

arcade

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Chapter 1

Namespace Index

1.1 Namespace List

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

Arcade	Main namespace for the Arcade project	9
------------------------	---	---

Chapter 2

Hierarchical Index

2.1 Class Hierarchy

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

Arcade::Core	11
std::exception	
Arcade::Core::CoreException	13
Arcade::RuntimeException	26
Arcade::IGame	14
Arcade::IRenderer	14
Arcade::Ncurses	20
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Chapter 3

Class Index

3.1 Class List

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

Arcade::Core	
Core class	11
Arcade::Core::CoreException	
CoreException class	13
Arcade::IGame	
Game Interface	14
Arcade::IRenderer	
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RuntimeException class	26
Arcade::Sdl2	
Sdl2 class	26
Arcade::Sfml	
Sfml class	31

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File Index

4.1 File List

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

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File containing constant values used in the Arcade project	38
Core/include/Arcade/ Core.hpp	
File declaring Core	39
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File declaring Enum	39
Core/include/Arcade/ RuntimeException.hpp	
File declaring RuntimeException	40
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File declaring Game Interface	37
Core/include/Arcade/abstractions/ IRenderer.hpp	
File declaring Graphic Interface	37
Core/include/Arcade/abstractions/ ISprite.hpp	
File declaring Sprite Interface	38
Graphics/NCurses/include/Arcade/ Ncurses.hpp	
File declaring Ncurses	40
Graphics/SDL2/include/Arcade/ Sdl2.hpp	
File declaring Sdl2 class	41
Graphics/SFML/include/Arcade/ Sfml.hpp	
File declaring Sfml class	42

Chapter 5

Namespace Documentation

5.1 Arcade Namespace Reference

Main namespace for the [Arcade](#) project.

Classes

- class [IGame](#)
Game Interface.
- class [IRenderer](#)
Graphic Interface.
- class [ISprite](#)
Sprite Interface.
- class [Core](#)
Core class.
- class [RuntimeException](#)
RuntimeException class.
- class [Sdl2](#)
Sdl2 class.
- class [Ncurses](#)
Ncurses class.
- class [Sfml](#)
Sfml class.

Enumerations

- enum class **CoreMode** : std::uint8_t { **GAME** , **MENU** , **PAUSE** , **QUIT** }
- enum class **GameMode** : std::uint8_t { **GAME** , **GAME_OVER** , **MENU** , **PAUSE** , **QUIT** }
- enum class [GameEvent](#) : std::uint8_t { **UP** , **DOWN** , **LEFT** , **RIGHT** , **SHOOT** , **PAUSE** , **QUIT** , **NONE** }
Enum for the GameEvent.

5.1.1 Detailed Description

Main namespace for the [Arcade](#) project.

5.1.2 Enumeration Type Documentation

5.1.2.1 GameEvent

```
enum Arcade::GameEvent : std::uint8_t [strong]
```

Enum for the GameEvent.

Set of enum used for the game event

Chapter 6

Class Documentation

6.1 Arcade::Core Class Reference

[Core](#) class.

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

Classes

- class [CoreException](#)
CoreException class.

Public Member Functions

- **Core** (const [Core](#) &)=delete
- **Core & operator=** (const [Core](#) &)=delete
- **Core** (const [Core](#) &&)=delete
- **Core & operator=** (const [Core](#) &&)=delete
- void [parser](#) (const std::string &path)
parse arguments
- int [runArcade](#) (const std::string &path)
Run Arcade.
- void [gameLoop](#) ()
Game loop.
- void [handleEvents](#) (const [GameEvent](#) &event)
Handle events.
- void [setMode](#) (const CoreMode &gameMode)
Set the game mode.
- void [closeWindow](#) ()
close the window
- void [loadGraphic](#) ()
load graphic
- void [displayMenu](#) ()
display menu

6.1.1 Detailed Description

[Core](#) class.

[Core](#) class for the [Arcade](#) project

6.1.2 Member Function Documentation

6.1.2.1 `gameLoop()`

```
void Arcade::Core::gameLoop ( )
```

Game loop.

Main game loop

6.1.2.2 `handleEvents()`

```
void Arcade::Core::handleEvents (
    const GameEvent & event )
```

Handle events.

Parameters

<i>event</i>	
--------------	--

6.1.2.3 `parser()`

```
void Arcade::Core::parser (
    const std::string & path )
```

parse arguments

Parameters

<i>path</i>	
-------------	--

6.1.2.4 `runArcade()`

```
int Arcade::Core::runArcade (
```

```
const std::string & path )
```

Run [Arcade](#).

Parameters

<i>path</i>	
-------------	--

Returns

int

6.1.2.5 setMode()

```
void Arcade::Core::setMode (
    const CoreMode & gameMode ) [inline]
```

Set the game mode.

Parameters

<i>gameMode</i>	
-----------------	--

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

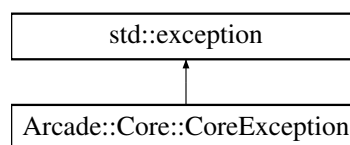
- Core/include/Arcade/[Core.hpp](#)

6.2 Arcade::Core::CoreException Class Reference

[CoreException](#) class.

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

Inheritance diagram for Arcade::Core::CoreException:



Public Member Functions

- **CoreException** (std::string msg)
- **CoreException** (const [CoreException](#) &)=delete
- [CoreException](#) & **operator=** (const [CoreException](#) &)=delete
- **CoreException** (const [CoreException](#) &&)=delete
- [CoreException](#) & **operator=** (const [CoreException](#) &&)=delete
- const char * **what** () const noexcept override

6.2.1 Detailed Description

[CoreException](#) class.

Exception class for the [Core](#) class

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

- [Core/include/Arcade/Core.hpp](#)

6.3 Arcade::IGame Class Reference

Game Interface.

```
#include <Arcade/abstractions/IGame.hpp>
```

Public Member Functions

- **IGame** (const [IGame](#) &)=delete
- **IGame** & **operator=** (const [IGame](#) &)=delete
- virtual void **start** ()=0
start the game
- virtual void **stop** ()=0
stop the game

6.3.1 Detailed Description

Game Interface.

Set of method to implement for the business logic of the [Arcade](#) project

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

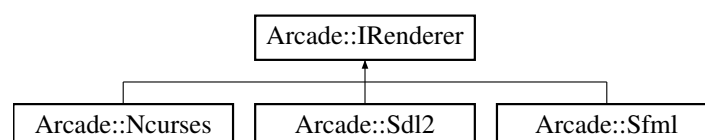
- [Core/include/Arcade/abstractions/IGame.hpp](#)

6.4 Arcade::IRenderer Class Reference

Graphic Interface.

```
#include <Arcade/abstractions/IRenderer.hpp>
```

Inheritance diagram for `Arcade::IRenderer`:



Public Member Functions

- virtual void [openWindow](#) (unsigned int width, unsigned int height)=0
Create a window with the specified dimensions.
- virtual void [displayWindow](#) ()=0
Display the current window.
- virtual void [clearWindow](#) ()=0
Clear the contents of the current window.
- virtual void [closeWindow](#) ()=0
Close the current window.
- virtual void [setTitle](#) (const std::string &title)=0
Set the title of the window.
- virtual [GameEvent](#) [getEvent](#) ()=0
Retrieve the current event from the window.
- virtual bool [isASCII](#) ()=0
Check if the renderer supports only ASCII characters.
- virtual bool [loadTexture](#) (const std::string &filepath, const std::string &name)=0
Load a texture from a file.
- virtual bool [loadFont](#) (const std::string &filepath, const std::string &name)=0
Load a font from a file.
- virtual void [createSprite](#) (const std::string &textureName, float pos_x, float pos_y, float scale_x, float scale_y)=0
Create a sprite with the specified parameters.
- virtual void [displaySprite](#) (const std::string &spriteName)=0
Display a sprite with the specified name.
- virtual void [createText](#) (const std::string &fontName, const std::string &text, int size, float pos_x, float pos_y)=0
Create a text object with the specified parameters.
- virtual void [displayText](#) (const std::string &textName)=0
Display a text object with the specified name.

6.4.1 Detailed Description

Graphic Interface.

Set of method for the [Arcade](#) project

6.4.2 Member Function Documentation

6.4.2.1 createSprite()

```
virtual void Arcade::IRenderer::createSprite (
    const std::string & textureName,
    float pos_x,
    float pos_y,
    float scale_x,
    float scale_y ) [pure virtual]
```

Create a sprite with the specified parameters.

Parameters

<i>textureName</i>	The name of the texture to use for the sprite
<i>pos_x</i>	The x-coordinate of the sprite's position
<i>pos_y</i>	The y-coordinate of the sprite's position
<i>scale_x</i>	The scale factor for the sprite's width
<i>scale_y</i>	The scale factor for the sprite's height

Implemented in [Arcade::Sfml](#), [Arcade::Sdl2](#), and [Arcade::Ncurses](#).

6.4.2.2 createText()

```
virtual void Arcade::IRenderer::createText (
    const std::string & fontName,
    const std::string & text,
    int size,
    float pos_x,
    float pos_y ) [pure virtual]
```

Create a text object with the specified parameters.

Parameters

<i>fontName</i>	The name of the font to use for the text
<i>text</i>	The text to display
<i>size</i>	The size of the text
<i>pos_x</i>	The x-coordinate of the text's position
<i>pos_y</i>	The y-coordinate of the text's position

Implemented in [Arcade::Sfml](#), [Arcade::Sdl2](#), and [Arcade::Ncurses](#).

6.4.2.3 displaySprite()

```
virtual void Arcade::IRenderer::displaySprite (
    const std::string & spriteName ) [pure virtual]
```

Display a sprite with the specified name.

Parameters

<i>spriteName</i>	The name of the sprite to display
-------------------	-----------------------------------

Implemented in [Arcade::Sfml](#), [Arcade::Sdl2](#), and [Arcade::Ncurses](#).

6.4.2.4 displayText()

```
virtual void Arcade::IRenderer::displayText (
    const std::string & textName ) [pure virtual]
```

Display a text object with the specified name.

Parameters

<i>textName</i>	The name of the text to display
-----------------	---------------------------------

Implemented in [Arcade::Sfml](#), [Arcade::Sdl2](#), and [Arcade::Ncurses](#).

6.4.2.5 getEvent()

```
virtual GameEvent Arcade::IRenderer::getEvent ( ) [pure virtual]
```

Retrieve the current event from the window.

Returns

The current event

Implemented in [Arcade::Sfml](#), [Arcade::Sdl2](#), and [Arcade::Ncurses](#).

6.4.2.6 isASCII()

```
virtual bool Arcade::IRenderer::isASCII ( ) [pure virtual]
```

Check if the renderer supports only ASCII characters.

Returns

True if the renderer supports ASCII, false otherwise

Implemented in [Arcade::Sfml](#), [Arcade::Sdl2](#), and [Arcade::Ncurses](#).

6.4.2.7 loadFont()

```
virtual bool Arcade::IRenderer::loadFont (
    const std::string & filepath,
    const std::string & name ) [pure virtual]
```

Load a font from a file.

Parameters

<i>filepath</i>	The path to the font file
<i>name</i>	The name to associate with the font

Returns

True if the font was loaded successfully, false otherwise

Implemented in [Arcade::Sfml](#), [Arcade::Sdl2](#), and [Arcade::Ncurses](#).

6.4.2.8 loadTexture()

```
virtual bool Arcade::IRenderer::loadTexture (
    const std::string & filepath,
    const std::string & name ) [pure virtual]
```

Load a texture from a file.

Parameters

<i>filepath</i>	The path to the texture file
<i>name</i>	The name to associate with the texture

Returns

True if the texture was loaded successfully, false otherwise

Implemented in [Arcade::Sfml](#), [Arcade::Sdl2](#), and [Arcade::Ncurses](#).

6.4.2.9 openWindow()

```
virtual void Arcade::IRenderer::openWindow (
    unsigned int width,
    unsigned int height ) [pure virtual]
```

Create a window with the specified dimensions.

Parameters

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

Implemented in [Arcade::Sfml](#), [Arcade::Sdl2](#), and [Arcade::Ncurses](#).

6.4.2.10 setTitle()

```
virtual void Arcade::IRenderer::setTitle (
    const std::string & title ) [pure virtual]
```

Set the title of the window.

Parameters

<i>title</i>	The new title of the window
--------------	-----------------------------

Implemented in [Arcade::Sfml](#), [Arcade::Sdl2](#), and [Arcade::Ncurses](#).

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

- Core/include/Arcade/abstractions/[IRenderer.hpp](#)

6.5 Arcade::ISprite Class Reference

Sprite Interface.

```
#include <Arcade/abstractions/ISprite.hpp>
```

Public Member Functions

- **ISprite** (const [ISprite](#) &)=delete
- **ISprite** & **operator=** (const [ISprite](#) &)=delete
- virtual void [createSprite](#) (const std::vector< std::string > &sprite)=0
create the sprite
- virtual void [draw](#) ()=0
draw the sprite
- virtual void [setPosition](#) (int x, int y)=0
set the position of the sprite

6.5.1 Detailed Description

Sprite Interface.

Set of method to implement for the business logic of the [Arcade](#) project

6.5.2 Member Function Documentation

6.5.2.1 createSprite()

```
virtual void Arcade::ISprite::createSprite (
    const std::vector< std::string > & sprite ) [pure virtual]
```

create the sprite

Parameters

<i>sprite</i>	
---------------	--

create the sprite with the given sprite, can be a filePath, or a ASCII art

6.5.2.2 setPosition()

```
virtual void Arcade::ISprite::setPosition (
    int x,
    int y ) [pure virtual]
```

set the position of the sprite

Parameters

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

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

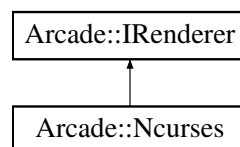
- Core/include/Arcade/abstractions/[ISprite.hpp](#)

6.6 Arcade::Ncurses Class Reference

[Ncurses](#) class.

```
#include <Arcade/Ncurses.hpp>
```

Inheritance diagram for Arcade::Ncurses:



Public Member Functions

- [GameEvent](#) [getEvent](#) () override
Retrieve the current event from the window.
- void [openWindow](#) (unsigned int width, unsigned int height) override
Create a window with the specified dimensions.
- void [displayWindow](#) () override
Display the current window.
- void [clearWindow](#) () override
Clear the contents of the current window.

- void `closeWindow` () override
Close the current window.
- void `setTitle` (const std::string &title) override
Set the title of the window.
- bool `loadTexture` (const std::string &texture, const std::string &name) override
Load a texture from a file.
- bool `loadFont` (const std::string &filepath, const std::string &name) override
Load a font from a file.
- void `createSprite` (const std::string &textureName, float pos_x, float pos_y, float scale_x, float scale_y) override
Create a sprite with the specified parameters.
- void `createText` (const std::string &fontName, const std::string &text, int size, float pos_x, float pos_y) override
Create a text object with the specified parameters.
- void `displaySprite` (const std::string &spriteName) override
Display a sprite with the specified name.
- void `displayText` (const std::string &textName) override
Display a text object with the specified name.
- bool `isASCII` () override
Check if the renderer supports only ASCII characters.

6.6.1 Detailed Description

`Ncurses` class.

`Ncurses` class for the `Arcade` project

6.6.2 Member Function Documentation

6.6.2.1 createSprite()

```
void Arcade::Ncurses::createSprite (
    const std::string & textureName,
    float pos_x,
    float pos_y,
    float scale_x,
    float scale_y ) [inline], [override], [virtual]
```

Create a sprite with the specified parameters.

Parameters

<i>textureName</i>	The name of the texture to use for the sprite
<i>pos_x</i>	The x-coordinate of the sprite's position
<i>pos_y</i>	The y-coordinate of the sprite's position
<i>scale_x</i>	The scale factor for the sprite's width
<i>scale_y</i>	The scale factor for the sprite's height

Implements [Arcade::IRenderer](#).

6.6.2.2 createText()

```
void Arcade::Ncurses::createText (
    const std::string & fontName,
    const std::string & text,
    int size,
    float pos_x,
    float pos_y ) [inline], [override], [virtual]
```

Create a text object with the specified parameters.

Parameters

<i>fontName</i>	The name of the font to use for the text
<i>text</i>	The text to display
<i>size</i>	The size of the text
<i>pos_x</i>	The x-coordinate of the text's position
<i>pos_y</i>	The y-coordinate of the text's position

Implements [Arcade::IRenderer](#).

6.6.2.3 displaySprite()

```
void Arcade::Ncurses::displaySprite (
    const std::string & spriteName ) [inline], [override], [virtual]
```

Display a sprite with the specified name.

Parameters

<i>spriteName</i>	The name of the sprite to display
-------------------	-----------------------------------

Implements [Arcade::IRenderer](#).

6.6.2.4 displayText()

```
void Arcade::Ncurses::displayText (
    const std::string & textName ) [inline], [override], [virtual]
```

Display a text object with the specified name.

Parameters

<i>textName</i>	The name of the text to display
-----------------	---------------------------------

Implements [Arcade::IRenderer](#).

6.6.2.5 `getEvent()`

```
GameEvent Arcade::Ncurses::getEvent ( ) [override], [virtual]
```

Retrieve the current event from the window.

Returns

The current event

Implements [Arcade::IRenderer](#).

6.6.2.6 `isASCII()`

```
bool Arcade::Ncurses::isASCII ( ) [inline], [override], [virtual]
```

Check if the renderer supports only ASCII characters.

Returns

True if the renderer supports ASCII, false otherwise

Implements [Arcade::IRenderer](#).

6.6.2.7 `loadFont()`

```
bool Arcade::Ncurses::loadFont (
    const std::string & filepath,
    const std::string & name ) [inline], [override], [virtual]
```

Load a font from a file.

Parameters

<i>filepath</i>	The path to the font file
<i>name</i>	The name to associate with the font

Returns

True if the font was loaded successfully, false otherwise

Implements [Arcade::IRenderer](#).

6.6.2.8 loadTexture()

```
bool Arcade::Ncurses::loadTexture (
    const std::string & filepath,
    const std::string & name ) [inline], [override], [virtual]
```

Load a texture from a file.

Parameters

<i>filepath</i>	The path to the texture file
<i>name</i>	The name to associate with the texture

Returns

True if the texture was loaded successfully, false otherwise

Implements [Arcade::IRenderer](#).

6.6.2.9 openWindow()

```
void Arcade::Ncurses::openWindow (
    unsigned int width,
    unsigned int height ) [override], [virtual]
```

Create a window with the specified dimensions.

Parameters

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

Implements [Arcade::IRenderer](#).

6.6.2.10 setTitle()

```
void Arcade::Ncurses::setTitle (
    const std::string & title ) [inline], [override], [virtual]
```

Set the title of the window.

Parameters

<i>title</i>	The new title of the window
--------------	-----------------------------

Implements [Arcade::IRenderer](#).

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

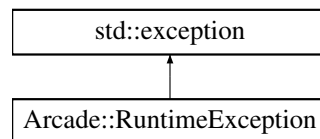
- Graphics/NCurses/include/Arcade/[Ncurses.hpp](#)

6.7 Arcade::RuntimeException Class Reference

[RuntimeException](#) class.

```
#include <Arcade/RuntimeException.hpp>
```

Inheritance diagram for `Arcade::RuntimeException`:



Public Member Functions

- **RuntimeException** (std::string msg)
- **RuntimeException** ([RuntimeException](#) const &)=delete
- const char * **what** () const noexcept override

6.7.1 Detailed Description

[RuntimeException](#) class.

[RuntimeException](#) class for the [Arcade](#) project

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

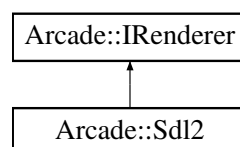
- Core/include/Arcade/[RuntimeException.hpp](#)

6.8 Arcade::Sdl2 Class Reference

[Sdl2](#) class.

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

Inheritance diagram for `Arcade::Sdl2`:



Public Member Functions

- [GameEvent](#) [getEvent](#) () override
Retrieve the current event from the window.
- void [openWindow](#) (unsigned int width, unsigned int height) override
Create a window with the specified dimensions.
- void [displayWindow](#) () override
Display the current window.
- void [clearWindow](#) () override
Clear the contents of the current window.
- void [closeWindow](#) () override
Close the current window.
- void [setTitle](#) (const std::string &title) override
Set the title of the window.
- bool [loadTexture](#) (const std::string &texture, const std::string &name) override
Load a texture from a file.
- bool [loadFont](#) (const std::string &filepath, const std::string &name) override
Load a font from a file.
- void [createSprite](#) (const std::string &textureName, float pos_x, float pos_y, float scale_x, float scale_y) override
Create a sprite with the specified parameters.
- void [createText](#) (const std::string &fontName, const std::string &text, int size, float pos_x, float pos_y) override
Create a text object with the specified parameters.
- void [displaySprite](#) (const std::string &spriteName) override
Display a sprite with the specified name.
- void [displayText](#) (const std::string &textName) override
Display a text object with the specified name.
- bool [isASCII](#) () override
Check if the renderer supports only ASCII characters.

6.8.1 Detailed Description

[Sdl2](#) class.

[Sdl2](#) class for the [Arcade](#) project

6.8.2 Member Function Documentation

6.8.2.1 createSprite()

```
void Arcade::Sdl2::createSprite (
    const std::string & textureName,
    float pos_x,
    float pos_y,
    float scale_x,
    float scale_y ) [inline], [override], [virtual]
```

Create a sprite with the specified parameters.

Parameters

<i>textureName</i>	The name of the texture to use for the sprite
<i>pos_x</i>	The x-coordinate of the sprite's position
<i>pos_y</i>	The y-coordinate of the sprite's position
<i>scale_x</i>	The scale factor for the sprite's width
<i>scale_y</i>	The scale factor for the sprite's height

Implements [Arcade::IRenderer](#).

6.8.2.2 createText()

```
void Arcade::Sdl2::createText (
    const std::string & fontName,
    const std::string & text,
    int size,
    float pos_x,
    float pos_y ) [inline], [override], [virtual]
```

Create a text object with the specified parameters.

Parameters

<i>fontName</i>	The name of the font to use for the text
<i>text</i>	The text to display
<i>size</i>	The size of the text
<i>pos_x</i>	The x-coordinate of the text's position
<i>pos_y</i>	The y-coordinate of the text's position

Implements [Arcade::IRenderer](#).

6.8.2.3 displaySprite()

```
void Arcade::Sdl2::displaySprite (
    const std::string & spriteName ) [inline], [override], [virtual]
```

Display a sprite with the specified name.

Parameters

<i>spriteName</i>	The name of the sprite to display
-------------------	-----------------------------------

Implements [Arcade::IRenderer](#).

6.8.2.4 displayText()

```
void Arcade::Sdl2::displayText (
    const std::string & textName ) [inline], [override], [virtual]
```

Display a text object with the specified name.

Parameters

<i>textName</i>	The name of the text to display
-----------------	---------------------------------

Implements [Arcade::IRenderer](#).

6.8.2.5 getEvent()

```
GameEvent Arcade::Sdl2::getEvent ( ) [override], [virtual]
```

Retrieve the current event from the window.

Returns

The current event

Implements [Arcade::IRenderer](#).

6.8.2.6 isASCII()

```
bool Arcade::Sdl2::isASCII ( ) [inline], [override], [virtual]
```

Check if the renderer supports only ASCII characters.

Returns

True if the renderer supports ASCII, false otherwise

Implements [Arcade::IRenderer](#).

6.8.2.7 loadFont()

```
bool Arcade::Sdl2::loadFont (
    const std::string & filepath,
    const std::string & name ) [inline], [override], [virtual]
```

Load a font from a file.

Parameters

<i>filepath</i>	The path to the font file
<i>name</i>	The name to associate with the font

Returns

True if the font was loaded successfully, false otherwise

Implements [Arcade::IRenderer](#).

6.8.2.8 loadTexture()

```
bool Arcade::Sdl2::loadTexture (
    const std::string & filepath,
    const std::string & name ) [inline], [override], [virtual]
```

Load a texture from a file.

Parameters

<i>filepath</i>	The path to the texture file
<i>name</i>	The name to associate with the texture

Returns

True if the texture was loaded successfully, false otherwise

Implements [Arcade::IRenderer](#).

6.8.2.9 openWindow()

```
void Arcade::Sdl2::openWindow (
    unsigned int width,
    unsigned int height ) [override], [virtual]
```

Create a window with the specified dimensions.

Parameters

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

Implements [Arcade::IRenderer](#).

6.8.2.10 setTitle()

```
void Arcade::Sdl2::setTitle (
    const std::string & title ) [inline], [override], [virtual]
```

Set the title of the window.

Parameters

<i>title</i>	The new title of the window
--------------	-----------------------------

Implements [Arcade::IRenderer](#).

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

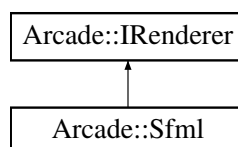
- Graphics/SDL2/include/Arcade/[Sdl2.hpp](#)

6.9 Arcade::Sfml Class Reference

[Sfml](#) class.

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

Inheritance diagram for Arcade::Sfml:



Public Member Functions

- [GameEvent](#) [getEvent](#) () override
Retrieve the current event from the window.
- void [openWindow](#) (unsigned int width, unsigned int height) override
Create a window with the specified dimensions.
- void [displayWindow](#) () override
Display the current window.
- void [clearWindow](#) () override
Clear the contents of the current window.
- void [closeWindow](#) () override
Close the current window.
- void [setTitle](#) (const std::string &title) override
Set the title of the window.
- bool [loadTexture](#) (const std::string &texture, const std::string &name) override

Load a texture from a file.

- bool [loadFont](#) (const std::string &filepath, const std::string &name) override

Load a font from a file.

- void [createSprite](#) (const std::string &textureName, float pos_x, float pos_y, float scale_x, float scale_y) override

Create a sprite with the specified parameters.

- void [createText](#) (const std::string &fontName, const std::string &text, int size, float pos_x, float pos_y) override

Create a text object with the specified parameters.

- void [displaySprite](#) (const std::string &spriteName) override

Display a sprite with the specified name.

- void [displayText](#) (const std::string &textName) override

Display a text object with the specified name.

- bool [isASCII](#) () override

Check if the renderer supports only ASCII characters.

6.9.1 Detailed Description

[Sfml](#) class.

[Sfml](#) class for the [Arcade](#) project

6.9.2 Member Function Documentation

6.9.2.1 createSprite()

```
void Arcade::Sfml::createSprite (
    const std::string & textureName,
    float pos_x,
    float pos_y,
    float scale_x,
    float scale_y ) [override], [virtual]
```

Create a sprite with the specified parameters.

Parameters

<i>textureName</i>	The name of the texture to use for the sprite
<i>pos_x</i>	The x-coordinate of the sprite's position
<i>pos_y</i>	The y-coordinate of the sprite's position
<i>scale_x</i>	The scale factor for the sprite's width
<i>scale_y</i>	The scale factor for the sprite's height

Implements [Arcade::IRenderer](#).

6.9.2.2 createText()

```
void Arcade::Sfml::createText (
    const std::string & fontName,
    const std::string & text,
    int size,
    float pos_x,
    float pos_y ) [override], [virtual]
```

Create a text object with the specified parameters.

Parameters

<i>fontName</i>	The name of the font to use for the text
<i>text</i>	The text to display
<i>size</i>	The size of the text
<i>pos_x</i>	The x-coordinate of the text's position
<i>pos_y</i>	The y-coordinate of the text's position

Implements [Arcade::IRenderer](#).

6.9.2.3 displaySprite()

```
void Arcade::Sfml::displaySprite (
    const std::string & spriteName ) [override], [virtual]
```

Display a sprite with the specified name.

Parameters

<i>spriteName</i>	The name of the sprite to display
-------------------	-----------------------------------

Implements [Arcade::IRenderer](#).

6.9.2.4 displayText()

```
void Arcade::Sfml::displayText (
    const std::string & textName ) [override], [virtual]
```

Display a text object with the specified name.

Parameters

<i>textName</i>	The name of the text to display
-----------------	---------------------------------

Implements [Arcade::IRenderer](#).

6.9.2.5 `getEvent()`

```
GameEvent Arcade::Sfml::getEvent ( ) [override], [virtual]
```

Retrieve the current event from the window.

Returns

The current event

Implements [Arcade::IRenderer](#).

6.9.2.6 `isASCII()`

```
bool Arcade::Sfml::isASCII ( ) [inline], [override], [virtual]
```

Check if the renderer supports only ASCII characters.

Returns

True if the renderer supports ASCII, false otherwise

Implements [Arcade::IRenderer](#).

6.9.2.7 `loadFont()`

```
bool Arcade::Sfml::loadFont (
    const std::string & filepath,
    const std::string & name ) [override], [virtual]
```

Load a font from a file.

Parameters

<i>filepath</i>	The path to the font file
<i>name</i>	The name to associate with the font

Returns

True if the font was loaded successfully, false otherwise

Implements [Arcade::IRenderer](#).

6.9.2.8 loadTexture()

```
bool Arcade::Sfml::loadTexture (
    const std::string & filepath,
    const std::string & name ) [override], [virtual]
```

Load a texture from a file.

Parameters

<i>filepath</i>	The path to the texture file
<i>name</i>	The name to associate with the texture

Returns

True if the texture was loaded successfully, false otherwise

Implements [Arcade::IRenderer](#).

6.9.2.9 openWindow()

```
void Arcade::Sfml::openWindow (
    unsigned int width,
    unsigned int height ) [override], [virtual]
```

Create a window with the specified dimensions.

Parameters

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

Implements [Arcade::IRenderer](#).

6.9.2.10 setTitle()

```
void Arcade::Sfml::setTitle (
    const std::string & title ) [inline], [override], [virtual]
```

Set the title of the window.

Parameters

<i>title</i>	The new title of the window
--------------	-----------------------------

Implements [Arcade::IRenderer](#).

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

- Graphics/SFML/include/Arcade/[Sfml.hpp](#)

Chapter 7

File Documentation

7.1 Core/include/Arcade/abstractions/IGame.hpp File Reference

File declaring Game Interface.

Classes

- class [Arcade::IGame](#)
Game Interface.

Namespaces

- [Arcade](#)
Main namespace for the [Arcade](#) project.

7.1.1 Detailed Description

File declaring Game Interface.

7.2 Core/include/Arcade/abstractions/IRenderer.hpp File Reference

File declaring Graphic Interface.

```
#include <string>
#include "Arcade/Enum.hpp"
```

Classes

- class [Arcade::IRenderer](#)
Graphic Interface.

Namespaces

- [Arcade](#)

Main namespace for the [Arcade](#) project.

7.2.1 Detailed Description

File declaring Graphic Interface.

7.3 Core/include/Arcade/abstractions/ISprite.hpp File Reference

File declaring Sprite Interface.

```
#include <string>
#include <vector>
```

Classes

- class [Arcade::ISprite](#)

Sprite Interface.

Namespaces

- [Arcade](#)

Main namespace for the [Arcade](#) project.

7.3.1 Detailed Description

File declaring Sprite Interface.

7.4 Core/include/Arcade/Constants.hpp File Reference

File containing constant values used in the [Arcade](#) project.

Variables

- constexpr int [EPITECH_ERROR](#) = 84
Exit code for Epitech errors.
- constexpr int [SUCCESS](#) = 0
Exit code indicating that the program has executed successfully.
- constexpr int [ERROR](#) = -1
Exit code indicating that an error has occurred.

7.4.1 Detailed Description

File containing constant values used in the [Arcade](#) project.

This file provides a set of constant values that are used throughout the [Arcade](#) project.

7.5 Core/include/Arcade/Core.hpp File Reference

File declaring Core.

```
#include <memory>
#include "Arcade/Enum.hpp"
#include "Arcade/abstractions/IRenderer.hpp"
```

Classes

- class [Arcade::Core](#)
Core class.
- class [Arcade::Core::CoreException](#)
CoreException class.

Namespaces

- [Arcade](#)
Main namespace for the [Arcade](#) project.

7.5.1 Detailed Description

File declaring Core.

7.6 Core/include/Arcade/Enum.hpp File Reference

File declaring Enum.

Namespaces

- [Arcade](#)
Main namespace for the [Arcade](#) project.

Enumerations

- enum class **CoreMode** : std::uint8_t { **GAME** , **MENU** , **PAUSE** , **QUIT** }
- enum class **GameMode** : std::uint8_t { **GAME** , **GAME_OVER** , **MENU** , **PAUSE** , **QUIT** }
- enum class [Arcade::GameEvent](#) : std::uint8_t { **UP** , **DOWN** , **LEFT** , **RIGHT** , **SHOOT** , **PAUSE** , **QUIT** , **NONE** }

Enum for the GameEvent.

7.6.1 Detailed Description

File declaring Enum.

Set of enum used in the [Arcade](#) project

7.7 Core/include/Arcade/RuntimeException.hpp File Reference

File declaring RuntimeException.

```
#include <iostream>
#include <exception>
```

Classes

- class [Arcade::RuntimeException](#)
RuntimeException class.

Namespaces

- [Arcade](#)
Main namespace for the [Arcade](#) project.

7.7.1 Detailed Description

File declaring RuntimeException.

7.8 Graphics/NCurses/include/Arcade/Ncurses.hpp File Reference

File declaring Ncurses.

```
#include <ncurses.h>
#include "Arcade/abstractions/IRenderer.hpp"
```

Classes

- class [Arcade::Ncurses](#)
Ncurses class.

Namespaces

- [Arcade](#)
Main namespace for the [Arcade](#) project.

7.8.1 Detailed Description

File declaring Ncurses.

7.9 Graphics/SDL2/include/Arcade/Sdl2.hpp File Reference

File declaring Sdl2 class.

```
#include <iostream>
#include <SDL2/SDL.h>
#include "Arcade/abstractions/IRenderer.hpp"
```

Classes

- class [Arcade::Sdl2](#)
Sdl2 class.

Namespaces

- [Arcade](#)
Main namespace for the [Arcade](#) project.

Variables

- constexpr std::string_view **WINDOW_TITLE** = "Arcade - SDL2"

7.9.1 Detailed Description

File declaring Sdl2 class.

7.10 Graphics/SFML/include/Arcade/Sfml.hpp File Reference

File declaring Sfml class.

```
#include <SFML/Graphics.hpp>
#include "Arcade/abstractions/IRenderer.hpp"
```

Classes

- class [Arcade::Sfml](#)
[Sfml](#) class.

Namespaces

- [Arcade](#)
Main namespace for the [Arcade](#) project.

7.10.1 Detailed Description

File declaring Sfml class.

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