

# GDB/Make/Valgrind

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# Prerequisites

Some C or C++

# Overview of Topics

- ▶ **Make** - Build Tool
- ▶ **GDB** - Debugging Tool
- ▶ **Valgrind** - Profiling Tool

# Why use it?

- ▶ Automate common tasks
- ▶ Avoid mistakes
- ▶ Save Frustration
- ▶ Impress your friends
- ▶ Integrated into vim/emacs

# Syntax of a Makefile

- ▶ Rules
- ▶ Targets
- ▶ Prerequisites
- ▶ Recipes

# Invocation

- ▶ **Naming the file** - makefile, Makefile
- ▶ **Command line** - make
- ▶ **with target** - make <targetname>

# Why use it?

- ▶ %\$#@! print statements
- ▶ The quiet art of debugging
- ▶ A logical approach
- ▶ Information is never a waste

# GDB Essentials

- ▶ where/bt
- ▶ frame
- ▶ list 1,10
- ▶ step, next, continue
- ▶ break
- ▶ run
- ▶ help
- ▶ info
- ▶ print



# Why profile?

- ▶ Firefox fail.
- ▶ What is a memory leak?
- ▶ Running Valgrind

# Outro

- ▶ Use these tools.