



COMP5514

Computer Graphics in C/C++

Lab 05

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Contents: OpenGL Debugging

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- Debugging Techniques

PART B: OPENGL FUNCTIONS

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PART C: EXAMPLES

- Example of buggy OpenGL program

Debugging OpenGL

- ◆ Graphics Programs are **hard** to debug...
- ◆ Mental tracing is necessary.
- ◆ Much patience is required.
- ◆ Make changes, watch, trace.

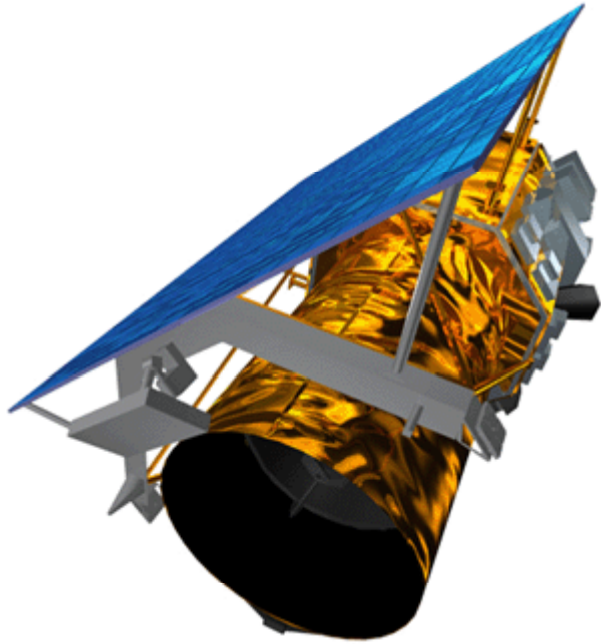
Some tips...

- ◆ Use “printf” to trace the execution.
- ◆ Print out meaningful messages.
- ◆ Print messages before and after function calls.
- ◆ Look for symmetry in coordinate variables.
- ◆ Look for symmetry in function calls.
- ◆ Understand your API (in this case OpenGL).
- ◆ Do not count on a bug free API implementation.
- ◆ Always draw a primitive object on the screen.
- ◆ Start small, grow slowly...

Try things out...

- See Example: **lab05.zip**





Try things out...

