



Entropy Manifesto

Transforming a Gentoo Linux based distribution into something easy to use is a challenge, the one Sabayon Linux endorsed long time ago. Too easy to do the same thing on non-meta distributions. Too bad also, because you wouldn't have such power. Choosing is users' right, reducing power consumption is our must. So Entropy bore.

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• What is Entropy?

Entropy is a package manager (an application which aims to handle all the installed applications on your system keeping them updated) written from scratch that takes the best from Portage, inheriting package format, naming conventions and compatibility, Yum, being quite easy to use, and APT, being really fast and intelligent.

<http://packages.sabayonlinux.org>

• What are the main goals?

There were multiple reasons that led Entropy creation.

- Providing better efficiency, extraordinary speed, less power consumption to Sabayon Linux systems, bringing Sabayon one of the TOP leading Linux distributions.
- Unlock Gentoo to resource constrained hardware or where CPU power shouldn't be wasted by compilers
- Providing an easy and modern way to handle a Gentoo-based systems while keeping independent from Portage codebase and at the same time being 100% compatible
- Providing a higher grade of AI in package managers arena: Entropy guesses users' need and acts consequentially
- Proposing a new POV for developers: Web 2.0 revolution applied to package managers, being Desktop-wise, user friendly and bringing new ideas for a key component of a Linux desktop system

• Why this logo and name?

Take me as stupid, I don't care, everything is for a reason. Below explained:

- **Epsilon:** it's the Greek word for "E", which recalls Entropy and Environment, the latter is for saving CPU cycles, which saves electricity, which is good for our World
- **Colour:** green, for being environment-wise.
- **Name:** if you studied TLC or Chemistry, you would know Entropy means something like "information uncertainty" (my translation: mess!). This is like the feeling I felt when I had to cope with Gentoo package management oddities.

• **Technical features**

- Modularly written in Python intensively using fast built-in types
- Using Standard Python DB API for the packages database interface unlocking developers to use any possible available backend (default is SQLite)
- 100% Gentoo compatible
- Server/Client management interface: reagent and activator act server side while equo is client side only
- Powerful Packages: multiple packages inside one single archive (Smart Packages). Developers can embed infinite packages into a single one
- Support for self-contained applications (Smart Applications)
- Backward Compatible package format: Entropy packages can be converted into Gentoo ones and vice versa, conversion utilities provided
- Multiple branches support (each branch is a release version)
- Multiple products support (each product is a distribution edition, like Professional or Mini in Sabayon's case)
- SQL Database corruptions aware: rescue and system health scanning tools included
- Easy to deploy and use in a Network Environment
- Multiple repositories aware: users can add infinite repositories to the system and can also create one (the latter is in the works)

• **Current status**

Project is outside alpha status and entered beta a while ago.

What is actually needed:

- **Funds, donations, bandwidth and server power :-)** (Did I mention, TRUE investors?)
- Community repositories: packages repositories easily created by users, like Gentoo overlays (in the works at the moment). This will unlock common users to customize installation and provide extra power to the Sabayon environment.
- A **Graphical User Interface** (development will begin early January, forking YumEx)
- Some advanced Portage support stuff, like `/usr/portage/profiles/updates/*`
- Convince upstream to split localized packages and reduce odd packages interdependency
- Testing! Equo will be considered rock stable by the end of 2008