Research and Design

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Game engine 1: Unity

- Programming languages: C++, C# and JavaScript
- Game made with Unity: Superhot
- It has both 2D and 3D

Game engine 2: Unreal Engine

- Programing language: C++
- Game made with Unreal Engine: Unreal Tournament
- It has both 2D and 3D

Game engine 3: Source 2

- Programing language: C++
- Game made with Source 2: Dota 2
- It has only 3D support

Game engine 4: Frostbite

- Programing language: C++ and C#
- Game made with Frostbite 3: Battlefield 4
- It has only 3D support

Game engine 5: CryEngine

- Programing language: C++, lua and C#
- Game made with CryEngine: Crysis
- It has only 3D support

<u>Image Format 1: SVG</u>

SVG, also known as Scalable Vector Graphics, known for its support for interactivity and animation is a Language-based vector image format that has been around for almost as long as the World wide web has.

Image Format 2: PNG

PNG also known as Portable Network Graphics is a file type made to replace GIF, it supports lossless compression, widely known as one of the better formats to use to save pictures easily.

Image Format 3: WEBP

WebP is an image format compatible with lossless and lossy compression that is currently developed by google. It also has support for animated images.

Audio Format 1: MP3

MP3 is the mostly wide used format for music without Video it's used for its ease of use, compatibility with multiple platforms and decent compression.

Audio Format 2: WAV

Wav is a widely used file format for its many benefits such as good compression multiple channels and so on. It's used for high quality music streaming and such. Its developed by Microsoft and IBM.

Compression in Video Games

Compression in images is very important, when pc's did not have much storage therefore they needed a way to store and transfer more images with the same hardware and internet, as hardware and internet were expensive and limited, compression started being widely used as a solution to this problem, over time compression developed and became more complex and able to compress more data more efficiently. As time went on images also started to get bigger in file size and resolution, and more detailed. These days there are many standards, and each have advantages and disadvantages.

How Compression in audio works

Compression in audio works by Cutting the "limits" of an audio file making everything more "even" but less detailed as shown here therefore it has less data to store making the file size smaller