

My Project

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

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

shared::games::entity::IEntity	
AppleEntity	5
BackgroundEntity	9
ScoreTextEntity	13
SnakeBodyEntity	19
SnakeHeadEntity	29
SnakeTailEntity	37
IGame	
SnakeGame	20
shared::games::IGameProvider	
SnakeGameProvider	23
components::IKeyboardComponent	
SnakeHeadKeyboard	29
shared::games::components::ITextComponent	
ScoreTextDisplayable	10
components::ITextureComponent	
SnakeTailDisplayable	32
shared::games::components::ITextureComponent	
AppleDisplayable	5
BackgroundDisplayable	6
SnakeBodyDisplayable	14
SnakeHeadDisplayable	24

Chapter 2

Class Index

2.1 Class List

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

AppleDisplayable	5
AppleEntity	5
BackgroundDisplayable	6
BackgroundEntity	9
ScoreTextDisplayable	10
ScoreTextEntity	13
SnakeBodyDisplayable	14
SnakeBodyEntity	19
SnakeGame	20
SnakeGameProvider	23
SnakeHeadDisplayable	24
SnakeHeadEntity	29
SnakeHeadKeyboard	29
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Chapter 3

Class Documentation

3.1 AppleDisplayable Class Reference

Inheritance diagram for AppleDisplayable:

3.2 AppleEntity Class Reference

Inheritance diagram for AppleEntity:

Collaboration diagram for AppleEntity:

Public Member Functions

- [AppleEntity](#) ()
Construct a new Apple Entity object.
- [~AppleEntity](#) ()
Destroy the Apple Entity object.
- `const shared::games::components::ComponentsMap & getComponents (void) const noexcept override`
Get the Components object.

3.2.1 Member Function Documentation

3.2.1.1 [getComponents\(\)](#)

```
const shared::games::components::ComponentsMap & AppleEntity::getComponents (  
    void ) const [override], [noexcept]
```

Get the Components object.

Returns

`const shared::games::components::ComponentsMap&`

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

- `entities/apple/AppleEntity.hpp`
- `entities/apple/AppleEntity.cpp`

3.3 BackgroundDisplayable Class Reference

Inheritance diagram for BackgroundDisplayable:

Collaboration diagram for BackgroundDisplayable:

Public Member Functions

- [BackgroundDisplayable](#) (const shared::games::entity::IEntity &entity)
Construct a new Background Displayable object.
- [~BackgroundDisplayable](#) ()
Destroy the Background Displayable object.
- const shared::games::components::ComponentType [getType](#) () const noexcept override
Get the Type object.
- const shared::games::entity::IEntity & [getEntity](#) () noexcept override
Get the entity object.
- Vector2u & [getSize](#) (void) noexcept override
Get the Size object.
- unsigned int & [getZIndex](#) (void) noexcept override
Get the ZIndex object.
- shared::games::components::TextureProps & [getTextureProps](#) (void) noexcept override
Get the TextureProps object.
- void [onMousePress](#) (std::shared_ptr< shared::games::IGame > &ctx) override
Handle the mouse press event.
- void [onMouseHover](#) (std::shared_ptr< shared::games::IGame > &ctx) override
Handle the mouse hover event.
- void [onMouseRelease](#) (std::shared_ptr< shared::games::IGame > &ctx) override
Handle the mouse release event.
- Vector2i & [getPosition](#) (void) noexcept override
Get the Position object.

Public Attributes

- Vector2i [_position](#)

3.3.1 Constructor & Destructor Documentation

3.3.1.1 BackgroundDisplayable()

```
BackgroundDisplayable::BackgroundDisplayable (
    const shared::games::entity::IEntity & entity ) [explicit]
```

Construct a new Background Displayable object.

Parameters

<i>entity</i>	
---------------	--

3.3.2 Member Function Documentation

3.3.2.1 getEntity()

```
const shared::games::entity::IEntity & BackgroundDisplayable::getEntity ( ) [override], [noexcept]
```

Get the entity object.

Returns

const shared::games::entity::IEntity&

3.3.2.2 getPosition()

```
Vector2i & BackgroundDisplayable::getPosition (
    void ) [override], [noexcept]
```

Get the Position object.

Returns

Vector2i&

3.3.2.3 getSize()

```
Vector2u & BackgroundDisplayable::getSize (
    void ) [override], [noexcept]
```

Get the Size object.

Returns

const Vector2u&

3.3.2.4 getTextureProps()

```
shared::games::components::TextureProps & BackgroundDisplayable::getTextureProps (
    void ) [override], [noexcept]
```

Get the TextureProps object.

Returns

shared::games::components::TextureProps&

3.3.2.5 getType()

```
const shared::games::components::ComponentType BackgroundDisplayable::getType ( ) const [override],
[noexcept]
```

Get the Type object.

Returns

const shared::games::components::ComponentType

3.3.2.6 getZIndex()

```
unsigned int & BackgroundDisplayable::getZIndex (
    void ) [override], [noexcept]
```

Get the ZIndex object.

Returns

unsigned int&

3.3.2.7 onMouseHover()

```
void BackgroundDisplayable::onMouseHover (
    std::shared_ptr< shared::games::IGame > & ctx ) [override]
```

Handle the mouse hover event.

Parameters

<i>ctx</i>	
------------	--

3.3.2.8 onMousePress()

```
void BackgroundDisplayable::onMousePress (
    std::shared_ptr< shared::games::IGame > & ctx ) [override]
```

Handle the mouse press event.

Parameters

<i>ctx</i>	
------------	--

3.3.2.9 onMouseRelease()

```
void BackgroundDisplayable::onMouseRelease (
    std::shared_ptr< shared::games::IGame > & ctx ) [override]
```

Handle the mouse release event.

Parameters

<i>ctx</i>	
------------	--

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

- entities/background/components/BackgroundDisplayable.hpp
- entities/background/components/BackgroundDisplayable.cpp

3.4 BackgroundEntity Class Reference

Inheritance diagram for BackgroundEntity:

Collaboration diagram for BackgroundEntity:

Public Member Functions

- [BackgroundEntity](#) ()
Construct a new Background Entity object.
- [~BackgroundEntity](#) ()
Destroy a new Background Entity object.
- const shared::games::components::ComponentsMap & [getComponents](#) (void) const noexcept override
Get the Components object.

3.4.1 Member Function Documentation

3.4.1.1 getComponents()

```
const shared::games::components::ComponentsMap & BackgroundEntity::getComponents (
    void ) const [override], [noexcept]
```

Get the Components object.

Returns

const components::ComponentsMap&

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

- entities/background/BackgroundEntity.hpp
- entities/background/BackgroundEntity.cpp

3.5 ScoreTextDisplayable Class Reference

Inheritance diagram for ScoreTextDisplayable:

Collaboration diagram for ScoreTextDisplayable:

Public Member Functions

- [ScoreTextDisplayable](#) (const std::string &content, const shared::games::entity::IEntity &entity)
Construct a new Score Text Displayable object.
- [~ScoreTextDisplayable](#) ()
Destroy the Score Text Displayable object.
- shared::games::components::ITextComponent::TextProps [getTextProps](#) () noexcept override
Get the Text Props object.
- Vector2u & [getSize](#) () noexcept override
Get the Size object.
- unsigned int & [getZIndex](#) () noexcept override
Get the ZIndex object.
- void [onMousePress](#) (std::shared_ptr< shared::games::IGame > &ctx) override
Get the Text object.
- void [onMouseRelease](#) (std::shared_ptr< shared::games::IGame > &ctx) override
Get the Text object.
- void [onMouseHover](#) (std::shared_ptr< shared::games::IGame > &ctx) override
Get the Text object.
- Vector2i & [getPosition](#) (void) noexcept override
Get the Position object.
- const shared::games::components::ComponentType [getType](#) () const noexcept override
Get the Type object.
- const shared::games::entity::IEntity & [getEntity](#) () noexcept override
Get the entity object.

3.5.1 Constructor & Destructor Documentation

3.5.1.1 ScoreTextDisplayable()

```
ScoreTextDisplayable::ScoreTextDisplayable (
    const std::string & content,
    const shared::games::entity::IEntity & entity ) [explicit]
```

Construct a new Score Text Displayable object.

Parameters

<i>content</i>	
<i>entity</i>	

3.5.2 Member Function Documentation

3.5.2.1 getEntity()

```
const shared::games::entity::IEntity & ScoreTextDisplayable::getEntity ( ) [override], [noexcept]
```

Get the entity object.

Returns

const shared::games::entity::IEntity&

3.5.2.2 getPosition()

```
shared::types::Vector2i & ScoreTextDisplayable::getPosition (
    void ) [override], [noexcept]
```

Get the Position object.

Returns

const Vector2i&

3.5.2.3 getSize()

```
shared::types::Vector2u & ScoreTextDisplayable::getSize (
    void ) [override], [noexcept]
```

Get the Size object.

Returns

const Vector2u&

3.5.2.4 getTextProps()

```
shared::games::components::ITextComponent::TextProps ScoreTextDisplayable::getTextProps ( )
[override], [noexcept]
```

Get the Text Props object.

Returns

shared::games::components::ITextComponent::TextProps

3.5.2.5 getType()

```
const shared::games::components::ComponentType ScoreTextDisplayable::getType ( ) const [override],
[noexcept]
```

Get the Type object.

Returns

const shared::games::components::ComponentType

3.5.2.6 getZIndex()

```
unsigned int & ScoreTextDisplayable::getZIndex (
    void ) [override], [noexcept]
```

Get the ZIndex object.

Returns

unsigned int&

3.5.2.7 onMouseHover()

```
void ScoreTextDisplayable::onMouseHover (
    std::shared_ptr< shared::games::IGame > & ctx ) [override]
```

Get the Text object.

Returns

const std::string&

3.5.2.8 onMousePress()

```
void ScoreTextDisplayable::onMousePress (
    std::shared_ptr< shared::games::IGame > & ctx ) [override]
```

Get the Text object.

Returns

const std::string&

3.5.2.9 onMouseRelease()

```
void ScoreTextDisplayable::onMouseRelease (
    std::shared_ptr< shared::games::IGame > & ctx ) [override]
```

Get the Text object.

Returns

const std::string&

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

- entities/texts/score/components/ScoreTextDisplayable.hpp
- entities/texts/score/components/ScoreTextDisplayable.cpp

3.6 ScoreTextEntity Class Reference

Inheritance diagram for ScoreTextEntity:

Collaboration diagram for ScoreTextEntity:

Public Member Functions

- [ScoreTextEntity](#) ()
Construct a new Score Text Entity object.
- [~ScoreTextEntity](#) ()
Destroy a new Score Text Entity object.
- `const shared::games::components::ComponentsMap & getComponents (void) const noexcept override`
Get the Components object.

3.6.1 Member Function Documentation

3.6.1.1 `getComponents()`

```
const shared::games::components::ComponentsMap & ScoreTextEntity::getComponents (  
    void ) const [override], [noexcept]
```

Get the Components object.

Returns

`const components::ComponentsMap&`

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

- `entities/texts/score/ScoreTextEntity.hpp`
- `entities/texts/score/ScoreTextEntity.cpp`

3.7 SnakeBodyDisplayable Class Reference

Inheritance diagram for SnakeBodyDisplayable:

Collaboration diagram for SnakeBodyDisplayable:

Public Member Functions

- [SnakeBodyDisplayable](#) (const entity::IEntity &entity, Vector2i position)
Construct a new Snake Body Displayable object.
- [~SnakeBodyDisplayable](#) ()
Destroy a new Snake Body Displayable object.
- const components::ComponentType [getType](#) () const noexcept override
Get the Type object.
- const entity::IEntity & [getEntity](#) () noexcept override
Get the entity object.
- Vector2u & [getSize](#) (void) noexcept override
Get the Size object.
- unsigned int & [getZIndex](#) (void) noexcept override
Get the ZIndex object.
- components::TextureProps & [getTextureProps](#) (void) noexcept override
Get the TextureProps object.
- void [onMousePress](#) (std::shared_ptr< IGame > &ctx) override
handle the mouse press event
- void [onMouseHover](#) (std::shared_ptr< IGame > &ctx) override
handle the mouse hover event
- void [onMouseRelease](#) (std::shared_ptr< IGame > &ctx) override
handle the mouse release event
- void [setPosition](#) (Vector2i pos) noexcept
Set the Position object.
- void [setOldPosition](#) (Vector2i pos) noexcept
Set the Old Position object.
- Vector2i & [getPosition](#) (void) noexcept override
Get the Position object.
- Vector2i & [getOldPosition](#) (void) noexcept
Get the Old Position object.

Public Attributes

- Vector2i **_position**
- Vector2i **_oldPosition**

3.7.1 Constructor & Destructor Documentation

3.7.1.1 SnakeBodyDisplayable()

```
SnakeBodyDisplayable::SnakeBodyDisplayable (
    const entity::IEntity & entity,
    Vector2i position ) [explicit]
```

Construct a new Snake Body Displayable object.

Parameters

<i>entity</i>	
<i>position</i>	

3.7.2 Member Function Documentation

3.7.2.1 getEntity()

```
const entity::IEntity & SnakeBodyDisplayable::getEntity ( ) [override], [noexcept]
```

Get the entity object.

Returns

const entity::IEntity&

3.7.2.2 getOldPosition()

```
Vector2i & SnakeBodyDisplayable::getOldPosition (
    void ) [noexcept]
```

Get the Old Position object.

Returns

Vector2i&

3.7.2.3 getPosition()

```
Vector2i & SnakeBodyDisplayable::getPosition (
    void ) [override], [noexcept]
```

Get the Position object.

Returns

Vector2i&

3.7.2.4 getSize()

```
Vector2u & SnakeBodyDisplayable::getSize (
    void ) [override], [noexcept]
```

Get the Size object.

Returns

const Vector2u&

3.7.2.5 getTextureProps()

```
components::TextureProps & SnakeBodyDisplayable::getTextureProps (
    void ) [override], [noexcept]
```

Get the TextureProps object.

Returns

components::TextureProps&

3.7.2.6 getType()

```
const components::ComponentType SnakeBodyDisplayable::getType ( ) const [override], [noexcept]
```

Get the Type object.

Returns

const components::ComponentType

3.7.2.7 getZIndex()

```
unsigned int & SnakeBodyDisplayable::getZIndex (
    void ) [override], [noexcept]
```

Get the ZIndex object.

Returns

unsigned int&

3.7.2.8 onMouseHover()

```
void SnakeBodyDisplayable::onMouseHover (
    std::shared_ptr< IGame > & ctx ) [override]
```

handle the mouse hover event

Parameters

<i>ctx</i>	
------------	--

Returns

void

3.7.2.9 onMousePress()

```
void SnakeBodyDisplayable::onMousePress (
    std::shared_ptr< IGame > & ctx ) [override]
```

handle the mouse press event

Parameters

<i>ctx</i>	
------------	--

Returns

void

3.7.2.10 onMouseRelease()

```
void SnakeBodyDisplayable::onMouseRelease (
    std::shared_ptr< IGame > & ctx ) [override]
```

handle the mouse release event

Parameters

<i>ctx</i>	
------------	--

Returns

void

3.7.2.11 setOldPosition()

```
void SnakeBodyDisplayable::setOldPosition (
    Vector2i pos ) [noexcept]
```

Set the Old Position object.

Parameters

<i>pos</i>	
------------	--

Returns

void

3.7.2.12 setPosition()

```
void SnakeBodyDisplayable::setPosition (
    Vector2i pos ) [noexcept]
```

Set the Position object.

Parameters

<i>pos</i>	
------------	--

Returns

void

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

- entities/snake_body/components/SnakeBodyDisplayable.hpp
- entities/snake_body/components/SnakeBodyDisplayable.cpp

3.8 SnakeBodyEntity Class Reference

Inheritance diagram for SnakeBodyEntity:

Collaboration diagram for SnakeBodyEntity:

Public Member Functions

- [SnakeBodyEntity](#) (Vector2i position)
Construct a new Snake Body Entity object.
- [~SnakeBodyEntity](#) ()
Destroy a new Snake Body Entity object.
- const components::ComponentsMap & [getComponents](#) (void) const noexcept override
Get the Components object.

3.8.1 Constructor & Destructor Documentation

3.8.1.1 SnakeBodyEntity()

```
SnakeBodyEntity::SnakeBodyEntity (
    Vector2i position )
```

Construct a new Snake Body Entity object.

Parameters

<i>position</i>	
-----------------	--

3.8.2 Member Function Documentation

3.8.2.1 getComponents()

```
const components::ComponentsMap & SnakeBodyEntity::getComponents (
    void ) const [override], [noexcept]
```

Get the Components object.

Returns

const components::ComponentsMap&

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

- entities/snake_body/SnakeBodyEntity.hpp
- entities/snake_body/SnakeBodyEntity.cpp

3.9 SnakeGame Class Reference

Inheritance diagram for SnakeGame:

Collaboration diagram for SnakeGame:

Public Member Functions

- [SnakeGame](#) ()
Construct a new Snake Game object.
- [~SnakeGame](#) ()
Destroy a new Snake Game object.
- void [compute](#) (DeltaTime dt) override
Compute the game based on the DeltaTime dt.
- const GameManifest & [getManifest](#) () const noexcept override
Get the game manifest object.
- const Vector2u [getSize](#) (void) const noexcept override
Get the Size object.
- const entity::EntitiesMap & [getEntities](#) (void) const override
Get the Entities object.
- const unsigned int [getFps](#) (void) const noexcept override
Get the Fps object.
- void [moveSnake](#) ()
Move the snake.
- void [updatePosition](#) ()
Update the position of the snake.
- bool [hasHeadMoved](#) (auto it)
Check if the head has moved.
- Vector2i [updateBodyPositions](#) (auto it)
Update the body positions.
- void [updateTailPosition](#) (Vector2i)
Update the tail position.

3.9.1 Member Function Documentation

3.9.1.1 compute()

```
void SnakeGame::compute (
    DeltaTime dt ) [override]
```

Compute the game based on the DeltaTime dt.

Parameters

<i>dt</i>	
-----------	--

3.9.1.2 getEntities()

```
const entity::EntitiesMap & SnakeGame::getEntities (
    void ) const [override]
```

Get the Entities object.

Returns

const entity::EntitiesMap&

3.9.1.3 getFps()

```
const unsigned int SnakeGame::getFps (
    void ) const [override], [noexcept]
```

Get the Fps object.

Returns

const unsigned int

3.9.1.4 getManifest()

```
const GameManifest & SnakeGame::getManifest ( ) const [override], [noexcept]
```

Get the game manifest object.

Returns

const GameManifest&

3.9.1.5 getSize()

```
const Vector2u SnakeGame::getSize (
    void ) const [override], [noexcept]
```

Get the Size object.

Returns

const Vector2u

3.9.1.6 hasHeadMoved()

```
bool SnakeGame::hasHeadMoved (
    auto it )
```

Check if the head has moved.

Parameters

<i>it</i>	
-----------	--

Returns

bool

3.9.1.7 updateBodyPositions()

```
Vector2i SnakeGame::updateBodyPositions (
    auto it )
```

Update the body positions.

Parameters

<i>it</i>	
-----------	--

Returns

The tail position after the update

3.9.1.8 updateTailPosition()

```
void SnakeGame::updateTailPosition (
    Vector2i tailNewPosition )
```

Update the tail position.

Parameters

<i>position</i>	
-----------------	--

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

- game/SnakeGame.hpp
- game/SnakeGame.cpp

3.10 SnakeGameProvider Class Reference

Inheritance diagram for SnakeGameProvider:

Collaboration diagram for SnakeGameProvider:

Public Member Functions

- `const shared::games::GameManifest & getManifest ()` `const noexcept` override
- `std::shared_ptr< shared::games::IGame > createInstance ()` override

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

- SnakeGameProvider.hpp
- SnakeGameProvider.cpp

3.11 SnakeHeadDisplayable Class Reference

Inheritance diagram for SnakeHeadDisplayable:

Collaboration diagram for SnakeHeadDisplayable:

Public Member Functions

- [SnakeHeadDisplayable](#) (const entity::IEntity &entity)
Construct a new Snake Head Displayable object.
- [~SnakeHeadDisplayable](#) ()
Destroy a new Snake Head Keyboard object.
- `const components::ComponentType getType ()` `const noexcept` override
Get the Type object.
- `const entity::IEntity & getEntity ()` `noexcept` override
Get the entity object.
- `Vector2u & getSize (void)` `noexcept` override
Get the Size object.
- `unsigned int & getZIndex (void)` `noexcept` override
Get the ZIndex object.
- `components::TextureProps & getTextureProps (void)` `noexcept` override
Get the TextureProps object.
- `void onMousePress (std::shared_ptr< IGame > &ctx)` override
handle the mouse press event
- `void onMouseHover (std::shared_ptr< IGame > &ctx)` override
handle the mouse hover event
- `void onMouseRelease (std::shared_ptr< IGame > &ctx)` override
handle the mouse release event
- `void setPosition (Vector2i pos)` `noexcept`
Set the Position object.
- `void setOldPosition (Vector2i pos)` `noexcept`
Set the Old Position object.
- `Vector2i & getPosition (void)` `noexcept` override
Get the Position object.
- `Vector2i & getOldPosition (void)` `noexcept`
Get the Old Position object.

Public Attributes

- Vector2i **_position**
- Vector2i **_oldPosition**

3.11.1 Constructor & Destructor Documentation

3.11.1.1 SnakeHeadDisplayable()

```
SnakeHeadDisplayable::SnakeHeadDisplayable (  
    const entity::IEntity & entity ) [explicit]
```

Construct a new Snake Head Displayable object.

Parameters

<i>entity</i>	
---------------	--

3.11.2 Member Function Documentation

3.11.2.1 getEntity()

```
const entity::IEntity & SnakeHeadDisplayable::getEntity ( ) [override], [noexcept]
```

Get the entity object.

Returns

const entity::IEntity&

3.11.2.2 getOldPosition()

```
Vector2i & SnakeHeadDisplayable::getOldPosition (  
    void ) [noexcept]
```

Get the Old Position object.

Returns

Vector2i&

3.11.2.3 getPosition()

```
Vector2i & SnakeHeadDisplayable::getPosition (
    void ) [override], [noexcept]
```

Get the Position object.

Returns

Vector2i&

3.11.2.4 getSize()

```
Vector2u & SnakeHeadDisplayable::getSize (
    void ) [override], [noexcept]
```

Get the Size object.

Returns

const Vector2u&

3.11.2.5 getTextureProps()

```
components::TextureProps & SnakeHeadDisplayable::getTextureProps (
    void ) [override], [noexcept]
```

Get the TextureProps object.

Returns

components::TextureProps&

3.11.2.6 getType()

```
const components::ComponentType SnakeHeadDisplayable::getType ( ) const [override], [noexcept]
```

Get the Type object.

Returns

const components::ComponentType

3.11.2.7 getZIndex()

```
unsigned int & SnakeHeadDisplayable::getZIndex (
    void ) [override], [noexcept]
```

Get the ZIndex object.

Returns

unsigned int&

3.11.2.8 onMouseHover()

```
void SnakeHeadDisplayable::onMouseHover (
    std::shared_ptr< IGame > & ctx ) [override]
```

handle the mouse hover event

Parameters

<i>ctx</i>	
------------	--

Returns

void

3.11.2.9 onMousePress()

```
void SnakeHeadDisplayable::onMousePress (
    std::shared_ptr< IGame > & ctx ) [override]
```

handle the mouse press event

Parameters

<i>ctx</i>	
------------	--

Returns

void

3.11.2.10 onMouseRelease()

```
void SnakeHeadDisplayable::onMouseRelease (
    std::shared_ptr< IGame > & ctx ) [override]
```

handle the mouse release event

Parameters

<i>ctx</i>	
------------	--

Returns

void

3.11.2.11 setOldPosition()

```
void SnakeHeadDisplayable::setOldPosition (
    Vector2i pos ) [noexcept]
```

Set the Old Position object.

Parameters

<i>pos</i>	
------------	--

Returns

void

3.11.2.12 setPosition()

```
void SnakeHeadDisplayable::setPosition (
    Vector2i pos ) [noexcept]
```

Set the Position object.

Parameters

<i>pos</i>	
------------	--

Returns

void

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

- entities/snake_head/components/SnakeHeadDisplayable.hpp
- entities/snake_head/components/SnakeHeadDisplayable.cpp

3.12 SnakeHeadEntity Class Reference

Inheritance diagram for SnakeHeadEntity:

Collaboration diagram for SnakeHeadEntity:

Public Member Functions

- [SnakeHeadEntity](#) ()
Construct a new Snake Head Entity object.
- [~SnakeHeadEntity](#) ()
Destroy a new Snake Head Entity object.
- const components::ComponentsMap & [getComponents](#) (void) const noexcept override
Get the Components object.

3.12.1 Member Function Documentation

3.12.1.1 getComponents()

```
const components::ComponentsMap & SnakeHeadEntity::getComponents (
    void ) const [override], [noexcept]
```

Get the Components object.

Returns

const components::ComponentsMap&

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

- entities/snake_head/SnakeHeadEntity.hpp
- entities/snake_head/SnakeHeadEntity.cpp

3.13 SnakeHeadKeyboard Class Reference

Inheritance diagram for SnakeHeadKeyboard:

Collaboration diagram for SnakeHeadKeyboard:

Public Types

- enum [Direction](#) { UP , DOWN , LEFT , RIGHT }
Enum for the direction of the snake.

Public Member Functions

- [SnakeHeadKeyboard](#) (const entity::IEntity &entity)
Construct a new Snake Head Keyboard object.
- [~SnakeHeadKeyboard](#) ()
Destroy a new Snake Head Keyboard object.
- const components::ComponentType [getType](#) () const noexcept override
Get the Type object.
- const entity::IEntity & [getEntity](#) () noexcept override
Get the entity object.
- void [onKeyPress](#) (std::shared_ptr< IGame > &ctx, KeyData keyData) override
handle the key press event
- void [onKeyRelease](#) (std::shared_ptr< IGame > &ctx, KeyData key) override
handle the key release event

Public Attributes

- [Direction](#) _direction

3.13.1 Constructor & Destructor Documentation

3.13.1.1 SnakeHeadKeyboard()

```
SnakeHeadKeyboard::SnakeHeadKeyboard (
    const entity::IEntity & entity ) [explicit]
```

Construct a new Snake Head Keyboard object.

Parameters

<i>entity</i>	
---------------	--

3.13.2 Member Function Documentation

3.13.2.1 getEntity()

```
const entity::IEntity & SnakeHeadKeyboard::getEntity ( ) [override], [noexcept]
```

Get the entity object.

Returns

const entity::IEntity&

3.13.2.2 getType()

```
const components::ComponentType SnakeHeadKeyboard::getType ( ) const [override], [noexcept]
```

Get the Type object.

Returns

const components::ComponentType

3.13.2.3 onKeyPress()

```
void SnakeHeadKeyboard::onKeyPress (
    std::shared_ptr< IGame > & ctx,
    KeyData keyData ) [override]
```

handle the key press event

Parameters

<i>ctx</i>	
<i>keyData</i>	

Returns

void

3.13.2.4 onKeyRelease()

```
void SnakeHeadKeyboard::onKeyRelease (
    std::shared_ptr< IGame > & ctx,
    KeyData key ) [override]
```

handle the key release event

Parameters

<i>ctx</i>	
<i>key</i>	

Returns

void

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

- entities/snake_head/components/SnakeHeadKeyboard.hpp
- entities/snake_head/components/SnakeHeadKeyboard.cpp

3.14 SnakeTailDisplayable Class Reference

Inheritance diagram for SnakeTailDisplayable:

Collaboration diagram for SnakeTailDisplayable:

Public Member Functions

- [SnakeTailDisplayable](#) (const entity::IEntity &entity)
Construct a new Snake Tail Displayable object.
- [~SnakeTailDisplayable](#) ()
Destroy a new Snake Tail Keyboard object.
- const components::ComponentType [getType](#) () const noexcept override
Get the Type object.
- const entity::IEntity & [getEntity](#) () noexcept override
Get the entity object.
- Vector2u & [getSize](#) (void) noexcept override
Get the Size object.
- unsigned int & [getZIndex](#) (void) noexcept override
Get the ZIndex object.
- components::TextureProps & [getTextureProps](#) (void) noexcept override
Get the TextureProps object.
- void [onMousePress](#) (std::shared_ptr< IGame > &ctx) override
handle the mouse press event
- void [onMouseHover](#) (std::shared_ptr< IGame > &ctx) override
handle the mouse hover event
- void [onMouseRelease](#) (std::shared_ptr< IGame > &ctx) override
handle the mouse release event
- void [setPosition](#) (Vector2i pos) noexcept
Set the Position object.
- void [setOldPosition](#) (Vector2i pos) noexcept
Set the Old Position object.
- Vector2i & [getPosition](#) (void) noexcept override
Get the Position object.
- Vector2i & [getOldPosition](#) (void) noexcept
Get the Old Position object.

Public Attributes

- Vector2i **_position**
- Vector2i **_oldPosition**

3.14.1 Constructor & Destructor Documentation

3.14.1.1 SnakeTailDisplayable()

```
SnakeTailDisplayable::SnakeTailDisplayable (  
    const entity::IEntity & entity ) [explicit]
```

Construct a new Snake Tail Displayable object.

Parameters

<i>entity</i>	
---------------	--

3.14.2 Member Function Documentation

3.14.2.1 getEntity()

```
const entity::IEntity & SnakeTailDisplayable::getEntity ( ) [override], [noexcept]
```

Get the entity object.

Returns

const entity::IEntity&

3.14.2.2 getOldPosition()

```
Vector2i & SnakeTailDisplayable::getOldPosition (  
    void ) [noexcept]
```

Get the Old Position object.

Returns

Vector2i&

3.14.2.3 getPosition()

```
Vector2i & SnakeTailDisplayable::getPosition (
    void ) [override], [noexcept]
```

Get the Position object.

Returns

Vector2i&

3.14.2.4 getSize()

```
Vector2u & SnakeTailDisplayable::getSize (
    void ) [override], [noexcept]
```

Get the Size object.

Returns

const Vector2u&

3.14.2.5 getTextureProps()

```
components::TextureProps & SnakeTailDisplayable::getTextureProps (
    void ) [override], [noexcept]
```

Get the TextureProps object.

Returns

components::TextureProps&

3.14.2.6 getType()

```
const components::ComponentType SnakeTailDisplayable::getType ( ) const [override], [noexcept]
```

Get the Type object.

Returns

const components::ComponentType

3.14.2.7 getZIndex()

```
unsigned int & SnakeTailDisplayable::getZIndex (
    void ) [override], [noexcept]
```

Get the ZIndex object.

Returns

unsigned int&

3.14.2.8 onMouseHover()

```
void SnakeTailDisplayable::onMouseHover (
    std::shared_ptr< IGame > & ctx ) [override]
```

handle the mouse hover event

Parameters

<i>ctx</i>	
------------	--

Returns

void

3.14.2.9 onMousePress()

```
void SnakeTailDisplayable::onMousePress (
    std::shared_ptr< IGame > & ctx ) [override]
```

handle the mouse press event

Parameters

<i>ctx</i>	
------------	--

Returns

void

3.14.2.10 onMouseRelease()

```
void SnakeTailDisplayable::onMouseRelease (
    std::shared_ptr< IGame > & ctx ) [override]
```

handle the mouse release event

Parameters

<i>ctx</i>	
------------	--

Returns

void

3.14.2.11 setOldPosition()

```
void SnakeTailDisplayable::setOldPosition (
    Vector2i pos ) [noexcept]
```

Set the Old Position object.

Parameters

<i>pos</i>	
------------	--

Returns

void

3.14.2.12 setPosition()

```
void SnakeTailDisplayable::setPosition (
    Vector2i pos ) [noexcept]
```

Set the Position object.

Parameters

<i>pos</i>	
------------	--

Returns

void

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

- entities/snake_tail/components/SnakeTailDisplayable.hpp
- entities/snake_tail/components/SnakeTailDisplayable.cpp

3.15 SnakeTailEntity Class Reference

Inheritance diagram for SnakeTailEntity:

Collaboration diagram for SnakeTailEntity:

Public Member Functions

- [SnakeTailEntity](#) ()
Construct a new Snake Tail Entity object.
- [~SnakeTailEntity](#) ()
Destroy a new Snake Tail Entity object.
- const components::ComponentsMap & [getComponents](#) (void) const noexcept override
Get the Components object.

3.15.1 Member Function Documentation

3.15.1.1 getComponents()

```
const components::ComponentsMap & SnakeTailEntity::getComponents (  
    void ) const [override], [noexcept]
```

Get the Components object.

Returns

const components::ComponentsMap&

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

- entities/snake_tail/SnakeTailEntity.hpp
- entities/snake_tail/SnakeTailEntity.cpp

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