CS480
Translators
Introduction to Compilers
Milestone I - Gforth

Your First Milestone
• Learn a new language, Gforth
• Get a Makefile working
• Write a Milestone report

Why learn a new language?
• Different language paradigms
• This is our target code
What is Forth?

- Imperative
- Stack-based
- Postfix (Reverse Polish Notation)
  \[ 1 + 2 \times 3 \]
  \[ 1 2 3 \times + \]
- How about \( \frac{3}{1+4} \times 2 \)?

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Gforth

- How does it work?
  - Command Line
  - Files

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Old Desk Calculators
Starting/Using Gforth

Makefile Example

- Four Targets
  - compile
  - clean
  - stutest.out
  - proftest.out
Milestone Report

Handwritten Answers to Milestone Questions:

Specification (what do you think the purpose of this milestone is)

Processing (how did you and your team go about solving the problem)

Testing Requirement (how did you go about testing for correctness)

Retrospective (what did you learn in this milestone)

Milestone Grading

• Compiles, cleans, and produces stutest.out – 50%
• Testing: completeness of coverage – 25%
• Milestone report – 25%

Quiz #1 Questions

• Form groups of 4-5.
• Think about string representation.
• What are the different choices? (Examples)
• What representation does gforth use?
• What is the tradeoff between these choices?