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* Graphics Pipeline

* What does program C++ do

per object info (triangle) modes, colors, shading info, ..., ^{transforms}

per vertex info

may be shared among many triangles (in object)

cannot specify per pixel / fragment info

where can this info come from

- global
- per-object
- NOT per-vertex
- Interpolated from 3 vertices

can draw many triangles

MULTI-PASS

Draw Objects twice (or more)

- combine in frame buffer (blend, ...)
- shadow hack (objects in different place)
- colors over textures
- multiple lights
- different texture

Can achieve pretty much arbitrary effects
(in theory)

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MULTI-TEXTURE ← each w/ own texture coord

- Avoid redraw - efficiency, Z-precision issues, ...

- How many

- How to combine A, B over A, B replace A, A switch B C, ...

Cool tricks using multiple textures

(arbitrary polynomials)

Every card is different

What combines -

fixed set

small program ← 16 instructions of machine code