

arcade

Generated by Doxygen 1.8.17



<b>1 Hierarchical Index</b>	<b>1</b>
1.1 Class Hierarchy	1
<b>2 Class Index</b>	<b>3</b>
2.1 Class List	3
<b>3 Class Documentation</b>	<b>5</b>
3.1 Arcade::ArcadeBorne Class Reference	5
3.1.1 Constructor & Destructor Documentation	6
3.1.1.1 ArcadeBorne()	6
3.1.1.2 ~ArcadeBorne()	6
3.1.2 Member Function Documentation	6
3.1.2.1 DisplayLibs()	7
3.1.2.2 GetPlayerName()	7
3.1.2.3 HashVector()	7
3.1.2.4 LoadGameLib()	7
3.1.2.5 LoadGraphicLib()	7
3.1.2.6 Modulo()	7
3.2 Arcade::ArcadeError Class Reference	8
3.2.1 Constructor & Destructor Documentation	9
3.2.1.1 ArcadeError()	9
3.2.2 Member Function Documentation	9
3.2.2.1 what()	9
3.3 Arcade::ArcadeMissingError Class Reference	10
3.3.1 Constructor & Destructor Documentation	10
3.3.1.1 ArcadeMissingError()	11
3.4 Arcade::ArcadeParse Class Reference	11
3.4.1 Constructor & Destructor Documentation	12
3.4.1.1 ArcadeParse()	12
3.4.1.2 ~ArcadeParse()	12
3.4.2 Member Function Documentation	12
3.4.2.1 CheckArgument()	12
3.4.2.2 CheckLibraries()	12
3.4.2.3 GetLibraries()	12
3.5 Arcade::ArcadeRuntimeError Class Reference	13
3.5.1 Constructor & Destructor Documentation	13
3.5.1.1 ArcadeRuntimeError()	14
3.6 Arcade::ArcadeUsageError Class Reference	14
3.6.1 Constructor & Destructor Documentation	15
3.6.1.1 ArcadeUsageError()	15
3.7 Converter Class Reference	15
3.7.1 Constructor & Destructor Documentation	16
3.7.1.1 Converter()	16

3.7.1.2 ~Converter()	16
3.7.2 Member Function Documentation	16
3.7.2.1 processImage()	16
3.8 Arcade::Ghost Class Reference	17
3.8.1 Constructor & Destructor Documentation	17
3.8.1.1 Ghost()	17
3.8.1.2 ~Ghost()	17
3.8.2 Member Function Documentation	17
3.8.2.1 CheckInSpawn()	18
3.8.2.2 getObject()	18
3.8.2.3 getPos()	18
3.8.2.4 isAlive()	18
3.8.2.5 Kill()	18
3.8.2.6 Move()	19
3.8.2.7 MoveToTarget()	19
3.8.2.8 PathTo()	19
3.8.2.9 reset()	19
3.8.2.10 resetTexture()	19
3.8.2.11 Scare()	19
3.8.2.12 setPosition()	19
3.9 Arcade::IDisplay Class Reference	20
3.9.1 Constructor & Destructor Documentation	20
3.9.1.1 ~IDisplay()	20
3.9.2 Member Function Documentation	20
3.9.2.1 ClearScreen()	20
3.9.2.2 DrawObject()	21
3.9.2.3 GetInput()	21
3.9.2.4 RefreshScreen()	21
3.10 Arcade::IGame Class Reference	21
3.10.1 Constructor & Destructor Documentation	22
3.10.1.1 ~IGame()	22
3.10.2 Member Function Documentation	22
3.10.2.1 GameLoop()	22
3.10.2.2 GetScore()	22
3.10.2.3 ResetGame()	23
3.11 Arcade::IObject Class Reference	23
3.12 Arcade::Library Class Reference	23
3.12.1 Constructor & Destructor Documentation	24
3.12.1.1 Library()	24
3.12.1.2 ~Library()	24
3.12.2 Member Function Documentation	24
3.12.2.1 GetDisplay()	24

3.12.2.2 GetGame()	24
3.12.2.3 LoadDisplay()	24
3.12.2.4 LoadGame()	25
3.12.2.5 UnloadDisplay()	25
3.12.2.6 UnloadGame()	25
3.13 Arcade::menu Class Reference	25
3.13.1 Constructor & Destructor Documentation	26
3.13.1.1 menu()	26
3.13.1.2 ~menu()	26
3.13.2 Member Function Documentation	27
3.13.2.1 GameLoop()	27
3.13.2.2 GetGameLibraries()	27
3.13.2.3 GetScore()	27
3.13.2.4 Modulo()	27
3.13.2.5 ResetGame()	27
3.13.2.6 SetGamePicture()	28
3.14 Arcade::ncurses Class Reference	28
3.14.1 Constructor & Destructor Documentation	29
3.14.1.1 ncurses()	29
3.14.1.2 ~ncurses()	29
3.14.2 Member Function Documentation	29
3.14.2.1 ClearScreen()	29
3.14.2.2 DrawObject()	29
3.14.2.3 DrawText()	30
3.14.2.4 DrawTile()	30
3.14.2.5 GetInput()	30
3.14.2.6 RefreshScreen()	30
3.15 Arcade::Nibbler Class Reference	31
3.15.1 Constructor & Destructor Documentation	31
3.15.1.1 Nibbler()	32
3.15.1.2 ~Nibbler()	32
3.15.2 Member Function Documentation	32
3.15.2.1 AddFruit()	32
3.15.2.2 CheckMovement()	32
3.15.2.3 GameLoop()	32
3.15.2.4 GameOver()	32
3.15.2.5 GetScore()	33
3.15.2.6 MoveSnake()	33
3.15.2.7 ResetGame()	33
3.16 Arcade::Pacman Class Reference	33
3.16.1 Constructor & Destructor Documentation	34
3.16.1.1 Pacman()	35

3.16.1.2 ~Pacman()	35
3.16.2 Member Function Documentation	35
3.16.2.1 GameLoop()	35
3.16.2.2 getPosition()	35
3.16.2.3 GetScore()	35
3.16.2.4 GhostPacman()	36
3.16.2.5 HitGhost()	36
3.16.2.6 IsInt()	36
3.16.2.7 LevelUp()	36
3.16.2.8 Modulo()	36
3.16.2.9 MovePacman()	36
3.16.2.10 PointPacman()	36
3.16.2.11 PositionToIntPosition()	37
3.16.2.12 ResetGame()	37
3.16.2.13 resetPoints()	37
3.16.2.14 SetDirection()	37
3.16.2.15 UpdateScores()	37
3.16.2.16 WallInPosition()	37
3.17 Pixel Class Reference	38
3.17.1 Constructor & Destructor Documentation	38
3.17.1.1 Pixel()	38
3.17.1.2 ~Pixel()	38
3.17.2 Member Function Documentation	38
3.17.2.1 ConvertPixel()	38
3.18 Arcade::sdl2 Class Reference	39
3.18.1 Constructor & Destructor Documentation	39
3.18.1.1 sdl2()	40
3.18.1.2 ~sdl2()	40
3.18.2 Member Function Documentation	40
3.18.2.1 ClearScreen()	40
3.18.2.2 DrawObject()	40
3.18.2.3 DrawText()	40
3.18.2.4 DrawTile()	41
3.18.2.5 GetInput()	41
3.18.2.6 PlaySound()	41
3.18.2.7 RefreshScreen()	42
3.19 Arcade::sdl2Sound Class Reference	42
3.19.1 Constructor & Destructor Documentation	42
3.19.1.1 sdl2Sound()	42
3.19.1.2 ~sdl2Sound()	43
3.19.2 Member Function Documentation	43
3.19.2.1 play()	43

3.20 Arcade::sdl2Texture Class Reference	43
3.20.1 Constructor & Destructor Documentation	43
3.20.1.1 sdl2Texture() [1/2]	43
3.20.1.2 sdl2Texture() [2/2]	44
3.20.1.3 ~sdl2Texture()	44
3.20.2 Member Function Documentation	44
3.20.2.1 SetPosition()	44
3.21 Arcade::sfml Class Reference	45
3.21.1 Constructor & Destructor Documentation	46
3.21.1.1 sfml()	46
3.21.1.2 ~sfml()	46
3.21.2 Member Function Documentation	46
3.21.2.1 ClearScreen()	46
3.21.2.2 DrawObject()	46
3.21.2.3 DrawText()	46
3.21.2.4 DrawTile()	47
3.21.2.5 GetInput()	47
3.21.2.6 PlaySound()	47
3.21.2.7 RefreshScreen()	47
3.22 Arcade::Sound Class Reference	48
3.22.1 Constructor & Destructor Documentation	48
3.22.1.1 Sound()	48
3.22.1.2 ~Sound()	49
3.22.2 Member Function Documentation	49
3.22.2.1 getLoop()	49
3.22.2.2 getSound()	49
3.22.2.3 setSound()	49
3.23 Arcade::Text Class Reference	50
3.23.1 Constructor & Destructor Documentation	51
3.23.1.1 Text()	51
3.23.1.2 ~Text()	51
3.23.2 Member Function Documentation	51
3.23.2.1 getColor()	51
3.23.2.2 getPosition()	52
3.23.2.3 getText()	52
3.23.2.4 setText()	52
3.24 Arcade::Tile Class Reference	53
3.24.1 Constructor & Destructor Documentation	53
3.24.1.1 Tile()	54
3.24.1.2 ~Tile()	54
3.24.2 Member Function Documentation	54
3.24.2.1 getCharacter()	54

3.24.2.2 getColor()	54
3.24.2.3 getPosition()	55
3.24.2.4 getRotation()	55
3.24.2.5 getTexturePath()	55
3.24.2.6 setCharacter()	55
3.24.2.7 setColor()	56
3.24.2.8 setRotation()	56
3.24.2.9 setTexture()	56

<b>Index</b>	<b>57</b>
--------------	-----------



# Chapter 1

## Hierarchical Index

### 1.1 Class Hierarchy

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

Arcade::ArcadeParse . . . . .	11
Arcade::ArcadeBorne . . . . .	5
Converter . . . . .	15
exception	
Arcade::ArcadeError . . . . .	8
Arcade::ArcadeMissingError . . . . .	10
Arcade::ArcadeRuntimeError . . . . .	13
Arcade::ArcadeUsageError . . . . .	14
Arcade::Ghost . . . . .	17
Arcade::IDisplay . . . . .	20
Arcade::ncurses . . . . .	28
Arcade::sdl2 . . . . .	39
Arcade::sfml . . . . .	45
Arcade::IGame . . . . .	21
Arcade::menu . . . . .	25
Arcade::Nibbler . . . . .	31
Arcade::Pacman . . . . .	33
Arcade::IObject . . . . .	23
Arcade::Sound . . . . .	48
Arcade::Text . . . . .	50
Arcade::Tile . . . . .	53
Arcade::Library . . . . .	23
Pixel . . . . .	38
Arcade::sdl2Sound . . . . .	42
Arcade::sdl2Texture . . . . .	43



## Chapter 2

# Class Index

### 2.1 Class List

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

<a href="#">Arcade::ArcadeBorne</a>	5
<a href="#">Arcade::ArcadeError</a>	8
<a href="#">Arcade::ArcadeMissingError</a>	10
<a href="#">Arcade::ArcadeParse</a>	11
<a href="#">Arcade::ArcadeRuntimeError</a>	13
<a href="#">Arcade::ArcadeUsageError</a>	14
<a href="#">Converter</a>	15
<a href="#">Arcade::Ghost</a>	17
<a href="#">Arcade::IDisplay</a>	20
<a href="#">Arcade::IGame</a>	21
<a href="#">Arcade::IObject</a>	23
<a href="#">Arcade::Library</a>	23
<a href="#">Arcade::menu</a>	25
<a href="#">Arcade::ncurses</a>	28
<a href="#">Arcade::Nibbler</a>	31
<a href="#">Arcade::Pacman</a>	33
<a href="#">Pixel</a>	38
<a href="#">Arcade::sdl2</a>	39
<a href="#">Arcade::sdl2Sound</a>	42
<a href="#">Arcade::sdl2Texture</a>	43
<a href="#">Arcade::sfml</a>	45
<a href="#">Arcade::Sound</a>	48
<a href="#">Arcade::Text</a>	50
<a href="#">Arcade::Tile</a>	53

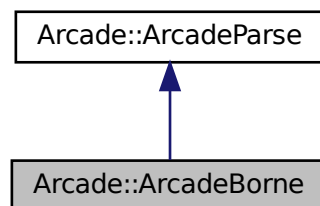


## Chapter 3

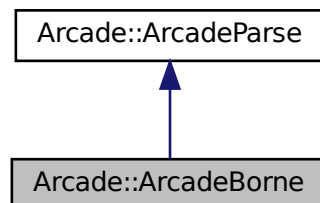
# Class Documentation

### 3.1 Arcade::ArcadeBorne Class Reference

Inheritance diagram for Arcade::ArcadeBorne:



Collaboration diagram for Arcade::ArcadeBorne:



## Public Member Functions

- [ArcadeBorne](#) (int NbArguments, char \*\*Arguments)
- [~ArcadeBorne](#) ()=default
- void [DisplayLibs](#) ()
- void [GetPlayerName](#) ()
- void [LoadGraphicLib](#) ()
- void [LoadGameLib](#) ()

## Static Public Member Functions

- static int [Modulo](#) (int a, int b)
- static size\_t [HashVector](#) (const VObjs &vec)

## Additional Inherited Members

### 3.1.1 Constructor & Destructor Documentation

#### 3.1.1.1 ArcadeBorne()

```
Arcade::ArcadeBorne::ArcadeBorne (
    int NbArguments,
    char ** Arguments )
```

The constructor of the class. It is called when the object is created.

##### Parameters

<i>NbArguments</i>	The number of arguments given to the program.
<i>Arguments</i>	The arguments given to the program.

#### 3.1.1.2 ~ArcadeBorne()

```
Arcade::ArcadeBorne::~~ArcadeBorne ( ) [default]
```

The destructor is a special function that is called when an object is destroyed

### 3.1.2 Member Function Documentation

### 3.1.2.1 DisplayLibs()

```
void Arcade::ArcadeBorne::DisplayLibs ( )
```

Displaying the list of available libraries.

### 3.1.2.2 GetPlayerName()

```
void Arcade::ArcadeBorne::GetPlayerName ( )
```

Asking the player to enter his name.

### 3.1.2.3 HashVector()

```
size_t Arcade::ArcadeBorne::HashVector (
    const VObjs & vec ) [static]
```

A function that hashes the vector of objects.

#### Parameters

<i>v</i>	The vector of objects.
----------	------------------------

### 3.1.2.4 LoadGameLib()

```
void Arcade::ArcadeBorne::LoadGameLib ( )
```

It loads the game library.

### 3.1.2.5 LoadGraphicLib()

```
void Arcade::ArcadeBorne::LoadGraphicLib ( )
```

It loads the graphic library.

### 3.1.2.6 Modulo()

```
int Arcade::ArcadeBorne::Modulo (
    int a,
    int b ) [static]
```

A function that returns the remainder of the division of the first argument by the second./\*

## Parameters

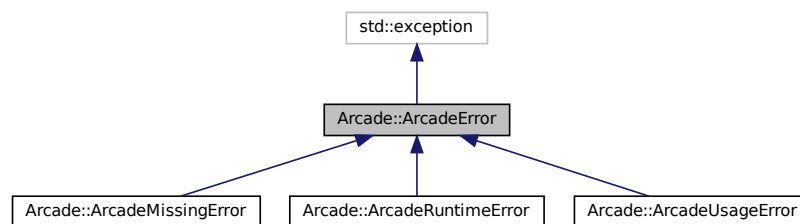
<i>a</i>	The first argument.
<i>b</i>	The second argument.

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

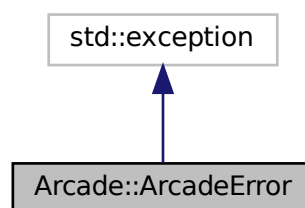
- includes/ArcadeBorne.hpp
- src/ArcadeBorne.cpp

## 3.2 Arcade::ArcadeError Class Reference

Inheritance diagram for Arcade::ArcadeError:



Collaboration diagram for Arcade::ArcadeError:



### Public Member Functions

- [ArcadeError](#) (Error Message="An error occurred")
- `const char * what () const` noexcept override



## 3.2.1 Constructor & Destructor Documentation

### 3.2.1.1 ArcadeError()

```
Arcade::ArcadeError::ArcadeError (
    Error Message = "An error occurred" ) [inline], [explicit]
```

It takes an error message as a parameter, and then constructs an [ArcadeError](#) object with that message

#### Parameters

<i>Message</i>	The error message to display.
----------------	-------------------------------

## 3.2.2 Member Function Documentation

### 3.2.2.1 what()

```
const char* Arcade::ArcadeError::what ( ) const [inline], [override], [noexcept]
```

Return the error message

#### Returns

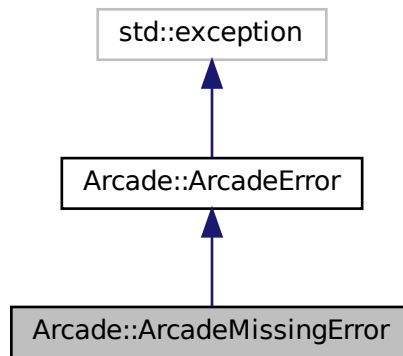
Nothing.

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

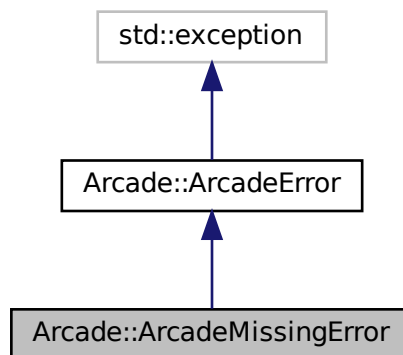
- includes/ArcadeError.hpp

### 3.3 Arcade::ArcadeMissingError Class Reference

Inheritance diagram for Arcade::ArcadeMissingError:



Collaboration diagram for Arcade::ArcadeMissingError:



#### Public Member Functions

- [ArcadeMissingError](#) (Error Message="Missing element error occurred")

#### 3.3.1 Constructor & Destructor Documentation

### 3.3.1.1 ArcadeMissingError()

```
Arcade::ArcadeMissingError::ArcadeMissingError (
    Error Message = "Missing element error occurred" ) [inline], [explicit]
```

The function is a constructor for the [ArcadeMissingError](#) class

#### Parameters

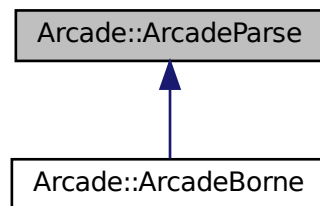
<i>Message</i>	The error message to be displayed.
----------------	------------------------------------

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

- includes/ArcadeError.hpp

## 3.4 Arcade::ArcadeParse Class Reference

Inheritance diagram for Arcade::ArcadeParse:



### Public Member Functions

- [ArcadeParse](#) (int NbArguments, char \*\*Arguments)
- [~ArcadeParse](#) ()=default
- void [GetLibraries](#) ()
- void [CheckLibraries](#) ()

### Static Public Member Functions

- static void [CheckArgument](#) (int NbArguments, char \*\*Arguments)

### Protected Attributes

- int **CurrentGame**
- int **CurrentGraphic**
- std::vector< Game > **Games**
- std::vector< Graphic > **Graphics**

### 3.4.1 Constructor & Destructor Documentation

#### 3.4.1.1 ArcadeParse()

```
Arcade::ArcadeParse::ArcadeParse (
    int NbArguments,
    char ** Arguments )
```

The constructor of the [ArcadeParse](#) class. It takes the number of arguments and the arguments given by the user.

#### 3.4.1.2 ~ArcadeParse()

```
Arcade::ArcadeParse::~~ArcadeParse ( ) [default]
```

The destructor for the [ArcadeParse](#) class

### 3.4.2 Member Function Documentation

#### 3.4.2.1 CheckArgument()

```
void Arcade::ArcadeParse::CheckArgument (
    int NbArguments,
    char ** Arguments ) [static]
```

A static function that checks if the arguments given are valid.

#### 3.4.2.2 CheckLibraries()

```
void Arcade::ArcadeParse::CheckLibraries ( )
```

It checks if the libraries are valid.

#### 3.4.2.3 GetLibraries()

```
void Arcade::ArcadeParse::GetLibraries ( )
```

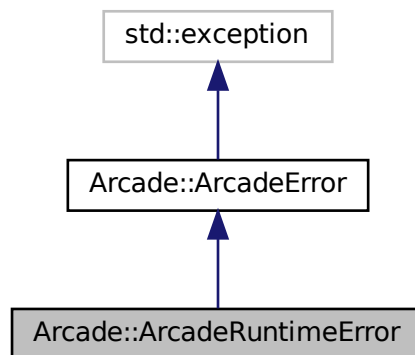
Getting the libraries from the command line.

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

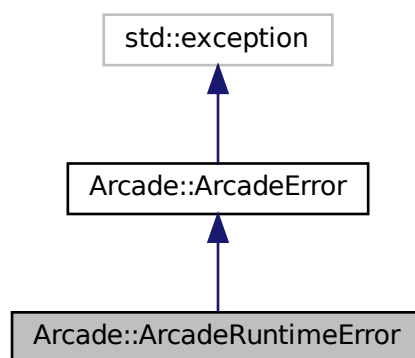
- includes/ArcadeParse.hpp
- src/ArcadeParse.cpp

## 3.5 Arcade::ArcadeRuntimeError Class Reference

Inheritance diagram for Arcade::ArcadeRuntimeError:



Collaboration diagram for Arcade::ArcadeRuntimeError:



### Public Member Functions

- [ArcadeRuntimeError](#) (Error Message="A runtime error occurred")

#### 3.5.1 Constructor & Destructor Documentation

### 3.5.1.1 ArcadeRuntimeError()

```
Arcade::ArcadeRuntimeError::ArcadeRuntimeError (
    Error Message = "A runtime error occurred" ) [inline], [explicit]
```

It's a constructor that takes an error message as an argument and uses it to initialize the error message of the base class

#### Parameters

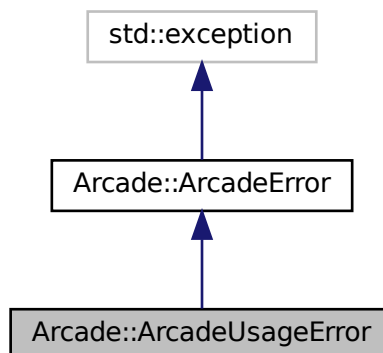
<i>Message</i>	The message to be displayed.
----------------	------------------------------

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

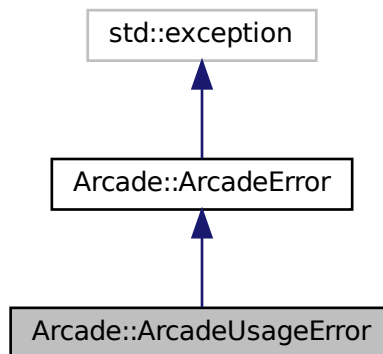
- includes/ArcadeError.hpp

## 3.6 Arcade::ArcadeUsageError Class Reference

Inheritance diagram for Arcade::ArcadeUsageError:



Collaboration diagram for Arcade::ArcadeUsageError:



## Public Member Functions

- [ArcadeUsageError](#) (Error Message="`\nUSAGE: ./arcade ./lib/arcade_(graphic_lib).so`")

## 3.6.1 Constructor & Destructor Documentation

### 3.6.1.1 ArcadeUsageError()

```

Arcade::ArcadeUsageError::ArcadeUsageError (
    Error Message = "\nUSAGE: ./arcade ./lib/arcade_(graphic_lib).so" ) [inline],
[explicit]

```

This function is a constructor for the [ArcadeUsageError](#) class

#### Parameters

<i>Message</i>	The error message to be displayed.
----------------	------------------------------------

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

- `includes/ArcadeError.hpp`

## 3.7 Converter Class Reference

## Public Member Functions

- [Converter](#) (const Path &Source)

- virtual `~Converter()`=default
- void `processImage` (Arcade::Position position)

### 3.7.1 Constructor & Destructor Documentation

#### 3.7.1.1 Converter()

```
Converter::Converter (
    const Path & Source ) [inline], [explicit]
```

It reads the PNG file and stores the pixel data in rows

##### Parameters

<i>Path</i>	The path to the image file.
-------------	-----------------------------

##### Returns

Nothing.

#### 3.7.1.2 ~Converter()

```
virtual Converter::~~Converter ( ) [virtual], [default]
```

This is the destructor

### 3.7.2 Member Function Documentation

#### 3.7.2.1 processImage()

```
void Converter::processImage (
    Arcade::Position position )
```

Drawing the image on the screen.

##### Parameters

<i>Arcade::Position</i>	The position of the image.
-------------------------	----------------------------



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

- lib/Display/ncurses/includes/ncurses.hpp
- lib/Display/ncurses/src/ncurses.cpp

## 3.8 Arcade::Ghost Class Reference

### Public Member Functions

- [Ghost](#) (const Path &, int Color, Position, int stuckTime=10, bool normal=true)
- virtual [~Ghost](#) ()=default
- TileObject [getObject](#) ()
- Position [getPos](#) ()
- void [setPosition](#) (Position)
- void [reset](#) ()
- void [resetTexture](#) ()
- void [Kill](#) ()
- void [Move](#) (Arcade::Pacman \*pPacman)
- void [Scare](#) (long Since)
- void [MoveToTarget](#) (Pacman \*pPacman)
- bool [isAlive](#) () const
- void [CheckInSpawn](#) ()
- void [PathTo](#) (int xTarget, int yTarget)

### 3.8.1 Constructor & Destructor Documentation

#### 3.8.1.1 Ghost()

```
Arcade::Ghost::Ghost (
    const Path & path,
    int Color,
    Position StartPosition,
    int stuckTime = 10,
    bool normal = true )
```

Creating a [Ghost](#) object.

#### 3.8.1.2 ~Ghost()

```
virtual Arcade::Ghost::~~Ghost ( ) [virtual], [default]
```

The destructor is a special function that is called when an object is destroyed

### 3.8.2 Member Function Documentation

### 3.8.2.1 CheckInSpawn()

```
void Arcade::Ghost::CheckInSpawn ( )
```

Checking if the ghost is in the spawn area.

### 3.8.2.2 getObject()

```
TileObject Arcade::Ghost::getObject ( ) [inline]
```

Returns the object that the ghost is currently occupying

#### Returns

The object that is being returned is the GhostObject.

### 3.8.2.3 getPos()

```
Position Arcade::Ghost::getPos ( ) [inline]
```

Return the position of the player

#### Returns

The position of the current node.

### 3.8.2.4 isAlive()

```
bool Arcade::Ghost::isAlive ( ) const [inline]
```

If the object is alive, return true, otherwise return false

#### Returns

The return type is bool, which is a type that can only be true or false.

### 3.8.2.5 Kill()

```
void Arcade::Ghost::Kill ( )
```

This is a function that is called when the ghost is killed.

### 3.8.2.6 Move()

```
void Arcade::Ghost::Move (
    Arcade::Pacman * pPacman )
```

This is a function that is called when the ghost is moving.

### 3.8.2.7 MoveToTarget()

```
void Arcade::Ghost::MoveToTarget (
    Pacman * pPacman )
```

Moving the ghost to the target position.

### 3.8.2.8 PathTo()

```
void Arcade::Ghost::PathTo (
    int xTarget,
    int yTarget )
```

This is a function that is called when the ghost is trying to get to a target position.

### 3.8.2.9 reset()

```
void Arcade::Ghost::reset ( )
```

Resetting the ghost to its original position.

### 3.8.2.10 resetTexture()

```
void Arcade::Ghost::resetTexture ( )
```

Resetting the texture of the ghost to the original texture.

### 3.8.2.11 Scare()

```
void Arcade::Ghost::Scare (
    long Since )
```

This is a function that is called when the ghost is scared.

### 3.8.2.12 setPosition()

```
void Arcade::Ghost::setPosition (
    Position NewPosition )
```

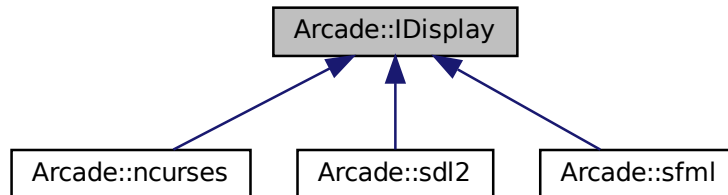
Setting the position of the ghost to the position that is passed in.

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

- lib/Game/Pacman/includes/Ghost.hpp
- lib/Game/Pacman/src/Ghost.cpp

## 3.9 Arcade::IDisplay Class Reference

Inheritance diagram for Arcade::IDisplay:



### Public Member Functions

- virtual [~IDisplay](#) ()=default
- virtual Input [GetInput](#) ()=0
- virtual void [ClearScreen](#) ()=0
- virtual void [RefreshScreen](#) ()=0
- virtual void [DrawObject](#) (Object object)=0

### 3.9.1 Constructor & Destructor Documentation

#### 3.9.1.1 ~IDisplay()

```
virtual Arcade::IDisplay::~~IDisplay ( ) [virtual], [default]
```

This is the destructor

### 3.9.2 Member Function Documentation

#### 3.9.2.1 ClearScreen()

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

Telling the compiler that the function [ClearScreen\(\)](#) is virtual and has no implementation.

Implemented in [Arcade::ncurses](#), [Arcade::sdl2](#), and [Arcade::sfml](#).

### 3.9.2.2 DrawObject()

```
virtual void Arcade::IDisplay::DrawObject (
    Object object ) [pure virtual]
```

Telling the compiler that the function [DrawObject\(\)](#) is virtual and has no implementation.

Implemented in [Arcade::ncurses](#), [Arcade::sdl2](#), and [Arcade::sfml](#).

### 3.9.2.3 GetInput()

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

Telling the compiler that the function [GetInput\(\)](#) is virtual and has no implementation.

Implemented in [Arcade::ncurses](#), [Arcade::sdl2](#), and [Arcade::sfml](#).

### 3.9.2.4 RefreshScreen()

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

Telling the compiler that the function [RefreshScreen\(\)](#) is virtual and has no implementation.

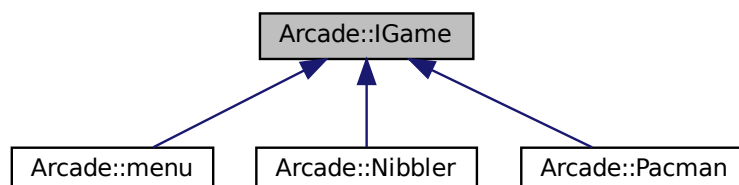
Implemented in [Arcade::ncurses](#), [Arcade::sdl2](#), and [Arcade::sfml](#).

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

- includes/Display.hpp

## 3.10 Arcade::IGame Class Reference

Inheritance diagram for Arcade::IGame:



## Public Member Functions

- virtual [~IGame](#) ()=default
- virtual std::vector< Object > [GameLoop](#) (Input input)=0
- virtual int [GetScore](#) ()=0
- virtual void [ResetGame](#) ()=0

### 3.10.1 Constructor & Destructor Documentation

#### 3.10.1.1 ~IGame()

```
virtual Arcade::IGame::~IGame ( ) [virtual], [default]
```

This is the destructor

### 3.10.2 Member Function Documentation

#### 3.10.2.1 GameLoop()

```
virtual std::vector<Object> Arcade::IGame::GameLoop (
    Input input ) [pure virtual]
```

Telling the compiler that the function GameLoop is virtual and has a return type of std::vector<Object>.

Implemented in [Arcade::Pacman](#), [Arcade::Nibbler](#), and [Arcade::menu](#).

#### 3.10.2.2 GetScore()

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

Telling the compiler that the function GetScore is virtual and has a return type of int.

Implemented in [Arcade::Pacman](#), [Arcade::Nibbler](#), and [Arcade::menu](#).

### 3.10.2.3 ResetGame()

```
virtual void Arcade::IGame::ResetGame ( ) [pure virtual]
```

Telling the compiler that the function ResetGame is virtual and has a return type of void.

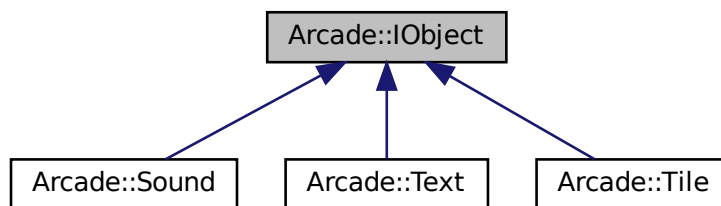
Implemented in [Arcade::Pacman](#), [Arcade::Nibbler](#), and [Arcade::menu](#).

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

- includes/Game.hpp

## 3.11 Arcade::IObject Class Reference

Inheritance diagram for Arcade::IObject:



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

- includes/Object.hpp

## 3.12 Arcade::Library Class Reference

### Public Member Functions

- [Library](#) () noexcept=default
- [~Library](#) () noexcept
- void [LoadGame](#) (const LibName &GameName)
- void [LoadDisplay](#) (const LibName &DisplayName)
- void [UnloadGame](#) () noexcept
- void [UnloadDisplay](#) () noexcept
- [IGame](#) \* [GetGame](#) ()
- [IDisplay](#) \* [GetDisplay](#) ()

### 3.12.1 Constructor & Destructor Documentation

#### 3.12.1.1 Library()

```
Arcade::Library::Library ( ) [default], [noexcept]
```

The default constructor for the [Library](#) class

#### 3.12.1.2 ~Library()

```
Arcade::Library::~~Library ( ) [inline], [noexcept]
```

This function is called when the object is destroyed

### 3.12.2 Member Function Documentation

#### 3.12.2.1 GetDisplay()

```
IDisplay* Arcade::Library::GetDisplay ( ) [inline]
```

Get the display object.

##### Returns

The display object.

#### 3.12.2.2 GetGame()

```
IGame* Arcade::Library::GetGame ( ) [inline]
```

Get the game object.

##### Returns

The game object.

#### 3.12.2.3 LoadDisplay()

```
void Arcade::Library::LoadDisplay (
    const LibName & DisplayName ) [inline]
```

Loads the display library and returns a pointer to the display object



## Parameters

<i>DisplayName</i>	The name of the display library.
--------------------	----------------------------------

**3.12.2.4 LoadGame()**

```
void Arcade::Library::LoadGame (
    const LibName & GameName ) [inline]
```

Loads the game and returns a pointer to the game's entry point

## Parameters

<i>GameName</i>	The name of the game to load.
-----------------	-------------------------------

**3.12.2.5 UnloadDisplay()**

```
void Arcade::Library::UnloadDisplay ( ) [inline], [noexcept]
```

The function deletes the display object and closes the display library

**3.12.2.6 UnloadGame()**

```
void Arcade::Library::UnloadGame ( ) [inline], [noexcept]
```

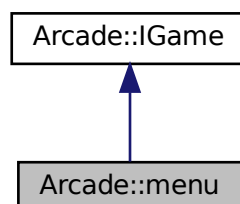
It deletes the game object and closes the game's dynamic library

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

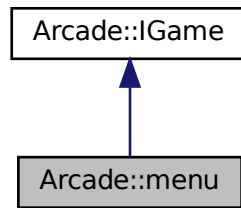
- includes/Library.hpp

**3.13 Arcade::menu Class Reference**

Inheritance diagram for Arcade::menu:



Collaboration diagram for Arcade::menu:



## Public Member Functions

- [menu](#) ()
- [~menu](#) () override=default
- void [GetGameLibraries](#) ()
- std::vector< Object > [GameLoop](#) (Input input) override
- int [GetScore](#) () override
- void [ResetGame](#) () override
- void [SetGamePicture](#) ()

## Static Public Member Functions

- static int [Modulo](#) (int a, int b)

### 3.13.1 Constructor & Destructor Documentation

#### 3.13.1.1 menu()

```
Arcade::menu::menu ( )
```

Creating a new object of type `menu` and initializing it.

#### 3.13.1.2 ~menu()

```
Arcade::menu::~~menu ( ) [override], [default]
```

The destructor for the menu class

## 3.13.2 Member Function Documentation

### 3.13.2.1 GameLoop()

```
std::vector< Arcade::Object > Arcade::menu::GameLoop (
    Input input ) [override], [virtual]
```

Returning a vector of objects.

Implements [Arcade::IGame](#).

### 3.13.2.2 GetGameLibraries()

```
void Arcade::menu::GetGameLibraries ( )
```

Getting the game libraries from the `lib` folder.

### 3.13.2.3 GetScore()

```
int Arcade::menu::GetScore ( ) [inline], [override], [virtual]
```

Get the score of the current game.

Returns

The score of the current game.

Implements [Arcade::IGame](#).

### 3.13.2.4 Modulo()

```
int Arcade::menu::Modulo (
    int a,
    int b ) [static]
```

A function that returns the remainder of a division.

### 3.13.2.5 ResetGame()

```
void Arcade::menu::ResetGame ( ) [override], [virtual]
```

Resetting the game.

Implements [Arcade::IGame](#).

### 3.13.2.6 SetGamePicture()

```
void Arcade::menu::SetGamePicture ( )
```

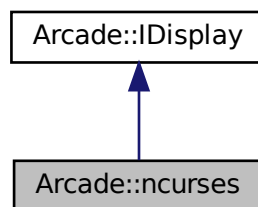
Setting the game picture.

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

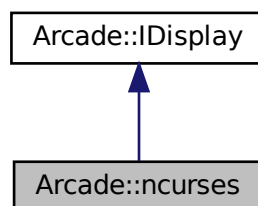
- lib/Game/Menu/includes/Menu.hpp
- lib/Game/Menu/src/Menu.cpp

## 3.14 Arcade::ncurses Class Reference

Inheritance diagram for Arcade::ncurses:



Collaboration diagram for Arcade::ncurses:



### Public Member Functions

- [ncurses](#) ()
- [~ncurses](#) () override
- Input [GetInput](#) () override
- void [ClearScreen](#) () override
- void [RefreshScreen](#) () override
- void [DrawObject](#) (Object object) override

## Static Public Member Functions

- static void [DrawTile](#) ([Tile](#) \*Tile)
- static void [DrawText](#) ([Text](#) \*pText)

### 3.14.1 Constructor & Destructor Documentation

#### 3.14.1.1 ncurses()

```
Arcade::ncurses::ncurses ( )
```

A library that allows you to use the ncurses library.

#### 3.14.1.2 ~ncurses()

```
Arcade::ncurses::~~ncurses ( ) [override]
```

Overriding the destructor of the base class.

### 3.14.2 Member Function Documentation

#### 3.14.2.1 ClearScreen()

```
void Arcade::ncurses::ClearScreen ( ) [override], [virtual]
```

Clearing the screen.

Implements [Arcade::IDisplay](#).

#### 3.14.2.2 DrawObject()

```
void Arcade::ncurses::DrawObject (
    Arcade::Object object ) [override], [virtual]
```

A function that draws the object on the screen.

##### Parameters

<i>Object</i>	is the object to draw.
---------------	------------------------

Implements [Arcade::IDisplay](#).

### 3.14.2.3 DrawText()

```
void Arcade::ncurses::DrawText (
    Arcade::Text * pText ) [static]
```

A function that draws the text on the screen.

#### Parameters

<a href="#">Text</a>	is the text to draw.
----------------------	----------------------

### 3.14.2.4 DrawTile()

```
void Arcade::ncurses::DrawTile (
    Arcade::Tile * Tile ) [static]
```

A function that draws the tile on the screen.

#### Parameters

<a href="#">Tile</a>	is the tile to draw.
----------------------	----------------------

### 3.14.2.5 GetInput()

```
Arcade::Input Arcade::ncurses::GetInput ( ) [override], [virtual]
```

Returning the input from the user.

#### Returns

the input of the user.

Implements [Arcade::IDisplay](#).

### 3.14.2.6 RefreshScreen()

```
void Arcade::ncurses::RefreshScreen ( ) [override], [virtual]
```

Refreshing the screen.

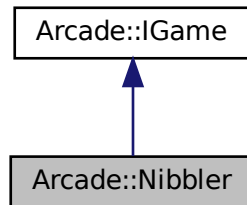
Implements [Arcade::IDisplay](#).

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

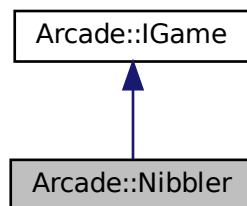
- lib/Display/ncurses/includes/ncurses.hpp
- lib/Display/ncurses/src/ncurses.cpp

## 3.15 Arcade::Nibbler Class Reference

Inheritance diagram for Arcade::Nibbler:



Collaboration diagram for Arcade::Nibbler:



### Public Member Functions

- [Nibbler](#) ()
- [~Nibbler](#) () override=default
- `std::vector< Object >` [GameLoop](#) (Input input) override
- `int` [GetScore](#) () override
- `void` [ResetGame](#) () override
- `void` [AddFruit](#) ()
- `void` [MoveSnake](#) (Input input)
- `void` [CheckMovement](#) (Position NewPosition)
- `void` [GameOver](#) ()

#### 3.15.1 Constructor & Destructor Documentation

### 3.15.1.1 Nibbler()

```
Arcade::Nibbler::Nibbler ( )
```

Creating a new [Nibbler](#) object.

### 3.15.1.2 ~Nibbler()

```
Arcade::Nibbler::~~Nibbler ( ) [override], [default]
```

The destructor for the [Nibbler](#) class

## 3.15.2 Member Function Documentation

### 3.15.2.1 AddFruit()

```
void Arcade::Nibbler::AddFruit ( )
```

Adding a fruit to the map.

### 3.15.2.2 CheckMovement()

```
void Arcade::Nibbler::CheckMovement (
    Position NewPosition )
```

Checking if the new position is a wall or not.

### 3.15.2.3 GameLoop()

```
std::vector< Arcade::Object > Arcade::Nibbler::GameLoop (
    Input input ) [override], [virtual]
```

Returning a vector of objects.

Implements [Arcade::!Game](#).

### 3.15.2.4 GameOver()

```
void Arcade::Nibbler::GameOver ( )
```

Checking if the snake has collided with itself or the walls.



### 3.15.2.5 GetScore()

```
int Arcade::Nibbler::GetScore ( ) [inline], [override], [virtual]
```

Get the score of the game.

#### Returns

The return type is an int, which is the score.

Implements [Arcade::IGame](#).

### 3.15.2.6 MoveSnake()

```
void Arcade::Nibbler::MoveSnake (
    Input input )
```

Moving the snake.

### 3.15.2.7 ResetGame()

```
void Arcade::Nibbler::ResetGame ( ) [override], [virtual]
```

Resetting the game.

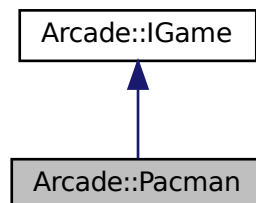
Implements [Arcade::IGame](#).

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

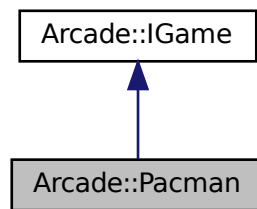
- lib/Game/Nibbler/includes/Nibbler.hpp
- lib/Game/Nibbler/src/Nibbler.cpp

## 3.16 Arcade::Pacman Class Reference

Inheritance diagram for Arcade::Pacman:



Collaboration diagram for Arcade::Pacman:



## Public Member Functions

- [Pacman](#) ()
- [~Pacman](#) () override=default
- `std::vector< Object >` [GameLoop](#) (Input input) override
- `int` [GetScore](#) () override
- `void` [ResetGame](#) () override
- `void` [MovePacman](#) ()
- `void` [SetDirection](#) (Input input, bool retry)
- `bool` [WallInPosition](#) (Position, bool CheckDoor=true)
- `void` [PointPacman](#) ()
- `void` [GhostPacman](#) ()
- `void` [HitGhost](#) ()
- `void` [LevelUp](#) ()
- `void` [resetPoints](#) ()
- `void` [UpdateScores](#) ()
- `Position` [getPosition](#) ()

## Static Public Member Functions

- `static float` [Modulo](#) (float a, int b)
- `static Position` [PositionToIntPosition](#) (Position, bool rounded=false)
- `static bool` [IsInt](#) (float a)

## Public Attributes

- `int` **Width**
- `int` **Height**

### 3.16.1 Constructor & Destructor Documentation

### 3.16.1.1 Pacman()

```
Arcade::Pacman::Pacman ( )
```

Creating a new [Pacman](#) object.

### 3.16.1.2 ~Pacman()

```
Arcade::Pacman::~~Pacman ( ) [override], [default]
```

The destructor is a special function that is called when an object is destroyed

## 3.16.2 Member Function Documentation

### 3.16.2.1 GameLoop()

```
std::vector< Arcade::Object > Arcade::Pacman::GameLoop (
    Input input ) [override], [virtual]
```

Returning a vector of objects.

Implements [Arcade::IGame](#).

### 3.16.2.2 getPosition()

```
Position Arcade::Pacman::getPosition ( ) [inline]
```

Return the position of the player

#### Returns

The position of the current node.

### 3.16.2.3 GetScore()

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

Get the score of the game.

#### Returns

The return type is an int, which is the score.

Implements [Arcade::IGame](#).

#### 3.16.2.4 GhostPacman()

```
void Arcade::Pacman::GhostPacman ( )
```

Checking if the [Pacman](#) is on a ghost.

#### 3.16.2.5 HitGhost()

```
void Arcade::Pacman::HitGhost ( )
```

Checking if the [Pacman](#) is on a ghost.

#### 3.16.2.6 IsInt()

```
bool Arcade::Pacman::IsInt (
    float a ) [static]
```

Checking if the float is an integer.

#### 3.16.2.7 LevelUp()

```
void Arcade::Pacman::LevelUp ( )
```

Increasing the level of the game.

#### 3.16.2.8 Modulo()

```
float Arcade::Pacman::Modulo (
    float a,
    int b ) [static]
```

A function that returns the modulo of a and b.

#### 3.16.2.9 MovePacman()

```
void Arcade::Pacman::MovePacman ( )
```

Moving the [Pacman](#) object to the next position.

#### 3.16.2.10 PointPacman()

```
void Arcade::Pacman::PointPacman ( )
```

Checking if the [Pacman](#) is on a point.

### 3.16.2.11 PositionToIntPosition()

```
Arcade::Position Arcade::Pacman::PositionToIntPosition (
    Position oldPos,
    bool rounded = false ) [static]
```

Converting a Position object to an int.

### 3.16.2.12 ResetGame()

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

Resetting the game.

Implements [Arcade::IGame](#).

### 3.16.2.13 resetPoints()

```
void Arcade::Pacman::resetPoints ( )
```

Resetting the points of the game.

### 3.16.2.14 SetDirection()

```
void Arcade::Pacman::SetDirection (
    Input input,
    bool retry )
```

Setting the direction of the [Pacman](#) object.

### 3.16.2.15 UpdateScores()

```
void Arcade::Pacman::UpdateScores ( )
```

Updating the score of the game.

### 3.16.2.16 WallInPosition()

```
bool Arcade::Pacman::WallInPosition (
    Position NewPosition,
    bool CheckDoor = true )
```

Checking if there is a wall in the position of the [Pacman](#).

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

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

## 3.17 Pixel Class Reference

### Public Member Functions

- [Pixel](#) ()=default
- virtual [~Pixel](#) ()=default
- void [ConvertPixel](#) ()

### Public Attributes

- int **r** {}
- int **g** {}
- int **b** {}

### 3.17.1 Constructor & Destructor Documentation

#### 3.17.1.1 [Pixel](#)()

```
Pixel::Pixel ( ) [default]
```

[Pixel](#) constructor

#### 3.17.1.2 [~Pixel](#)()

```
virtual Pixel::~~Pixel ( ) [virtual], [default]
```

[Pixel](#) destructor

### 3.17.2 Member Function Documentation

#### 3.17.2.1 [ConvertPixel](#)()

```
void Pixel::ConvertPixel ( ) [inline]
```

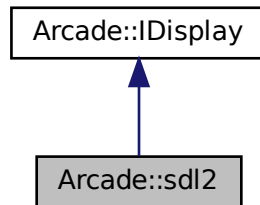
This function converts a ncurses color to a pixel color.

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

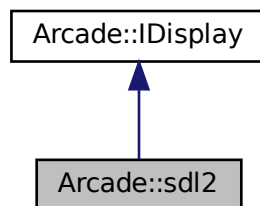
- lib/Display/ncurses/includes/ncurses.hpp

## 3.18 Arcade::sdl2 Class Reference

Inheritance diagram for Arcade::sdl2:



Collaboration diagram for Arcade::sdl2:



### Public Member Functions

- [sdl2](#) ()
- [~sdl2](#) () override
- Input [GetInput](#) () override
- void [ClearScreen](#) () override
- void [RefreshScreen](#) () override
- void [DrawObject](#) (Object object) override
- void [DrawTile](#) (Tile \*Tile)
- void [DrawText](#) (Text \*pText)
- void [PlaySound](#) (Sound \*pSound)

### 3.18.1 Constructor & Destructor Documentation

### 3.18.1.1 `sdl2()`

```
Arcade::sdl2::sdl2 ( )
```

[sdl2](#) constructor

### 3.18.1.2 `~sdl2()`

```
Arcade::sdl2::~~sdl2 ( ) [override]
```

[sdl2](#) destructor

## 3.18.2 Member Function Documentation

### 3.18.2.1 `ClearScreen()`

```
void Arcade::sdl2::ClearScreen ( ) [override], [virtual]
```

Clearing the screen.

Implements [Arcade::IDisplay](#).

### 3.18.2.2 `DrawObject()`

```
void Arcade::sdl2::DrawObject (
    Arcade::Object object ) [override], [virtual]
```

Drawing the object on the screen.

#### Parameters

<i>Object</i>	is the object to draw.
---------------	------------------------

Implements [Arcade::IDisplay](#).

### 3.18.2.3 `DrawText()`

```
void Arcade::sdl2::DrawText (
    Arcade::Text * Text )
```

Drawing text on the screen.



## Parameters

<a href="#">Text</a>	is the text to draw.
----------------------	----------------------

### 3.18.2.4 DrawTile()

```
void Arcade::sdl2::DrawTile (
    Arcade::Tile * Tile )
```

Drawing the tile on the screen.

## Parameters

<a href="#">Tile</a>	is the tile to draw.
----------------------	----------------------

### 3.18.2.5 GetInput()

```
Arcade::Input Arcade::sdl2::GetInput ( ) [override], [virtual]
```

Returning the input of the user.

## Returns

the input of the user.

Implements [Arcade::IDisplay](#).

### 3.18.2.6 PlaySound()

```
void Arcade::sdl2::PlaySound (
    Arcade::Sound * pSound )
```

Playing the sound.

## Parameters

<a href="#">Sound</a>	is the sound to play.
-----------------------	-----------------------

### 3.18.2.7 RefreshScreen()

```
void Arcade::sdl2::RefreshScreen ( ) [override], [virtual]
```

Refreshing the screen.

Implements [Arcade::IDisplay](#).

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

- lib/Display/sdl2/includes/sdl2.hpp
- lib/Display/sdl2/src/sdl2.cpp

## 3.19 Arcade::sdl2Sound Class Reference

### Public Member Functions

- [sdl2Sound](#) (const SoundPath &, bool loop=false)
- [~sdl2Sound](#) ()
- void [play](#) () const

### Public Attributes

- Mix\_Music \* **music** {}
- bool **Looping**

### 3.19.1 Constructor & Destructor Documentation

#### 3.19.1.1 sdl2Sound()

```
Arcade::sdl2Sound::sdl2Sound (
    const SoundPath & path,
    bool loop = false ) [explicit]
```

This is a constructor.

#### Parameters

<i>SoundPath</i>	is the path to the sound file.
<i>bool</i>	is the looping to set.

### 3.19.1.2 ~sdl2Sound()

```

Arcade::sdl2Sound::~sdl2Sound ( ) [inline]

```

This is a destructor.

## 3.19.2 Member Function Documentation

### 3.19.2.1 play()

```

void Arcade::sdl2Sound::play ( ) const [inline]

```

This function is used to play the sound.

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

- lib/Display/sdl2/includes/sdl2.hpp
- lib/Display/sdl2/src/sdl2.cpp

## 3.20 Arcade::sdl2Texture Class Reference

### Public Member Functions

- [sdl2Texture](#) (const TexturePath &texture, SDL\_Renderer \*renderer)
- [sdl2Texture](#) (const TexturePath &[Text](#), TTF\_Font \*font, SDL\_Renderer \*renderer)
- [~sdl2Texture](#) ()
- void [SetPosition](#) (Position position)

### Public Attributes

- SDL\_Texture \* **texture**
- SDL\_Point **center** {}
- SDL\_Rect **rectangle** {}

### 3.20.1 Constructor & Destructor Documentation

#### 3.20.1.1 sdl2Texture() [1/2]

```

Arcade::sdl2Texture::sdl2Texture (
    const TexturePath & texture,
    SDL_Renderer * renderer )

```

This is a constructor.

**Parameters**

<i>texture</i>	is the texture to set.
<i>renderer</i>	is the renderer to set.

**3.20.1.2 sdl2Texture() [2/2]**

```
Arcade::sdl2Texture::sdl2Texture (
    const TexturePath & Text,
    TTF_Font * font,
    SDL_Renderer * renderer )
```

This is a constructor.

**Parameters**

<i>Text</i>	is the texture to set.
<i>font</i>	is the font to set.
<i>renderer</i>	is the renderer to set.

**3.20.1.3 ~sdl2Texture()**

```
Arcade::sdl2Texture::~sdl2Texture ( )
```

This is a destructor.

**3.20.2 Member Function Documentation****3.20.2.1 SetPosition()**

```
void Arcade::sdl2Texture::SetPosition (
    Position position )
```

This function is used to set the position of the texture.

**Parameters**

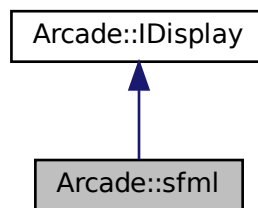
<i>position</i>	is the position to set.
-----------------	-------------------------

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

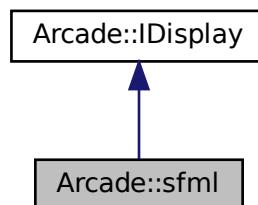
- lib/Display/sdl2/includes/sdl2.hpp
- lib/Display/sdl2/src/sdl2.cpp

## 3.21 Arcade::sfml Class Reference

Inheritance diagram for Arcade::sfml:



Collaboration diagram for Arcade::sfml:



### Public Member Functions

- [sfml](#) ()
- [~sfml](#) () override
- Input [GetInput](#) () override
- void [ClearScreen](#) () override
- void [RefreshScreen](#) () override
- void [DrawObject](#) (Object object) override
- void [DrawTile](#) (Tile \*tile)
- void [DrawText](#) (Text \*text)
- void [PlaySound](#) (Sound \*sound)

### 3.21.1 Constructor & Destructor Documentation

#### 3.21.1.1 `sfml()`

```
Arcade::sfml::sfml ( )
```

Creating a new instance of the `sfml` class.

#### 3.21.1.2 `~sfml()`

```
Arcade::sfml::~sfml ( ) [override]
```

This is a destructor. It is called when the object is destroyed.

### 3.21.2 Member Function Documentation

#### 3.21.2.1 `ClearScreen()`

```
void Arcade::sfml::ClearScreen ( ) [override], [virtual]
```

Clearing the screen.

Implements [Arcade::IDisplay](#).

#### 3.21.2.2 `DrawObject()`

```
void Arcade::sfml::DrawObject (
    Arcade::Object object ) [override], [virtual]
```

Drawing the object on the screen.

Implements [Arcade::IDisplay](#).

#### 3.21.2.3 `DrawText()`

```
void Arcade::sfml::DrawText (
    Arcade::Text * text )
```

Drawing text on the screen.

#### 3.21.2.4 DrawTile()

```
void Arcade::sfml::DrawTile (
    Arcade::Tile * tile )
```

Drawing a tile.

#### 3.21.2.5 GetInput()

```
Arcade::Input Arcade::sfml::GetInput ( ) [override], [virtual]
```

Returning the input of the user.

Implements [Arcade::IDisplay](#).

#### 3.21.2.6 PlaySound()

```
void Arcade::sfml::PlaySound (
    Arcade::Sound * sound )
```

Playing a sound.

#### 3.21.2.7 RefreshScreen()

```
void Arcade::sfml::RefreshScreen ( ) [override], [virtual]
```

Refreshing the screen.

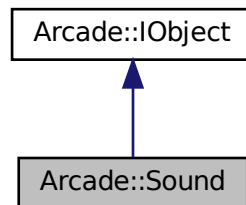
Implements [Arcade::IDisplay](#).

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

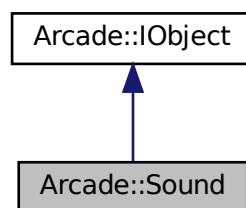
- lib/Display/sfml/includes/sfml.hpp
- lib/Display/sfml/src/sfml.cpp

## 3.22 Arcade::Sound Class Reference

Inheritance diagram for Arcade::Sound:



Collaboration diagram for Arcade::Sound:



### Public Member Functions

- [Sound](#) (std::string path, bool loop=false)
- [~Sound](#) () override=default
- std::string [getSound](#) () const
- bool [getLoop](#) () const
- void [setSound](#) (std::string path)

### 3.22.1 Constructor & Destructor Documentation

#### 3.22.1.1 Sound()

```
Arcade::Sound::Sound (
    std::string path,
    bool loop = false ) [inline], [explicit]
```

Create a [Sound](#) object from a path to a music file



## Parameters

<i>path</i>	The path to the sound file.
<i>loop</i>	If true, the sound will loop. If false, the sound will play once.

### 3.22.1.2 ~Sound()

```
Arcade::Sound::~Sound ( ) [override], [default]
```

This is the destructor

## 3.22.2 Member Function Documentation

### 3.22.2.1 getLoop()

```
bool Arcade::Sound::getLoop ( ) const [inline]
```

Get the looping state of the sound.

## Returns

The value of Looping.

### 3.22.2.2 getSound()

```
std::string Arcade::Sound::getSound ( ) const [inline]
```

Return the value of the Music member variable

## Returns

The value of the member variable Music.

### 3.22.2.3 setSound()

```
void Arcade::Sound::setSound (
    std::string path ) [inline]
```

Set the path of the music file to be played.

## Parameters

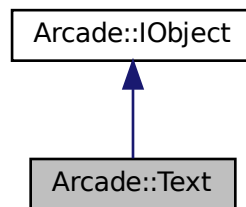
<i>path</i>	The path to the sound file.
-------------	-----------------------------

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

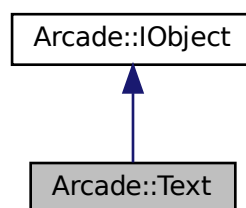
- includes/Object.hpp

### 3.23 Arcade::Text Class Reference

Inheritance diagram for Arcade::Text:



Collaboration diagram for Arcade::Text:



#### Public Member Functions

- [Text](#) (std::string text, int color=WHITE, float positionX=0, float positionY=0)
- [~Text](#) () override=default
- std::string [getText](#) ()
- Position [getPosition](#) ()
- int [getColor](#) () const
- void [setText](#) (std::string NewText)

### 3.23.1 Constructor & Destructor Documentation

#### 3.23.1.1 Text()

```
Arcade::Text::Text (
    std::string text,
    int color = WHITE,
    float positionX = 0,
    float positionY = 0 ) [inline], [explicit]
```

Create a [Text](#) object with the given text, color, and position

##### Parameters

<i>text</i>	The text to be displayed.
<i>color</i>	The color of the text.
<i>positionX</i>	The x-coordinate of the text.
<i>positionY</i>	The y-coordinate of the text.

#### 3.23.1.2 ~Text()

```
Arcade::Text::~~Text ( ) [override], [default]
```

The destructor for the [Text](#) class

### 3.23.2 Member Function Documentation

#### 3.23.2.1 getColor()

```
int Arcade::Text::getColor ( ) const [inline]
```

Get the color of the object.

##### Returns

The color of the node.

### 3.23.2.2 getPosition()

```
Position Arcade::Text::getPosition ( ) [inline]
```

Return the position of the player

#### Returns

The position of the current node.

### 3.23.2.3 getText()

```
std::string Arcade::Text::getText ( ) [inline]
```

Return the text

#### Returns

The text of the question.

### 3.23.2.4 setText()

```
void Arcade::Text::setText (
    std::string NewText ) [inline]
```

If the text is different from the current text, then set the text to the new text

#### Parameters

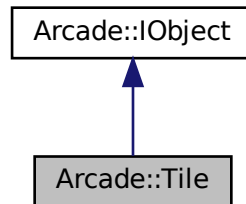
<i>NewText</i>	The new text to set.
----------------	----------------------

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

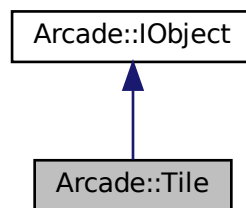
- includes/Object.hpp

## 3.24 Arcade::Tile Class Reference

Inheritance diagram for Arcade::Tile:



Collaboration diagram for Arcade::Tile:



### Public Member Functions

- [Tile](#) (TexturePath texturePath, std::string character, int color=MAGENTA, float positionX=0, float positionY=0)
- [~Tile](#) () override=default
- TexturePath [getTexturePath](#) ()
- Position [getPosition](#) ()
- int [getRotation](#) () const
- void **setPosition** (Position NewPosition)
- void [setRotation](#) (int NewRotation)
- void [setCharacter](#) (std::string NewText)
- void [setTexture](#) (std::string NewTexture)
- void [setColor](#) (int Color)
- std::string [getCharacter](#) ()
- int [getColor](#) () const

#### 3.24.1 Constructor & Destructor Documentation

### 3.24.1.1 Tile()

```
Arcade::Tile::Tile (
    TexturePath texturePath,
    std::string character,
    int color = MAGENTA,
    float positionX = 0,
    float positionY = 0 ) [inline]
```

The constructor for the [Tile](#) class

#### Parameters

<i>texturePath</i>	The path to the texture file.
<i>character</i>	The character that will be drawn on the tile.
<i>color</i>	The color of the tile.
<i>positionX</i>	The x-coordinate of the tile.
<i>positionY</i>	The y-coordinate of the tile.

### 3.24.1.2 ~Tile()

```
Arcade::Tile::~~Tile ( ) [override], [default]
```

The destructor for the [Tile](#) class is empty

## 3.24.2 Member Function Documentation

### 3.24.2.1 getCharacter()

```
std::string Arcade::Tile::getCharacter ( ) [inline]
```

Return the character that the player is currently playing as

#### Returns

The character that was passed in.

### 3.24.2.2 getColor()

```
int Arcade::Tile::getColor ( ) const [inline]
```

Get the color of the object.

#### Returns

The color of the node.

### 3.24.2.3 getPosition()

```
Position Arcade::Tile::getPosition ( ) [inline]
```

Return the current position

#### Returns

The position of the current node.

### 3.24.2.4 getRotation()

```
int Arcade::Tile::getRotation ( ) const [inline]
```

Get the rotation of the object.

#### Returns

The rotation of the image.

### 3.24.2.5 getTexturePath()

```
TexturePath Arcade::Tile::getTexturePath ( ) [inline]
```

Get the path to the texture file.

#### Returns

The texture path.

### 3.24.2.6 setCharacter()

```
void Arcade::Tile::setCharacter (
    std::string NewText ) [inline]
```

The function sets the character variable to the value of the NewText parameter

#### Parameters

<i>NewText</i>	The new text to be set.
----------------	-------------------------

### 3.24.2.7 setColor()

```
void Arcade::Tile::setColor (
    int Color ) [inline]
```

Set the color to the given value

#### Parameters

<i>Color</i>	The color of the text.
--------------	------------------------

### 3.24.2.8 setRotation()

```
void Arcade::Tile::setRotation (
    int NewRotation ) [inline]
```

Set the position of the object to the new position

#### Parameters

<i>NewPosition</i>	The new position of the object. Set the rotation of the object to NewRotation.
<i>NewRotation</i>	The new rotation value.

### 3.24.2.9 setTexture()

```
void Arcade::Tile::setTexture (
    std::string NewTexture ) [inline]
```

The function takes a string and sets the texturePath variable to that string

#### Parameters

<i>NewTexture</i>	The path to the texture file.
-------------------	-------------------------------

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

- includes/Object.hpp



# Index

- ~ArcadeBorne
  - Arcade::ArcadeBorne, [6](#)
- ~ArcadeParse
  - Arcade::ArcadeParse, [12](#)
- ~Converter
  - Converter, [16](#)
- ~Ghost
  - Arcade::Ghost, [17](#)
- ~IDisplay
  - Arcade::IDisplay, [20](#)
- ~IGame
  - Arcade::IGame, [22](#)
- ~Library
  - Arcade::Library, [24](#)
- ~Nibbler
  - Arcade::Nibbler, [32](#)
- ~Pacman
  - Arcade::Pacman, [35](#)
- ~Pixel
  - Pixel, [38](#)
- ~Sound
  - Arcade::Sound, [49](#)
- ~Text
  - Arcade::Text, [51](#)
- ~Tile
  - Arcade::Tile, [54](#)
- ~menu
  - Arcade::menu, [26](#)
- ~ncurses
  - Arcade::ncurses, [29](#)
- ~sdl2
  - Arcade::sdl2, [40](#)
- ~sdl2Sound
  - Arcade::sdl2Sound, [42](#)
- ~sdl2Texture
  - Arcade::sdl2Texture, [44](#)
- ~sfml
  - Arcade::sfml, [46](#)
- AddFruit
  - Arcade::Nibbler, [32](#)
- Arcade::ArcadeBorne, [5](#)
  - ~ArcadeBorne, [6](#)
  - ArcadeBorne, [6](#)
  - DisplayLibs, [6](#)
  - GetPlayerName, [7](#)
  - HashVector, [7](#)
  - LoadGameLib, [7](#)
  - LoadGraphicLib, [7](#)
  - Modulo, [7](#)
- Arcade::ArcadeError, [8](#)
  - ArcadeError, [9](#)
  - what, [9](#)
- Arcade::ArcadeMissingError, [10](#)
  - ArcadeMissingError, [10](#)
- Arcade::ArcadeParse, [11](#)
  - ~ArcadeParse, [12](#)
  - ArcadeParse, [12](#)
  - CheckArgument, [12](#)
  - CheckLibraries, [12](#)
  - GetLibraries, [12](#)
- Arcade::ArcadeRuntimeError, [13](#)
  - ArcadeRuntimeError, [13](#)
- Arcade::ArcadeUsageError, [14](#)
  - ArcadeUsageError, [15](#)
- Arcade::Ghost, [17](#)
  - ~Ghost, [17](#)
  - CheckInSpawn, [17](#)
  - getObject, [18](#)
  - getPos, [18](#)
  - Ghost, [17](#)
  - isAlive, [18](#)
  - Kill, [18](#)
  - Move, [18](#)
  - MoveToTarget, [19](#)
  - PathTo, [19](#)
  - reset, [19](#)
  - resetTexture, [19](#)
  - Scare, [19](#)
  - setPosition, [19](#)
- Arcade::IDisplay, [20](#)
  - ~IDisplay, [20](#)
  - ClearScreen, [20](#)
  - DrawObject, [20](#)
  - GetInput, [21](#)
  - RefreshScreen, [21](#)
- Arcade::IGame, [21](#)
  - ~IGame, [22](#)
  - GameLoop, [22](#)
  - GetScore, [22](#)
  - ResetGame, [22](#)
- Arcade::IObject, [23](#)
- Arcade::Library, [23](#)
  - ~Library, [24](#)
  - GetDisplay, [24](#)
  - GetGame, [24](#)
  - Library, [24](#)
  - LoadDisplay, [24](#)
  - LoadGame, [25](#)

- UnloadDisplay, [25](#)
  - UnloadGame, [25](#)
- Arcade::menu, [25](#)
  - ~menu, [26](#)
  - GameLoop, [27](#)
  - GetGameLibraries, [27](#)
  - GetScore, [27](#)
  - menu, [26](#)
  - Modulo, [27](#)
  - ResetGame, [27](#)
  - SetGamePicture, [27](#)
- Arcade::ncurses, [28](#)
  - ~ncurses, [29](#)
  - ClearScreen, [29](#)
  - DrawObject, [29](#)
  - DrawText, [30](#)
  - DrawTile, [30](#)
  - GetInput, [30](#)
  - ncurses, [29](#)
  - RefreshScreen, [30](#)
- Arcade::Nibbler, [31](#)
  - ~Nibbler, [32](#)
  - AddFruit, [32](#)
  - CheckMovement, [32](#)
  - GameLoop, [32](#)
  - GameOver, [32](#)
  - GetScore, [32](#)
  - MoveSnake, [33](#)
  - Nibbler, [31](#)
  - ResetGame, [33](#)
- Arcade::Pacman, [33](#)
  - ~Pacman, [35](#)
  - GameLoop, [35](#)
  - getPosition, [35](#)
  - GetScore, [35](#)
  - GhostPacman, [35](#)
  - HitGhost, [36](#)
  - IsInt, [36](#)
  - LevelUp, [36](#)
  - Modulo, [36](#)
  - MovePacman, [36](#)
  - Pacman, [34](#)
  - PointPacman, [36](#)
  - PositionToIntPosition, [36](#)
  - ResetGame, [37](#)
  - resetPoints, [37](#)
  - SetDirection, [37](#)
  - UpdateScores, [37](#)
  - WallInPosition, [37](#)
- Arcade::sdl2, [39](#)
  - ~sdl2, [40](#)
  - ClearScreen, [40](#)
  - DrawObject, [40](#)
  - DrawText, [40](#)
  - DrawTile, [41](#)
  - GetInput, [41](#)
  - PlaySound, [41](#)
  - RefreshScreen, [41](#)
  - sdl2, [39](#)
- Arcade::sdl2Sound, [42](#)
  - ~sdl2Sound, [42](#)
  - play, [43](#)
  - sdl2Sound, [42](#)
- Arcade::sdl2Texture, [43](#)
  - ~sdl2Texture, [44](#)
  - sdl2Texture, [43, 44](#)
  - SetPosition, [44](#)
- Arcade::sfml, [45](#)
  - ~sfml, [46](#)
  - ClearScreen, [46](#)
  - DrawObject, [46](#)
  - DrawText, [46](#)
  - DrawTile, [46](#)
  - GetInput, [47](#)
  - PlaySound, [47](#)
  - RefreshScreen, [47](#)
  - sfml, [46](#)
- Arcade::Sound, [48](#)
  - ~Sound, [49](#)
  - getLoop, [49](#)
  - getSound, [49](#)
  - setSound, [49](#)
  - Sound, [48](#)
- Arcade::Text, [50](#)
  - ~Text, [51](#)
  - getColor, [51](#)
  - getPosition, [51](#)
  - getText, [52](#)
  - setText, [52](#)
  - Text, [51](#)
- Arcade::Tile, [53](#)
  - ~Tile, [54](#)
  - getCharacter, [54](#)
  - getColor, [54](#)
  - getPosition, [54](#)
  - getRotation, [55](#)
  - getTexturePath, [55](#)
  - setCharacter, [55](#)
  - setColor, [55](#)
  - setRotation, [56](#)
  - setTexture, [56](#)
  - Tile, [53](#)
- ArcadeBorne
  - Arcade::ArcadeBorne, [6](#)
- ArcadeError
  - Arcade::ArcadeError, [9](#)
- ArcadeMissingError
  - Arcade::ArcadeMissingError, [10](#)
- ArcadeParse
  - Arcade::ArcadeParse, [12](#)
- ArcadeRuntimeError
  - Arcade::ArcadeRuntimeError, [13](#)
- ArcadeUsageError
  - Arcade::ArcadeUsageError, [15](#)
- CheckArgument
  - Arcade::ArcadeParse, [12](#)

- CheckInSpawn
  - Arcade::Ghost, [17](#)
- CheckLibraries
  - Arcade::ArcadeParse, [12](#)
- CheckMovement
  - Arcade::Nibbler, [32](#)
- ClearScreen
  - Arcade::IDisplay, [20](#)
  - Arcade::ncurses, [29](#)
  - Arcade::sdl2, [40](#)
  - Arcade::sfml, [46](#)
- Converter, [15](#)
  - ~Converter, [16](#)
  - Converter, [16](#)
  - processImage, [16](#)
- ConvertPixel
  - Pixel, [38](#)
- DisplayLibs
  - Arcade::ArcadeBorne, [6](#)
- DrawObject
  - Arcade::IDisplay, [20](#)
  - Arcade::ncurses, [29](#)
  - Arcade::sdl2, [40](#)
  - Arcade::sfml, [46](#)
- DrawText
  - Arcade::ncurses, [30](#)
  - Arcade::sdl2, [40](#)
  - Arcade::sfml, [46](#)
- DrawTile
  - Arcade::ncurses, [30](#)
  - Arcade::sdl2, [41](#)
  - Arcade::sfml, [46](#)
- GameLoop
  - Arcade::IGame, [22](#)
  - Arcade::menu, [27](#)
  - Arcade::Nibbler, [32](#)
  - Arcade::Pacman, [35](#)
- GameOver
  - Arcade::Nibbler, [32](#)
- getCharacter
  - Arcade::Tile, [54](#)
- getColor
  - Arcade::Text, [51](#)
  - Arcade::Tile, [54](#)
- GetDisplay
  - Arcade::Library, [24](#)
- GetGame
  - Arcade::Library, [24](#)
- GetGameLibraries
  - Arcade::menu, [27](#)
- GetInput
  - Arcade::IDisplay, [21](#)
  - Arcade::ncurses, [30](#)
  - Arcade::sdl2, [41](#)
  - Arcade::sfml, [47](#)
- GetLibraries
  - Arcade::ArcadeParse, [12](#)
- getLoop
  - Arcade::Sound, [49](#)
- getObject
  - Arcade::Ghost, [18](#)
- GetPlayerName
  - Arcade::ArcadeBorne, [7](#)
- getPos
  - Arcade::Ghost, [18](#)
- getPosition
  - Arcade::Pacman, [35](#)
  - Arcade::Text, [51](#)
  - Arcade::Tile, [54](#)
- getRotation
  - Arcade::Tile, [55](#)
- GetScore
  - Arcade::IGame, [22](#)
  - Arcade::menu, [27](#)
  - Arcade::Nibbler, [32](#)
  - Arcade::Pacman, [35](#)
- getSound
  - Arcade::Sound, [49](#)
- getText
  - Arcade::Text, [52](#)
- getTexturePath
  - Arcade::Tile, [55](#)
- Ghost
  - Arcade::Ghost, [17](#)
- GhostPacman
  - Arcade::Pacman, [35](#)
- HashVector
  - Arcade::ArcadeBorne, [7](#)
- HitGhost
  - Arcade::Pacman, [36](#)
- isAlive
  - Arcade::Ghost, [18](#)
- IsInt
  - Arcade::Pacman, [36](#)
- Kill
  - Arcade::Ghost, [18](#)
- LevelUp
  - Arcade::Pacman, [36](#)
- Library
  - Arcade::Library, [24](#)
- LoadDisplay
  - Arcade::Library, [24](#)
- LoadGame
  - Arcade::Library, [25](#)
- LoadGameLib
  - Arcade::ArcadeBorne, [7](#)
- LoadGraphicLib
  - Arcade::ArcadeBorne, [7](#)
- menu
  - Arcade::menu, [26](#)
- Modulo

- Arcade::ArcadeBorne, [7](#)
  - Arcade::menu, [27](#)
  - Arcade::Pacman, [36](#)
- Move
  - Arcade::Ghost, [18](#)
- MovePacman
  - Arcade::Pacman, [36](#)
- MoveSnake
  - Arcade::Nibbler, [33](#)
- MoveToTarget
  - Arcade::Ghost, [19](#)
- ncurses
  - Arcade::ncurses, [29](#)
- Nibbler
  - Arcade::Nibbler, [31](#)
- Pacman
  - Arcade::Pacman, [34](#)
- PathTo
  - Arcade::Ghost, [19](#)
- Pixel, [38](#)
  - ~Pixel, [38](#)
  - ConvertPixel, [38](#)
  - Pixel, [38](#)
- play
  - Arcade::sdl2Sound, [43](#)
- PlaySound
  - Arcade::sdl2, [41](#)
  - Arcade::sfml, [47](#)
- PointPacman
  - Arcade::Pacman, [36](#)
- PositionToIntPosition
  - Arcade::Pacman, [36](#)
- processImage
  - Converter, [16](#)
- RefreshScreen
  - Arcade::IDisplay, [21](#)
  - Arcade::ncurses, [30](#)
  - Arcade::sdl2, [41](#)
  - Arcade::sfml, [47](#)
- reset
  - Arcade::Ghost, [19](#)
- ResetGame
  - Arcade::IGame, [22](#)
  - Arcade::menu, [27](#)
  - Arcade::Nibbler, [33](#)
  - Arcade::Pacman, [37](#)
- resetPoints
  - Arcade::Pacman, [37](#)
- resetTexture
  - Arcade::Ghost, [19](#)
- Scare
  - Arcade::Ghost, [19](#)
- sdl2
  - Arcade::sdl2, [39](#)
- sdl2Sound
  - Arcade::sdl2Sound, [42](#)
- sdl2Texture
  - Arcade::sdl2Texture, [43](#), [44](#)
- setCharacter
  - Arcade::Tile, [55](#)
- setColor
  - Arcade::Tile, [55](#)
- SetDirection
  - Arcade::Pacman, [37](#)
- SetGamePicture
  - Arcade::menu, [27](#)
- SetPosition
  - Arcade::sdl2Texture, [44](#)
- setPosition
  - Arcade::Ghost, [19](#)
- setRotation
  - Arcade::Tile, [56](#)
- setSound
  - Arcade::Sound, [49](#)
- setText
  - Arcade::Text, [52](#)
- setTexture
  - Arcade::Tile, [56](#)
- sfml
  - Arcade::sfml, [46](#)
- Sound
  - Arcade::Sound, [48](#)
- Text
  - Arcade::Text, [51](#)
- Tile
  - Arcade::Tile, [53](#)
- UnloadDisplay
  - Arcade::Library, [25](#)
- UnloadGame
  - Arcade::Library, [25](#)
- UpdateScores
  - Arcade::Pacman, [37](#)
- WallInPosition
  - Arcade::Pacman, [37](#)
- what
  - Arcade::ArcadeError, [9](#)