

AI Design

Introduction

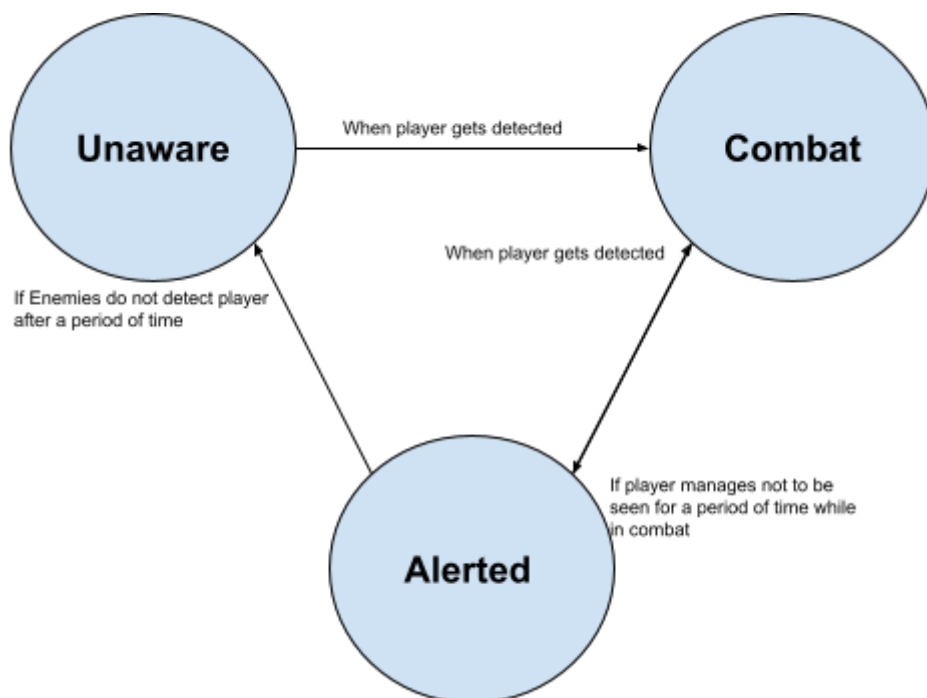
This document will be an overview for the implementation of the generic AI, detailed version for each archetype will after documented

Enemy States

The enemy AI will be described using states, each of the main states will be further described with its own behavior.

The main behavior that can be find are:

- **Unaware**, the enemy do not know that the player is there
- **Combat**, the enemy have discovered the player and will engage the fight
- **Alerted**, the player managed to lost tracks of him



Down here the full description

Unaware

This is the state that an enemy is in until the player is detected.

During the unaware state an enemy perform its routine, this can comprehend one of more of the following behavior:

- Waiting in a specific point
- Patrolling following a specific spline
- Investigating a location if the enemy is triggered by something specific (e.g. Bait hack)

Combat

When the player gets detected by an enemy, the group of enemies that belong to that specific area will enter in this state.

Once in this state, enemies will know the current location of the player and will behave according to their class.

Player can be spotted because of:

- Enemy sees the player
- The player shot without silencer
- The player hit the enemy without killing it

General behaviors for basic AI in Combat state

- Looking for cover, also includes the fact that enemies can lean out (after how long and time tolerance settable)
- Shooting the player, while doing this the enemies should also have the possibility to move

Class specific behaviours

Alerted

Enemies can enter this state ONLY if they are in Combat before.

If the player manages, for a certain period of time, not to be seen by enemies, they will enter in this state. This involves:

- Enemies will not know anymore actual location of the player
- Enemy will search in specific point, next to their point of idle or patrol

From here, if the enemy found the player, it will go back to the combat state.

If the enemy does not find the player, it will go back to the unaware state but will detect the player easier.

Enemy Detection

The player can be detected in different ways, here there will be a complete list:

- The Enemy sees the player
- The player shot with a gun without silencer
- The player hit an enemy but they do not instantly kill it
- The player use an traceable hack and get traced
- The camera sees the player

AI Sight

In this section will be written a description of how the sight of the enemies will work.

Despite the different archetypes, all of them share the same kind of sight.

Enemies can see 20 meters in distance and with a vision cone of roughly 60 degrees.

Once the player enters the cone, a bar will start to increase(It will be visible to the player via UI). This bar will increase faster if the player is nearer to the enemy. Player can always move away from the cone and the bar will start to decrease

If the bar reaches its maximum, enemies will enter in combat.

Enemies cannot see the player if:

- Player is behind an object that have no space to see through
- Player is behind a cover and leaning out
- Enemy are in the first 5 seconds of effect of the "[Reboot Optics](#)" hack

The camera share the same system but the case in which they cannot see the player are:

- Player is behind an object that have no space to see through
- Player is behind a cover and leaning out
- Camera is "[Turned off](#)"
- Camera is set in "[Pacific Mode](#)"