

Spotting and Fixing Build Failures

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Introduction

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- ▶ **You can help too!**
- ▶ Focus on “NEW” binary packages – regressions of existing packages block migration. (Yes, I know that’s at the source package level, but don’t mind a somewhat broader scope.)

Common sources of trouble

- ▶ Build-Depends undeclared or misclassified.
- ▶ Unpreparedness for binary-only builds.
- ▶ Architecture-specific *.symbols variation (mostly in C++ libs).
- ▶ Shortsighted upstream. (Yes, kFreeBSD and the Hurd exist!)
- ▶ DEB_HOST_GNU_TYPE vs. DEB_HOST_MULTIARCH (on *i386).
- ▶ Evolving build environment (depending on how long the package sat in NEW).
- ▶ Autobuilder quirks (no HOME, no network, etc.).

Checking on your own packages

- ▶ <https://buildd.d.o/status/package.php?p=...&suite=sid>
 - ▶ Links to full logs.
 - ▶ Log tails for failed builds.
 - ▶ Specific errors sometimes preextracted.
- ▶ <https://qa.d.o/developer.php?login=...&comaint=yes>
- ▶ <https://tracker.d.o/pkg/...> (Subscribe button at top, supports SSO)

Checking on “NEW” packages

- ▶ <https://people.debian.org/~ucko/compare-new-names>
- ▶ Unpolished custom script (posted as is), taking advantage of aptitude’s tracking of new packages.
- ▶ On my system, it shows what packages are new on amd64 but unavailable altogether on i386, or *vice versa*.

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- ▶ `compare-new-names -q -u` yields a link to <https://buildd.d.o/status/package.php?...>
 - ▶ Uses compact mode as appropriate. (Icons: \notin /~/☺/☹/✓/...)
 - ▶ False positives are generally easy to pick out.
 - ▶ Can chase links to figure out why build deps are uninstallable.
- ▶ Check BTS and VCS before filing a new bug.
- ▶ Severity serious only for unrebuildability on release architectures.