

The Asterisk Build System

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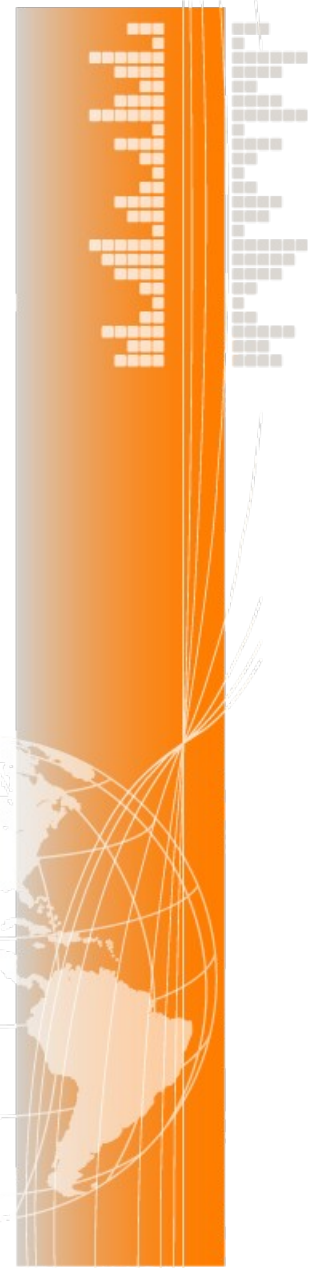
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Overview

- Requirements for doing builds
- Build System Usage
- Build System Customization



Build Requirements

- Compiler tools, GNU make, ncurses
- Debian/Ubuntu Packages
 - build-essential
 - libncurses-dev
- Asterisk Source!

Build System Anatomy

- configure script
 - Search for libraries
- Menuselect
 - Dependency checking
 - Optional menu for build customization
- Makefiles
 - Performs the build with information from configure and menuselect

Building Asterisk (Simple)

- `$./configure && make`
- `# make install`

Building Asterisk (Custom)

- `$./configure`
- `$ make menuselect`
 - Select which modules to build
 - Toggle various build options
- `$ make`
- `# make install`

Menuselect

- Optional menu interface
- Choices go in `menuselect.makeopts`
 - `/path/to/source/menuselect.makeopts`
 - `~/.menuselect.makeopts`
 - `/etc/asterisk.makeopts`
- Interface displays which modules can not be built due to failed dependencies

Adding New Dependencies

- `configure.ac`
 - Tell the configure script to find the lib
- `makeopts.in`
 - Have the configure script put the resulting CFLAGS and LDFLAGS here
- `build_tools/menuselect-deps.in`
 - Tell menuselect whether a dependency has been met or not

Adding New Dependencies

```
/** * MODULEINFO  
    <depend>mynewlib</depend>  
    <use>optional_lib</depend>  
** */
```

```
#ifdef HAVE_OPTIONAL_LIB  
    /* Stuff and things */  
#endif
```

Questions?

