

Worm's Up a virtual reality game



Project description

Worm's up is a virtual reality project inspired by a famous tactical computer game: "Worms".

With a VR headset, you can be the worms and play with others. Each player controls a team of several worms and plays in an arena to kill the opponents' worms, thereby winning the game.

During the game, players take time-limited turns to attack with a chosen weapon and move around the destructible terrain.

Worms die when one of the following situations occurs:

- When a worm enters water.
- When a worm is thrown off either side of the arena.
- When a worm's health is reduced to zero.

Work Environment

We will present the software configuration available to us to ensure the project's progress.

Software configuration

01

Operating system :
Windows
Unity 3D : the ultimate
game development
platform.
Modelio : an open source
UML modelling tool.

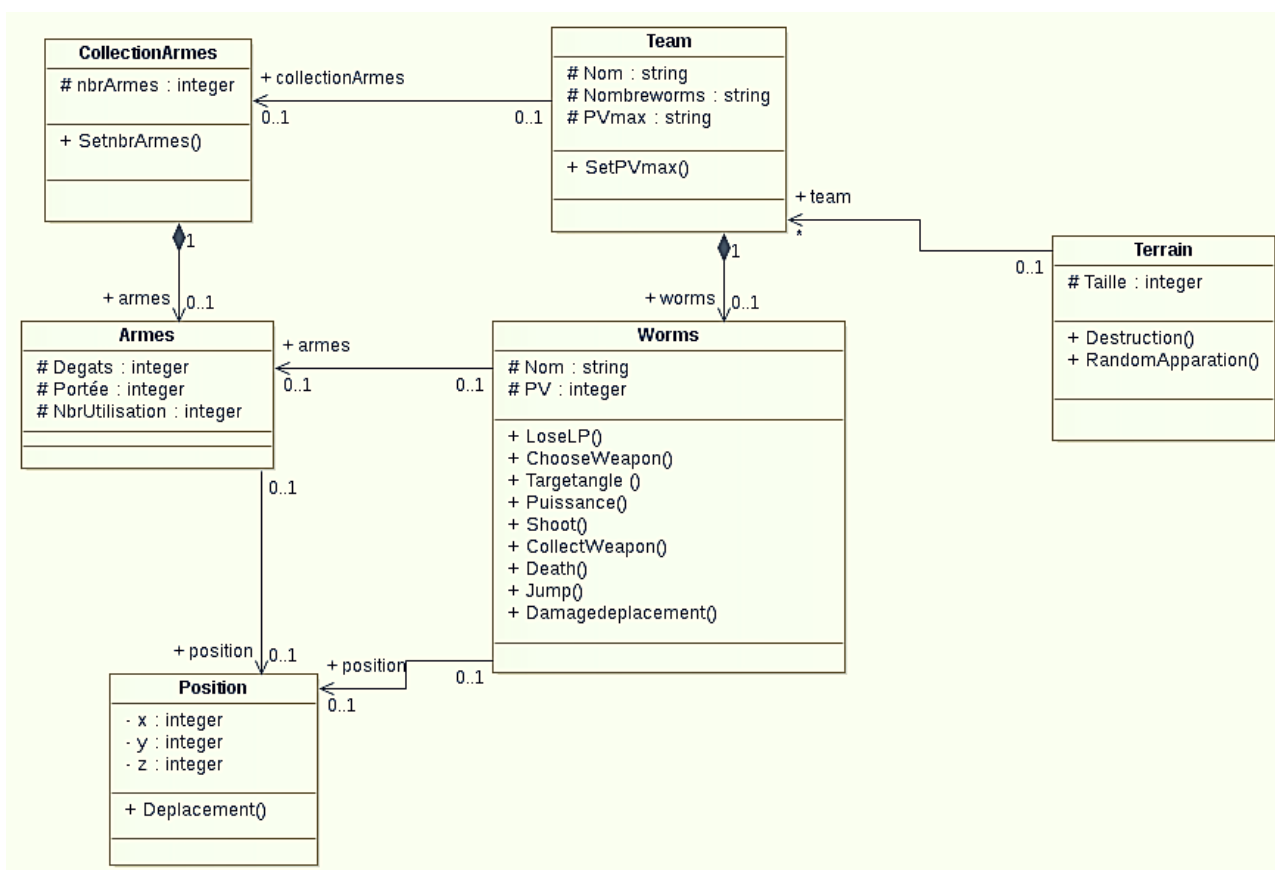
02

Programming language

C# : it's an object-oriented programming language.

Global class diagram

In a class diagram, the classes are arranged in groups that share common characteristics which are portrayed as boxes connected with lines which define the relationships between the classes.



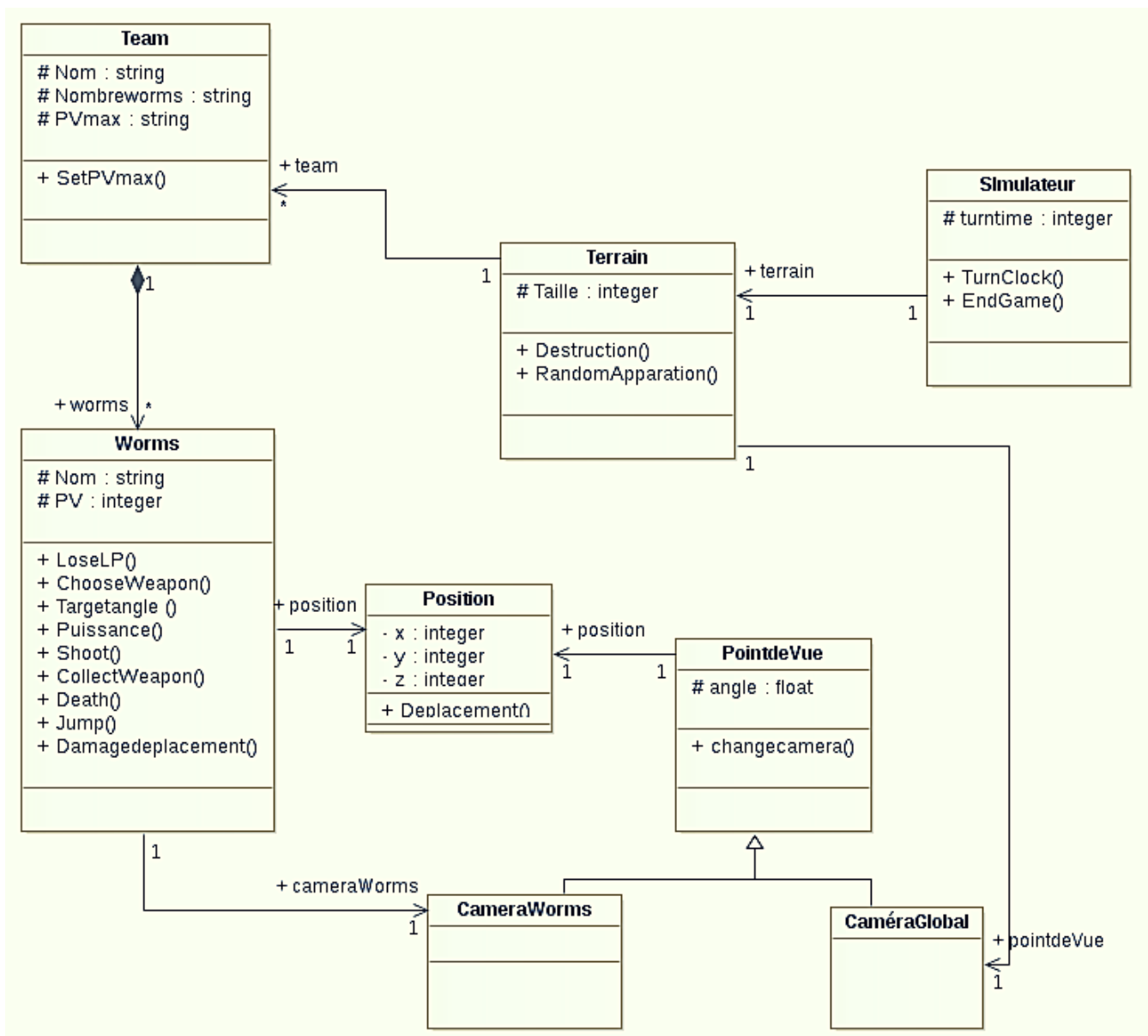
Terrain part

Worms class is identified by a name and a PV number. He can lose PV, choose weapon, target, charge and shoot. He is a part of a worms team. This Team class is identified by a name, a number of members, the team life points and have a CollectionArmes which shared with all the team.

Terrain class is identified by a size and he is destructible. He contains worms, random weapons and cameras.

All objects has a position in x, y and z axis.

Simulateur run the game and calculate the turn time.



Armes part

Armes class is identified by a damage points, scope and a use number. He is a part of the Team's CollectionArmes. And CollectionArmes class is identified by a weapons number which can evolve, each team have is own CollectionArmes.

There are 4 weapon types:

- A_Lancer is the launch category weapons which can be a grenade or a boomerang.
- A_Poser is the posed category weapons as mine, which have a scope at zero and a timer for the explosion.
- A_MainNue is the martial art techniques which have a scope at zero and constant damage.
- A_Projectiles is Fire weapon category as bazooka or shotgun, which have missile, Missile class is identified by his explode zone and when is been shot he take a ballistic way.

