Polygonal Model

- Oldest and most known model for graphical presentation
- Resolution → Number of polygons
- More polygons mmore data for storage
- Model is saved in many resolutions for use in different cases
- Smallest polygon is a triangle
- Polygons are defined by vertexes (at least three)
- Vertex is defined by x,y,z coordinates
- Distance between two vertexes is a Vector $|V|=\sqrt{dx^2+dy^2+dz^2}$
- To make two vectors with an angle α between them into a triangle we need a vertical vector with its vertex, it is calculated so: $|V|=|V_1||*V_2*|\cos(\alpha)$
- The normal vector of a vertex is the vector that is vertical to the surface of the vertex
- If we want a normal for a vertex with more than one vector we calculate the vertical vectors in pairs (e.g. 4 vectors from one vertex → V_{12}, V_{23}, V_{34} and V_{41})

Simple Polygonal Model

- Is comprised of three triangles at least and has a Face Table and Vertex Table

Face Table

Faces	Vectors
F_1	V_1 V_2 V_3
F_2	V_2 V_3 V_4
F_3	V_2 V_4 V_5

Vector Table

Vector	Vertexes
V_1	x_1 y_1 z_1
V_2	x_2 y_2 z_2
V_3	x_3 y_3 z_3