Want to contribute to Gentoo?

The main platform for reporting issues and contributions for Gentoo related packages, ranging from documentation fixes to serious security vulnerabilities or new version bumps, is the **bug tracker** at https://bugs.gentoo.org

The **Proxy Maintainers Project** is the primary contact point for users who are interested in maintaining packages in the official Gentoo package repository under the supervision of existing Gentoo Developers: https://wiki.gentoo.org/wiki/Project:Proxy_Maintainers

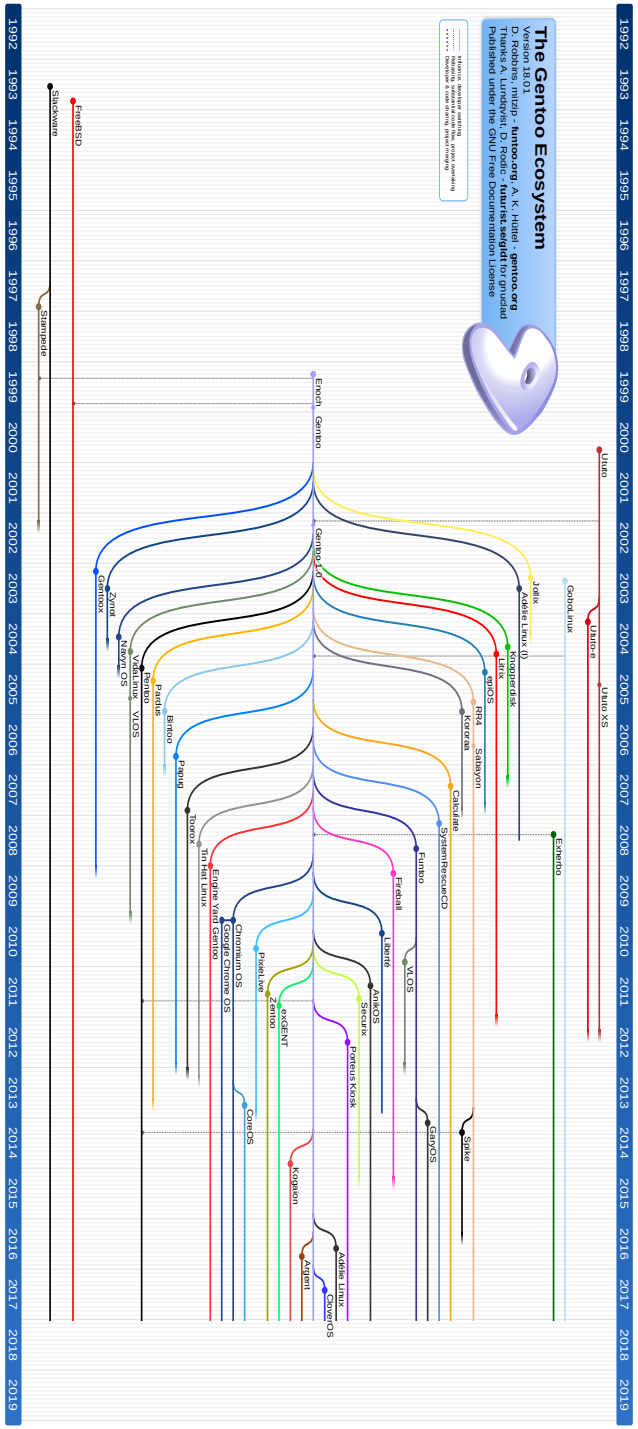
If being a proxied maintainer has gotten you intrigued and you want to contribute directly, and take up more responsibility; become a full **Gentoo Developer**. See: https://www.gentoo.org/get-involved/become-developer/

For other ways of contributing, including infrastructure sponsorships and monetary donations, see https://gentoo.org/get-involved/contribute/

Free software

The Free Software Foundation defines the freedom as:

- freedom to run the program for any purpose
- freedom to study how the program works, and to adapt it to your needs
- freedom to redistribute copies of the program
- freedom to improve the program, and release your improvements to the public so that the entire community benefits



gentoo linux™

gentoo.org
@gentoo
#gentoo @ freenode
gentoo.org
pr@gentoo.org

What is Gentoo?

Gentoo Linux is a **free**, **source-based** *meta distribution* that enables a high degree of **flexibility** and **high performance**, enabling you to make your computer work *for you*, and you can configure the system based on your **own choice**.

Gentoo is a *rolling release* distribution, making upgrading an iterative process rather than jumping large gaps; if something breaks you can easily roll back just the recent upgrade to get back to a working system.

The Gentoo community consists of around **200 developers** and a great number of users throughout the globe.

When installing Gentoo (or any other distribution, or even operating system for that matter) users make choices depending on the environment they are working with. A setup for a server differs from a setup for a workstation. One of the core ways you can configure your Gentoo system is through the concept of **USE flags**, which increases the flexibility of the installation of the package.

```
[ebuild     U  ] app-crypt/gnupg-2.2.4::gentoo [2.1.21
::gentoo] USE="bzip2 doc gnutls ldap nls readline smar
tcard tools usb (-selinux) -tofu -wks-server" 6418 KiB
```

Want to start using Gentoo?

The Gentoo handbook will guide you through the installation process in a thorough fashion. https://wiki.gentoo.org/wiki/Handbook:AMD64. Should you run into issues you can't find the answer to in the handbook, the support community is active e.g. in the *#gentoo* IRC channel on freenode.

Gentoo as a development platform

The source based nature of Gentoo means that the development environment is usually complete for developers of other products, and the *rolling release* nature of packages allows following upstream libraries more closely and detecting any mismatches in API before it is released on your users. You can also keep up to date with development of other applications if wanting to contribute back to the master branch.

Scope of Gentoo

Gentoo may be seen as a *meta distribution*, as a universal constructor which allows you to create whatever you want: from a high performance gaming station to a tight secure server, from a small embedded system to huge highly optimized HPC clusters and mainframes. But this is just one dimension! You are not limited to just **amd64** and **x86**, Gentoo supports a wide scale of architectures: **arm**, **mips**, **alpha**, **ppc** and many more including **s390(x)**. Gentoo can be *what* and *where* you want it to be!

Also for Enterprise

Gentoo for HPC

High performance computing (**HPC**) is a bleeding edge technology for solving *vast* and *complex* tasks otherwise insolvable in science, technology, finance, healthcare, data mining, etc. It demands great flexibility and peak performance. Gentoo provides both thanks to highly tunable USE flags and compiler optimizations.

There are numerous HPC setups running Gentoo; scaling from Beowulf setups to large clusters and mainframes. One prominent example is a NumaScale based setup from St. Petersburg Polytechnic University running 3,072 CPU cores, 12,288 GiB RAM and 1 PiB storage — all as a **single** Gentoo operating system with a *single kernel and address space*. For users and programmers all of this power is available as a single host with ccNUMA partitioning. It greatly simplifies software development and operation of such systems, because MPI complexity is no longer needed and simple NUMA-aware threading is sufficient.

Adjust GmbH

Adjust GmbH is using Gentoo for *almost* all production servers, running a modest fleet of a few hundred servers that handles a few billion events a day. Using Gentoo allows Adjust to customize machines for specific workloads, easily patch around bugs they discover, and have access to a large repository of available packages out of the box. As an added bonus, Gentoo makes optimizations easy, enabling performance improvements with little effort.

Numberly

Numberly has been running Gentoo as its main GNU/Linux distribution for more than 10 years. Most of their developers and sysadmins use it everyday on their own machines as well.

Gentoo servers amount for a fair number of 100+ production servers which are used for multiple purposes, including:

- Distributed event processing applications, handling more than 2 billion events a day. They're using uwsgi / python / rabbitmq / mongodb / scylladb as their core components.
- High traffic web server clusters using nginx / uwsgi / python with distributed cache (memcached). They are serving more than 300 million requests a day.
- Database clusters; Most important ones are geo-distributed or datacenter local mongodb and scylladb clusters. Those servers are hosting databases containing up to 10 billion entries.
- Resilient firewalls and load balancers using keepalived / haproxy / iptables.

Is your organization using Gentoo?

Does your organization use a large scale Gentoo system? Tell us about it!