INTRODUCTION TO MAKE AND GNU AUTOTOOLS

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CODE DEVELOPMENT TOPICS

- Emacs/Vim (or IDE such as Eclipse, Visual Studio, Xcode)
- Make/gnumake
- configure (GNU autotools)

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TOPICS COVERED

- Editing tools to search within source code
  - Emacs/Vim – etags and tags
  - Compiling from Emacs: finding compiler errors…
  - IDE – code completion, compiling, syntax checking
    - Very powerful
    - More difficult to use with diverse development team who is not using the same IDE

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TOPICS COVERED

- Make/gnumake
  - Rules for compiling code
  - Handling dependencies
  - Automatically computing dependencies
  - Providing help messages
  - Creating libraries
  - Make is slightly more portable (and much clearer) than gnumake. Use gnumake only when needed.

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TOPICS COVERED

- Autotools
  - Generating system dependent information for compiling software

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CMAKE (NOT COVERED)

- An alternative to GNU Make/Autotools
  - Works on Microsoft Windows
  - Works transparently with IDEs
  - I don't like it
    - Cumbersome
    - Never as portable as Autotools
    - Difficult to debug

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