

RISC-V in Debian

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Latchup 2019-05-05

	Debian
user	2001
contributor	2004
maintainer	2008
developer	2010

What is Debian

- Debian GNU/Linux is the result of a volunteer effort to create a free, high-quality Unix-compatible operating system . . .
- From the Debian FAQ

What is a Debian Port

- Debian userland on a particular hardware architecture
- currently supported ports: 10
amd64 arm64 armel armhf i386 mips mips64el mipsel ppc64el s390x alpha
- Unofficial ports: 11
alpha hppa hurd-i386 ia64 kfreebsd-amd64 kfreebsd-i386 m68k powerpc powerpcspe ppc64 riscv64 sh4 sparc64 x32

- qemu-system virtual machines
- Hosted by MIT/CSAIL/OSUOSL
- Thanks to Tetaneutral and GCC Compile Farm Project

- HiFive Unleashed
- donated by SiFive

How hard is it to build all of Debian anyways

- Machines working well for months. . .
- Building all of Debian

Almost all the packages

<https://buildd.debian.org/status/architecture.php?a=riscv64&suite=sid>

- 11,916 source packages built!
- 1,207 waiting for toolchain fixes
- 300 attempted
- 80 failures

The curve is mostly flat

- 85% is hard to beat

Waiting for toolchains

- LLVM/Clang
- Rust

- Significant changes not allowed during freeze

- `https://wiki.debian.org/RISC-V`

Thanks

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- Aurelien Jarno
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