Class Diagram

Screen Manager
Attributes
- enum state
- GameManager gameManager
- HighscoreDisplay highscoreDisplay
- MenuManager menuManager
- UserCMD userCMD

Operations
+ int Main(int argc, char** argv)
- callback Keyboard(int key, int x, int y)
- callback Mouse(int x, int y)
- void ChangeState()

MenuManager
Attributes
- Button buttons[]
- GraphicInterface* graphicInterface

Operations
+ int Update(UserCMD userCMD)
+ MenuManager(GraphicInterface* graphicInterface)
+ void Draw()

HighscoreDisplay
Attributes
- GraphicInterface* graphicInterface
- std::vector <unsigned int> highscoreList
- void textFont

Operations
+ HighscoreDisplay(GraphicInterface* graphicInterface)
+ int Update(UserCMD userCMD)
+ void Draw()
- void ReadHighscore()

<struct> UserCMD
Attributes
+ glm::vec2 mousePositi...
+ int key

Operations

GameManager
Attributes
- AI aI
- AudioManager audioManager
- GraphicInterface* graphicInterface
- int logicalMap[][]
- MapLoader mapLoader
- Pacman pacman
- std::vector <Candy> candies
- std::vector<int> sounds

Operations
+ GameManager(GraphicInterface *graphicInterface)
+ int Update(UserCMD userCMD)
+ void Draw()
+ void Initialize()
- void CheckCollision(glm::vec3 pacPos, std::vector<glm::vec3> ghostPos)
- void CreateCandies()
- void FixMap()
- void LoadMap(const char* mapName)

<Reference> GraphicHandler
Attributes

Operations

Look at next class diagram

AI
Attributes
- Ghost ghosts[4]
- glm::vec3* pacmanlPosition
- int logicalMap[][]

Operations
+ AI(int logicalMap[][], glm::vec3* pacmanPosition)
+ GhostStruct[4] GetGhostInformation()
+ void Update()
- void UpdateGhostPath(glm::vec3* goalPosition)

Candy
Attributes
- enum type
- glm::vec3 position

Operations
+ Candy(glm::vec3 position)
+ glm::vec3 GetPosition()
+ int GetType()

MapLoader
Attributes

Operations
+ int[][] LoadMap(const char* mapName)
+ MapLoader()

AudioManager
Attributes
- ALuint audioBuffer[NUM_OF_SOUNDS]
- int soundCounter

Operations
+ AudioManager()
+ int CreateSound(const char* fileName)
+ void PlaySound(int sound, glm::vec3 soundPos)
+ void Update(glm::vec3 headPos, glm::vec3 headDir)

Pacman
Attributes
- float devourTime
- float hunger
- float maxDevourTime
- float speed
- glm::vec3 direction
- glm::vec3 position
- glm::vec3 up
- unsigned int life

Operations
+ float GetHunger()
+ glm::vec3 GetDirection()
+ glm::vec3 GetPosition()
+ Pacman(glm::vec3 startPosition)
+ PacStruct GetPacStruct()
+ void StartDevouring()
+ void Update(UserCMD userCMD)

Ghost
Attributes
- enum state
- float speed
- glm::vec3 direction
- glm::vec3 position
- std::vector <point> path

Operations
+ Ghost(glm::vec3 position)
+ glm::vec3 GetDirection()
+ glm::vec3 GetPosition()
+ void SetState(int stateNumber)
+ void Update()

<Struct> GhostStruct
Attributes
+ glm::vec3 direction
+ glm::vec3 position

Operations

<struct> PacStruct
Attributes
+ float hunger
+ unsigned int life

Operations

<struct> CameraStruct
Attributes
+ glm::vec3 position
+ glm::vec3 target
+ glm::vec3 up

Operations

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UML Class Diagram (page 2 of 2)

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Operations
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HighscoreDisplay

Attributes
- GraphicInterface* graphicInterface
- std::vector<unsigned int> highscoreList
- void textFont

Operations
+ HighscoreDisplay(GraphicInterface* graphicInterface)
+ int Update(UserCMD userCMD)
+ void Draw()
- void ReadHighscore()

<struct> UserCMD

Attributes
+ glm::vec2 mousePositi...
+ int key

Operations

<Reference> GraphicHandler

Attributes

Operations

Look at next class diagram

GameManager

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- AudioManager audioManager
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- int logicalMap[][]
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Operations
+ float GetHunger()
+ glm::vec3 GetDirection()
+ glm::vec3 GetPosition()
+ Pacman(glm::vec3 startPosition)
+ PacStruct GetPacStruct()
+ void StartDevouring()
+ void Update(UserCMD userCMD)

<struct> CameraStruct

Attributes
+ glm::vec3 position
+ glm::vec3 target
+ glm::vec3 up

Operations

AudioManager

Attributes
- ALuint audioBuffer[NUM_OF_SOUNDS]
- int soundCounter

Operations
+ AudioManager()
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MapLoader

Attributes

Operations
+ int[][] LoadMap(const char* mapName)
+ MapLoader()

<struct> PacStruct

Attributes
+ float hunger
+ unsigned int life

Operations

Candy

Attributes
- enum type
- glm::vec3 position

Operations
+ Candy(glm::vec3 position)
+ glm::vec3 GetPosition()
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AI

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Operations
+ AI(int logicalMap[][], glm::vec3* pacmanPosition)
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- void UpdateGhostPath(glm::vec3* goalPosition)

Ghost

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- enum state
- float speed
- glm::vec3 direction
- glm::vec3 position
- std::vector<point> path

Operations
+ Ghost(glm::vec3 position)
+ glm::vec3 GetDirection()
+ glm::vec3 GetPosition()
+ void SetState(int stateNumber)
+ void Update()

<Struct> GhostStruct

Attributes
+ glm::vec3 direction
+ glm::vec3 position

Operations