Graphics Coordinates and Pipeline

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The Basic Computer Graphics Pipeline

Model Transform → View Transform → Per-vertex Lighting → Projection Transform → Homogeneous Division → Viewport Transform → Homogeneous Division → Rasterization → Fragment Processing, Texturing, Per-fragment Lighting → Raster Ops → Framebuffer

MC = Model Coordinates
WC = World Coordinates
EC = Eye Coordinates
CC = Clip Coordinates
NDC = Normalized Device Coordinates
SC = Screen Coordinates
The Shaders’ View of the Basic Computer Graphics Pipeline

- In general, you want to have a vertex and fragment shader as a minimum.
- A missing stage is OK. The output from one stage becomes the input of the next stage that is there.
- The last stage before the fragment shader feeds its output variables into the rasterizer. The interpolated values then go to the fragment shaders.

= Fixed Function

= Programmable