/NCURSES.cpp

3.12 Arcade::Pacman Class Reference

Inheritance diagram for Arcade::Pacman:



Public Member Functions

- int getScore () override
- void reset () override
- std::vector< std::shared_ptr< |Object > > loop (Arcade::Input ev) override

3.12.1 Member Function Documentation

3.12.1.1 getScore()

```
int Arcade::Pacman::getScore ( ) [inline], [override], [virtual]
```

Returns

the actual score of the current game library

Implements Arcade::IGame.

3.12.1.2 loop()

Parameters

event | Arcade::Input event received to be processed by the game

Returns

a vector of Arcade::IObject to be draw into the current graphical library

Implements Arcade::IGame.

3.12.1.3 reset()

```
void Arcade::Pacman::reset ( ) [override], [virtual]
```

Reset the current game library

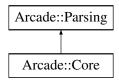
Implements Arcade::IGame.

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

- lib/Game/Pacman/include/Pacman.hpp
- lib/Game/Pacman/src/Pacman.cpp

3.13 Arcade::Parsing Class Reference

Inheritance diagram for Arcade::Parsing:



Public Member Functions

Parsing (int ac, char **av)

Protected Attributes

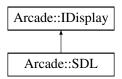
- std::vector< std::string > m_GameLibs {}
- int m_GameLibsIterator
- std::vector< std::string > m_GraphLibs {}
- int m_GraphLibsIterator
- · std::string m name

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

- · include/Parsing.hpp
- · src/Parsing.cpp

3.14 Arcade::SDL Class Reference

Inheritance diagram for Arcade::SDL:



Public Member Functions

- SDL (const SDL &)=delete
- SDL (SDL &&)=delete
- SDL & operator= (const SDL &)=delete
- SDL & operator= (SDL &&)=delete
- Arcade::Input event ()
- void clear ()
- · void refresh ()
- void draw (std::shared_ptr< Arcade::IObject > object)
- void drawTile (Arcade::Tile *tile)
- void drawText (Arcade::Text *text)
- void playSound (Arcade::Sound *sound)

3.14.1 Member Function Documentation

3.14.1.1 clear()

```
void Arcade::SDL::clear ( ) [virtual]
```

clear the screen of the current graphical library

Implements Arcade::IDisplay.

3.14.1.2 draw()

Draw the Arcade::IObject into the current graphical library

Parameters

object	to be draw into the current graphical library
--------	---

Implements Arcade::IDisplay.

3.14.1.3 event()

```
Arcade::Input Arcade::SDL::event ( ) [virtual]
```

Returns

Arcade::Input that corresponds to the last event from the current graphical library

Implements Arcade::IDisplay.

3.14.1.4 refresh()

```
void Arcade::SDL::refresh ( ) [virtual]
```

refresh the screen of the current graphical library

Implements Arcade::IDisplay.

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

- lib/Display/SDL/include/SDL.hpp
- lib/Display/SDL/src/SDL.cpp

3.15 Arcade::SDLSoundObj Class Reference

Public Member Functions

- SDLSoundObj (const SDLSoundObj &)=delete
- SDLSoundObj (SDLSoundObj &&)=delete
- SDLSoundObj & operator= (const SDLSoundObj &)=delete
- SDLSoundObj & operator= (SDLSoundObj &&)=delete
- SDLSoundObj (const std::string &path)
- · void play ()

Public Attributes

Mix Music * m_sound

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

lib/Display/SDL/include/SDL.hpp

3.16 Arcade::SDLTextureObj Class Reference

Public Member Functions

- SDLTextureObj (const SDLTextureObj &)=delete
- SDLTextureObj (SDLTextureObj &&)=delete
- SDLTextureObj & operator= (const SDLTextureObj &)=delete
- SDLTextureObj & operator= (SDLTextureObj &&)=delete
- SDLTextureObj (const std::string &path, SDL_Renderer *renderer)
- SDLTextureObj (Arcade::Text text, TTF_Font *font, SDL_Renderer *renderer)
- void setPosition (float x, float y)

Public Attributes

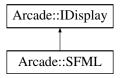
- SDL_Texture * m_img {}
- SDL_Rect m_rect {}
- SDL Point m_center {}

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

- · lib/Display/SDL/include/SDL.hpp
- lib/Display/SDL/src/SDL.cpp

3.17 Arcade::SFML Class Reference

Inheritance diagram for Arcade::SFML:



Public Member Functions

```
• Arcade::Input event ()
```

- void clear ()
- void refresh ()
- void draw (std::shared_ptr< Arcade::IObject > object)
- void drawTile (Arcade::Tile *tile)
- void drawText (Arcade::Text *text)
- void playSound (Arcade::Sound *sound)

3.17.1 Member Function Documentation

```
3.17.1.1 clear()
```

```
void Arcade::SFML::clear ( ) [virtual]
```

clear the screen of the current graphical library

Implements Arcade::IDisplay.

3.17.1.2 draw()

Draw the Arcade::IObject into the current graphical library

Parameters

object to be draw into the current graphical library

Implements Arcade::IDisplay.

3.17.1.3 event()

```
Arcade::Input Arcade::SFML::event ( ) [virtual]
```

Returns

Arcade::Input that corresponds to the last event from the current graphical library

Implements Arcade::IDisplay.

3.17.1.4 refresh()

```
void Arcade::SFML::refresh ( ) [virtual]
```

refresh the screen of the current graphical library

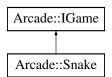
Implements Arcade::IDisplay.

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

- lib/Display/SFML/include/SFML.hpp
- lib/Display/SFML/src/SFML.cpp

3.18 Arcade::Snake Class Reference

Inheritance diagram for Arcade::Snake:



Public Member Functions

- int getScore () override
- · void reset () override
- std::vector< std::shared_ptr< |Object > > loop (Arcade::Input ev) override

3.18.1 Member Function Documentation

3.18.1.1 getScore()

```
int Arcade::Snake::getScore ( ) [inline], [override], [virtual]
```

Returns

the actual score of the current game library

Implements Arcade::IGame.

3.18.1.2 loop()

Parameters

event | Arcade::Input event received to be processed by the game

Returns

a vector of Arcade::IObject to be draw into the current graphical library

Implements Arcade::IGame.

3.18.1.3 reset()

```
void Arcade::Snake::reset ( ) [override], [virtual]
```

Reset the current game library

Implements Arcade::IGame.

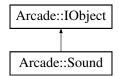
The documentation for this class was generated from the following files:

- lib/Game/Snake/include/Snake.hpp
- lib/Game/Snake/src/Snake.cpp

3.19 Arcade::Sound Class Reference

```
#include <Object.hpp>
```

Inheritance diagram for Arcade::Sound:



Public Member Functions

- Sound (std::string path)
- std::string getSound () const
- void setSound (std::string path)

3.19.1 Detailed Description

Class that contains a relative path to a sound file

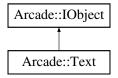
The documentation for this class was generated from the following file:

· include/Object.hpp

3.20 Arcade::Text Class Reference

#include <Object.hpp>

Inheritance diagram for Arcade::Text:



Public Member Functions

- Text (std::string text, Arcade::Color color=WHITE, float x=0, float y=0)
- void setText (std::string text)
- void **setColor** (Arcade::Color color)
- void setPosition (float x, float y)
- std::string getText () const
- Arcade::Color getColor () const
- std::pair < float, float > getPosition () const

3.20.1 Detailed Description

Class that contains text to be displayed

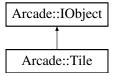
The documentation for this class was generated from the following file:

• include/Object.hpp

3.21 Arcade::Tile Class Reference

#include <Object.hpp>

Inheritance diagram for Arcade::Tile:



Public Member Functions

- Tile (std::string path_to_bmp, unsigned char symbol, Arcade::Color color=WHITE, float x=0, float y=0)
- std::string getPath () const
- unsigned char getSymbol () const
- Arcade::Color getColor () const
- std::pair< float, float > getPosition () const
- · unsigned int getRotation () const
- void setPath (std::string path_to_bmp)
- void **setSymbol** (unsigned char symbol)
- void setColor (Arcade::Color color)
- void setPosition (float x, float y)
- void setRotation (unsigned int angle)

3.21.1 Detailed Description

Class that contains a tile of size < getTileSize()>

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

include/Object.hpp

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