System test case - #4_3

Test case details

Tester: Veikko Svanström

Date: 21.4.2025

Device: Laptop computer, low-end, Windows 11 Home V.24H2 x64

Environment:

- Most recent main branch
- Most recent commit is a293001a6f1e250d170d009a3407ec284f767e51
- Unity editor version 6000.0.35f1

Test details

This system test is exploratory in nature. The simulation is run via the built .exe and the unity editor with the purpose of testing the performance of the simulation with the new features impacting it, mainly the simulated ar / pointcloud mesh. Additionally, the new UFO-game scene will be run via the unity editor to see if it affects performance. The tester will see if performance problems still persist when the mesh is visible, and if it is solved via toggling the visibility of the mesh off.

Test steps and results

1. Open the project with Unity Editor, go File > Build Profiles, and Build the project for the Windows platform. The tester chooses to build it into a folder called ‘BuildTarget’ in the repository directory.

a. Result: Build succeeded in 20 seconds.

2. Run the executable

a. Result: Simulation starts and runs successfully

3. Run and look around the simulation in order to simulate the ar mesh being created

a. Result: Points were scanned and simulated mesh created. The simulation runs smoothly and there are only some small stuttering/frame drops on the testers low end machine when running and looking at the ground (where simulated mesh is being created). Mesh visibility doesn’t influence performance. The test run on the unity editor

gave similar results. Additionally, the UFO game doesn't influence performance noticeably.

The tester decided no further testing is needed at this point, since the simulation runs smoothly on lower-end machines and no further changes are to be made. Therefore, this should be the last time test case 4 is done on this project.

Conclusions

Mesh doesn't appear to significantly affect performance anymore.
Simulation runs smoothly and no further work is needed.