Arch Linux

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The Arch Way

Simplicity

- trying to hide the complexities of a system actually results in an even more complex system
- keep the complexities well organized and transparent

Code-correctness over convenience

- elegance of design , clean, correct, simple code, rather than unnecessary patching, automation, eye candy or "newbie-friendliness."
- Simple implementation shall always trump simple user interface.

User-centric vs "User-Friendly"

- complete control and responsibility over the system.

Openness

- Openness removes all boundaries and abstraction between the user and the system.
- provides more control, while simultaneously simplifying system maintenance.

Freedom

- embrace functionality over ideology
- no automatic configuration
- no opinions
- "Arch Linux is what you make it." – Judd Vinet
- meta distribution
- encourages configuration using text-files

advantages of text-based configuration

- universally accessible
- infinitely more configurable
- does *NOT* hide any configuration flags
- easy backup/restore
- store your configs in version control
- revert back to last working config
- share and improve you configuration
- https://github.com/pankajmore/dotfiles

do-it-yourself approach

- ▶ you are fully responsible for your system
- ▶ you know enough about the system to think of possible causes that lead to a bug
- ▶ try to fix the system yourself before asking

Rolling Release

- latest version of your favourite software in the official repo
- no version anxiety
- no upgrade breakage

non-patched, vanilla software

- software delivered as the upstream developer intended
- less monkey patching leads to fewer bugs introduced by the distro maintaners
- almost *all* bugs are upstream

BSD *like* init system

- *rc.conf* to manage your major system settings
- much easier to configure than multi-directory runlevel based init scripts

Pacman

- extremely fast
- tells you what its doing, and doesn't do anything without asking
- does *NOT* 'automate' for your 'convenience'
- does *NOT* alter configs which might have been 'customized'
- does *NOT* install a service and set it up to run automatically
- only does what a *package manager* ought to do

ABS

- ▶ ports-like system for building and packaging software from source Code
- ▶ PKGBUILD to automate software compilation
- ▶ Much saner than manually compiling a software
- ▶ install using pacman to keep track of the newly installed package
- ▶ see a PKGBUILD in action! eg. firefox

Why ABS?

- ▶ Compile or recompile a package, for any reason
- ▶ Make and install new packages from source of software for which no packages are yet available
- ▶ Customize existing packages to fit your needs (enabling or disabling options, patching)
- ▶ Rebuild your entire system using your compiler flags, "a la FreeBSD" (e.g. with pacbuilder)
- ▶ Cleanly build and install your own custom kernel
- ▶ Get kernel modules working with your custom kernel
- ▶ Easily compile and install a newer, older, beta, or development version of an Arch package by editing the version number in the PKGBUILD

AUR

- Arch User Repository (AUR) is a community-driven repository for Arch users.
- collection of unsupported PKGBUILDs
- iitk firewall authentication PKGBUILD
- automates those long boring ubuntu tutorials to install some estoric software

Who should *NOT* use Arch?

- ▶ you disagree with the Arch philosophy.
- ▶ you do not have the ability/time/desire for a 'do-it-yourself' GNU/Linux distribution.
- ▶ you require support for an architecture other than x86_64 or i686.
- ▶ you take a strong stand on using a distribution which only provides free software as defined by GNU.
- ▶ you believe an operating system should configure itself, run out of the box, and include a complete default set of software and desktop environment on the installation media.
- ▶ you do not want a bleeding edge, rolling release GNU/Linux distribution.
- ▶ you are happy with your current OS.
- ▶ you want an OS that targets a different userbase.

Advantages of using Arch !!

- ▶ "the red pill for ubuntu users"
- ▶ realise that debating which distro is better is pointless
- ▶ an end to your *distro-hopping* habit
- ▶ more knowledge about linux internals than you could have learnt in years of using ubuntu
- ▶ improves your *sys-admin* skills
- ▶ smooth system maintenance

Try Arch

- Programmers and tinkerers generally like Arch after switching from Ubuntu
- Those who are new to Linux might need to spend considerable time and effort to get familiar with the Linux ecosystem
- competent Ubuntu users might be delighted by Arch
- Test it in a VirtualBox
- a weekend to spare for installation
- follow the Beginner's Guide in the Arch Wiki to install Arch
- just by installing Arch you would know more about Linux than the average Ubuntu guy

Relevant Links :

- Arch Linux Home Page
- The Arch Way
- FAQ
- Beginners' Guide
- This Slide goo.gl/v8Vb1