Aircraft Al system

Included premade behaviour scripts

Dogfighter

The dogfighter behaviour scans the skies and finds targets of the enemy team. It chases after the target and fires bullets when it's close enough, and in a good angle.

RTSPlane

Simple RTS style plane behaviour. Click on terrain to move, and click on a target to attack.

Airliner

The airliner lands on a random airport, and takes off again after receiving the command ("Take off" button appears). After successful takeoff, the plane finds another airport and lands there.

PlaneBase – the base class

Variables

Team (int)

Used to separate friendly and enemy airplanes, so they don't attack each other and to disable accidental friendly fire. Airports also have this variable so planes only land on friendly or neutral airports. If your game doesn't need teams, set it as zero.

CurrentBaseState (BaseState)

The current state of the plane, see BaseStates below. Apart from landing and taking off, this is usually set to "Moving".

TargetPos (Vector3)

Position where the plane is moving to.

BaseStates

Moving

Moves towards targetPosition

Idle

Set current position as targetPosition and fly circles around it

Landing

Following the landing sequence of the selected airport

Landed

On ground, moving towards parking area

TakingOff

Following the taking off sequence of the selected airport

Parked

Plane is on ground and fully stopped

Functions:

Initialize()

Call this in the inheriting class Start() function

UpdateTick()

Call this in the inheriting class Update() function

SetState(BaseState)

Always use this function to set the plane's state (e.g. Idle, Moving)

StartLanding(Airport)

Starts the landing sequence on a given airport. If an airport is not given as a parameter, the closest airport is picked. When landing has completed and the plane has reached its parking spot, the state is set to Parked

TakeOff()

Starts the takeoff sequence on the current airport. When the plane has successfully taken off, TakeOffFinished is called and the state is set to **Idle.**

Death()

Plane loses control and starts crashing towards the ground

Crash()

Plane is destroyed immediately in an explosion