

Arcade

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Chapter 1

Namespace Index

1.1 Namespace List

Here is a list of all documented namespaces with brief descriptions:

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Arcade::Games	The Namespace containing all games	11
Arcade::Games::Centipede	The Centipede game library namespace	12
Arcade::Games::Nibbler	The Nibbler game library namespace	12
Arcade::Graphics	The namespace containing all the graphical libraries	12
Arcade::Graphics::NCurses	A wrapper around the ncurses library	13
Arcade::Graphics::Sdl	A wrapper around the SDL2 library	13
Arcade::Graphics::SFML	The SFML graphical library	14

Chapter 2

Hierarchical Index

2.1 Class Hierarchy

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

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std::exception	
Arcade::Core::Core::LibraryNotLoadedException	49
Arcade::Core::Core::NoLibraryException	54
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Arcade::Graphics::NCurses::Window	78
Arcade::XDisplay	80

Chapter 3

Class Index

3.1 Class List

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

Arcade::Core::Core	Class that handles the communication between the graphical and game libraries	15
Arcade::Games::Centipede::Entity	A Centipede Entity	16
Arcade::Games::Nibbler::Entity	A Nibbler Entity	20
Arcade::Graphics::Sdl::Font	A SDL2 font	24
Arcade::Games::Centipede::Game	The Centipede game class	25
Arcade::Games::Nibbler::Game	The Nibbler game class	26
Arcade::Games::Centipede::GameData	The Centipede GameData	28
Arcade::Games::Nibbler::GameData	The Nibbler GameData	31
Arcade::IDisplay	Interface for the display	34
Arcade::IEntity	Interface of an entity	36
Arcade::IGame	Interface that all games must implement	38
Arcade::IGameData	Interface for the game data	40
Arcade::Core::LibHandle	A wrapper around a dynamic library handle	43
Arcade::Core::LibLoader	The LibLoader for arcade-like libraries	45
Arcade::Core::Core::LibraryNotLoadedException	Exception thrown when a library could not be loaded	49
Arcade::Graphics::NCurses::Menu	A ncurses menu	49
Arcade::Graphics::NCurses::NCurses	The NCurses graphical library	52
Arcade::Core::Core::NoLibraryException	Exception thrown when no library is found	54

Arcade::Graphics::Sdl::RectangleShape	
A rectangle shape, with a size, a position and a color	54
Arcade::Graphics::Sdl::RenderWindow	
A window that can be drawn on	57
Arcade::Graphics::Sdl::Sdl	
The SDL2 graphical library	60
Arcade::Graphics::SFML::SFML	
The SFML graphical library	62
Arcade::Games::Centipede::Snake	
A Centipede snake	63
Arcade::Graphics::Sdl::Sprite	
A sprite, with a texture, a size, a position and a texture rect	66
Arcade::TestInterface	69
Arcade::Graphics::Sdl::Text	
A text, with a font, a color and a text	71
Arcade::Graphics::NCurses::Texture	
A ncurses texture	74
Arcade::Graphics::Sdl::Texture	
A wrapper around a SDL2 texture	76
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A ncurses window	78
Arcade::XDisplay	
A wrapper around the X11 display	80

Chapter 4

Namespace Documentation

4.1 Arcade Namespace Reference

Namespace containing all the [Arcade](#) classes.

Namespaces

- [Core](#)
Namespace for the core of the arcade. It contains classes that are used to load, manage, and communicate between libraries.
- [Games](#)
The Namespace containing all games.
- [Graphics](#)
The namespace containing all the graphical libraries.

Classes

- class [IEntity](#)
Interface of an entity.
- class [IGameData](#)
Interface for the game data.
- class [IGame](#)
The [IGame](#) class is the interface that all games must implement.
- class [IDisplay](#)
Interface for the display.
- class [TestInterface](#)
- class [XDisplay](#)
A wrapper around the X11 display.

Typedefs

- typedef std::map< std::string, std::string > **ControlMap**

Enumerations

- enum [Key](#) {
[Unknown](#) = -1 , [A](#) = 0 , [B](#) , [C](#) ,
[D](#) , [E](#) , [F](#) , [G](#) ,
[H](#) , [I](#) , [J](#) , [K](#) ,
[L](#) , [M](#) , [N](#) , [O](#) ,
[P](#) , [Q](#) , [R](#) , [S](#) ,
[T](#) , [U](#) , [V](#) , [W](#) ,
[X](#) , [Y](#) , [Z](#) , [Num0](#) ,
[Num1](#) , [Num2](#) , [Num3](#) , [Num4](#) ,
[Num5](#) , [Num6](#) , [Num7](#) , [Num8](#) ,
[Num9](#) , [Escape](#) , [LControl](#) , [LShift](#) ,
[LAlt](#) , [LSystem](#) , [RControl](#) , [RShift](#) ,
[RAlt](#) , [RSystem](#) , [Menu](#) , [LBracket](#) ,
[RBracket](#) , [Semicolon](#) , [Comma](#) , [Period](#) ,
[Apostrophe](#) , [Slash](#) , [Backslash](#) , [Grave](#) ,
[Equal](#) , [Hyphen](#) , [Space](#) , [Enter](#) ,
[Backspace](#) , [Tab](#) , [PageUp](#) , [PageDown](#) ,
[End](#) , [Home](#) , [Insert](#) , [Delete](#) ,
[Add](#) , [Subtract](#) , [Multiply](#) , [Divide](#) ,
[Left](#) , [Right](#) , [Up](#) , [Down](#) ,
[Numpad0](#) , [Numpad1](#) , [Numpad2](#) , [Numpad3](#) ,
[Numpad4](#) , [Numpad5](#) , [Numpad6](#) , [Numpad7](#) ,
[Numpad8](#) , [Numpad9](#) , [F1](#) , [F2](#) ,
[F3](#) , [F4](#) , [F5](#) , [F6](#) ,
[F7](#) , [F8](#) , [F9](#) , [F10](#) ,
[F11](#) , [F12](#) , [F13](#) , [F14](#) ,
[F15](#) , [Pause](#) , [KeyCount](#) }

Enum of all the possible keys that can be pressed.

4.1.1 Detailed Description

Namespace containing all the [Arcade](#) classes.

4.1.2 Enumeration Type Documentation

4.1.2.1 Key

enum [Arcade::Key](#)

Enum of all the possible keys that can be pressed.

Enumerator

Unknown	Unhandled key.
A	The A key.
B	The B key.
C	The C key.
D	The D key.

Enumerator

E	The E key.
F	The F key.
G	The G key.
H	The H key.
I	The I key.
J	The J key.
K	The K key.
L	The L key.
M	The M key.
N	The N key.
O	The O key.
P	The P key.
Q	The Q key.
R	The R key.
S	The S key.
T	The T key.
U	The U key.
V	The V key.
W	The W key.
X	The X key.
Y	The Y key.
Z	The Z key.
Num0	The 0 key.
Num1	The 1 key.
Num2	The 2 key.
Num3	The 3 key.
Num4	The 4 key.
Num5	The 5 key.
Num6	The 6 key.
Num7	The 7 key.
Num8	The 8 key.
Num9	The 9 key.
Escape	The Escape key.
LControl	The left Control key.
LShift	The left Shift key.
LAlt	The left Alt key.
LSystem	The left OS specific key: window (Windows and Linux), apple (macOS), ...
RControl	The right Control key.
RShift	The right Shift key.
RAlt	The right Alt key.
RSystem	The right OS specific key: window (Windows and Linux), apple (macOS), ...
Menu	The Menu key.
LBracket	The [key.
RBracket	The] key.
Semicolon	The ; key.
Comma	The , key.
Period	The . key.

Enumerator

Apostrophe	The ' key.
Slash	The / key.
Backslash	The \ key.
Grave	The ` key.
Equal	The = key.
Hyphen	The - key (hyphen)
Space	The Space key.
Enter	The Enter/Return keys.
Backspace	The Backspace key.
Tab	The Tabulation key.
PageUp	The Page up key.
PageDown	The Page down key.
End	The End key.
Home	The Home key.
Insert	The Insert key.
Delete	The Delete key.
Add	The + key.
Subtract	The - key (minus, usually from numpad)
Multiply	The * key.
Divide	The / key.
Left	Left arrow.
Right	Right arrow.
Up	Up arrow.
Down	Down arrow.
Numpad0	The numpad 0 key.
Numpad1	The numpad 1 key.
Numpad2	The numpad 2 key.
Numpad3	The numpad 3 key.
Numpad4	The numpad 4 key.
Numpad5	The numpad 5 key.
Numpad6	The numpad 6 key.
Numpad7	The numpad 7 key.
Numpad8	The numpad 8 key.
Numpad9	The numpad 9 key.
F1	The F1 key.
F2	The F2 key.
F3	The F3 key.
F4	The F4 key.
F5	The F5 key.
F6	The F6 key.
F7	The F7 key.
F8	The F8 key.
F9	The F9 key.
F10	The F10 key.
F11	The F11 key.
F12	The F12 key.
F13	The F13 key.

Enumerator

F14	The F14 key.
F15	The F15 key.
Pause	The Pause key.
KeyCount	Keep last – the total number of keyboard keys.

4.2 Arcade::Core Namespace Reference

Namespace for the core of the arcade. It contains classes that are used to load, manage, and communicate between libraries.

Classes

- class [Core](#)
Class that handles the communication between the graphical and game libraries.
- class [LibHandle](#)
A wrapper around a dynamic library handle.
- class [LibLoader](#)
The [LibLoader](#) for arcade-like libraries.

4.2.1 Detailed Description

Namespace for the core of the arcade. It contains classes that are used to load, manage, and communicate between libraries.

4.3 Arcade::Games Namespace Reference

The Namespace containing all games.

Namespaces

- [Centipede](#)
The [Centipede](#) game library namespace.
- [Nibbler](#)
The [Nibbler](#) game library namespace.

4.3.1 Detailed Description

The Namespace containing all games.

4.4 Arcade::Games::Centipede Namespace Reference

The [Centipede](#) game library namespace.

Classes

- class [Game](#)
The [Centipede](#) game class.
- class [Entity](#)
A [Centipede](#) Entity.
- class [GameData](#)
The [Centipede](#) GameData.
- class [Snake](#)
A [Centipede](#) snake.

4.4.1 Detailed Description

The [Centipede](#) game library namespace.

4.5 Arcade::Games::Nibbler Namespace Reference

The [Nibbler](#) game library namespace.

Classes

- class [Entity](#)
A [Nibbler](#) Entity.
- class [GameData](#)
The [Nibbler](#) GameData.
- class [Game](#)
The [Nibbler](#) game class.

4.5.1 Detailed Description

The [Nibbler](#) game library namespace.

4.6 Arcade::Graphics Namespace Reference

The namespace containing all the graphical libraries.

Namespaces

- [NCurses](#)
A wrapper around the ncurses library.
- [Sdl](#)
A wrapper around the SDL2 library.
- [SFML](#)
The [SFML](#) graphical library.

4.6.1 Detailed Description

The namespace containing all the graphical libraries.

4.7 Arcade::Graphics::NCurses Namespace Reference

A wrapper around the ncurses library.

Classes

- class [Menu](#)
A ncurses menu.
- class [NCurses](#)
The [NCurses](#) graphical library.
- class [Texture](#)
A ncurses texture.
- class [Window](#)
A ncurses window.

Enumerations

- enum [Color](#) {
BLACK = COLOR_BLACK , **RED** = COLOR_RED , **GREEN** = COLOR_GREEN , **YELLOW** = COLOR_↵
YELLOW ,
BLUE = COLOR_BLUE , **MAGENTA** = COLOR_MAGENTA , **CYAN** = COLOR_CYAN , **WHITE** = COLOR_↵
_WHITE }
A ncurses color.

4.7.1 Detailed Description

A wrapper around the ncurses library.

4.8 Arcade::Graphics::Sdl Namespace Reference

A wrapper around the SDL2 library.

Classes

- class [Font](#)
A SDL2 font.
- class [RectangleShape](#)
A rectangle shape, with a size, a position and a color.
- class [RenderWindow](#)
A window that can be drawn on.
- class [Sdl](#)
The SDL2 graphical library.
- class [Sprite](#)
A sprite, with a texture, a size, a position and a texture rect.
- class [Text](#)
A text, with a font, a color and a text.
- struct [TextureRect](#)
- class [Texture](#)
A wrapper around a SDL2 texture.

4.8.1 Detailed Description

A wrapper around the SDL2 library.

4.9 Arcade::Graphics::SFML Namespace Reference

The [SFML](#) graphical library.

Classes

- class [SFML](#)
The [SFML](#) graphical library.

4.9.1 Detailed Description

The [SFML](#) graphical library.

Chapter 5

Class Documentation

5.1 Arcade::Core::Core Class Reference

Class that handles the communication between the graphical and game libraries.

```
#include <Core.hpp>
```

Classes

- class [LibraryNotLoadedException](#)
Exception thrown when a library could not be loaded.
- class [NoLibraryException](#)
Exception thrown when no library is found.

Public Member Functions

- [Core](#) (int ac, char **av)
Constructor for the [Core](#) class.
- int [run](#) (const std::string &libName)
Runs the arcade.

5.1.1 Detailed Description

Class that handles the communication between the graphical and game libraries.

5.1.2 Constructor & Destructor Documentation

5.1.2.1 Core()

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

Constructor for the [Core](#) class.

It will pre-load the available libraries. Throws:

- `Arcade::Core::NoLibraryException` if no game / graphics library is found.
- `Arcade::Core::LibraryNotLoadedException` If the given library (`av[1]`) could not be loaded.

Parameters

<i>ac</i>	The number of arguments.
<i>av</i>	The arguments.

5.1.3 Member Function Documentation

5.1.3.1 run()

```
int Arcade::Core::Core::run (
    const std::string & libName )
```

Runs the arcade.

This function will select (via a menu) the graphic/game lib to play with, and run the main loop.

Parameters

<i>libName</i>	
----------------	--

Returns

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

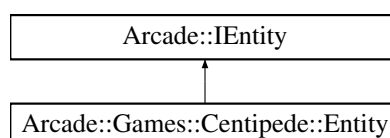
- include/core/Core.hpp

5.2 Arcade::Games::Centipede::Entity Class Reference

A [Centipede Entity](#).

```
#include <Entity.hpp>
```

Inheritance diagram for Arcade::Games::Centipede::Entity:



Public Member Functions

- [Entity](#) ()
Creates a new [Entity](#).
- [Entity](#) (std::vector< std::pair< float, float >> pos, std::pair< float, float > size, std::string texture, float rotation)
Creates a new [Entity](#).
- [Entity](#) (const [Entity](#) &entity)
Copy constructor.
- void [setPosition](#) (std::vector< std::pair< float, float >> pos)
Sets the position of the [Entity](#).
- std::vector< std::pair< float, float > > [getPosition](#) () const override
- std::pair< float, float > [getSize](#) () const override
- std::string [getTexture](#) () const override
- float [getRotation](#) () const override
- void [setSize](#) (std::pair< float, float > size)
Sets the size of the [Entity](#).
- void [setTexture](#) (std::string texture)
Sets the texture of the [Entity](#).
- void [setRotation](#) (float rotation)
Sets the rotation of the [Entity](#).

5.2.1 Detailed Description

A [Centipede Entity](#).

5.2.2 Constructor & Destructor Documentation

5.2.2.1 Entity() [1/2]

```
Arcade::Games::Centipede::Entity::Entity (
    std::vector< std::pair< float, float >> pos,
    std::pair< float, float > size,
    std::string texture,
    float rotation )
```

Creates a new [Entity](#).

Parameters

<i>pos</i>	The position of the Entity .
<i>size</i>	The size of the Entity .
<i>texture</i>	The texture of the Entity .
<i>rotation</i>	The rotation of the Entity .

5.2.2.2 Entity() [2/2]

```
Arcade::Games::Centipede::Entity::Entity (
    const Entity & entity )
```

Copy constructor.

Parameters

<i>entity</i>	The Entity to copy.
---------------	-------------------------------------

5.2.3 Member Function Documentation

5.2.3.1 getPosition()

```
std::vector<std::pair<float, float> > Arcade::Games::Centipede::Entity::getPosition ( ) const
[override], [virtual]
```

See also

[IEntity::getPosition](#)

Implements [Arcade::IEntity](#).

5.2.3.2 getRotation()

```
float Arcade::Games::Centipede::Entity::getRotation ( ) const [override], [virtual]
```

See also

[IEntity::getRotation](#)

Implements [Arcade::IEntity](#).

5.2.3.3 getSize()

```
std::pair<float, float> Arcade::Games::Centipede::Entity::getSize ( ) const [override], [virtual]
```

See also

[IEntity::getSize](#)

Implements [Arcade::IEntity](#).

5.2.3.4 getTexture()

```
std::string Arcade::Games::Centipede::Entity::getTexture ( ) const [override], [virtual]
```

See also

[IEntity::getTexture](#)

Implements [Arcade::IEntity](#).

5.2.3.5 setPosition()

```
void Arcade::Games::Centipede::Entity::setPosition (
    std::vector< std::pair< float, float >> pos )
```

Sets the position of the [Entity](#).

Parameters

<i>pos</i>	The new position of the Entity .
------------	--

5.2.3.6 setRotation()

```
void Arcade::Games::Centipede::Entity::setRotation (
    float rotation )
```

Sets the rotation of the [Entity](#).

Parameters

<i>rotation</i>	The new rotation of the Entity .
-----------------	--

5.2.3.7 setSize()

```
void Arcade::Games::Centipede::Entity::setSize (
    std::pair< float, float > size )
```

Sets the size of the [Entity](#).

Parameters

<i>size</i>	The new size of the Entity .
-------------	--

5.2.3.8 setTexture()

```
void Arcade::Games::Centipede::Entity::setTexture (
    std::string texture )
```

Sets the texture of the [Entity](#).

Parameters

<i>texture</i>	The new texture of the Entity .
----------------	---

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

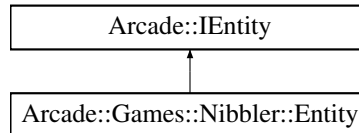
- include/games/centipede/Entity.hpp

5.3 Arcade::Games::Nibbler::Entity Class Reference

A [Nibbler Entity](#).

```
#include <Entity.hpp>
```

Inheritance diagram for Arcade::Games::Nibbler::Entity:



Public Member Functions

- [Entity](#) ()
Creates a new [Entity](#).
- [Entity](#) (std::vector< std::pair< float, float >> pos, std::pair< float, float > size, std::string texture, float rotation)
Creates a new [Entity](#).
- [Entity](#) (const [Entity](#) &entity)
Copy constructor.
- std::vector< std::pair< float, float >> [getPosition](#) () const override
- std::pair< float, float > [getSize](#) () const override
- std::string [getTexture](#) () const override
- float [getRotation](#) () const override
- void [setPosition](#) (std::vector< std::pair< float, float >> pos)
Sets the position of the [Entity](#).
- void [setSize](#) (std::pair< float, float > size)
Sets the size of the [Entity](#).
- void [setTexture](#) (std::string texture)
Sets the texture of the [Entity](#).
- void [setRotation](#) (float rotation)
Sets the rotation of the [Entity](#).

5.3.1 Detailed Description

A [Nibbler Entity](#).

5.3.2 Constructor & Destructor Documentation

5.3.2.1 Entity() [1/2]

```
Arcade::Games::Nibbler::Entity::Entity (
    std::vector< std::pair< float, float >> pos,
    std::pair< float, float > size,
    std::string texture,
    float rotation )
```

Creates a new [Entity](#).

Parameters

<i>pos</i>	The position of the Entity .
<i>size</i>	The size of the Entity .
<i>texture</i>	The texture of the Entity .
<i>rotation</i>	The rotation of the Entity .

5.3.2.2 Entity() [2/2]

```
Arcade::Games::Nibbler::Entity::Entity (
    const Entity & entity )
```

Copy constructor.

Parameters

<i>entity</i>	The Entity to copy.
---------------	-------------------------------------

5.3.3 Member Function Documentation

5.3.3.1 getPosition()

```
std::vector<std::pair<float, float> > Arcade::Games::Nibbler::Entity::getPosition ( ) const
[override], [virtual]
```

See also

[IEntity::getPosition](#)

Implements [Arcade::IEntity](#).

5.3.3.2 getRotation()

```
float Arcade::Games::Nibbler::Entity::getRotation ( ) const [override], [virtual]
```

See also

[IEntity::getRotation](#)

Implements [Arcade::IEntity](#).

5.3.3.3 getSize()

```
std::pair<float, float> Arcade::Games::Nibbler::Entity::getSize ( ) const [override], [virtual]
```

See also

[IEntity::getSize](#)

Implements [Arcade::IEntity](#).

5.3.3.4 getTexture()

```
std::string Arcade::Games::Nibbler::Entity::getTexture ( ) const [override], [virtual]
```

See also

[IEntity::getTexture](#)

Implements [Arcade::IEntity](#).

5.3.3.5 setPosition()

```
void Arcade::Games::Nibbler::Entity::setPosition (
    std::vector< std::pair< float, float >> pos )
```

Sets the position of the [Entity](#).

Parameters

<i>pos</i>	The new position of the Entity .
------------	--

5.3.3.6 setRotation()

```
void Arcade::Games::Nibbler::Entity::setRotation (
    float rotation )
```

Sets the rotation of the [Entity](#).

Parameters

<i>rotation</i>	The new rotation of the Entity .
-----------------	--

5.3.3.7 setSize()

```
void Arcade::Games::Nibbler::Entity::setSize (
    std::pair< float, float > size )
```

Sets the size of the [Entity](#).

Parameters

<i>size</i>	The new size of the Entity .
-------------	--

5.3.3.8 setTexture()

```
void Arcade::Games::Nibbler::Entity::setTexture (
    std::string texture )
```

Sets the texture of the [Entity](#).

Parameters

<i>texture</i>	The new texture of the Entity .
----------------	---

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

- include/games/nibbler/Entity.hpp

5.4 Arcade::Graphics::Sdl::Font Class Reference

A SDL2 font.

```
#include <Font.hpp>
```

Public Member Functions

- [Font](#) (const std::string &fontPath, int fontSize, bool bold=false)
Creates a new font.
- TTF_Font * [getRawFont](#) () const
Gets the raw TTF_Font pointer.

5.4.1 Detailed Description

A SDL2 font.

5.4.2 Constructor & Destructor Documentation

5.4.2.1 Font()

```
Arcade::Graphics::Sdl::Font::Font (
    const std::string & fontPath,
    int fontSize,
    bool bold = false )
```

Creates a new font.

Once a font has been created, its size / boldness cannot be changed.

Parameters

<i>fontPath</i>	The path to the font file (.ttf / .otf)
<i>fontSize</i>	The size of the font
<i>bold</i>	Whether the font should be bold or not

5.4.3 Member Function Documentation

5.4.3.1 getRawFont()

```
TTF_Font* Arcade::Graphics::Sdl::Font::getRawFont ( ) const
```

Gets the raw TTF_Font pointer.

Returns

The raw TTF_Font pointer.

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

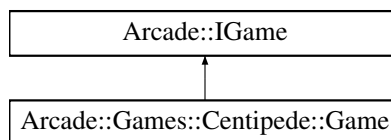
- include/libs/sdl/Font.hpp

5.5 Arcade::Games::Centipede::Game Class Reference

The [Centipede](#) game class.

```
#include <Centipede.hpp>
```

Inheritance diagram for Arcade::Games::Centipede::Game:



Public Member Functions

- [Game](#) ()
Creates a new [Centipede](#) game.
- void [handleKeys](#) (const std::vector< [Key](#) > &pressedKeys) override
- void [update](#) (const std::string &username) override
- [IGameData](#) & [getGameData](#) () const override

5.5.1 Detailed Description

The [Centipede](#) game class.

5.5.2 Member Function Documentation

5.5.2.1 getGameData()

```
IGameData& Arcade::Games::Centipede::Game::getGameData ( ) const [override], [virtual]
```

See also

[IGame::getGameData](#)

Implements [Arcade::IGame](#).

5.5.2.2 handleKeys()

```
void Arcade::Games::Centipede::Game::handleKeys (
    const std::vector< Key > & pressedKeys ) [override], [virtual]
```

See also

[IGame::handleKeys](#)

Implements [Arcade::IGame](#).

5.5.2.3 update()

```
void Arcade::Games::Centipede::Game::update (
    const std::string & username ) [override], [virtual]
```

See also

[IGame::update](#)

Implements [Arcade::IGame](#).

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

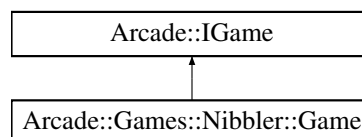
- include/games/centipede/Centipede.hpp

5.6 Arcade::Games::Nibbler::Game Class Reference

The [Nibbler](#) game class.

```
#include <Nibbler.hpp>
```

Inheritance diagram for Arcade::Games::Nibbler::Game:



Public Member Functions

- [Game](#) ()
Creates a new [Nibbler](#) game.
- void [handleKeys](#) (const std::vector< [Key](#) > &pressedKeys) override
- void [update](#) (const std::string &username) override
- [IGameData](#) & [getGameData](#) () const override

5.6.1 Detailed Description

The [Nibbler](#) game class.

5.6.2 Member Function Documentation

5.6.2.1 `getGameData()`

```
IGameData& Arcade::Games::Nibbler::Game::getGameData ( ) const [override], [virtual]
```

See also

[IGame::getGameData](#)

Implements [Arcade::IGame](#).

5.6.2.2 `handleKeys()`

```
void Arcade::Games::Nibbler::Game::handleKeys (
    const std::vector< Key > & pressedKeys ) [override], [virtual]
```

See also

[IGame::handleKeys](#)

Implements [Arcade::IGame](#).

5.6.2.3 `update()`

```
void Arcade::Games::Nibbler::Game::update (
    const std::string & username ) [override], [virtual]
```

See also

[IGame::update](#)

Implements [Arcade::IGame](#).

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

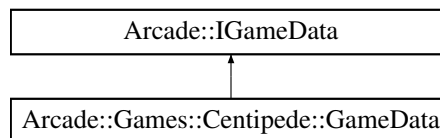
- `include/games/nibbler/Nibbler.hpp`

5.7 Arcade::Games::Centipede::GameData Class Reference

The [Centipede GameData](#).

```
#include <GameData.hpp>
```

Inheritance diagram for Arcade::Games::Centipede::GameData:



Public Member Functions

- [GameData](#) ()
Creates a new [GameData](#).
- std::map< std::string, int > [getScores](#) () const override
- std::string [getGameName](#) () const override
- std::vector< std::shared_ptr< [IEntity](#) > > & [getEntities](#) () override
- std::pair< int, int > [getMapSize](#) () const override
- bool [isGameOver](#) () const override
- const ControlMap & [getControls](#) () const override
- void [addScore](#) (std::string name, int score)
Adds a score to the [GameData](#).
- void [addEntity](#) (std::shared_ptr< [IEntity](#) > entity)
Adds an [Entity](#) to the [GameData](#).
- void [removeEntities](#) ()
Removes all the [Entities](#) from the [GameData](#).
- void [setGameOver](#) (int gameOver)
Sets the [GameData](#) as over.
- void [clearScores](#) ()

5.7.1 Detailed Description

The [Centipede GameData](#).

5.7.2 Member Function Documentation

5.7.2.1 addEntity()

```
void Arcade::Games::Centipede::GameData::addEntity (
    std::shared_ptr< IEntity > entity )
```

Adds an [Entity](#) to the [GameData](#).

Parameters

<i>entity</i>	The Entity to add.
---------------	------------------------------------

5.7.2.2 addScore()

```
void Arcade::Games::Centipede::GameData::addScore (
    std::string name,
    int score )
```

Adds a score to the [GameData](#).

Parameters

<i>name</i>	The score name
<i>score</i>	The score value

5.7.2.3 getControls()

```
const ControlMap& Arcade::Games::Centipede::GameData::getControls ( ) const [inline], [override],
[virtual]
```

See also

[IGameData::getControls](#)

Implements [Arcade::IGameData](#).

5.7.2.4 getEntities()

```
std::vector<std::shared_ptr<IEntity> >& Arcade::Games::Centipede::GameData::getEntities ( )
[override], [virtual]
```

See also

[IGameData::getEntities](#)

Implements [Arcade::IGameData](#).

5.7.2.5 `getGameName()`

```
std::string Arcade::Games::Centipede::GameData::getGameName ( ) const [override], [virtual]
```

See also

[IGameData::getGameName](#)

Implements [Arcade::IGameData](#).

5.7.2.6 `getMapSize()`

```
std::pair<int, int> Arcade::Games::Centipede::GameData::getMapSize ( ) const [override],  
[virtual]
```

See also

[IGameData::getMapSize](#)

Implements [Arcade::IGameData](#).

5.7.2.7 `getScores()`

```
std::map<std::string, int> Arcade::Games::Centipede::GameData::getScores ( ) const [override],  
[virtual]
```

See also

[IGameData::getScores](#)

Implements [Arcade::IGameData](#).

5.7.2.8 `isGameOver()`

```
bool Arcade::Games::Centipede::GameData::isGameOver ( ) const [override], [virtual]
```

See also

[IGameData::isGameOver](#)

Implements [Arcade::IGameData](#).

5.7.2.9 `setGameOver()`

```
void Arcade::Games::Centipede::GameData::setGameOver (  
    int gameOver )
```

Sets the [GameData](#) as over.

Parameters

<code>gameOver</code>	The new value of the gameover.
-----------------------	--------------------------------

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

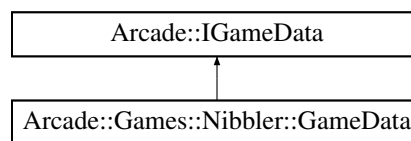
- include/games/centipede/GameData.hpp

5.8 Arcade::Games::Nibbler::GameData Class Reference

The [Nibbler GameData](#).

```
#include <GameData.hpp>
```

Inheritance diagram for Arcade::Games::Nibbler::GameData:



Public Member Functions

- bool [isGameOver](#) () const override
- std::map< std::string, int > [getScores](#) () const override
- std::string [getGameName](#) () const override
- std::vector< std::shared_ptr< [IEntity](#) > > & [getEntities](#) () override
- std::pair< int, int > [getMapSize](#) () const override
- const ControlMap & [getControls](#) () const override
- void [addScore](#) (std::string name, int score)
Adds a score to the [GameData](#).
- void [addEntity](#) (std::shared_ptr< [IEntity](#) > entity)
Adds an entity to the [GameData](#).
- void [removeEntities](#) ()
Removes all entities from the [GameData](#).
- void [setGameOver](#) (int gameOver)
Sets the game over state.
- void [clearScores](#) ()

5.8.1 Detailed Description

The [Nibbler GameData](#).

5.8.2 Member Function Documentation

5.8.2.1 addEntity()

```
void Arcade::Games::Nibbler::GameData::addEntity (
    std::shared_ptr< IEntity > entity )
```

Adds an entity to the [GameData](#).

Parameters

<i>entity</i>	The entity to add
---------------	-------------------

5.8.2.2 addScore()

```
void Arcade::Games::Nibbler::GameData::addScore (
    std::string name,
    int score )
```

Adds a score to the [GameData](#).

Parameters

<i>name</i>	The score name
<i>score</i>	The score value

5.8.2.3 getControls()

```
const ControlMap& Arcade::Games::Nibbler::GameData::getControls ( ) const [inline], [override],
[virtual]
```

See also

[IGameData::getControls](#)

Implements [Arcade::IGameData](#).

5.8.2.4 getEntities()

```
std::vector<std::shared_ptr<IEntity>> & Arcade::Games::Nibbler::GameData::getEntities ( )
[override], [virtual]
```

See also

[IGameData::getEntities](#)

Implements [Arcade::IGameData](#).

5.8.2.5 `getGameName()`

```
std::string Arcade::Games::Nibbler::GameData::getGameName ( ) const [override], [virtual]
```

See also

[IGameData::getGameName](#)

Implements [Arcade::IGameData](#).

5.8.2.6 `getMapSize()`

```
std::pair<int, int> Arcade::Games::Nibbler::GameData::getMapSize ( ) const [override], [virtual]
```

See also

[IGameData::getMapSize](#)

Implements [Arcade::IGameData](#).

5.8.2.7 `getScores()`

```
std::map<std::string, int> Arcade::Games::Nibbler::GameData::getScores ( ) const [override],  
[virtual]
```

See also

[IGameData::getScores](#)

Implements [Arcade::IGameData](#).

5.8.2.8 `isGameOver()`

```
bool Arcade::Games::Nibbler::GameData::isGameOver ( ) const [override], [virtual]
```

See also

[IGameData::isGameOver](#)

Implements [Arcade::IGameData](#).

5.8.2.9 `setGameOver()`

```
void Arcade::Games::Nibbler::GameData::setGameOver (  
    int gameOver )
```

Sets the game over state.

Parameters

<code>gameOver</code>	The game over state
-----------------------	---------------------

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

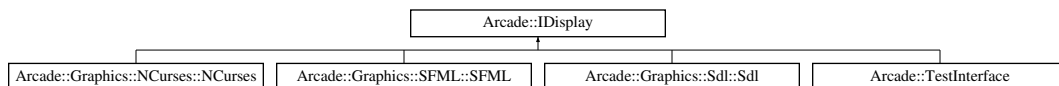
- include/games/nibbler/GameData.hpp

5.9 Arcade::IDisplay Class Reference

Interface for the display.

```
#include <IDisplay.hpp>
```

Inheritance diagram for Arcade::IDisplay:



Public Member Functions

- virtual std::vector< [Key](#) > [getPressedKeys](#) ()=0
Get the pressed keys. To indicate an EXIT event, the display library must return a vector containing the Key::ESCAPE key. See [Arcade::Key](#) for the list of available keys.
- virtual void [render](#) ([IGameData](#) &gameData)=0
Renders the game. This method should perform the following actions:
- virtual void [renderMenu](#) (const std::vector< std::string > &games, const std::vector< std::string > &graphics, int selectedGame, int selectedDisplay, const ControlMap &controls)=0
Renders the menu. This method should wait sufficient time to reach a static framerate.

5.9.1 Detailed Description

Interface for the display.

For a display library to be compatible with the [Arcade](#), it must contains the following symbols:

- "createDisplay" : a function that returns a pointer to an instance of [Arcade::IDisplay](#)
- "destroyDisplay" : a function that takes a pointer to an instance of [Arcade::IDisplay](#) as parameter and deletes it The only role of a display library is to render the game selection menu or the selected game, and to fetch the pressed keys. IT MUST NOT HANDLE ANY EVENTS (window resizing / closing, key pressed, etc.), NOR ANY GAME LOGIC. This actions are performed by the core.

5.9.2 Member Function Documentation

5.9.2.1 getPressedKeys()

```
virtual std::vector<Key> Arcade::IDisplay::getPressedKeys ( ) [pure virtual]
```

Get the pressed keys. To indicate an EXIT event, the display library must return a vector containing the `Key::↵` ESCAPE key. See [Arcade::Key](#) for the list of available keys.

Note

This method should handle EVERY possible pressed keys, as described in the [Arcade::Key](#) enum.
This method is called every frame.

Returns

A vector containing ALL the currently pressed keys

Implemented in [Arcade::TestInterface](#), [Arcade::Graphics::SFML::SFML](#), [Arcade::Graphics::Sdl::Sdl](#), and [Arcade::Graphics::NCurses::NCurses](#).

5.9.2.2 render()

```
virtual void Arcade::IDisplay::render (
    IGameData & gameData ) [pure virtual]
```

Renders the game. This method should perform the following actions:

- wait sufficient time to reach a static framerate
- draw every entities, scores, controls (described in the gameData parameter)

Note

This method is called every frame.

Parameters

<i>gameData</i>	The game data, containing the entities, scores, controls, etc.
-----------------	--

Implemented in [Arcade::TestInterface](#), [Arcade::Graphics::SFML::SFML](#), [Arcade::Graphics::Sdl::Sdl](#), and [Arcade::Graphics::NCurses::NCurses](#).

5.9.2.3 renderMenu()

```
virtual void Arcade::IDisplay::renderMenu (
    const std::vector< std::string > & games,
```

```
const std::vector< std::string > & graphics,
int selectedGame,
int selectedDisplay,
const ControlMap & controls ) [pure virtual]
```

Renders the menu. This method should wait sufficient time to reach a static framerate.

Note

This method is called every frame.

Parameters

<i>games</i>	The list of available game libraries
<i>graphics</i>	The list of available graphics libraries
<i>selectedGame</i>	The index of the selected game (0 => first game)
<i>selectedDisplay</i>	The index of the selected display (0 => first display)
<i>controls</i>	A map, associating a key (as a string) to an action (as a string). It's only used to inform the user of the controls.

Implemented in [Arcade::TestInterface](#), [Arcade::Graphics::SFML::SFML](#), [Arcade::Graphics::NCurses::NCurses](#), and [Arcade::Graphics::Sdl::Sdl](#).

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

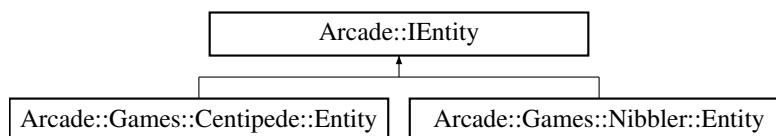
- include/IDisplay.hpp

5.10 Arcade::IEntity Class Reference

Interface of an entity.

```
#include <GameInterfaces.hpp>
```

Inheritance diagram for Arcade::IEntity:



Public Member Functions

- virtual std::vector< std::pair< float, float > > [getPosition](#) () const =0
Gets all the positions of the entity. These positions are expressed in terms of cell.
- virtual std::pair< float, float > [getSize](#) () const =0
Gets the size of the entity. This size is expressed in terms of cell percentage.
- virtual std::string [getTexture](#) () const =0
Gets the texture name of the entity.
- virtual float [getRotation](#) () const =0
Gets the rotation of the entity.

5.10.1 Detailed Description

Interface of an entity.

An entity is the building block of a game; That is to say, anything displayed by a graphical library is an entity (except for scores and controls). For instance, if you want to display walls, create a `WallEntity` and sets it every position where you want a wall to be. If you want particles, create a `ParticleEntity` with a small size and a specific texture and add to it as many positions as you want.

5.10.2 Member Function Documentation

5.10.2.1 `getPosition()`

```
virtual std::vector<std::pair<float, float> > Arcade::IEntity::getPosition ( ) const [pure virtual]
```

Gets all the positions of the entity. These positions are expressed in terms of cell.

The entity should be centered in the cell. For an entity in the middle of the screen, the position would be $(\text{map_size_x} / 2, \text{map_size_y} / 2)$.

Implemented in [Arcade::Games::Nibbler::Entity](#), and [Arcade::Games::Centipede::Entity](#).

5.10.2.2 `getRotation()`

```
virtual float Arcade::IEntity::getRotation ( ) const [pure virtual]
```

Gets the rotation of the entity.

The rotation is expressed in degrees, and is clockwise.

Returns

The rotation of the entity.

Implemented in [Arcade::Games::Nibbler::Entity](#), and [Arcade::Games::Centipede::Entity](#).

5.10.2.3 `getSize()`

```
virtual std::pair<float, float> Arcade::IEntity::getSize ( ) const [pure virtual]
```

Gets the size of the entity. This size is expressed in terms of cell percentage.

i.e, a size of (1, 1) means that the entity occupies the whole cell, while a size of (0.5, 0.5) means the entity occupies half of the cell.

Implemented in [Arcade::Games::Nibbler::Entity](#), and [Arcade::Games::Centipede::Entity](#).

5.10.2.4 `getTexture()`

```
virtual std::string Arcade::IEntity::getTexture ( ) const [pure virtual]
```

Gets the texture name of the entity.

This method is used to fetch the adequate texture from the texture manager. Example: If the current display name is "libcaca", the game name is "nibbler", and the texture name is "player", the texture manager will look for the texture "assets/nibbler/libcaca/player". The textures should be correctly formatted for the display to be able to load them. If the texture could not be loaded, the behaviour is display-dependent.

Returns

The texture name of the entity.

Implemented in [Arcade::Games::Nibbler::Entity](#), and [Arcade::Games::Centipede::Entity](#).

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

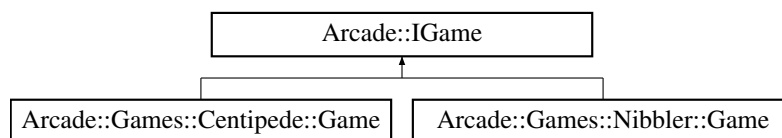
- include/GameInterfaces.hpp

5.11 Arcade::IGame Class Reference

The [IGame](#) class is the interface that all games must implement.

```
#include <GameInterfaces.hpp>
```

Inheritance diagram for Arcade::IGame:



Public Member Functions

- virtual void [handleKeys](#) (const std::vector< [Key](#) > &pressedKeys)=0
Handles the user input.
- virtual void [update](#) (const std::string &username)=0
Updates the game state.
- virtual [IGameData](#) & [getGameData](#) () const =0
Gets the game data.

5.11.1 Detailed Description

The [IGame](#) class is the interface that all games must implement.

For a game library to be compatible with the arcade, it must contains the following symbols:

- "createGame" : A function that returns a pointer to an instance of [Arcade::IGame](#).
- "destroyGame" : A function that takes a pointer to an instance of [Arcade::IGame](#) and deletes it. The only role of the game library is to perform the game logic, given the user input.

5.11.2 Member Function Documentation

5.11.2.1 `getGameData()`

```
virtual IGameData& Arcade::IGame::getGameData ( ) const [pure virtual]
```

Gets the game data.

Returns

A reference to the game data (as described by [Arcade::IGameData](#))

Implemented in [Arcade::Games::Nibbler::Game](#), and [Arcade::Games::Centipede::Game](#).

5.11.2.2 `handleKeys()`

```
virtual void Arcade::IGame::handleKeys (
    const std::vector< Key > & pressedKeys ) [pure virtual]
```

Handles the user input.

This method may be used to set the direction of some entities, or to perform some actions. You may also want to store the pressed keys, so that the next time this method is called, you can check if a key was released.

Parameters

<i>pressedKeys</i>	The list of currently pressed keys
--------------------	------------------------------------

Implemented in [Arcade::Games::Nibbler::Game](#), and [Arcade::Games::Centipede::Game](#).

5.11.2.3 `update()`

```
virtual void Arcade::IGame::update (
    const std::string & username ) [pure virtual]
```

Updates the game state.

This method is the core of the game logic. Calls to this method should generally update the content of the game data. **IMPORTANT:** This method may not be called at a fixed rate, so it should update the game state according to the time elapsed since the last call.

Parameters

<i>username</i>	
-----------------	--

Implemented in [Arcade::Games::Nibbler::Game](#), and [Arcade::Games::Centipede::Game](#).

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

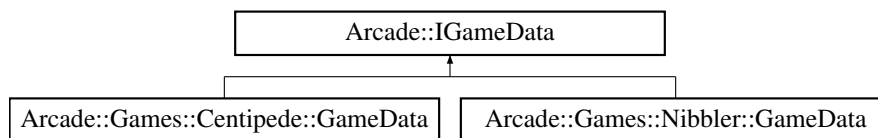
- include/GameInterfaces.hpp

5.12 Arcade::IGameData Class Reference

Interface for the game data.

```
#include <GameInterfaces.hpp>
```

Inheritance diagram for Arcade::IGameData:



Public Member Functions

- virtual std::map< std::string, int > [getScores](#) () const =0
Gets the differents scores of the game.
- virtual std::string [getGameName](#) () const =0
Gets the name of the game.
- virtual std::vector< std::shared_ptr< [Arcade::IEntity](#) > > & [getEntities](#) ()=0
Gets the entities of the game.
- virtual std::pair< int, int > [getMapSize](#) () const =0
Gets the size of the map, in terms of cell.
- virtual const ControlMap & [getControls](#) () const =0
Gets the controls of the game.
- virtual bool [isGameOver](#) () const =0
Gets the current state of the game.

5.12.1 Detailed Description

Interface for the game data.

This interface contains all the method required to represent a game.

5.12.2 Member Function Documentation

5.12.2.1 getControls()

```
virtual const ControlMap& Arcade::IGameData::getControls ( ) const [pure virtual]
```

Gets the controls of the game.

The controls are the keys that the user can use to play the game. The key of the map is the name of the control, and the value is the key that the user must press to perform the action. For example, a game with a "move left" and a "move right" control would return a map with the following keys: "move left" => "Q" and "move right" => "D".

Returns

Implemented in [Arcade::Games::Nibbler::GameData](#), and [Arcade::Games::Centipede::GameData](#).

5.12.2.2 getEntities()

```
virtual std::vector<std::shared_ptr<Arcade::IEntity> >& Arcade::IGameData::getEntities ( )  
[pure virtual]
```

Gets the entities of the game.

The entities are the objects that are displayed on the screen (see [Arcade::IEntity](#)).

Returns

A reference to a vector containing the entities of the game.

Implemented in [Arcade::Games::Nibbler::GameData](#), and [Arcade::Games::Centipede::GameData](#).

5.12.2.3 getGameName()

```
virtual std::string Arcade::IGameData::getGameName ( ) const [pure virtual]
```

Gets the name of the game.

This method is used to (obviously) display the name of the game in the arcade, but it is also used to fetch the game's assets.

Returns

The name of the game.

Implemented in [Arcade::Games::Nibbler::GameData](#), and [Arcade::Games::Centipede::GameData](#).

5.12.2.4 getMapSize()

```
virtual std::pair<int, int> Arcade::IGameData::getMapSize ( ) const [pure virtual]
```

Gets the size of the map, in terms of cell.

Returns

A pair containing the size (x / y) of the map, in terms of cell.

Implemented in [Arcade::Games::Nibbler::GameData](#), and [Arcade::Games::Centipede::GameData](#).

5.12.2.5 getScores()

```
virtual std::map<std::string, int> Arcade::IGameData::getScores ( ) const [pure virtual]
```

Gets the differents scores of the game.

The key of the map is the name of the score, and the value is the score. For example, a game with a score and a highscore would return a map with the following keys: "score" and "highscore". But, a game with a timer and a lives counter would return a map with the following keys: "timer" and "lives".

Returns

A map containing the scores of the game.

Implemented in [Arcade::Games::Nibbler::GameData](#), and [Arcade::Games::Centipede::GameData](#).

5.12.2.6 isGameOver()

```
virtual bool Arcade::IGameData::isGameOver ( ) const [pure virtual]
```

Gets the current state of the game.

Returns

True if the game is over, false otherwise.

Implemented in [Arcade::Games::Nibbler::GameData](#), and [Arcade::Games::Centipede::GameData](#).

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

- include/GameInterfaces.hpp

5.13 Arcade::Core::LibHandle Class Reference

A wrapper around a dynamic library handle.

```
#include <LibHandle.hpp>
```

Public Member Functions

- [LibHandle](#) (const std::string &path)
Construct a new Library Handle.
- **DELETE_COPY_MOVE** ([LibHandle](#))
- [operator bool](#) () const
see [LibHandle::isSet\(\)](#)
- bool [isSet](#) () const
Check if the handle is valid.
- bool [symbolExists](#) (const std::string &symbolName) const
Check if a symbol exists in the library.
- template<typename T >
[T fetchSymbol](#) (const std::string &symbolName) const
Fetch a symbol from the library.

5.13.1 Detailed Description

A wrapper around a dynamic library handle.

5.13.2 Constructor & Destructor Documentation

5.13.2.1 LibHandle()

```
Arcade::Core::LibHandle::LibHandle (
    const std::string & path ) [explicit]
```

Construct a new Library Handle.

Parameters

<i>path</i>	The path to the dynamic library.
-------------	----------------------------------

5.13.3 Member Function Documentation

5.13.3.1 fetchSymbol()

```
template<typename T >
T Arcade::Core::LibHandle::fetchSymbol (
    const std::string & symbolName ) const [inline]
```

Fetch a symbol from the library.

Template Parameters

<i>T</i>	The type of the symbol.
----------	-------------------------

Parameters

<i>symbolName</i>	The name of the symbol.
-------------------	-------------------------

Returns

The symbol, null if can not be loaded.

5.13.3.2 isSet()

```
bool Arcade::Core::LibHandle::isSet ( ) const
```

Check if the handle is valid.

Returns

True if the handle is valid, false otherwise.

5.13.3.3 symbolExists()

```
bool Arcade::Core::LibHandle::symbolExists (
    const std::string & symbolName ) const
```

Check if a symbol exists in the library.

Parameters

<i>symbolName</i>	The name of the symbol.
-------------------	-------------------------

Returns

True if the symbol exists, false otherwise.

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

- include/core/LibHandle.hpp

5.14 Arcade::Core::LibLoader Class Reference

The [LibLoader](#) for arcade-like libraries.

```
#include <LibLoader.hpp>
```

Public Types

- enum [LibType](#) { **GRAPHICAL** , **GAME** , **ERROR** }
The type of the library.

Public Member Functions

- [LibType](#) [getLibType](#) (const std::string &path) const
Gets the type of the dynamic library.
- std::string [getLastError](#) () const
Gets the last error that occurred.
- [IDisplay](#) * [loadGraphicalLib](#) (const std::string &path)
Loads a graphical library.
- void [unloadGraphicalLib](#) ([IDisplay](#) *lib)
Unloads a graphical library.
- [IGame](#) * [loadGameLib](#) (const std::string &path)
Loads a game library.
- void [unloadGameLib](#) ([IGame](#) *lib)
Unloads a game library.

Static Public Member Functions

- static [LibLoader](#) & [getInstance](#) ()
Gets the library loader.

5.14.1 Detailed Description

The [LibLoader](#) for arcade-like libraries.

Note

This class is a singleton, and may be accessed using the [getInstance\(\)](#) method.

5.14.2 Member Function Documentation

5.14.2.1 getInstance()

```
static LibLoader& Arcade::Core::LibLoader::getInstance ( ) [inline], [static]
```

Gets the library loader.

Note

This handle is unique, and will be destroyed when the program is exited.

Returns

The library loader.

5.14.2.2 getLastError()

```
std::string Arcade::Core::LibLoader::getLastError ( ) const
```

Gets the last error that occurred.

Returns

The last error that occurred.

5.14.2.3 getLibType()

```
LibType Arcade::Core::LibLoader::getLibType (
    const std::string & path ) const
```

Gets the type of the dynamic library.

Parameters

<i>path</i>	The path to the dynamic library.
-------------	----------------------------------

Returns

The type of the dynamic library.

5.14.2.4 loadGameLib()

```
IGame* Arcade::Core::LibLoader::loadGameLib (
    const std::string & path )
```


Loads a game library.

Parameters

<i>path</i>	The path to the library.
-------------	--------------------------

Returns

The game library, nullptr is not loadable (see `getLastError`).

5.14.2.5 loadGraphicalLib()

```
IDisplay* Arcade::Core::LibLoader::loadGraphicalLib (
    const std::string & path )
```

Loads a graphical library.

Parameters

<i>path</i>	The path to the library.
-------------	--------------------------

Returns

The graphical library, nullptr is not loadable (see `getLastError`).

5.14.2.6 unloadGameLib()

```
void Arcade::Core::LibLoader::unloadGameLib (
    IGame * lib )
```

Unloads a game library.

Parameters

<i>lib</i>	The library to unload.
------------	------------------------

5.14.2.7 unloadGraphicalLib()

```
void Arcade::Core::LibLoader::unloadGraphicalLib (
    IDisplay * lib )
```

Unloads a graphical library.

Parameters

<i>lib</i>	The library to unload.
------------	------------------------

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

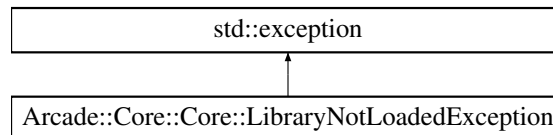
- include/core/LibLoader.hpp

5.15 Arcade::Core::Core::LibraryNotLoadedException Class Reference

Exception thrown when a library could not be loaded.

```
#include <Core.hpp>
```

Inheritance diagram for Arcade::Core::Core::LibraryNotLoadedException:



Public Member Functions

- const char * **what** () const noexcept override

5.15.1 Detailed Description

Exception thrown when a library could not be loaded.

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

- include/core/Core.hpp

5.16 Arcade::Graphics::NCurses::Menu Class Reference

A ncurses menu.

```
#include <Menu.hpp>
```

Public Member Functions

- **Menu** (**Window** *parent, const std::string &name, const Pos &pos, const std::vector< std::string > &items, int selectedItem, Size size={0, 0})
Creates a new menu.
- std::string **getName** () const
Gets the name of the menu.
- std::pair< int, int > **getPos** () const
Gets the position of the menu.
- std::vector< std::string > **getItems** () const
Gets the items of the menu.
- int **getSelectedItem** () const
Gets the selected item.
- void **setSelected** (int selectedItem)
Sets the currently selected item.
- void **render** ()
Renders the menu.

5.16.1 Detailed Description

A ncurses menu.

A menu is a contains a name, a position, a list of items and a selected item, and a size.

5.16.2 Constructor & Destructor Documentation

5.16.2.1 Menu()

```

Arcade::Graphics::NCurses::Menu::Menu (
    Window * parent,
    const std::string & name,
    const Pos & pos,
    const std::vector< std::string > & items,
    int selectedItem,
    Size size = {0, 0} )

```

Creates a new menu.

Parameters

<i>parent</i>	The parent window.
<i>name</i>	The name of the menu.
<i>pos</i>	The position of the menu.
<i>items</i>	The items of the menu.
<i>selectedItem</i>	The selected item.
<i>size</i>	The size of the menu.

5.16.3 Member Function Documentation

5.16.3.1 getItems()

```
std::vector<std::string> Arcade::Graphics::NCurses::Menu::getItems ( ) const
```

Gets the items of the menu.

Returns

5.16.3.2 getName()

```
std::string Arcade::Graphics::NCurses::Menu::getName ( ) const
```

Gets the name of the menu.

Returns

5.16.3.3 getPos()

```
std::pair<int, int> Arcade::Graphics::NCurses::Menu::getPos ( ) const
```

Gets the position of the menu.

Returns

5.16.3.4 getSelectedItem()

```
int Arcade::Graphics::NCurses::Menu::getSelectedItem ( ) const
```

Gets the selected item.

Returns

5.16.3.5 render()

```
void Arcade::Graphics::NCurses::Menu::render ( )
```

Renders the menu.

This method draws the menu on the parent window, with a box around it.

5.16.3.6 setSelected()

```
void Arcade::Graphics::NCurses::Menu::setSelected (
    int selectedItem )
```

Sets the currently selected item.

Parameters

<i>selectedItem</i>	The selected item.
---------------------	--------------------

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

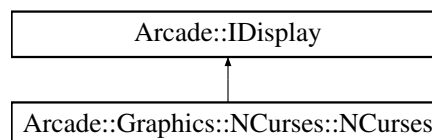
- include/libs/ncurses/Menu.hpp

5.17 Arcade::Graphics::NCurses::NCurses Class Reference

The [NCurses](#) graphical library.

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

Inheritance diagram for Arcade::Graphics::NCurses::NCurses:



Public Member Functions

- [NCurses](#) ()
Creates a new [NCurses](#) graphical library.
- std::vector< [Key](#) > [getPressedKeys](#) () override
- void [render](#) (IGameData &gameData) override
- void [renderMenu](#) (const std::vector< std::string > &games, const std::vector< std::string > &graphics, int selectedGame, int selectedGraph, const ControlMap &map) override
- void [setFramerateLimit](#) (int fps)
Sets the framerate limit.

5.17.1 Detailed Description

The [NCurses](#) graphical library.

5.17.2 Member Function Documentation

5.17.2.1 `getPressedKeys()`

```
std::vector<Key> Arcade::Graphics::NCurses::NCurses::getPressedKeys ( ) [override], [virtual]
```

See also

[Arcade::IDisplay::getPressedKeys\(\)](#)

Implements [Arcade::IDisplay](#).

5.17.2.2 `render()`

```
void Arcade::Graphics::NCurses::NCurses::render (
    IGameData & gameData ) [override], [virtual]
```

See also

[Arcade::IDisplay::render\(\)](#)

Implements [Arcade::IDisplay](#).

5.17.2.3 `renderMenu()`

```
void Arcade::Graphics::NCurses::NCurses::renderMenu (
    const std::vector< std::string > & games,
    const std::vector< std::string > & graphics,
    int selectedGame,
    int selectedGraph,
    const ControlMap & map ) [override], [virtual]
```

See also

[Arcade::IDisplay::renderMenu\(\)](#)

Implements [Arcade::IDisplay](#).

5.17.2.4 `setFramerateLimit()`

```
void Arcade::Graphics::NCurses::NCurses::setFramerateLimit (
    int fps )
```

Sets the framerate limit.

Parameters

<i>fps</i>	The framerate limit.
------------	----------------------

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

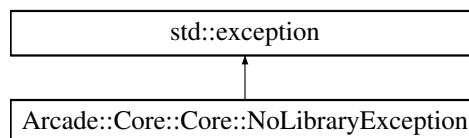
- include/libs/ncurses/NCurses.hpp

5.18 Arcade::Core::Core::NoLibraryException Class Reference

Exception thrown when no library is found.

```
#include <Core.hpp>
```

Inheritance diagram for Arcade::Core::Core::NoLibraryException:



Public Member Functions

- **NoLibraryException** ([LibLoader::LibType](#) type)
- const char * **what** () const noexcept override

5.18.1 Detailed Description

Exception thrown when no library is found.

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

- include/core/Core.hpp

5.19 Arcade::Graphics::Sdl::RectangleShape Class Reference

A rectangle shape, with a size, a position and a color.

```
#include <RectangleShape.hpp>
```


Public Member Functions

- [RectangleShape](#) ()
Creates a new rectangle shape, with a size of 0, a position of 0,0 and a color of black.
- [RectangleShape](#) (SpriteSize size, SpriteSize position, const SDL_Color &fillColor)
Creates a new rectangle shape.
- void [setSize](#) (const SpriteSize &size)
Sets the size of the rectangle.
- void [setPosition](#) (const SpriteSize &position)
Sets the position of the rectangle.
- void [setFillColor](#) (const SDL_Color &fillColor)
Sets the color of the rectangle.
- SpriteSize [getSize](#) () const
Gets the size of the rectangle.
- SpriteSize [getPosition](#) () const
Gets the position of the rectangle.
- const SDL_Color & [getFillColor](#) () const
Gets the color of the rectangle.

5.19.1 Detailed Description

A rectangle shape, with a size, a position and a color.

5.19.2 Constructor & Destructor Documentation

5.19.2.1 RectangleShape()

```
Arcade::Graphics::Sdl::RectangleShape::RectangleShape (
    SpriteSize size,
    SpriteSize position,
    const SDL_Color & fillColor )
```

Creates a new rectangle shape.

Parameters

<i>size</i>	The size of the rectangle.
<i>position</i>	The position of the rectangle.
<i>fillColor</i>	The color of the rectangle.

5.19.3 Member Function Documentation

5.19.3.1 getFillColor()

```
const SDL_Color& Arcade::Graphics::Sdl::RectangleShape::getFillColor ( ) const
```

Gets the color of the rectangle.

Returns

The color of the rectangle.

5.19.3.2 getPosition()

```
SpriteSize Arcade::Graphics::Sdl::RectangleShape::getPosition ( ) const
```

Gets the position of the rectangle.

Returns

The position of the rectangle.

5.19.3.3 getSize()

```
SpriteSize Arcade::Graphics::Sdl::RectangleShape::getSize ( ) const
```

Gets the size of the rectangle.

Returns

The size of the rectangle.

5.19.3.4 setFillColor()

```
void Arcade::Graphics::Sdl::RectangleShape::setFillColor (
    const SDL_Color & fillColor )
```

Sets the color of the rectangle.

Parameters

<i>fillColor</i>	The new color of the rectangle.
------------------	---------------------------------

5.19.3.5 setPosition()

```
void Arcade::Graphics::Sdl::RectangleShape::setPosition (
    const SpriteSize & position )
```

Sets the position of the rectangle.

Parameters

<i>position</i>	The new position of the rectangle.
-----------------	------------------------------------

5.19.3.6 setSize()

```
void Arcade::Graphics::Sdl::RectangleShape::setSize (
    const SpriteSize & size )
```

Sets the size of the rectangle.

Parameters

<i>size</i>	The new size of the rectangle.
-------------	--------------------------------

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

- include/libs/sdl/RectangleShape.hpp

5.20 Arcade::Graphics::Sdl::RenderWindow Class Reference

A window that can be drawn on.

```
#include <RenderWindow.hpp>
```

Public Member Functions

- [RenderWindow](#) (int width, int height)
Creates a new window.
- void [clear](#) ()
Clears the window.
- void [draw](#) (const [Sprite](#) &sprite)
Draws a sprite on the window.
- void [draw](#) ([Text](#) &text)
Draws a text on the window.

- void `draw` (const `RectangleShape` &rect)
Draws a rectangle on the window.
- void `drawLine` (const `SpriteSize` &start, const `SpriteSize` &end, const `SDL_Color` &color)
Draws a line on the window.
- void `display` ()
Actually renders everything that has been drawn.
- `SDL_Renderer *` `getRenderer` () const
Gets the SDL2 raw window pointer.

5.20.1 Detailed Description

A window that can be drawn on.

5.20.2 Constructor & Destructor Documentation

5.20.2.1 RenderWindow()

```

Arcade::Graphics::Sdl::RenderWindow::RenderWindow (
    int width,
    int height )

```

Creates a new window.

Parameters

<i>width</i>	The width of the window.
<i>height</i>	The height of the window.

5.20.3 Member Function Documentation

5.20.3.1 draw() [1/3]

```

void Arcade::Graphics::Sdl::RenderWindow::draw (
    const RectangleShape & rect )

```

Draws a rectangle on the window.

Parameters

<i>rect</i>	The rectangle to draw.
-------------	------------------------

5.20.3.2 draw() [2/3]

```
void Arcade::Graphics::Sdl::RenderWindow::draw (
    const Sprite & sprite )
```

Draws a sprite on the window.

Parameters

<i>sprite</i>	The sprite to draw.
---------------	---------------------

5.20.3.3 draw() [3/3]

```
void Arcade::Graphics::Sdl::RenderWindow::draw (
    Text & text )
```

Draws a text on the window.

Parameters

<i>text</i>	The text to draw.
-------------	-------------------

5.20.3.4 drawLine()

```
void Arcade::Graphics::Sdl::RenderWindow::drawLine (
    const SpriteSize & start,
    const SpriteSize & end,
    const SDL\_Color & color )
```

Draws a line on the window.

Parameters

<i>start</i>	The start pos of the line.
<i>end</i>	The end pos of the line.
<i>color</i>	The color of the line.

5.20.3.5 getRenderer()

```
SDL\_Renderer\* Arcade::Graphics::Sdl::RenderWindow::getRenderer ( ) const
```

Gets the SDL2 raw window pointer.

Returns

The SDL2 raw window pointer.

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

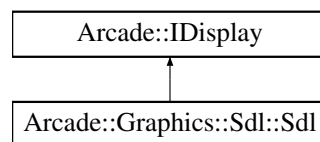
- include/libs/sdl/RenderWindow.hpp

5.21 Arcade::Graphics::Sdl::Sdl Class Reference

The SDL2 graphical library.

```
#include <Sdl.hpp>
```

Inheritance diagram for Arcade::Graphics::Sdl::Sdl:



Public Member Functions

- [Sdl](#) ()
Creates a new SDL2 graphical library.
- `std::vector< Key > getPressedKeys ()` override
- `void render (IGameData &gameData)` override
- `void renderMenu (const std::vector< std::string > &games, const std::vector< std::string > &graphics, int selectedGame, int selectedGraph, const ControlMap &controls)` override

Static Public Member Functions

- `static void unloadTextures ()`
Unloads all the textures.

5.21.1 Detailed Description

The SDL2 graphical library.

5.21.2 Member Function Documentation

5.21.2.1 getPressedKeys()

```
std::vector<Key> Arcade::Graphics::Sdl::Sdl::getPressedKeys ( ) [override], [virtual]
```

See also

[Arcade::IDisplay::getPressedKeys\(\)](#)

Implements [Arcade::IDisplay](#).

5.21.2.2 render()

```
void Arcade::Graphics::Sdl::Sdl::render (
    IGameData & gameData ) [override], [virtual]
```

See also

[Arcade::IDisplay::render\(\)](#)

Implements [Arcade::IDisplay](#).

5.21.2.3 renderMenu()

```
void Arcade::Graphics::Sdl::Sdl::renderMenu (
    const std::vector< std::string > & games,
    const std::vector< std::string > & graphics,
    int selectedGame,
    int selectedGraph,
    const ControlMap & controls ) [override], [virtual]
```

See also

[Arcade::IDisplay::renderMenu\(\)](#)

Implements [Arcade::IDisplay](#).

5.21.2.4 unloadTextures()

```
static void Arcade::Graphics::Sdl::Sdl::unloadTextures ( ) [static]
```

Unloads all the textures.

This method is only called when the SDL2 library is unloaded (via deleteDisplay)

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

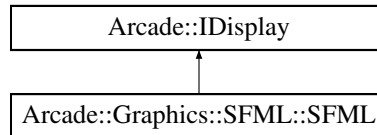
- include/libs/sdl/Sdl.hpp

5.22 Arcade::Graphics::SFML::SFML Class Reference

The [SFML](#) graphical library.

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

Inheritance diagram for Arcade::Graphics::SFML::SFML:



Public Member Functions

- [SFML](#) ()
Creates a new [SFML](#) graphical library.
- `std::vector< Key > getPressedKeys ()` override
- `void render (IGameData &gameData)` override
- `void renderMenu (const std::vector< std::string > &games, const std::vector< std::string > &graphics, int selectedGame, int selectedGraph, const ControlMap &map)` override

5.22.1 Detailed Description

The [SFML](#) graphical library.

5.22.2 Member Function Documentation

5.22.2.1 [getPressedKeys\(\)](#)

```
std::vector<Key> Arcade::Graphics::SFML::SFML::getPressedKeys ( ) [override], [virtual]
```

See also

[Arcade::IDisplay::getPressedKeys\(\)](#)

Returns

Implements [Arcade::IDisplay](#).

5.22.2.2 render()

```
void Arcade::Graphics::SFML::SFML::render (
    IGameData & gameData ) [override], [virtual]
```

See also

[Arcade::IDisplay::render\(\)](#)

Implements [Arcade::IDisplay](#).

5.22.2.3 renderMenu()

```
void Arcade::Graphics::SFML::SFML::renderMenu (
    const std::vector< std::string > & games,
    const std::vector< std::string > & graphics,
    int selectedGame,
    int selectedGraph,
    const ControlMap & map ) [override], [virtual]
```

See also

[Arcade::IDisplay::renderMenu\(\)](#)

Implements [Arcade::IDisplay](#).

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

- include/libs/sfml/Sfml.hpp

5.23 Arcade::Games::Centipede::Snake Class Reference

A [Centipede](#) snake.

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

Public Member Functions

- [Snake](#) ()
creates a new centipede
- [Snake](#) (std::pair< int, int > head, std::pair< int, int > tail, std::vector< std::pair< int, int >> body, bool dir)
creates a new centipede
- void [follow](#) (std::pair< int, int > pos)
Make the centipede goes to a position.
- void [move](#) (char map[25][25])
Make the centipede move.
- int [touch](#) (std::pair< int, int > pos, std::vector< [Snake](#) > &snakes)
Check if the centipede touch a position.
- std::vector< std::pair< int, int > > [getBody](#) () const
Get the positions of the snake cells.
- std::pair< int, int > [getHead](#) () const
Get the position of the head.

5.23.1 Detailed Description

A [Centipede](#) snake.

5.23.2 Constructor & Destructor Documentation

5.23.2.1 Snake()

```
Arcade::Games::Centipede::Snake::Snake (
    std::pair< int, int > head,
    std::pair< int, int > tail,
    std::vector< std::pair< int, int >> body,
    bool dir )
```

creates a new centipede

Parameters

<i>head</i>	Position of the head
<i>tail</i>	Position of the tail
<i>body</i>	Position of the body
<i>dir</i>	Direction of the snake

5.23.3 Member Function Documentation

5.23.3.1 follow()

```
void Arcade::Games::Centipede::Snake::follow (
    std::pair< int, int > pos )
```

Make the centipede goes to a position.

Parameters

<i>pos</i>	Position to go
------------	----------------

5.23.3.2 getBody()

```
std::vector<std::pair<int, int> > Arcade::Games::Centipede::Snake::getBody ( ) const
```

Get the positions of the snake cells.

Returns

List of the positions

5.23.3.3 getHead()

```
std::pair<int, int> Arcade::Games::Centipede::Snake::getHead ( ) const
```

Get the position of the head.

Returns

Position of the head

5.23.3.4 move()

```
void Arcade::Games::Centipede::Snake::move (
    char map[25][25] )
```

Make the centipede move.

Parameters

<i>map</i>	Map of the game
------------	-----------------

5.23.3.5 touch()

```
int Arcade::Games::Centipede::Snake::touch (
    std::pair< int, int > pos,
    std::vector< Snake > & snakes )
```

Check if the centipede touch a position.

Parameters

<i>pos</i>	Position to check
<i>snakes</i>	List of the snakes

Returns

0 if the centipede is not dead, 1 if the centipede is dead, 2 if the centipede is dead and the player win

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

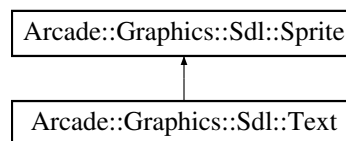
- `include/games/centipede/Snake.hpp`

5.24 Arcade::Graphics::Sdl::Sprite Class Reference

A sprite, with a texture, a size, a position and a texture rect.

```
#include <Sprite.hpp>
```

Inheritance diagram for Arcade::Graphics::Sdl::Sprite:



Public Member Functions

- [Sprite](#) (const [Texture](#) &texture)
Creates a new sprite, with the size of the texture.
- [Sprite](#) ()
Creates a new sprite, with no texture.
- void [setTexture](#) (const [Texture](#) &texture)
Sets the texture of the sprite.
- void [setSize](#) (const [SpriteSize](#) &size)
Sets the size of the sprite.
- void [setTextureRect](#) (const [TextureRect](#) &rect)
Sets the zone of the texture to use.
- void [setPosition](#) (const [SpriteSize](#) &position)
Sets the position of the sprite.
- virtual const [Texture](#) & [getTexture](#) () const
Gets the texture of the sprite.
- virtual [SpriteSize](#) [getSize](#) () const
Gets the size of the sprite.
- virtual const [TextureRect](#) & [getTextureRect](#) () const
Gets the texture rect of the sprite.
- const [SpriteSize](#) & [getPosition](#) () const
Gets the position of the sprite.

Protected Attributes

- const [Texture](#) * [_texture](#)
- [SpriteSize](#) [_size](#)
- [SpriteSize](#) [_position](#)
- [TextureRect](#) [_textureRect](#)

5.24.1 Detailed Description

A sprite, with a texture, a size, a position and a texture rect.

5.24.2 Constructor & Destructor Documentation

5.24.2.1 Sprite()

```
Arcade::Graphics::Sdl::Sprite::Sprite (
    const Texture & texture ) [explicit]
```

Creates a new sprite, with the size of the texture.

Parameters

<i>texture</i>	The texture of the sprite.
----------------	----------------------------

5.24.3 Member Function Documentation

5.24.3.1 getPosition()

```
const SpriteSize& Arcade::Graphics::Sdl::Sprite::getPosition ( ) const
```

Gets the position of the sprite.

Returns

The position of the sprite.

5.24.3.2 getSize()

```
virtual SpriteSize Arcade::Graphics::Sdl::Sprite::getSize ( ) const [virtual]
```

Gets the size of the sprite.

Returns

The size of the sprite.

Reimplemented in [Arcade::Graphics::Sdl::Text](#).

5.24.3.3 `getTexture()`

```
virtual const Texture& Arcade::Graphics::Sdl::Sprite::getTexture ( ) const [virtual]
```

Gets the texture of the sprite.

Returns

The texture of the sprite.

5.24.3.4 `getTextureRect()`

```
virtual const TextureRect& Arcade::Graphics::Sdl::Sprite::getTextureRect ( ) const [virtual]
```

Gets the texture rect of the sprite.

Returns

The texture rect of the sprite.

5.24.3.5 `setPosition()`

```
void Arcade::Graphics::Sdl::Sprite::setPosition (
    const SpriteSize & position )
```

Sets the position of the sprite.

Parameters

<i>position</i>	The new position of the sprite.
-----------------	---------------------------------

5.24.3.6 `setSize()`

```
void Arcade::Graphics::Sdl::Sprite::setSize (
    const SpriteSize & size )
```

Sets the size of the sprite.

Parameters

<i>size</i>	The new size of the sprite.
-------------	-----------------------------

5.24.3.7 setTexture()

```
void Arcade::Graphics::Sdl::Sprite::setTexture (
    const Texture & texture )
```

Sets the texture of the sprite.

The size of the sprite will be set to the size of the texture.

Parameters

<i>texture</i>	The new texture of the sprite.
----------------	--------------------------------

5.24.3.8 setTextureRect()

```
void Arcade::Graphics::Sdl::Sprite::setTextureRect (
    const TextureRect & rect )
```

Sets the zone of the texture to use.

Parameters

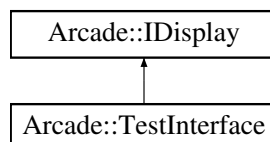
<i>rect</i>	The new texture rect of the sprite.
-------------	-------------------------------------

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

- include/libs/sdl/Sprite.hpp

5.25 Arcade::TestInterface Class Reference

Inheritance diagram for Arcade::TestInterface:



Public Member Functions

- `std::vector< Key > getPressedKeys ()` override

Get the pressed keys. To indicate an EXIT event, the display library must return a vector containing the `Key::ESCAPE` key. See [Arcade::Key](#) for the list of available keys.

- void [render](#) ([IGameData](#) &gameData) override

Renders the game. This method should perform the following actions:

- void [renderMenu](#) (const std::vector< std::string > &games, const std::vector< std::string > &graphics, int selectedGame, int selectedGraph, const ControlMap &map) override

Renders the menu. This method should wait sufficient time to reach a static framerate.

5.25.1 Member Function Documentation

5.25.1.1 [getPressedKeys\(\)](#)

```
std::vector<Key> Arcade::TestInterface::getPressedKeys ( ) [override], [virtual]
```

Get the pressed keys. To indicate an EXIT event, the display library must return a vector containing the `Key::ESCAPE` key. See [Arcade::Key](#) for the list of available keys.

Note

This method should handle EVERY possible pressed keys, as described in the [Arcade::Key](#) enum.

This method is called every frame.

Returns

A vector containing ALL the currently pressed keys

Implements [Arcade::IDisplay](#).

5.25.1.2 [render\(\)](#)

```
void Arcade::TestInterface::render (
    IGameData & gameData ) [override], [virtual]
```

Renders the game. This method should perform the following actions:

- wait sufficient time to reach a static framerate
- draw every entities, scores, controls (described in the gameData parameter)

Note

This method is called every frame.

Parameters

<i>gameData</i>	The game data, containing the entities, scores, controls, etc.
-----------------	--

Implements [Arcade::IDisplay](#).

5.25.1.3 renderMenu()

```
void Arcade::TestInterface::renderMenu (
    const std::vector< std::string > & games,
    const std::vector< std::string > & graphics,
    int selectedGame,
    int selectedDisplay,
    const ControlMap & controls ) [override], [virtual]
```

Renders the menu. This method should wait sufficient time to reach a static framerate.

Note

This method is called every frame.

Parameters

<i>games</i>	The list of available game libraries
<i>graphics</i>	The list of available graphics libraries
<i>selectedGame</i>	The index of the selected game (0 => first game)
<i>selectedDisplay</i>	The index of the selected display (0 => first display)
<i>controls</i>	A map, associating a key (as a string) to an action (as a string). It's only used to inform the user of the controls.

Implements [Arcade::IDisplay](#).

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

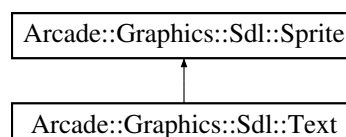
- include/libs/test/test.hpp

5.26 Arcade::Graphics::Sdl::Text Class Reference

A text, with a font, a color and a text.

```
#include <Text.hpp>
```

Inheritance diagram for Arcade::Graphics::Sdl::Text:



Public Member Functions

- [Text](#) (SDL_Renderer *renderer, const [Font](#) *font=nullptr, const std::string &text="", SDL_Color color={255, 255, 255, 255})
Creates a new text.
- void [setText](#) (const std::string &text)
Sets the text.
- void [setFont](#) (const [Font](#) &font)
Sets the font.
- void [setColor](#) (SDL_Color color)
Sets the color.
- SpriteSize [getSize](#) () const override
Gets the size of the text.
- SDL_Texture * [getRawTexture](#) ()
Gets the raw SDL_Texture pointer.

Additional Inherited Members

5.26.1 Detailed Description

A text, with a font, a color and a text.

5.26.2 Constructor & Destructor Documentation

5.26.2.1 Text()

```
Arcade::Graphics::Sdl::Text::Text (
    SDL_Renderer * renderer,
    const Font * font = nullptr,
    const std::string & text = "",
    SDL_Color color = {255, 255, 255, 255} ) [explicit]
```

Creates a new text.

Parameters

<i>renderer</i>	The SDL2 rendered to use
<i>font</i>	The font to use
<i>text</i>	The text to display
<i>color</i>	The color of the text

5.26.3 Member Function Documentation

5.26.3.1 getRawTexture()

```
SDL_Texture* Arcade::Graphics::Sdl::Text::getRawTexture ( )
```

Gets the raw SDL_Texture pointer.

Note

You should call this method to update the content of the text.

Returns

The raw SDL_Texture pointer.

5.26.3.2 getSize()

```
SpriteSize Arcade::Graphics::Sdl::Text::getSize ( ) const [override], [virtual]
```

Gets the size of the text.

Returns

The size of the text

Reimplemented from [Arcade::Graphics::Sdl::Sprite](#).

5.26.3.3 setColor()

```
void Arcade::Graphics::Sdl::Text::setColor (
    SDL_Color color )
```

Sets the color.

Parameters

<i>color</i>	The new color
--------------	---------------

5.26.3.4 setFont()

```
void Arcade::Graphics::Sdl::Text::setFont (
    const Font & font )
```

Sets the font.

Parameters

<i>font</i>	The new font
-------------	--------------

5.26.3.5 setText()

```
void Arcade::Graphics::Sdl::Text::setText (
    const std::string & text )
```

Sets the text.

Parameters

<i>text</i>	The new text
-------------	--------------

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

- include/libs/sdl/Text.hpp

5.27 Arcade::Graphics::NCurses::Texture Class Reference

A ncurses texture.

```
#include <Texture.hpp>
```

Public Member Functions

- [Texture](#) (const std::string &path, int width, int height)
Creates a new texture.
- std::string [getContent](#) () const
- [Color](#) [getTextColor](#) () const
- [Color](#) [getBackgroundColor](#) () const
- void [setSize](#) (int width, int height)
- void [setTextColor](#) ([Color](#) color)
- void [setBackgroundColor](#) ([Color](#) color)
- void [setContent](#) (char c)
- short [getColorPair](#) () const

Static Public Member Functions

- static bool [createColorPair](#) ([Color](#) fg, [Color](#) bg)
- static void [removeColorPair](#) ([Color](#) fg, [Color](#) bg)

5.27.1 Detailed Description

A ncurses texture.

A texture is a character with a background color, a text color, and a size.

5.27.2 Constructor & Destructor Documentation

5.27.2.1 Texture()

```
Arcade::Graphics::NCurses::Texture::Texture (
    const std::string & path,
    int width,
    int height )
```

Creates a new texture.

A valid texture must be formatted the following way:

text: <single char> bg-color: <color> text-color: <color>

Color must be among the following:

- black
- red
- green
- yellow
- blue
- magenta
- cyan
- white
- none

Parameters

<i>path</i>	Path to the texture file.
<i>width</i>	Width of the texture.
<i>height</i>	Height of the texture.

5.27.3 Member Function Documentation

5.27.3.1 getContent()

```
std::string Arcade::Graphics::NCurses::Texture::getContent ( ) const
```

Returns

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

- include/libs/ncurses/Texture.hpp

5.28 Arcade::Graphics::Sdl::Texture Class Reference

A wrapper around a SDL2 texture.

```
#include <Texture.hpp>
```

Public Member Functions

- [Texture](#) (const std::string &texturePath, SDL_Renderer *renderer)
Creates a new texture.
- TextureSize [getSize](#) () const
Gets the size of the texture.
- SDL_Texture * [getRawTexture](#) () const
Gets the raw SDL_Texture pointer.

5.28.1 Detailed Description

A wrapper around a SDL2 texture.

5.28.2 Constructor & Destructor Documentation

5.28.2.1 Texture()

```
Arcade::Graphics::Sdl::Texture::Texture (
    const std::string & texturePath,
    SDL_Renderer * renderer ) [explicit]
```

Creates a new texture.

Parameters

<i>texturePath</i>	The path to the texture file.
<i>renderer</i>	The renderer to use to create the texture.

5.28.3 Member Function Documentation

5.28.3.1 getRawTexture()

```
SDL_Texture* Arcade::Graphics::Sdl::Texture::getRawTexture ( ) const
```

Gets the raw SDL_Texture pointer.

Returns

The raw SDL_Texture pointer.

5.28.3.2 getSize()

```
TextureSize Arcade::Graphics::Sdl::Texture::getSize ( ) const
```

Gets the size of the texture.

Returns

The size of the texture.

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

- include/libs/sdl/Texture.hpp

5.29 Arcade::Graphics::Sdl::TextureRect Struct Reference

Public Attributes

- int **left**
- int **top**
- int **width**
- int **height**

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

- include/libs/sdl/Texture.hpp

5.30 Arcade::Graphics::NCurses::Window Class Reference

A ncurses window.

```
#include <Window.hpp>
```

Public Member Functions

- [Window](#) ()
Creates a new window, without any parents, positioned at (0, 0) and taking the whole screen.
- [Window](#) ([Window](#) *parent, const Pos &pos, const Size &size)
Creates a new window.
- Pos [getPos](#) () const
Gets the position of the window.
- Size [getSize](#) ()
Gets the size of the window.
- void [drawBox](#) ()
Draw a box around the window.
- void [draw](#) (const std::string &text, const Pos &pos)
Draws a string (centered) at the given position.
- void [draw](#) (const [Texture](#) &texture, Pos pos)
Draws a texture at the given position.
- void [clear](#) ()
Clears the window.

Static Public Member Functions

- static [Arcade::Key](#) [getKey](#) ()
Get the next pressed key.

5.30.1 Detailed Description

A ncurses window.

5.30.2 Constructor & Destructor Documentation

5.30.2.1 Window()

```
Arcade::Graphics::NCurses::Window::Window (  
    Window * parent,  
    const Pos & pos,  
    const Size & size )
```

Creates a new window.

Parameters

<i>parent</i>	The parent window.
<i>pos</i>	The position of the window.
<i>size</i>	The size of the window.

5.30.3 Member Function Documentation

5.30.3.1 draw() [1/2]

```
void Arcade::Graphics::NCurses::Window::draw (
    const std::string & text,
    const Pos & pos )
```

Draws a string (centered) at the given position.

Parameters

<i>text</i>	The string to draw.
<i>pos</i>	The position to draw the string at.

5.30.3.2 draw() [2/2]

```
void Arcade::Graphics::NCurses::Window::draw (
    const Texture & texture,
    Pos pos )
```

Draws a texture at the given position.

Parameters

<i>texture</i>	The texture to draw.
<i>pos</i>	The position to draw the texture at.

5.30.3.3 getKey()

```
static Arcade::Key Arcade::Graphics::NCurses::Window::getKey ( ) [static]
```

Get the next pressed key.

Returns

5.30.3.4 `getPos()`

```
Pos Arcade::Graphics::NCurses::Window::getPos ( ) const
```

Gets the position of the window.

Returns

5.30.3.5 `getSize()`

```
Size Arcade::Graphics::NCurses::Window::getSize ( )
```

Gets the size of the window.

Returns

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

- `include/libs/ncurses/Window.hpp`

5.31 `Arcade::XDisplay` Class Reference

A wrapper around the X11 display.

```
#include <XDisplay.hpp>
```

Static Public Member Functions

- static void `setInputDelay` (int ms)
Set the input delay.
- static int `getInputDelay` ()
Get the input delay.

5.31.1 Detailed Description

A wrapper around the X11 display.

5.31.2 Member Function Documentation

5.31.2.1 getInputDelay()

```
static int Arcade::XDisplay::getInputDelay ( ) [static]
```

Get the input delay.

Returns

The input delay in milliseconds.

5.31.2.2 setInputDelay()

```
static void Arcade::XDisplay::setInputDelay (
    int ms ) [static]
```

Set the input delay.

Parameters

<i>ms</i>	The delay in milliseconds.
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The documentation for this class was generated from the following file:

- include/XDisplay.hpp

