An Interview For Graduation Report by L. Jatužis

Introduction

One of the main figures that helped and guided me throughout my internship and now, graduation is Šarūnas Ledas, a CEO and a Co-Founder of a game studio called Tag of Joy. His role within the company when creating games is heavily shifted towards one of technical art. Due to his long years and experience within this industry, I have decided to conduct a short interview and ask some questions about optimization.

In your opinion, what kind of optimization techniques are the most used in the gaming industry?

Real-time scenes can be optimized in a variety of ways, some of which include optimization of polygons (vertices) in the scene, a number of draw calls (which is usually impacted by the number of separate objects and materials), fill-rate optimization, baking lighting, or reflections into textures (lightmaps, reflection probes), optimizing the number of skinned meshes, etc.

Which of your previously mentioned techniques do you think contributes to increasing fps the most?

Every mentioned element impacts the framerate, and it's usually a combination of those that impact the whole performance. It also depends on a project – whether it's animation heavy, realistic, needs a lot of reflections, transparent surfaces, or other qualities. Therefore, every project requires a unique approach and at least general knowledge about every aspect that can impact overall performance.

What are the biggest problems you faced while optimizing the games?

It's always a challenge to make a scene look unique and/or realistic because there is always something that has to be simplified or cut altogether.

What are the biggest optimization mistakes people make?

Probably the biggest mistake is to not take into account all of the mentioned aspects. Because every one of them can be a bottleneck, and usually it's a combination of a few of them

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