

# Configuring Build Base on FreeBSD

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# About the Author

- FreeBSD Developer for Bally Wulff Games & Entertainment GmbH
- Not a commiter
- Port Maintainer for shells/xonsh

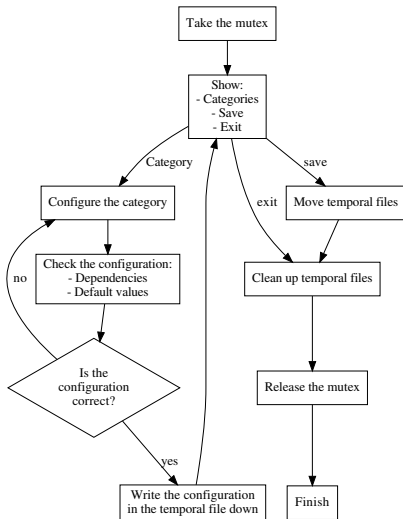


# State of the art

- Build options are set through **src.conf(5)** and **src-env.conf(5)**
- GNU/Linux has it to configure the kernel
- FreeBSD - **man(1)** pages + files
- Sometimes, unexpected dependencies are set.



# Design



# Categories

- Administration
- Development
- Documentation
- Drivers
- Emulation
- Network
- Others
- Programs
- Security



# Administration

- Administrative programs
- **bsdinstall(8)**
- **freebsd-update(8)**
- **sendmail(8)**
- ...



# Development

- Development programs and/or options
- Compiler to use
- Development tools to build and/or install
- Installation of header files
- Build of 32-bit libraries
- Build of debug files
- ...



# Documentation

- Documentation options
- Install compressed documentation
- Install examples
- HTML documentation
- Man pages (compressed and/or uncompressed)
- Man utils (**apropos(1)**, **catman(1)**,...)
- Legacy documentation
- Staging man pages
- Support for **vt(4)** files.





# Drivers

- Drivers to build and install
- **geom\_ccd(4)**
- CUSE related programs and libraries
- **floppy(4)**
- **nand(4)**
- ...



# Emulation

- Emulation components to build/install
- **bhyve(8)**
- **ndis(4)** related programs and libraries



# Network

- Networking related components.
- IPv4/IPv6 related programs and libraries
- Bluetooth related kernel modules, programs and libraries
- ...



# Others

- Options which categories were not clear at the moment or need more caring
- Boot
- Installation
- Locale
- NLS
- Timezones



# Programs

- Options for compiling programs
- Use BSD-licenced grep for '[ef]grep'
- Build bzip2
- **calendar(1)**
- **dialog(1)**, **dialog(3)**, **dpv(1)** and **dpv(3)**
- Games
- ...



# Security

- Security related programs
- Capsicum
- Casper program and related libraries
- Crypto code.
- Kerberos
- OpenLDAP
- OpenSSH
- OpenSSL



# Future Work

- Better documentation for the Options
- Configuring devices and options for building the kernel
- Check kernel configurations after selecting the options/devices
- Extend **dialog(1)** to have dependant lists



Thank you for your attention!  
*ask questions*

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