## ABout Time Linux - Eric's dep engine notes

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## 1 Introduction

A few things they need to do:

- 1. get to know abtlinux.org and wiki.abtlinux.org.
- 2. become members.
- 3. obtain email address for abtlinux.org, mail me!
- 4. use forum topic for questions, comments.
- 5. irc on freenode.net for comments (low, erics).
- 6. in english, use latex, see template for doc, cases en scenarios.

A few requirements I have:

- dependency will specify a version (or use default?)
- dependencies will be ordered for a correct build process (dep engine!)
- support build-time and run-time dependencies:
  - a buildDep is a dependency needed to build some package.
  - RELIES ON (RO) 'A' RO 'B'; then 'A' will be rebuilt if 'B' config changes.
  - DEPENDS ON (DO) 'A' DO 'B'; then 'A' will be rebuilt anytime 'B' is rebuilt.
  - leads to several types of depends:
    - \* permanently relies on
    - \* permanently depends on
    - \* optionally relies on
    - \* optionally depends on
- prevent removal of packages with DEPENDS ON (DO) dependencies.
- auto add packages with RELIES ON (RO) dependencies to build queue if user rebuilds a package that relies on it.

- check for possible dependency breakage for a package, both up and down the dependency tree.
- generate the dependency tree for given package, both up and down.
- provide count of packages dependent on a given package.
- provide count of packages a given package is dependent on.
- provide list of packages installed w/o any dependencies.
- log dependency engine actions.