

Atomontage Engine

A voxel-based engine for video games and beyond
by Branislav Síleš, February 2011.

Intro

Modern video games look good. Some of them are even fun. But none can make the content respond to collisions, chemicals, heating and many other processes in a plausible way. Such functionality is not possible today. Therefore many games cannot be really fun and many game ideas cannot be turned into a product at all. The reason for that are the still popular polygons-based game engines. Polygons are flat by nature, too flat to be fun.

A well developed voxel-based engine will change that. That's because voxels are not flat, they are volumetric by nature. Voxels are like real-world atoms, although a bit bigger.

Atomontage Engine is about to be the first great voxel-based engine for video games and beyond.

Goals

Our primary goal is to provide game developers with a middleware solution that will make it easy for them to create better games featuring complex never-seen-before physics simulation and user-content interaction modes.

Our secondary goal is to make end-products powered by Atomontage Engine.

Target Market

In general the applicability of our middleware solution(s) is limited to software working with 3D content.

Our clients include video game developers as well as other software developers who make software for the visualization and processing of 3D content.

The engine or parts of it may become essential components of future medical software, educational software, machine-learning toolkits, (non-)scientific physics simulation solutions, CAD software, military training and real-time combat simulators, etc. Our solution might also become useful in the film industry as well as in future simulation and logistic tools in heavy industries (mining, building, etc.), agriculture, landscaping and others.

The target markets are ever growing and always hungry for new technologies.

Why Atomontage Engine

Atomontage Engine is one of the best voxel engines out there. It is unique in that it is GPU-accelerated and it can mix voxel-based with polygon-based content. It can alter the high quality voxel-based content on the fly. The engine can store any voxel property at any level of detail. The storage is efficient and makes it possible to load whole game levels into the main memory of the computer. To date none of the competitors has demonstrated a more sophisticated voxel-based solution.

The engine is efficient and it does not require any special or latest hardware to perform well. Our intelligent solution for processing massive data is probably unique among all software in the world and it has a good chance to outclass any brute-force solution out there.

As of February 2011 a steadily growing number of game developers are expressing their interest in using Atomontage Engine in their games.

All this makes our engine the perfect candidate for becoming an exceptionally successful technology.

Current State

A working prototype of Atomontage Engine can be demonstrated at any time. An interactive example program will be released, soon.

What We Need

We are seeking capital to cover expenses for a period of 18 to 24 months of operation (staff of 3-5 people total). Feel free to contact me for details.