

VALHALLA PROJECT: GAME DESIGN DOCUMENT

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HIGHLY CLASSIFIED INFORMATION.

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Behold, the four commandments will guide you through this journey:

- 1) You shall have no other sources of truth besides this Design Document.
- 2) You shall not make relevant changes without discussing first.
- 3) Remember to keep this Design Document holy.
- 4) Honor this Design Document and its authority.

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1.- Introduction

In this document we will compile all relevant information for the game design goals of a first-person shooter game that, although fundamentally old-school in style, incorporates some novel and modern elements influenced by modern shooters. Based on the *Cube Engine 2*, the game also focuses on intuitive map editing. By incorporating a believable and inspired lore, the game is enriched by an art direction that aims to be appealing, unified and stylised.

The aspects to be covered here in this document are; the Genre of the game, an Overview of the game mechanics and the narrative, the References of other published games that we use as inspiration for the game mechanics and the art, Concept Art references and artistic sensibilities, the Target Audience, the Design Theories applied and finally the Key Features that stand out in our game.

2.- Genre and Platform

The genre is First-Person Shooter (FPS) following a classic arena shooter school of thought, combined with more modern takes on the genre like *Team Fortress 2*, *Halo* and similar titles. The game will have a big focus on movement and map control with some light platforming elements and additions to the movement like ledge climbing/vulting, sliding and rocket/trick jumping.

We look for a mixture of the most famous titles of the genre according to their key features, games like *Doom* or *Quake* are two titles whose frenetic feeling is very high, while *Halo* and similar titles bring a more grounded and impactful feel to the movement, while staying dynamic and agile.

The game will be available for Windows, Linux and macOS.

In the distant future, an *Android* version may be considered.

The game will rely on publishing platforms like *ltch.io*, *GameJolt*, *ModDB* and eventually *Valve's Steam*.

3.- General Description

3.1 Narrative

The Valhalla Project is, in loose terms, a combat training experiment for mercenary forces, taking place in a variety of locations and natural (or not) environments spread across nine main planets. Contracted subjects are put through a gauntlet of different combat scenarios, whether they be solo or teams versus, or even open arenas where it's a dog-eat-dog slugfest. Headed by the overseer code-named Hermod and the Al assistant Valkyria in charge of the nitty and the gritty.

3.1.1 Game World

3.1.2 Main Characters:

Protagonists:

- Ask and Embla: These two humans, codenamed Ask and Embla (the first two humans
 in Norse mythology and player models in Valhalla) and whose actual names are
 unknown, are priority subjects for the Valhalla Project and are subjected to in-depth
 research. They are the first two people to wear and test the stunning new super SVALIN
 suit in its most recent design.
- Valkyria: Valkyria is the name of the sentient AI assigned to assist in the project's development by the corporation, she's responsible for taking care of the more mundane tasks and handling process automation for the Valhalla project. Under the direction of the project managers, Valkyria's primary responsibilities for the Valhalla project include arranging tournaments, hiring test subjects, setting up testing facilities and laboratories, and managing the operation's logistics in general.
 - When speaking with the subjects, her disposition is generally upbeat, but she will swiftly change her attitude if Hermod butts in to interrupt or take over a line. Since she is effectively the AI in charge of the infrastructure, she has "eyes and ears" everywhere, so to speak. Through interfacing with the subject's headset, she can guide them around when required so long as she can keep a lid on her temper over the meddlesome *Hermod*.
- Hermod: Hermod (the messenger of the gods in Norse mythology) is a floating robot/drone, whose main responsibilities include basic upkeep of Valhalla's testing chambers, electronic system correction, and support with testing and combat training. He frequently engages in brief verbal fights with Valkyria, whom he prefers to call Val for short, because he is overly ambitious and has a tendency to micromanage when it is not necessary. They often but heads due to his meddling nature, much to her annoyance, when he jumps in uninvited. At the same time, he quickly changes his mind and becomes indifferent to what the subjects do, letting Valkyria continue her job.
- Ratatosk: A talking squirrel, like the actual Ratatoskr from Norse mythology.

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3.1.3 Starting point and Objective:

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- 3.2 Gameplay
- 3.2.1 Game mechanics
- 3.2.2 Player actions

Combat:

- **Shooting**: most weapons will have primary and secondary fire modes.
- **Melee**: a player can use the melee attack with any weapon. Damage depends on the weight and size of each weapon.
- **Reloading**: all weapons have to be reloaded or cooled down.
- Grenade attacks: grenades not only can be picked up around the map, but are also available on spawn. Each grenade has a different effect on the environment and players, so grenade types can be switched by the player just like the other weapons. Grenade types are: regular (explosive), sticky smart mines (plasma), ice grenades (freezing the area and thus slowing close players down for a short amount of time), incendiary grenades (setting the area and players themselves on fire for a short amount of time).

Movement:

- **Crouching**: this allows players to hide behind obstacles or reach hidden spots, and silence their footsteps (and possibly even reduce or erase fall damage).
- **Ledge climbing/vaulting**: players should be able to climb or vault detected ledges automatically when in air and moving forward.
- **Jumping**: jumping should allow for small and quick speed boosts without stemming in actual bunnyhopping mechanics. Walking or holding heavy weapons automatically removes these speed boosts.
- **Walking**: players should be able to walk by using keys like *left shift* if they choose to, and automatically if holding heavy weapons or zooming in (sniper rifle scope).
- **Sliding**: the player should be able to enjoy little speed boosts by gaining speed at pressing the crouch button to slide.

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• **Trick jumping**: players should be able to use certain weapons' knockback/kickback strategically to reach higher ground, but at the expense of precious ammunition or health.

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3.2.3 Game systems

Resource management systems;

- **Health**: health is generally gradually but automatically regenerated, but extra items can be found on the map that immediately boosts the player's health.
- **Shields**: shield items are mostly omitted from the main gameplay, but can be found in certain game modes.
- Ammo: ammunition boxes are found in the most compromised spots in a map, this way
 players team up and battle for the control of the important areas in the map, while,
 however, being well equipped from the start by choosing the basic weapons to spawn
 with that better fit their playstyle.
- Map control and respawners
- **Super weapons**: these spawn rarely and cause massive amounts of damage. They are by all accounts weapons of mass destruction. They are usually clunky and very heavy, slowing the player down significantly (forcing them to walk all the time) and usually have a low ammunition capacity.
- Power-ups: power items can be found on generally accessible and central spots on many maps, these can be picked up and dropped by any player, and even enabled when necessary.

3.3 Localization

In addition to English as the default language, the user interface, dialog captions and game messages will be translated into the following languages:

- Greek;
- Hungarian;
- Italian;
- Spanish;
- Ukrainian;

Additional contributors may add more languages in the future.

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4.- References:

- Counter-Strike: Global Offensive
- Doom franchise
- Half-Life franchise
- Halo (1, 2, 3, Reach and Infinite)
- Overwatch
- Portal franchise
- Quake
- Team Fortress 2

5.- Artistic sensibilities:

6.- Key Features of the Final product:

- Strong, attractive and cohesive art direction.
- Simple, fun and entertaining gameplay following easy to learn, hard to master philosophy, without forgetting about "easy to get into" too much.
- Satisfying sound design, animations and visual effects for effective player feedback and game-feel.
- Ease of use gaming servers and map editor thanks to the intuitive interface and documentation.
- Social features compatible with platform integrations like GameJolt and Steam, for inviting friends and playing with them.
- Comprehensive documentation for development, source code and game's scripting languages.
- IQM, SDM, GLTF and OBJ model formats support.

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7.- Other Ideas:

- Physics engine implementation like Bullet, PhysX or JoltPhysics.
- Audio API implementation like *OpenAL*.
- Implementation of an additional scripting language, like LUA, that may be used as an alternative to CubeScript and allows for scriptable UI, physics, audio, particles and maps.
- By connecting to a server and loading the map online, you may quickly and safely download models, textures and other map assets.