Build and Package

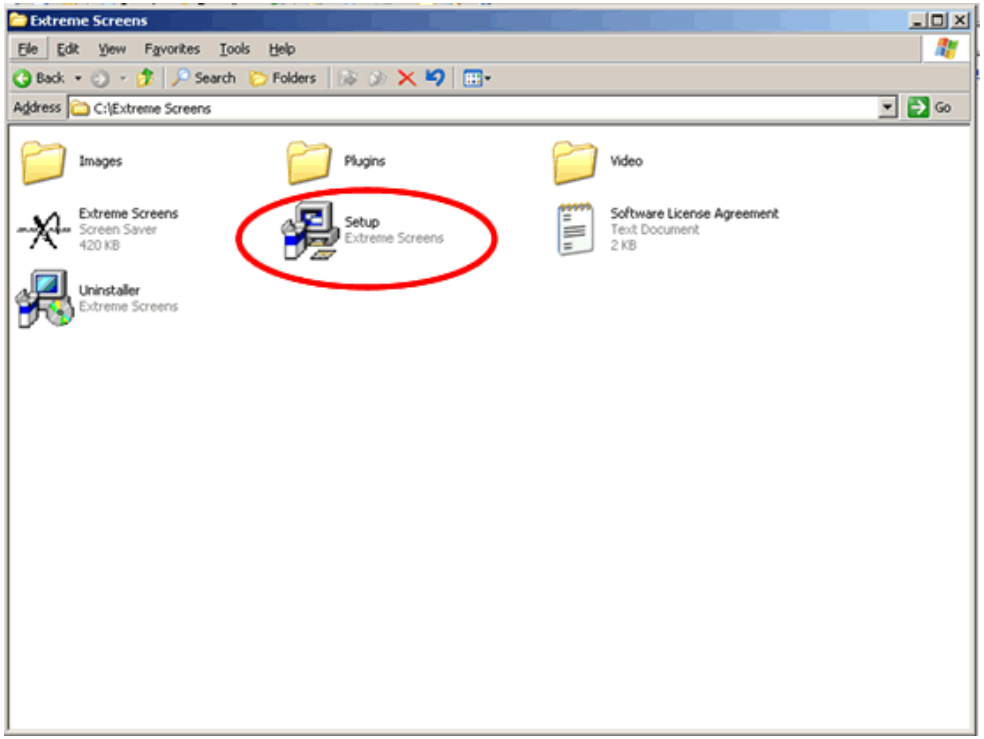
CSE 403 section, 2011 Feb 3, Hao Lu

How can others run your code?

- Build from code?
- Installation?
- Resources or dependencies?
- Options?
- Documentation

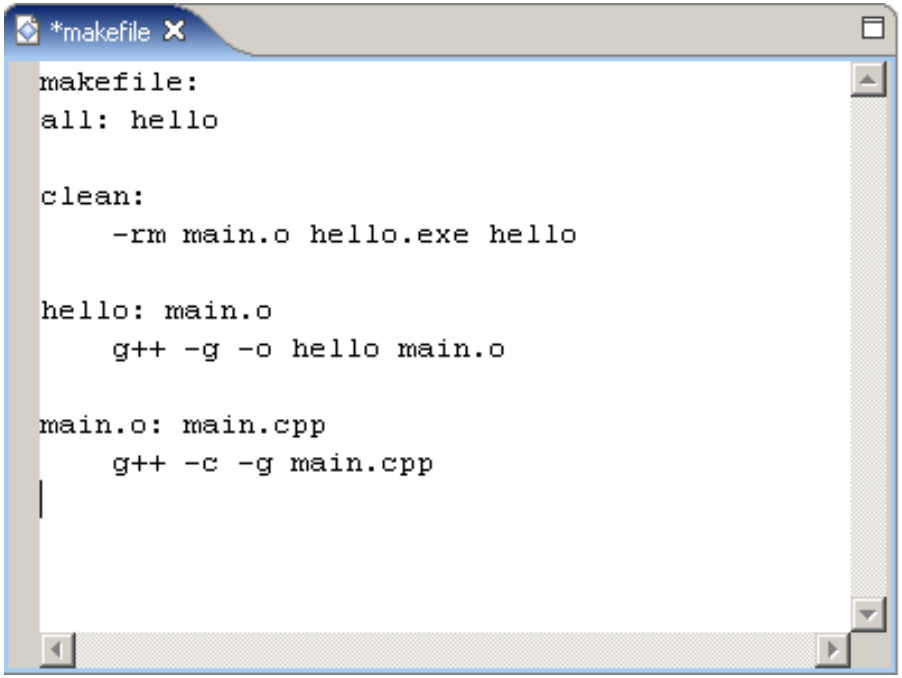
Example 1

- Precompiled distribution
- Run setup.exe



Example 2

- Download source code tarball
- $ ./configure
- $ make
- $ make install

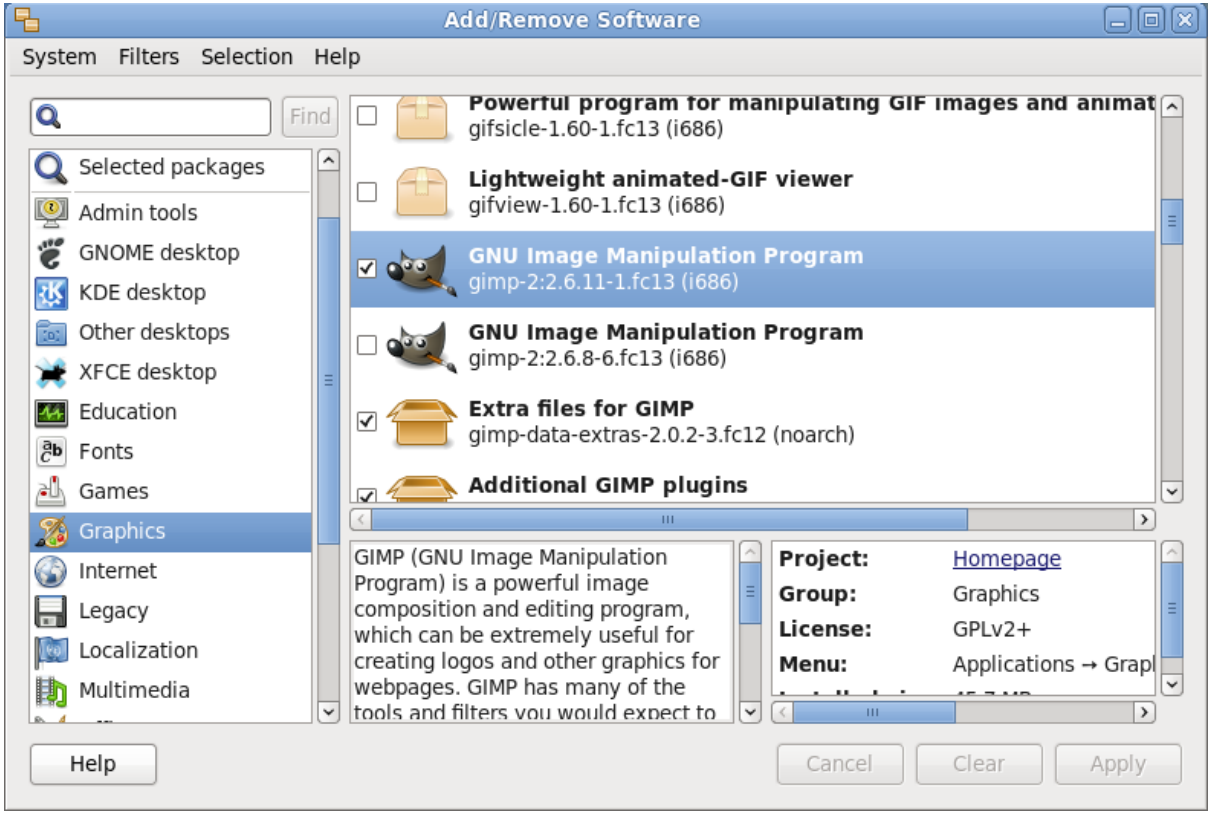


Example 3

- Download package.deb
- $ dpkg -i package.deb

Example 4

- From package list

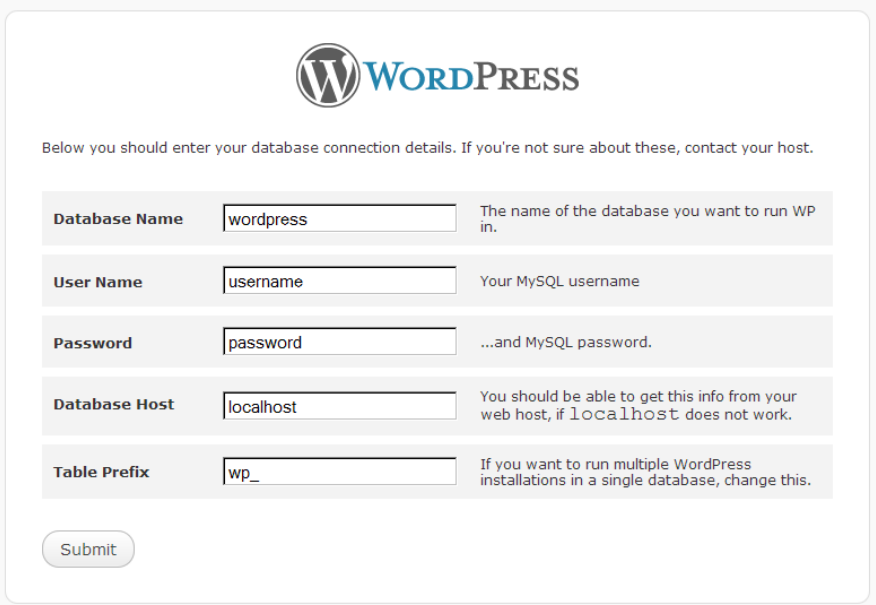


Example 5

- App store

Example 6 (WordPress)

- Download and unzip the WordPress package
- Create a database for on your web server
- Copy the WordPress files to your web server
- Open wp-admin/install.php in a web browser



Build

- Automation
  - Autoconf, GNU make, Cmake, Ant, Maven, Rake, …
  - Xcode, Visual Studio, …
- Dependencies!
- Documentation!

Package Format

- source tarball
- .app
- .jar
- .apk
- .rpm
- .xpm
- setup.exe
- .dll; .so; …
- …

Install

- Windows Installer
- Package manager

Guidelines

- Instructions
- Requirements
- Automate
- Clear, flexible configuration

Release(s) we'd like

- Stuff for both users and developers
  - Often easier in one package
  - Sometimes the same
- Complete instructions

Setup we'd like

- README in your code repository
- Tell us where everything is
- One step build script to generate all releases