



OpenFPS / Biostorm Design Document Version 2.0 Original Design Document Started July 27<sup>th</sup>, 2009 Design Document Last Revised July 7<sup>th</sup>, 2013 Project Organized by Chris Dalke ("Thenerd")

## **OpenFPS Design Document**

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# 1. Introduction

#### 1.1 Purpose of this Document

This document is intended to outline the complete design of the OpenFPS project and the accompanying Biostorm game. This document will provide a guideline for both the artistic and technological design of the project. We will explain the concept of Biostorm, which will be followed by a complete overview of the engine. This document should be referenced often when developing the game so as to keep a common vision.

### 1.2 Project Summary

OpenFPS is an open source project to develop a game engine and create an accompanying first person shooter game, titled Biostorm. The project is being coded in DarkBASIC Pro, with plugins written in C++ and scripting using Lua. Our goal is to create a complete engine with the following features:

- Ingame WYSIWYG editor
- Extensive scripting possibilities
- First person movement with physics, weapons, etc.
- Realistic artificial intelligence for NPCs and AI squad members
- Physics engine with capability for meshes, ragdolls, and vehicles.
- Multiplayer engine code integrated with the local engine.
- A fun experience to play!

By creating an engine, we will be able to develop Biostorm. The game will include multiplayer game modes as well as a complete campaign mode.

OpenFPS was started back in 2009, as a simple idea – would it be possible to complete a large-scale project on the TGC forums with the help of the community? What started as a question soon grew into a large undertaking. By combining the efforts of many community members, we can create something that would otherwise be impossible. Both the game and the engine are publically available through an online open source solution. Anyone can download the code, play the game, and make a contribution. If you decide to contribute to the efforts of OpenFPS, understand that it doesn't matter how experienced you are. Every great programmer or artist was new at some point. When I started this project, I was far from the coder I am now – OpenFPS provided me an opportunity to learn and develop something with other people. If this provides the same opportunity to anyone else, then the project has succeeded.

-Chris

## 1.3 Accessing the Project

The OpenFPS project is stored on Subversion-based repository hosted by Google Code. If you don't know what this means, don't worry. In short, Subversion is a system allowing for multiple developers to keep track of the code they are working on. The project is stored on a server, and can be downloaded to a user's computer at any time. Anyone can then modify the files, and use software to commit their modifications to the server. With this system, multiple people can work on the project at the same time while ensuring everyone has the latest version.