

# Building Bifrost

Concepts

# bifrost-build

The bifrost build environment.

Operates in a chroot separate from the host system.

Install: <https://github.com/jelaas/bifrost-build>

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- Do it reliably
  - Track dependencies
  - Consistent environment
- Do it repeatably
  - Consistent environment
  - Always start with a clean environment (dependencies)
- Not a replacement for your standard package manager

# Build environment

Based on uclibc. Micro controller libc.

Plus a few scripts:

- pkg\_build
- pkg\_install
- pkg\_uninstall



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Based on uclibc. Micro controller libc.

Plus a few scripts:

- `pkg_build`
  - Recursively build the package.
- `pkg_install`
  - Installs a dependency package and keeps track
- `pkg_uninstall`
  - Removes all installed packages

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Must contain two executable files:

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- b. Use `pkg_install` to install any dependencies.
- c. Create a compress tarball as output with a proper name in `/var/spool/pkg`.

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## 2. Fetch-source.sh

Expectations:

- a. Make sure that sourcecode etc is available for `Build.sh`

# Problems ...

Statically linking not always easy.

uclibc is not glibc.

Thats all folks!

# Build.sh Workflow

- pkg\_uninstall
- pkg\_install
- patch
- configure
- *make*
- *make install DESTDIR=/var/tmp/install/\$PKG*
- check
- create package
  - cd \$DST || exit 1*
  - tar czf /var/spool/pkg/\$PKG.tar.gz .*

# Stats

<https://github.com/jelaas/bifrost-build>

32bit: 388 build descriptions in repository

64bit: 68 build descriptions in repository

Distro is made from 110 packages.

Size: 112 MB compressed

299 MB uncompressed

4005 files and directories.