

EnvironmentObject
<ul style="list-style-type: none"> - boost::uuids::uuid id - std::pair< float, float > position
<ul style="list-style-type: none"> + EnvironmentObject(float x, float y) + boost::uuids::uuid getId() const + virtual ~EnvironmentObject()=default + virtual void postIteration() + virtual std::pair< float, float > getPosition() const + virtual void setPosition(float x, float y)

Genes
<ul style="list-style-type: none"> - char dna - MutationFunction mutationLogic
<ul style="list-style-type: none"> + Genes(const char *dnaStr) + Genes(const char *dnaStr, MutationFunction customMutationLogic) + void mutate() + char getDNA(int index) const - static void defaultMutationLogic(char dna[4])

Organism
<ul style="list-style-type: none"> - LifeConsumptionCalculator lifeConsumptionCalculator - float lifeSpan - std::pair< float, float > movement - int reactionCounter
<ul style="list-style-type: none"> + Organism() + Organism(const Genes &genes) + Organism(const Genes &genes, LifeConsumptionCalculator lifeConsumptionCalculator) + float getSpeed() const + float getSize() const + float getAwareness() const + float getLifeConsumption() const + float getLifeSpan() const + float getReactionRadius() const + void killed() + bool isAlive() const + bool canReproduce() const + ~Organism() + void react(std::vector< std::shared_ptr< EnvironmentObject > > &reactableObjects) + void interact(std::vector< std::shared_ptr< EnvironmentObject > > &interactableObjects) + std::shared_ptr< Organism > reproduce() + void postIteration() override - double calculateDistance(std::shared_ptr< EnvironmentObject > object) - void makeMove()

