

Arcade

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Chapter 1

Namespace Index

1.1 Namespace List

Here is a list of all namespaces with brief descriptions:

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Chapter 2

Hierarchical Index

2.1 Class Hierarchy

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

arcade::IDisplayModule	
arcade::ADisplayModule	11
arcade::NCurses	17
arcade::Sdl2	22
arcade::Sfml	25
arcade::IGameModule	
arcade::AGameModule	14
arcade::Pacman	20
arcade::Snake	28

Chapter 3

Class Index

3.1 Class List

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

arcade::ADisplayModule	11
arcade::AGameModule	14
arcade::NCurses	17
arcade::Pacman	20
arcade::Sdl2	22
arcade::Sfml	25
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Chapter 4

File Index

4.1 File List

Here is a list of all files with brief descriptions:

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/home/tmندی/Documents/Tek2/OOP/Arcade/lib/games/pacman/ Pacman.hpp	33
/home/tmندی/Documents/Tek2/OOP/Arcade/lib/games/snake/ Snake.cpp	33
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Chapter 5

Namespace Documentation

5.1 arcade Namespace Reference

Classes

- class [ADisplayModule](#)
- class [AGameModule](#)
- class [NCurses](#)
- class [Pacman](#)
- class [Sdl2](#)
- class [Sfml](#)
- class [Snake](#)

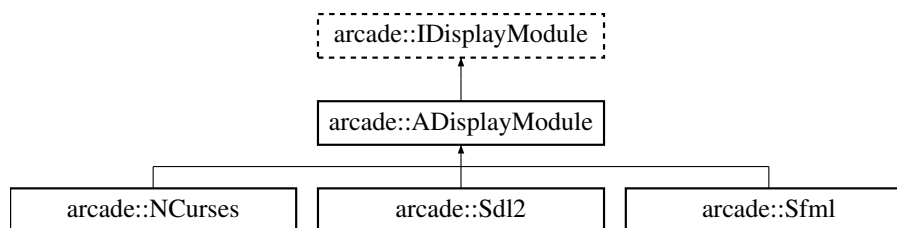
Chapter 6

Class Documentation

6.1 arcade::ADisplayModule Class Reference

```
#include <ADisplayModule.hpp>
```

Inheritance diagram for arcade::ADisplayModule:



Public Member Functions

- [ADisplayModule](#) ()
Construct a new `arcade::ADisplayModule::ADisplayModule` object.
- [~ADisplayModule](#) ()
Destroy the `arcade::ADisplayModule::ADisplayModule` object.
- virtual std::string [getName](#) ()=0
- void [setCoreModule](#) (arcade::CoreModule *coreModule)
set the core module to the display module
- arcade::CoreModule * [getCoreModule](#) () const
get the core module
- virtual void [clearWindow](#) ()=0
- virtual void [displayWindow](#) ()=0
- virtual arcade::KeyboardInput [getInput](#) ()=0
- virtual void [drawSprite](#) (std::pair< char, std::string > sprite, int x, int y, int width, int height)=0
- virtual void [drawAllSprite](#) (std::pair< char, std::string > sprite, std::vector< std::pair< int, int > > coordinates, int width, int height)=0
- virtual void [drawText](#) (const std::string text, int x, int y, int size)=0

6.1.1 Constructor & Destructor Documentation

6.1.1.1 ADisplayModule()

```
arcade::ADisplayModule::ADisplayModule ( )
```

Construct a new [arcade::ADisplayModule::ADisplayModule](#) object.

6.1.1.2 ~ADisplayModule()

```
arcade::ADisplayModule::~~ADisplayModule ( )
```

Destroy the [arcade::ADisplayModule::ADisplayModule](#) object.

6.1.2 Member Function Documentation

6.1.2.1 clearWindow()

```
virtual void arcade::ADisplayModule::clearWindow ( ) [pure virtual]
```

Implemented in [arcade::NCurses](#), [arcade::Sdl2](#), and [arcade::Sfml](#).

6.1.2.2 displayWindow()

```
virtual void arcade::ADisplayModule::displayWindow ( ) [pure virtual]
```

Implemented in [arcade::NCurses](#), [arcade::Sdl2](#), and [arcade::Sfml](#).

6.1.2.3 drawAllSprite()

```
virtual void arcade::ADisplayModule::drawAllSprite (
    std::pair< char, std::string > sprite,
    std::vector< std::pair< int, int > > coordinates,
    int width,
    int height ) [pure virtual]
```

Implemented in [arcade::NCurses](#), [arcade::Sdl2](#), and [arcade::Sfml](#).

6.1.2.4 drawSprite()

```
virtual void arcade::ADisplayModule::drawSprite (
    std::pair< char, std::string > sprite,
    int x,
    int y,
    int width,
    int height ) [pure virtual]
```

Implemented in [arcade::NCurses](#), [arcade::Sdl2](#), and [arcade::Sfml](#).

6.1.2.5 drawText()

```
virtual void arcade::ADisplayModule::drawText (
    const std::string text,
    int x,
    int y,
    int size ) [pure virtual]
```

Implemented in [arcade::NCurses](#), [arcade::Sdl2](#), and [arcade::Sfml](#).

6.1.2.6 getCoreModule()

```
arcade::CoreModule * arcade::ADisplayModule::getCoreModule ( ) const
```

get the core module

Returns

arcade::CoreModule *

6.1.2.7 getInput()

```
virtual arcade::KeyboardInput arcade::ADisplayModule::getInput ( ) [pure virtual]
```

Implemented in [arcade::NCurses](#), [arcade::Sdl2](#), and [arcade::Sfml](#).

6.1.2.8 getName()

```
virtual std::string arcade::ADisplayModule::getName ( ) [pure virtual]
```

Implemented in [arcade::NCurses](#), [arcade::Sdl2](#), and [arcade::Sfml](#).

6.1.2.9 setCoreModule()

```
void arcade::ADisplayModule::setCoreModule (
    arcade::CoreModule * coreModule )
```

set the core module to the display module

Parameters

<i>coreModule</i>	
-------------------	--

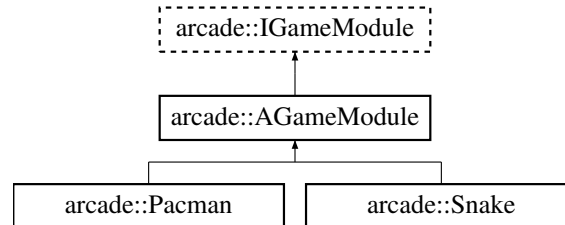
The documentation for this class was generated from the following files:

- /home/tmendy/Documents/Tek2/OOP/Arcade/lib/graphics/[ADisplayModule.hpp](#)
- /home/tmendy/Documents/Tek2/OOP/Arcade/lib/graphics/[ADisplayModule.cpp](#)

6.2 arcade::AGameModule Class Reference

```
#include <AGameModule.hpp>
```

Inheritance diagram for arcade::AGameModule:



Public Member Functions

- [AGameModule](#) ()
Construct a new arcade::A Game Module::A Game Module object.
- [~AGameModule](#) ()
Destroy the arcade::A Game Module::A Game Module object.
- virtual std::string [getName](#) ()=0
- virtual void [init](#) ()=0
- virtual void [updateGame](#) ()=0
- void [setGameStatus](#) (GameStatus status)
- GameStatus [getGameStatus](#) () const
get the status of the game
- void [setCoreModule](#) (arcade::CoreModule *coreModule)
set the core module to the game module
- arcade::CoreModule * [getCoreModule](#) () const
get the core module
- void [setDirection](#) (arcade::KeyboardInput direction)
set the direction of the game
- arcade::KeyboardInput [getDirection](#) () const
get the direction of the game
- int [getLayerCell](#) (int layer, int x, int y) const
get the cell of the map
- virtual void [handleKeyEvents](#) (arcade::KeyboardInput key)=0

6.2.1 Constructor & Destructor Documentation

6.2.1.1 AGameModule()

```
arcade::AGameModule::AGameModule ( )
```

Construct a new arcade::A Game Module::A Game Module object.

6.2.1.2 ~AGameModule()

```
arcade::AGameModule::~~AGameModule ( )
```

Destroy the arcade::A Game Module::A Game Module object.

6.2.2 Member Function Documentation

6.2.2.1 getCoreModule()

```
arcade::CoreModule * arcade::AGameModule::getCoreModule ( ) const
```

get the core module

Returns

arcade::CoreModule *

6.2.2.2 getDirection()

```
arcade::KeyboardInput arcade::AGameModule::getDirection ( ) const
```

get the direction of the game

Returns

arcade::KeyboardInput

6.2.2.3 getGameStatus()

```
arcade::AGameModule::GameStatus arcade::AGameModule::getGameStatus ( ) const
```

get the status of the game

Returns

arcade::AGameModule::GameStatus

6.2.2.4 getLayerCell()

```
int arcade::AGameModule::getLayerCell (
    int layer,
    int x,
    int y ) const
```

get the cell of the map

Parameters

<i>x</i>	
<i>y</i>	

Returns

int

6.2.2.5 getName()

```
virtual std::string arcade::AGameModule::getName ( ) [pure virtual]
```

Implemented in [arcade::Pacman](#), and [arcade::Snake](#).

6.2.2.6 handleKeyEvents()

```
virtual void arcade::AGameModule::handleKeyEvents (
    arcade::KeyboardInput key ) [pure virtual]
```

Implemented in [arcade::Pacman](#), and [arcade::Snake](#).

6.2.2.7 init()

```
virtual void arcade::AGameModule::init ( ) [pure virtual]
```

Implemented in [arcade::Pacman](#), and [arcade::Snake](#).

6.2.2.8 setCoreModule()

```
void arcade::AGameModule::setCoreModule (
    arcade::CoreModule * coreModule )
```

set the core module to the game module

Parameters

<i>coreModule</i>	
-------------------	--

6.2.2.9 setDirection()

```
void arcade::AGameModule::setDirection (
    arcade::KeyboardInput direction )
```

set the direction of the game

Parameters

<i>direction</i>	
------------------	--

6.2.2.10 setGameStatus()

```
void arcade::AGameModule::setGameStatus (
    GameStatus status )
```

6.2.2.11 updateGame()

```
virtual void arcade::AGameModule::updateGame ( ) [pure virtual]
```

Implemented in [arcade::Pacman](#), and [arcade::Snake](#).

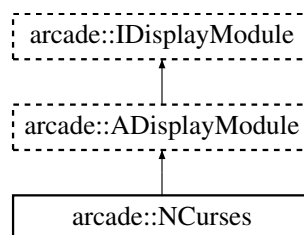
The documentation for this class was generated from the following files:

- [/home/tmendy/Documents/Tek2/OOP/Arcade/lib/games/AGameModule.hpp](#)
- [/home/tmendy/Documents/Tek2/OOP/Arcade/lib/games/AGameModule.cpp](#)

6.3 arcade::NCurses Class Reference

```
#include <NCurses.hpp>
```

Inheritance diagram for arcade::NCurses:



Public Member Functions

- [NCurses](#) ()
- [~NCurses](#) ()
- [std::string getName](#) ()
- [void clearWindow](#) ()
- [void displayWindow](#) ()
- [arcade::KeyboardInput getInput](#) ()
- [void drawSprite](#) (std::pair< char, std::string > sprite, int x, int y, int width, int height)
- [void drawAllSprite](#) (std::pair< char, std::string > sprite, std::vector< std::pair< int, int > > coordinates, int width, int height)
- [void drawText](#) (const std::string text, int x, int y, int size)

Public Member Functions inherited from [arcade::ADisplayModule](#)

- [ADisplayModule](#) ()
Construct a new [arcade::ADisplayModule::ADisplayModule](#) object.
- [~ADisplayModule](#) ()
Destroy the [arcade::ADisplayModule::ADisplayModule](#) object.
- virtual std::string [getName](#) ()=0
- void [setCoreModule](#) (arcade::CoreModule *coreModule)
set the core module to the display module
- arcade::CoreModule * [getCoreModule](#) () const
get the core module
- virtual void [clearWindow](#) ()=0
- virtual void [displayWindow](#) ()=0
- virtual arcade::KeyboardInput [getInput](#) ()=0
- virtual void [drawSprite](#) (std::pair< char, std::string > sprite, int x, int y, int width, int height)=0
- virtual void [drawAllSprite](#) (std::pair< char, std::string > sprite, std::vector< std::pair< int, int > > coordinates, int width, int height)=0
- virtual void [drawText](#) (const std::string text, int x, int y, int size)=0

Protected Attributes

- WINDOW * [_window](#)

6.3.1 Constructor & Destructor Documentation

6.3.1.1 NCurses()

```
arcade::NCurses::NCurses ( )
```

6.3.1.2 ~NCurses()

```
arcade::NCurses::~~NCurses ( )
```

6.3.2 Member Function Documentation

6.3.2.1 clearWindow()

```
void arcade::NCurses::clearWindow ( ) [virtual]
```

Implements [arcade::ADisplayModule](#).

6.3.2.2 displayWindow()

```
void arcade::NCurses::displayWindow ( ) [virtual]
```

Implements [arcade::ADisplayModule](#).

6.3.2.3 drawAllSprite()

```
void arcade::NCurses::drawAllSprite (
    std::pair< char, std::string > sprite,
    std::vector< std::pair< int, int > > coordinates,
    int width,
    int height ) [virtual]
```

Implements [arcade::ADisplayModule](#).

6.3.2.4 drawSprite()

```
void arcade::NCurses::drawSprite (
    std::pair< char, std::string > sprite,
    int x,
    int y,
    int width,
    int height ) [virtual]
```

Implements [arcade::ADisplayModule](#).

6.3.2.5 drawText()

```
void arcade::NCurses::drawText (
    const std::string text,
    int x,
    int y,
    int size ) [virtual]
```

Implements [arcade::ADisplayModule](#).

6.3.2.6 getInput()

```
arcade::KeyboardInput arcade::NCurses::getInput ( ) [virtual]
```

Implements [arcade::ADisplayModule](#).

6.3.2.7 getName()

```
std::string arcade::NCurses::getName ( ) [virtual]
```

Implements [arcade::ADisplayModule](#).

6.3.3 Member Data Documentation

6.3.3.1 _window

```
WINDOW* arcade::NCurses::_window [protected]
```

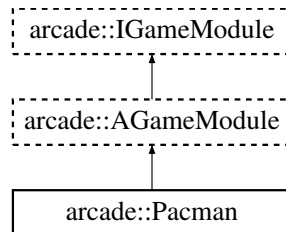
The documentation for this class was generated from the following files:

- /home/tmendy/Documents/Tek2/OOP/Arcade/lib/graphics/ncurses/NCurses.hpp
- /home/tmendy/Documents/Tek2/OOP/Arcade/lib/graphics/ncurses/NCurses.cpp

6.4 arcade::Pacman Class Reference

```
#include <Pacman.hpp>
```

Inheritance diagram for arcade::Pacman:



Public Member Functions

- [Pacman](#) ()
Construct a new [arcade::Pacman::Pacman](#) object.
- [~Pacman](#) ()
Destroy the [arcade::Pacman::Pacman](#) object.
- `std::string` [getName](#) ()
- `void` [init](#) ()
- `void` [updateGame](#) ()
- `void` [handleKeyEvents](#) (arcade::KeyboardInput key)

Public Member Functions inherited from [arcade::AGameModule](#)

- [AGameModule](#) ()
Construct a new [arcade::AGameModule::AGameModule](#) object.
- [~AGameModule](#) ()
Destroy the [arcade::AGameModule::AGameModule](#) object.
- `virtual std::string` [getName](#) ()=0
- `virtual void` [init](#) ()=0
- `virtual void` [updateGame](#) ()=0
- `void` [setGameStatus](#) (GameStatus status)
- `GameStatus` [getGameStatus](#) () const
get the status of the game
- `void` [setCoreModule](#) (arcade::CoreModule *coreModule)
set the core module to the game module
- `arcade::CoreModule *` [getCoreModule](#) () const
get the core module
- `void` [setDirection](#) (arcade::KeyboardInput direction)
set the direction of the game
- `arcade::KeyboardInput` [getDirection](#) () const
get the direction of the game
- `int` [getLayerCell](#) (int layer, int x, int y) const
get the cell of the map
- `virtual void` [handleKeyEvents](#) (arcade::KeyboardInput key)=0

6.4.1 Constructor & Destructor Documentation

6.4.1.1 Pacman()

```
arcade::Pacman::Pacman ( )
```

Construct a new [arcade::Pacman::Pacman](#) object.

6.4.1.2 ~Pacman()

```
arcade::Pacman::~~Pacman ( )
```

Destroy the [arcade::Pacman::Pacman](#) object.

6.4.2 Member Function Documentation

6.4.2.1 getName()

```
std::string arcade::Pacman::getName ( ) [virtual]
```

Implements [arcade::AGameModule](#).

6.4.2.2 handleKeyEvents()

```
void arcade::Pacman::handleKeyEvents (
    arcade::KeyboardInput key ) [inline], [virtual]
```

Implements [arcade::AGameModule](#).

6.4.2.3 init()

```
void arcade::Pacman::init ( ) [virtual]
```

Implements [arcade::AGameModule](#).

6.4.2.4 updateGame()

```
void arcade::Pacman::updateGame ( ) [virtual]
```

Implements [arcade::AGameModule](#).

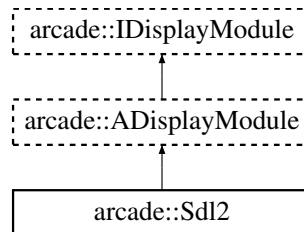
The documentation for this class was generated from the following files:

- [/home/tmendy/Documents/Tek2/OOP/Arcade/lib/games/pacman/Pacman.hpp](#)
- [/home/tmendy/Documents/Tek2/OOP/Arcade/lib/games/pacman/Pacman.cpp](#)

6.5 arcade::Sdl2 Class Reference

```
#include <Sdl2.hpp>
```

Inheritance diagram for arcade::Sdl2:



Public Member Functions

- [Sdl2](#) ()
- [~Sdl2](#) ()
- `std::string` [getName](#) ()
- void [clearWindow](#) ()
clear the window
- void [displayWindow](#) ()
- `arcade::KeyboardInput` [getInput](#) ()
get the input from the window
- void [drawSprite](#) (`std::pair`< `char`, `std::string` > sprite, int x, int y, int width, int height)
draw a sprite on the window
- void [drawAllSprite](#) (`std::pair`< `char`, `std::string` > sprite, `std::vector`< `std::pair`< int, int > > coordinates, int width, int height)
- void [drawText](#) (const `std::string` text, int x, int y, int size)
draw text on the window

Public Member Functions inherited from [arcade::ADisplayModule](#)

- [ADisplayModule](#) ()
Construct a new [arcade::ADisplayModule::ADisplayModule](#) object.
- [~ADisplayModule](#) ()
Destroy the [arcade::ADisplayModule::ADisplayModule](#) object.
- virtual `std::string` [getName](#) ()=0
- void [setCoreModule](#) (`arcade::CoreModule` *coreModule)
set the core module to the display module
- `arcade::CoreModule` * [getCoreModule](#) () const
get the core module
- virtual void [clearWindow](#) ()=0
- virtual void [displayWindow](#) ()=0
- virtual `arcade::KeyboardInput` [getInput](#) ()=0
- virtual void [drawSprite](#) (`std::pair`< `char`, `std::string` > sprite, int x, int y, int width, int height)=0
- virtual void [drawAllSprite](#) (`std::pair`< `char`, `std::string` > sprite, `std::vector`< `std::pair`< int, int > > coordinates, int width, int height)=0
- virtual void [drawText](#) (const `std::string` text, int x, int y, int size)=0

Protected Attributes

- SDL_Window * [_window](#)
- TTF_Font * [_font](#)
- SDL_Renderer * [_renderer](#)

6.5.1 Constructor & Destructor Documentation

6.5.1.1 Sdl2()

```
arcade::Sdl2::Sdl2 ( )
```

6.5.1.2 ~Sdl2()

```
arcade::Sdl2::~~Sdl2 ( )
```

6.5.2 Member Function Documentation

6.5.2.1 clearWindow()

```
void arcade::Sdl2::clearWindow ( ) [virtual]
```

clear the window

Implements [arcade::ADisplayModule](#).

6.5.2.2 displayWindow()

```
void arcade::Sdl2::displayWindow ( ) [virtual]
```

Implements [arcade::ADisplayModule](#).

6.5.2.3 drawAllSprite()

```
void arcade::Sdl2::drawAllSprite (
    std::pair< char, std::string > sprite,
    std::vector< std::pair< int, int > > coordinates,
    int width,
    int height ) [virtual]
```

Implements [arcade::ADisplayModule](#).

6.5.2.4 drawSprite()

```
void arcade::Sdl2::drawSprite (
    std::pair< char, std::string > sprite,
    int x,
    int y,
    int width,
    int height ) [virtual]
```

draw a sprite on the window

Parameters

<i>path</i>	path to the sprite
<i>x</i>	x position of the sprite
<i>y</i>	y position of the sprite
<i>width</i>	width of the sprite
<i>height</i>	height of the sprite

Implements [arcade::ADisplayModule](#).

6.5.2.5 drawText()

```
void arcade::Sdl2::drawText (
    const std::string text,
    int x,
    int y,
    int size ) [virtual]
```

draw text on the window

Parameters

<i>text</i>	text to display
<i>x</i>	x position of the text
<i>y</i>	y position of the text
<i>size</i>	size of the text

Implements [arcade::ADisplayModule](#).

6.5.2.6 getInput()

```
arcade::KeyboardInput arcade::Sdl2::getInput ( ) [virtual]
```

get the input from the window

Returns

arcade::KeyboardInput

Implements [arcade::ADisplayModule](#).

6.5.2.7 getName()

```
std::string arcade::Sdl2::getName ( ) [virtual]
```

Implements [arcade::ADisplayModule](#).

6.5.3 Member Data Documentation

6.5.3.1 _font

TTF_Font* arcade::Sdl2::_font [protected]

6.5.3.2 _renderer

SDL_Renderer* arcade::Sdl2::_renderer [protected]

6.5.3.3 _window

SDL_Window* arcade::Sdl2::_window [protected]

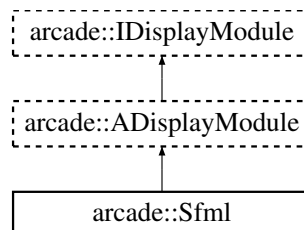
The documentation for this class was generated from the following files:

- /home/tmendy/Documents/Tek2/OOP/Arcade/lib/graphics/sdl2/[Sdl2.hpp](#)
- /home/tmendy/Documents/Tek2/OOP/Arcade/lib/graphics/sdl2/[Sdl2.cpp](#)

6.6 arcade::Sfml Class Reference

```
#include <Sfml.hpp>
```

Inheritance diagram for arcade::Sfml:



Public Member Functions

- [Sfml](#) ()
Construct a new [arcade::Sfml::Sfml](#) object.
- [~Sfml](#) ()
Destroy the [arcade::Sfml::Sfml](#) object.
- std::string [getName](#) ()
- void [clearWindow](#) ()
- void [displayWindow](#) ()
- arcade::KeyboardInput [getInput](#) ()
- void [drawSprite](#) (std::pair< char, std::string > sprite, int x, int y, int width, int height)
- void [drawAllSprite](#) (std::pair< char, std::string > sprite, std::vector< std::pair< int, int > > coordinates, int width, int height)
- void [drawText](#) (const std::string text, int x, int y, int size)

Public Member Functions inherited from [arcade::ADisplayModule](#)

- [ADisplayModule](#) ()
Construct a new [arcade::ADisplayModule::ADisplayModule](#) object.
- [~ADisplayModule](#) ()
Destroy the [arcade::ADisplayModule::ADisplayModule](#) object.
- virtual std::string [getName](#) ()=0
- void [setCoreModule](#) (arcade::CoreModule *coreModule)
set the core module to the display module
- arcade::CoreModule * [getCoreModule](#) () const
get the core module
- virtual void [clearWindow](#) ()=0
- virtual void [displayWindow](#) ()=0
- virtual arcade::KeyboardInput [getInput](#) ()=0
- virtual void [drawSprite](#) (std::pair< char, std::string > sprite, int x, int y, int width, int height)=0
- virtual void [drawAllSprite](#) (std::pair< char, std::string > sprite, std::vector< std::pair< int, int > > coordinates, int width, int height)=0
- virtual void [drawText](#) (const std::string text, int x, int y, int size)=0

Protected Attributes

- sf::RenderWindow [_window](#)
- sf::Texture [_texture](#)
- sf::Font [_font](#)

6.6.1 Constructor & Destructor Documentation

6.6.1.1 Sfml()

```
arcade::Sfml::Sfml ( )
```

Construct a new [arcade::Sfml::Sfml](#) object.

6.6.1.2 ~Sfml()

```
arcade::Sfml::~Sfml ( )
```

Destroy the [arcade::Sfml::Sfml](#) object.

6.6.2 Member Function Documentation

6.6.2.1 clearWindow()

```
void arcade::Sfml::clearWindow ( ) [virtual]
```

Implements [arcade::ADisplayModule](#).

6.6.2.2 displayWindow()

```
void arcade::Sfml::displayWindow ( ) [virtual]
```

Implements [arcade::ADisplayModule](#).

6.6.2.3 drawAllSprite()

```
void arcade::Sfml::drawAllSprite (
    std::pair< char, std::string > sprite,
    std::vector< std::pair< int, int > > coordinates,
    int width,
    int height ) [virtual]
```

Implements [arcade::ADisplayModule](#).

6.6.2.4 drawSprite()

```
void arcade::Sfml::drawSprite (
    std::pair< char, std::string > sprite,
    int x,
    int y,
    int width,
    int height ) [virtual]
```

Implements [arcade::ADisplayModule](#).

6.6.2.5 drawText()

```
void arcade::Sfml::drawText (
    const std::string text,
    int x,
    int y,
    int size ) [virtual]
```

Implements [arcade::ADisplayModule](#).

6.6.2.6 getInput()

```
arcade::KeyboardInput arcade::Sfml::getInput ( ) [virtual]
```

Implements [arcade::ADisplayModule](#).

6.6.2.7 getName()

```
std::string arcade::Sfml::getName ( ) [virtual]
```

Implements [arcade::ADisplayModule](#).

6.6.3 Member Data Documentation

6.6.3.1 `_font`

```
sf::Font arcade::Sfml::_font [protected]
```

6.6.3.2 `_texture`

```
sf::Texture arcade::Sfml::_texture [protected]
```

6.6.3.3 `_window`

```
sf::RenderWindow arcade::Sfml::_window [protected]
```

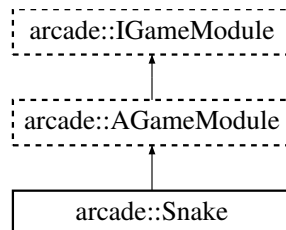
The documentation for this class was generated from the following files:

- [/home/tmendy/Documents/Tek2/OOP/Arcade/lib/graphics/sfml/Sfml.hpp](#)
- [/home/tmendy/Documents/Tek2/OOP/Arcade/lib/graphics/sfml/Sfml.cpp](#)

6.7 `arcade::Snake` Class Reference

```
#include <Snake.hpp>
```

Inheritance diagram for `arcade::Snake`:



Public Member Functions

- [Snake](#) ()
Construct a new [arcade::Snake::Snake](#) object.
- [~Snake](#) ()
Destroy the [arcade::Snake::Snake](#) object.
- `std::string` [getName](#) ()
- `void` [init](#) ()
- `void` [updateGame](#) ()
update the game
- `arcade::GameData` [moveSnake](#) ()
- `void` [handleKeyEvents](#) (`arcade::KeyboardInput` key)
handle key events
- `bool` [generateFood](#) (`std::vector< std::vector< arcade::entity > > &entities`)

Public Member Functions inherited from [arcade::AGameModule](#)

- [AGameModule](#) ()
Construct a new arcade::A Game Module::A Game Module object.
- [~AGameModule](#) ()
Destroy the arcade::A Game Module::A Game Module object.
- virtual std::string [getName](#) ()=0
- virtual void [init](#) ()=0
- virtual void [updateGame](#) ()=0
- void [setGameStatus](#) (GameStatus status)
- GameStatus [getGameStatus](#) () const
get the status of the game
- void [setCoreModule](#) (arcade::CoreModule *coreModule)
set the core module to the game module
- arcade::CoreModule * [getCoreModule](#) () const
get the core module
- void [setDirection](#) (arcade::KeyboardInput direction)
set the direction of the game
- arcade::KeyboardInput [getDirection](#) () const
get the direction of the game
- int [getLayerCell](#) (int layer, int x, int y) const
get the cell of the map
- virtual void [handleKeyEvents](#) (arcade::KeyboardInput key)=0

6.7.1 Constructor & Destructor Documentation

6.7.1.1 Snake()

```
arcade::Snake::Snake ( )
```

Construct a new [arcade::Snake::Snake](#) object.

6.7.1.2 ~Snake()

```
arcade::Snake::~~Snake ( )
```

Destroy the [arcade::Snake::Snake](#) object.

6.7.2 Member Function Documentation

6.7.2.1 generateFood()

```
bool arcade::Snake::generateFood (
    std::vector< std::vector< arcade::entity > > & entities )
```

6.7.2.2 getName()

```
std::string arcade::Snake::getName ( ) [virtual]
```

Implements [arcade::AGameModule](#).

6.7.2.3 handleKeyEvents()

```
void arcade::Snake::handleKeyEvents (
    arcade::KeyboardInput key ) [virtual]
```

handle key events

Parameters

<i>key</i>	
------------	--

Implements [arcade::AGameModule](#).

6.7.2.4 init()

```
void arcade::Snake::init ( ) [virtual]
```

Implements [arcade::AGameModule](#).

6.7.2.5 moveSnake()

```
arcade::GameData arcade::Snake::moveSnake ( )
```

6.7.2.6 updateGame()

```
void arcade::Snake::updateGame ( ) [virtual]
```

update the game

Implements [arcade::AGameModule](#).

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

- [/home/tmendy/Documents/Tek2/OOP/Arcade/lib/games/snake/Snake.hpp](#)
- [/home/tmendy/Documents/Tek2/OOP/Arcade/lib/games/snake/Snake.cpp](#)

Chapter 7

File Documentation

7.1 `/home/tmendy/Documents/Tek2/OOP/Arcade/lib/games/AGameModule.cpp` File Reference

```
#include "AGameModule.hpp"
```

7.2 `/home/tmendy/Documents/Tek2/OOP/Arcade/lib/games/AGameModule.hpp` File Reference

```
#include <arcade/IGameModule.hpp>
```

Classes

- class [arcade::AGameModule](#)

Namespaces

- namespace [arcade](#)

7.3 `AGameModule.hpp`

[Go to the documentation of this file.](#)

```
00001 /*
00002 ** EPITECH PROJECT, 2024
00003 ** Arcade
00004 ** File description:
00005 ** AGameModule
00006 */
00007
00008 #ifndef AGAMEMODULE_HPP_
00009 #define AGAMEMODULE_HPP_
00010
00011 #include <arcade/IGameModule.hpp>
00012
```

```

00013 namespace arcade {
00014 class AGameModule : virtual public arcade::IGameModule {
00015 public:
00016     AGameModule();
00017     ~AGameModule();
00018
00019     virtual std::string getName() = 0;
00020
00021     virtual void init() = 0;
00022     virtual void updateGame() = 0;
00023
00024     void setGameStatus(GameStatus status);
00025     GameStatus getGameStatus() const;
00026
00027     void setCoreModule(arcade::CoreModule *coreModule);
00028     arcade::CoreModule *getCoreModule() const;
00029
00030     void setDirection(arcade::KeyboardInput direction);
00031     arcade::KeyboardInput getDirection() const;
00032
00033     int getLayerCell(int layer, int x, int y) const;
00034
00035     virtual void handleKeyEvents(arcade::KeyboardInput key) = 0;
00036 };
00037 }; // namespace arcade
00038
00039 #endif /* !IGAMEMODULE_HPP_ */

```

7.4 /home/tmendy/Documents/Tek2/OOP/Arcade/lib/games/pacman/↵ Pacman.cpp File Reference

```
#include "Pacman.hpp"
```

Functions

- `std::unique_ptr< arcade::IGameModule > entryPoint ()`
generate entry point for the game library
- `arcade::ModuleType getType ()`
- `std::string getName ()`

7.4.1 Function Documentation

7.4.1.1 [entryPoint\(\)](#)

```
std::unique_ptr< arcade::IGameModule > entryPoint ( )
```

generate entry point for the game library

7.4.1.2 [getName\(\)](#)

```
std::string getName ( )
```

7.4.1.3 [getType\(\)](#)

```
arcade::ModuleType getType ( )
```


7.5 /home/tmendy/Documents/Tek2/OOP/Arcade/lib/games/pacman/↵ Pacman.hpp File Reference

```
#include "../AGameModule.hpp"
```

Classes

- class [arcade::Pacman](#)

Namespaces

- namespace [arcade](#)

7.6 Pacman.hpp

[Go to the documentation of this file.](#)

```
00001 /*
00002 ** EPITECH PROJECT, 2024
00003 ** Arcade
00004 ** File description:
00005 ** Pacman
00006 */
00007
00008 #ifndef PACMAN_HPP_
00009 #define PACMAN_HPP_
00010
00011 #include "../AGameModule.hpp"
00012
00013 namespace arcade {
00014 class Pacman : virtual public arcade::AGameModule {
00015 public:
00016     Pacman();
00017     ~Pacman();
00018     std::string getName();
00019     void init();
00020     void updateGame();
00021     void handleKeyEvents(arcade::KeyboardInput key){};
00022
00023 protected:
00024 };
00025 }; // namespace arcade
00026
00027 #endif /* !PACMAN_HPP_ */
```

7.7 /home/tmendy/Documents/Tek2/OOP/Arcade/lib/games/snake/↵ Snake.cpp File Reference

```
#include "Snake.hpp"
```

Functions

- std::unique_ptr< arcade::IGameModule > [entryPoint](#) ()
generate entry point for the game library
- arcade::ModuleType [getType](#) ()
- std::string [getName](#) ()

7.7.1 Function Documentation

7.7.1.1 `entryPoint()`

```
std::unique_ptr< arcade::IGameModule > entryPoint ( )
```

generate entry point for the game library

7.7.1.2 `getName()`

```
std::string getName ( )
```

7.7.1.3 `getType()`

```
arcade::ModuleType getType ( )
```

7.8 `/home/tmendy/Documents/Tek2/OOP/Arcade/lib/games/snake/`↵ **Snake.hpp File Reference**

```
#include "../AGameModule.hpp"
```

Classes

- class [arcade::Snake](#)

Namespaces

- namespace [arcade](#)

Macros

- `#define` [HEAD](#) 'P'
- `#define` [BODY](#) '*'
- `#define` [FOOD](#) 'F'
- `#define` [WALL](#) '#'
- `#define` [EMPTY](#) ''
- `#define` [SNAKE_SPEED](#) 1
- `#define` [MAP_LAYER](#) 0
- `#define` [FOOD_LAYER](#) 1
- `#define` [SNAKE_LAYER](#) 2

7.8.1 Macro Definition Documentation

7.8.1.1 BODY

```
#define BODY '*'
```

7.8.1.2 EMPTY

```
#define EMPTY ' '
```

7.8.1.3 FOOD

```
#define FOOD 'F'
```

7.8.1.4 FOOD_LAYER

```
#define FOOD_LAYER 1
```

7.8.1.5 HEAD

```
#define HEAD 'P'
```

7.8.1.6 MAP_LAYER

```
#define MAP_LAYER 0
```

7.8.1.7 SNAKE_LAYER

```
#define SNAKE_LAYER 2
```

7.8.1.8 SNAKE_SPEED

```
#define SNAKE_SPEED 1
```

7.8.1.9 WALL

```
#define WALL '#'
```

7.9 Snake.hpp

[Go to the documentation of this file.](#)

```
00001 /*
00002 ** EPITECH PROJECT, 2024
00003 ** Arcade
00004 ** File description:
00005 ** Snake
00006 */
00007
00008 #ifndef SNAKE_HPP_
00009 #define SNAKE_HPP_
00010
00011 #include "../AGameModule.hpp"
00012
00013 namespace arcade {
00014 class Snake : virtual public arcade::AGameModule {
00015 public:
00016 #define HEAD 'P'
00017 #define BODY '*'
00018 #define FOOD 'F'
00019 #define WALL '#'
00020 #define EMPTY ' '
00021 #define SNAKE_SPEED 1
00022 #define MAP_LAYER 0
00023 #define FOOD_LAYER 1
00024 #define SNAKE_LAYER 2
00025 Snake();
00026 ~Snake();
00027 std::string getName();
00028 void init();
00029 void updateGame();
00030 arcade::GameData moveSnake();
00031 void handleKeyEvents(arcade::KeyboardInput key);
00032 bool generateFood(std::vector<std::vector<arcade::entity>> &entities);
00033 };
00034 }; // namespace arcade
00035
00036 #endif /* !SNAKE_HPP_ */
```

7.10 /home/tmendy/Documents/Tek2/OOP/Arcade/lib/graphics/↵ ADisplayModule.cpp File Reference

```
#include "ADisplayModule.hpp"
```

7.11 /home/tmendy/Documents/Tek2/OOP/Arcade/lib/graphics/↵ ADisplayModule.hpp File Reference

```
#include <arcade/IDisplayModule.hpp>
```

Classes

- class [arcade::ADisplayModule](#)

Namespaces

- namespace [arcade](#)

7.12 ADisplayModule.hpp

[Go to the documentation of this file.](#)

```
00001 /*
00002  ** EPITECH PROJECT, 2024
00003  ** bsArcade
00004  ** File description:
00005  ** ADisplayModule
00006  */
00007
00008 #ifndef ADISPLAYMODULE_HPP_
00009 #define ADISPLAYMODULE_HPP_
00010
00011 #include <arcade/IDisplayModule.hpp>
00012
00013 namespace arcade {
00014 class ADisplayModule : virtual public arcade::IDisplayModule {
00015 public:
00016     ADisplayModule();
00017     ~ADisplayModule();
00018
00019     virtual std::string getName() = 0;
00020
00021     void setCoreModule(arcade::CoreModule *coreModule);
00022     arcade::CoreModule *getCoreModule() const;
00023
00024     virtual void clearWindow() = 0;
00025     virtual void displayWindow() = 0;
00026     virtual arcade::KeyboardInput getInput() = 0;
00027     virtual void drawSprite(std::pair<char, std::string> sprite,
00028                             int x,
00029                             int y,
00030                             int width,
00031                             int height) = 0;
00032     virtual void drawAllSprite(std::pair<char, std::string> sprite,
00033                                std::vector<std::pair<int, int> > coordinates,
00034                                int width,
00035                                int height) = 0;
00036     virtual void drawText(const std::string text, int x, int y, int size) = 0;
00037 };
00038 }; // namespace arcade
00039
00040 #endif /* !ADISPLAYMODULE_HPP_ */
```

7.13 /home/tmendy/Documents/Tek2/OOP/Arcade/lib/graphics/ncurses/↵ NCurses.cpp File Reference

```
#include "NCurses.hpp"
#include "Error.hpp"
```

Functions

- std::unique_ptr< arcade::IDisplayModule > [entryPoint](#) ()
entry point
- arcade::ModuleType [getType](#) ()
- std::string [getName](#) ()

7.13.1 Function Documentation

7.13.1.1 entryPoint()

```
std::unique_ptr< arcade::IDisplayModule > entryPoint ( )
```

entry point

7.13.1.2 getName()

```
std::string getName ( )
```

7.13.1.3 getType()

```
arcade::ModuleType getType ( )
```

7.14 /home/tmendy/Documents/Tek2/OOP/Arcade/lib/graphics/ncurses/↵ NCurses.hpp File Reference

```
#include "../ADisplayModule.hpp"
#include <ncurses.h>
```

Classes

- class [arcade::NCurses](#)

Namespaces

- namespace [arcade](#)

7.15 NCurses.hpp

[Go to the documentation of this file.](#)

```
00001 /*
00002 ** EPITECH PROJECT, 2024
00003 ** Arcade
00004 ** File description:
00005 ** NCurses
00006 */
00007
00008 #ifndef NCURSES_HPP_
00009 #define NCURSES_HPP_
00010
00011 #include "../ADisplayModule.hpp"
00012 #include <ncurses.h>
00013
00014 namespace arcade {
00015 class NCurses : virtual public arcade::ADisplayModule {
00016 public:
00017     NCurses();
00018     ~NCurses();
00019     std::string getName();
00020     void clearWindow();
00021     void displayWindow();
00022     arcade::KeyboardInput getInput();
00023     void drawSprite(
00024         std::pair<char, std::string> sprite, int x, int y, int width, int height);
00025     void drawAllSprite(std::pair<char, std::string> sprite,
00026                       std::vector<std::pair<int, int>> coordinates,
00027                       int width,
00028                       int height);
00029     void drawText(const std::string text, int x, int y, int size);
00030
00031 protected:
00032     WINDOW *_window;
00033 };
00034 }; // namespace arcade
00035
00036 #endif /* !NCURSES_HPP_ */
```

7.16 /home/tmendy/Documents/Tek2/OOP/Arcade/lib/graphics/sdl2/Sdl2.cpp File Reference

```
#include "Sdl2.hpp"
#include "Error.hpp"
#include <iostream>
```

Functions

- `std::unique_ptr< arcade::IDisplayModule > entryPoint ()`
entry point for the library
- `arcade::ModuleType getType ()`
- `std::string getName ()`

7.16.1 Function Documentation

7.16.1.1 [entryPoint\(\)](#)

```
std::unique_ptr< arcade::IDisplayModule > entryPoint ( )
```

entry point for the library

Returns

[arcade::Sdl2](#) *

7.16.1.2 [getName\(\)](#)

```
std::string getName ( )
```

7.16.1.3 [getType\(\)](#)

```
arcade::ModuleType getType ( )
```

7.17 /home/tmendy/Documents/Tek2/OOP/Arcade/lib/graphics/sdl2/Sdl2.hpp File Reference

```
#include "../ADisplayModule.hpp"
#include <SDL2/SDL.h>
#include <SDL2/SDL_image.h>
#include <SDL2/SDL_ttf.h>
```

Classes

- class [arcade::Sdl2](#)

Namespaces

- namespace [arcade](#)

7.18 Sdl2.hpp

[Go to the documentation of this file.](#)

```
00001 /*
00002 ** EPITECH PROJECT, 2024
00003 ** Arcade
00004 ** File description:
00005 ** SDL2
00006 */
00007
00008 #ifndef SDL2_HPP_
00009 #define SDL2_HPP_
00010
00011 #include "../ADisplayModule.hpp"
00012 #include <SDL2/SDL.h>
00013 #include <SDL2/SDL_image.h>
00014 #include <SDL2/SDL_ttf.h>
00015
00016 namespace arcade {
00017     class Sdl2 : virtual public arcade::ADisplayModule {
00018     public:
00019         Sdl2();
00020         ~Sdl2();
00021         std::string getName();
00022         void clearWindow();
00023         void displayWindow();
00024         arcade::KeyboardInput getInput();
00025         void drawSprite (
00026             std::pair<char, std::string> sprite, int x, int y, int width, int height);
00027         void drawAllSprite(std::pair<char, std::string> sprite,
00028                             std::vector<std::pair<int, int>> coordinates,
00029                             int width,
00030                             int height);
00031         void drawText(const std::string text, int x, int y, int size);
00032     protected:
00033         SDL_Window *_window;
00034         TTF_Font *_font;
00035         SDL_Renderer *_renderer;
00036     };
00037 }; // namespace arcade
00038
00040 #endif /* !SDL2_HPP_ */
```

7.19 /home/tmendy/Documents/Tek2/OOP/Arcade/lib/graphics/sfml/↵ Sfml.cpp File Reference

```
#include "Sfml.hpp"
#include "Error.hpp"
```

Functions

- std::unique_ptr< arcade::IDisplayModule > [entryPoint](#) ()
entry point for the library
- arcade::ModuleType [getType](#) ()
- std::string [getName](#) ()

7.19.1 Function Documentation

7.19.1.1 `entryPoint()`

```
std::unique_ptr< arcade::IDisplayModule > entryPoint ( )
```

entry point for the library

Returns

`arcade::Sfml*`

7.19.1.2 `getName()`

```
std::string getName ( )
```

7.19.1.3 `getType()`

```
arcade::ModuleType getType ( )
```

7.20 /home/tmendy/Documents/Tek2/OOP/Arcade/lib/graphics/sfml/Sfml.hpp File Reference ↩

```
#include "../ADisplayModule.hpp"  
#include <SFML/Graphics.hpp>
```

Classes

- class `arcade::Sfml`

Namespaces

- namespace `arcade`

7.21 Sfml.hpp

[Go to the documentation of this file.](#)

```
00001 /*
00002 ** EPITECH PROJECT, 2024
00003 ** Arcade
00004 ** File description:
00005 ** SFML
00006 */
00007
00008 #ifndef SFML_HPP_
00009 #define SFML_HPP_
00010
00011 #include "../ADisplayModule.hpp"
00012 #include <SFML/Graphics.hpp>
00013
00014 namespace arcade {
00015 class Sfml : virtual public arcade::ADisplayModule {
00016 public:
00017     Sfml();
00018     ~Sfml();
00019     std::string getName();
00020
00021     void clearWindow();
00022     void displayWindow();
00023     arcade::KeyboardInput getInput();
00024     void drawSprite(
00025         std::pair<char, std::string> sprite, int x, int y, int width, int height);
00026     void drawAllSprite(std::pair<char, std::string> sprite,
00027                       std::vector<std::pair<int, int> coordinates,
00028                               int width,
00029                               int height);
00030     void drawText(const std::string text, int x, int y, int size);
00031
00032 protected:
00033     sf::RenderWindow _window;
00034     sf::Texture _texture;
00035     sf::Font _font;
00036 };
00037 }; // namespace arcade
00038
00039 #endif /* !SFML_HPP_ */
```

7.22 /home/tmendy/Documents/Tek2/OOP/Arcade/src/CoreModule.cpp

File Reference

```
#include <CoreModule.hpp>
#include <Error.hpp>
#include <fcntl.h>
#include <fstream>
#include <sstream>
#include <sys/stat.h>
#include <unistd.h>
```

Functions

- `std::vector< std::string > split_str` (`std::string const &str`, `const char delim`)
- `static void generateFocusVersion` (`std::string §ion`, `int len`)
- `int max_len_line` (`std::string str`)
- `std::vector< std::pair< std::string, int > > getScoreFromFile` (`std::string moduleName`)
- `static void addScoreInFile` (`std::string path`, `int score`, `std::string username`)

7.22.1 Function Documentation

7.22.1.1 addScoreInFile()

```
static void addScoreInFile (
    std::string path,
    int score,
    std::string username ) [static]
```

7.22.1.2 generateFocusVersion()

```
static void generateFocusVersion (
    std::string & section,
    int len ) [static]
```

7.22.1.3 getScoreFromFile()

```
std::vector< std::pair< std::string, int > > getScoreFromFile (
    std::string moduleName )
```

7.22.1.4 max_len_line()

```
int max_len_line (
    std::string str )
```

7.22.1.5 split_str()

```
std::vector< std::string > split_str (
    std::string const & str,
    const char delim )
```

7.23 /home/tmendy/Documents/Tek2/OOP/Arcade/src/Main.cpp File Reference

```
#include <Arcade.hpp>
#include <CoreModule.hpp>
#include <iostream>
#include <unistd.h>
#include "Shell.hpp"
```

Functions

- bool [is_good_graphic_lib](#) (char *path_graphic_lib)
check if the library is a good graphic library
- void [help](#) (void)
display the help
- int [main](#) (int ac, char **av)

7.23.1 Function Documentation

7.23.1.1 `help()`

```
void help (
    void )
```

display the help

7.23.1.2 `is_good_graphic_lib()`

```
bool is_good_graphic_lib (
    char * path_graphic_lib )
```

check if the library is a good graphic library

Parameters

<i>path_graphic_lib</i>	path of the graphic library
-------------------------	-----------------------------

Returns

true if the library is a good graphic library
false if the library is not a good graphic library

7.23.1.3 `main()`

```
int main (
    int ac,
    char ** av )
```

7.24 `/home/tmendy/Documents/Tek2/OOP/Arcade/src/Shell.cpp` File Reference

```
#include "Shell.hpp"
#include <Arcade.hpp>
#include <CoreModule.hpp>
```

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