

# Computer Graphics

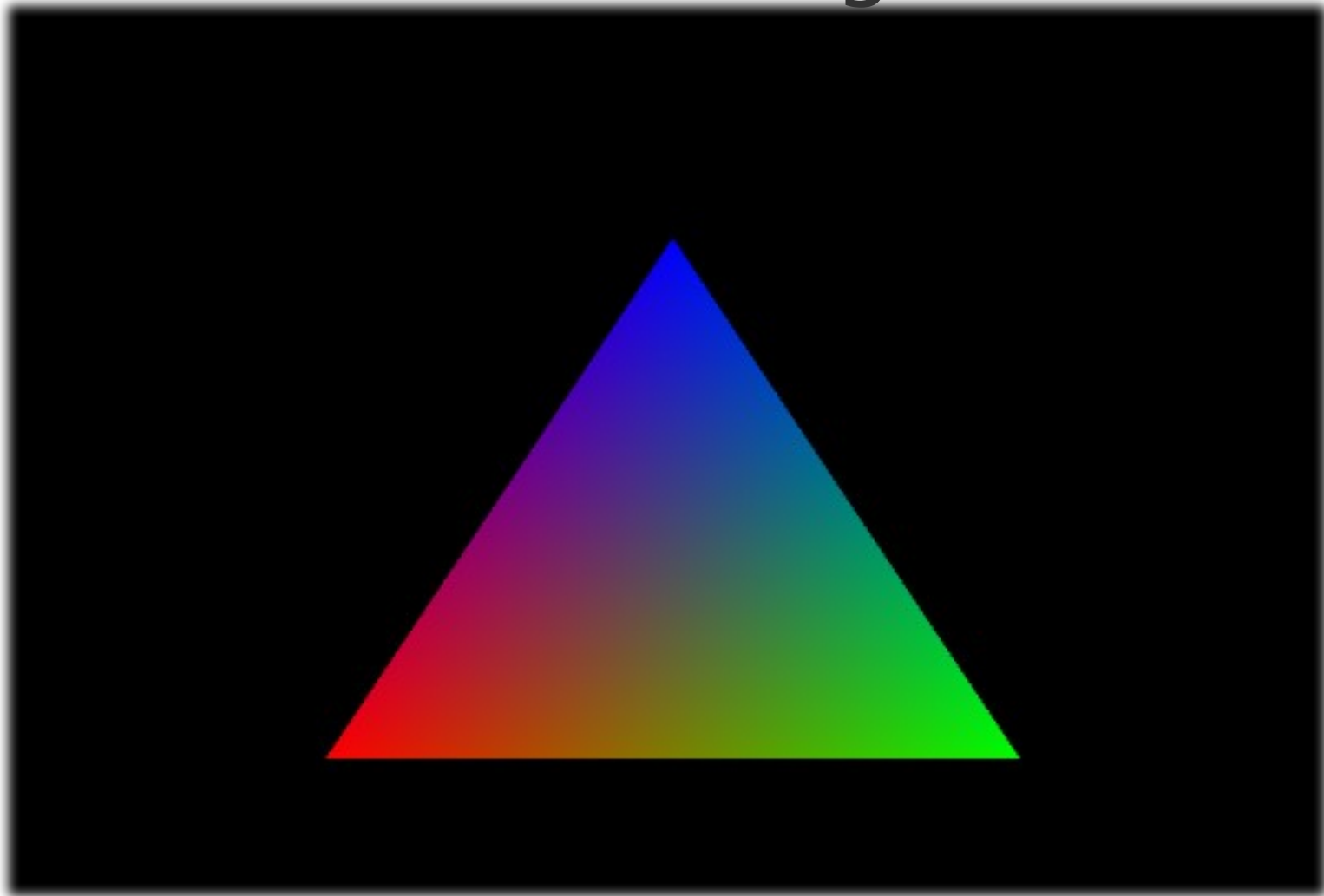
## Lecture 2

### Hello Triangle

# Debugging

- glGetError function
- Frame-capture tools like RenderDoc

# Hello Triangle





# What do we need to draw?

- Data
- Algorithm to position and colorize the data

# Data

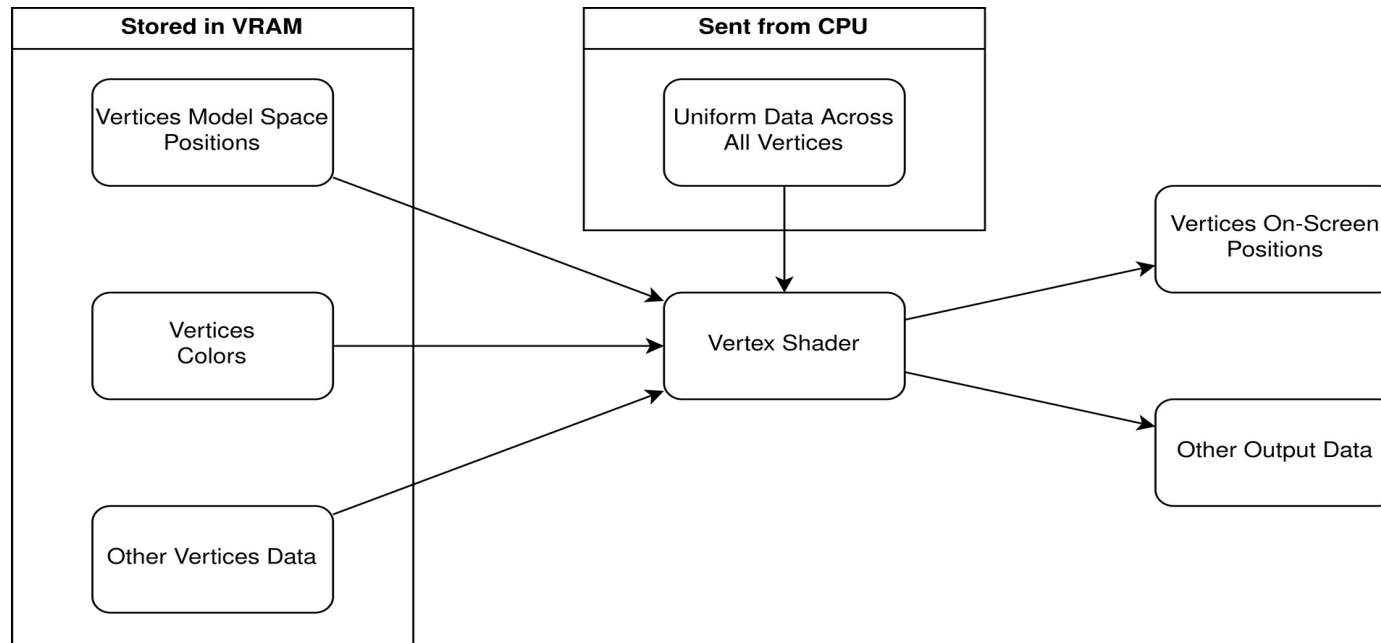
- Decide what data is needed
- Setup data structure
- Send the data to VRAM



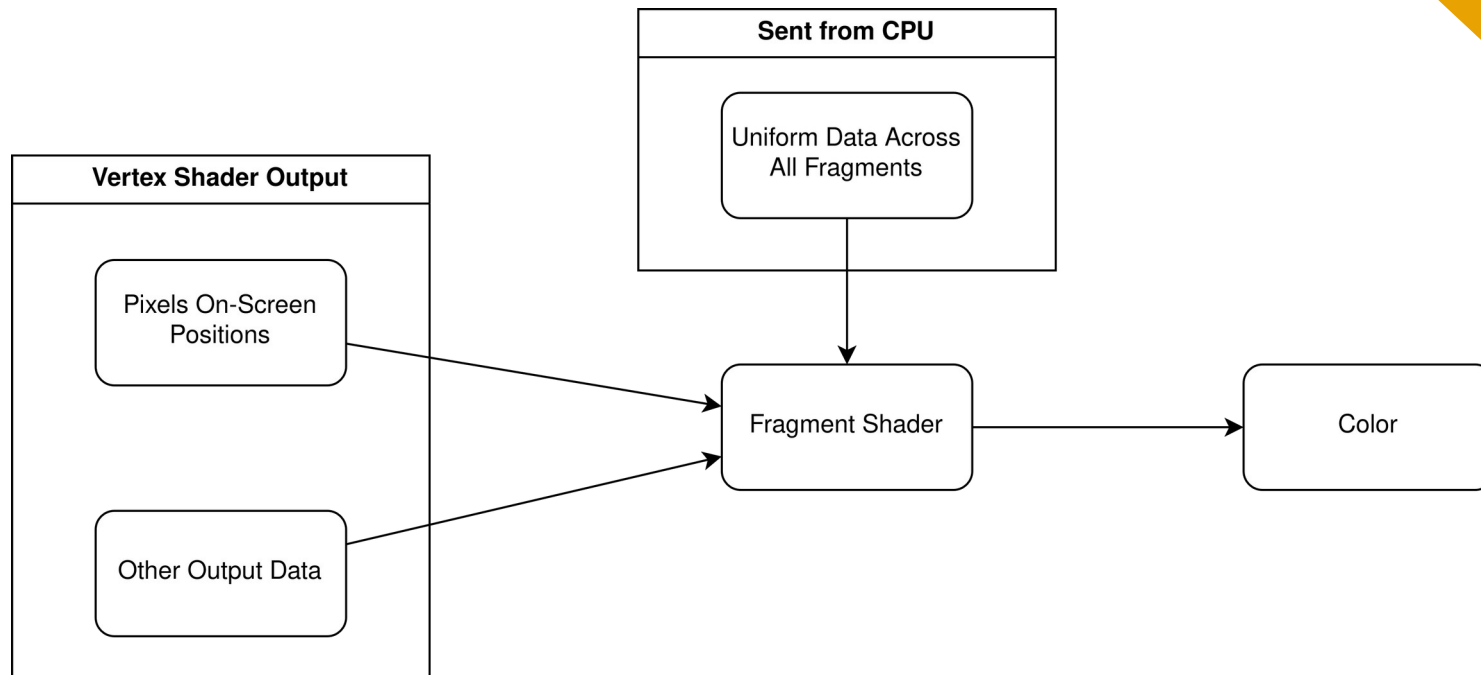
## Controlling the pipeline

- Vertex Shader
- Fragment Shader

# Vertex Shader



# Fragment Shader







# Primitive Shapes

- Point
- Line
- Triangle
- Quad

An abstract geometric composition featuring six large triangles of different colors (red, orange, yellow, green, blue, and purple) arranged in a circular pattern, meeting at a central point. The triangles are separated by thin white lines. The word "Winding" is centered in the white space between the triangles.

Winding

The slide features a white background with four large, colorful geometric shapes in the corners: a red triangle in the top-left, a yellow triangle in the top-right, a purple triangle in the bottom-left, and a green triangle in the bottom-right. The text "Thank You" is centered in the middle of the slide.

Thank You

# Useful Links

- <https://docs.gl/gl3/glGetError>
- <https://renderdoc.org/>