AI Helicopter Glitch

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The article about the AI helicopter glitch/bug that frequently occurs on modern hardware.

1 Information

Unresponsive and anomalous AI helicopter behaviours are common on all modern computers (CPU hardware) regardless of the operating system. Fortunately, the issue has been extensively researched and also quite easy to fix.

This issue only occurs in the original UA game engine. The symptoms of the AI helicopter glitch only started to appear after the official support for the game had been already ended, so there was no official fix patch created for it.

OpenUA (UA:Source) engine does not have this problem anymore since it is already fixed by default.

2 Overview
2.1 Signs & Symptoms

AI Helicopters don't obey orders, have problems with turning, and don't follow enemies properly. They are often unable to move to directions other than upward, and when ordered to move they will uncontrollably gain altitude at the spot. The issue only affects the AI-controlled helicopters and does not affect the helicopter performance under the direct first-person control mode of the players.

2.2 Technical Causes

The AI helicopter glitch problem is caused by a threshold check in the code that processes helicopter rotation as was found out by user Zidane on the forums. When an update time period (delta-time algorithms) gets short enough, which happens on new, modern computers, the mathematical condition is never fulfilled and the AI helicopter rotation calculation is not processed correctly.

2.3 Workarounds

Various workarounds exist to mitigate the problem; but only one method is recommended nowadays. See the Solution section below.

3 Solution
3.1 Applying the updated game executables fix/patch

A new modern Helicopter Patch with the updated game executable files was created. This patch is flawless and has no drawback unlike the other old workarounds. It should provide a definitive solution to the problem once and for all.

3.2 Direct Download Link for Helicopter Patch:
File
AI Helicopter Patch
The AI Helicopter Patch for the original Urban Assault game engine.

Schloss Charlottenburg
Dec 25th 2021

4 Important Note

Warning: If you are still using any 'helicopter patch' files sourced from uncertain origins made before 2016, specifically any type of 'patch mods' that directly alter/modify/replace *.scr data (script) files in the game's Data\Scripts folder, then please completely remove those files from your machines as soon as possible!

This kind of outdated patch file will never work correctly on modern hardware. But they will still detrimentally change the original helicopter data and properties in many unexpected ways, which will significantly impair the physics and performances of the helicopters. Moreover, since such contents are technically modified data, the game will detect those files as a sign of cheating on multiplayer matches. Therefore please delete any outdated patch files beforehand!

If you are uncertain whether your game files contain any undesirable modified helicopter data or not, the new Helicopter Patch file also contains the fully original and default game data files; which you can apply inside the game folder.

5 Historical Methods

There were several legacy makeshift methods used to circumvent the helicopter bug. However, since the new Helicopter Patch offers the complete solution without any drawbacks, they have been removed to avoid confusions for now.