

ForkENGINE Name Conventions

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- A **Vector** (2D, 3D, 4D) in this engine is the same as a **Point** (2D, 3D, 4D). Although a 3D vector for instance will not be translated by a 4x4 matrix (in mathematical definition), this is not the case in this engine. A 3D vector, and a 3D point as well, will always be translated by a 4x4 matrix. Expect a specific function such as "RotateVector" is used.

This is due to avoid redundant code. The type "Point" is just a type alias to "Vector". Or to be precise: "Point2" refers to "Vector2", "Point3" refers to "Vector3" and "Point4" refers to "Vector4".

The "Point" alias is used to denote the intended purpose of function parameters.

```
// Example:  
void MoveSomething(Vector3f direction);  
void LocateSomething(Point3f position);
```

- A **Vertex** denotes a data structure which consists of at least a 2D or 3D *Coordinate* and optionally a *Normal*, *Color*, *Texture Coordinates* and custom attributes, such as *Bone Weights* for animated vertices.
- A **Geometry** denotes any kind of geometry data. From a simple billboard (view-facing quad) to the point of a terrain.
- A **Mesh** or **MeshGeometry** denotes a set of *Vertices* and optionally a set of *Indices*.
- A **Model** or **GeometryNode** denotes a 2D or 3D model which consists of a set of *Geometries*, *Textures* and *Materials*. In a lower level it is called *GeometryNode* and on a higher level (e.g. the Editor) it is called *Model*.
- A **Material** denotes a data structure which consists of *Geometry* material (or rather surface) settings, such as *Color*, *Roughness* etc. or a physics material which provides settings for *Friction*, *Softness* and *Collidability*. There are two classes with this name: "Scene::Material" and "Physics::Material".
- A **Collider** denotes a physics collision geometry. This can be *BoxCollider*, *CapsuleCollider*, *CompoundCollider* etc..
- A **GameObject** is the a common object inside the *Game Engine*. This can be a camera, mesh etc.
- An **Entity** is an object inside the *World Editor*. This can be a camera entity or a geometry entity for instance.
- An **Asset** is an object inside the *Asset Browser* of the world editor. This can be a texture asset or a model asset for instance.