

# Main

## Welcome to the RISC-V Port Project!

RISC-V is a free and open-source RISC instruction set architecture (ISA) designed originally at the University of California, Berkeley, and now developed collaboratively under the sponsorship of RISC-V International. It is already supported by a wide range of language toolchains.

With the increasing availability of RISC-V hardware, a port of the JDK would be valuable.

RISC-V ISA is actually a family of related ISAs of which there are currently four base ISAs [1]. Those base ISAs can be combined with a set of standard extensions. RV64G and RV32G are defined as general-purpose ISAs.

We have ported JDK to a new platform: Linux/RISC-V. This port supports the following subsystems:

- The template interpreter
- The C1 (client) JIT compiler
- The C2 (server) JIT compiler
- All current mainline GCs, including Z and Shenandoah

Currently, this port only support the RV64GV configuration of RISC-V, which is a general-purpose 64-bit ISA that includes vector instructions.

In the future we may consider supporting other RISC-V configurations such as, for example, a general-purpose 32-bit configuration (RV32G).

We are building nightlies here [2]. And we've provided build instructions for reference [3].

You can try the RISC-V JDK with QEMU User/System mode or hardware like HiFive Unleashed/Unmatched board.

[1] <https://github.com/riscv/riscv-isa-manual>

[2] <https://builds.shipilev.net/openjdk-jdk-riscv>

[3] <http://cr.openjdk.java.net/~fyang/openjdk-riscv-port/BuildRISCVJDK.md>

## Project structure

- `master` branch - synced automatically with the master branch of `openjdk/jdk`
- `riscv-port` branch - for normal riscv-port project development purpose

## Resources

- [RISC-V Port Project](#)
- [Repository](#)
- Mailing list: [riscv-port-dev \(archives\)](#)

## Recent space activity



### Fei Yang

[Main](#) updated Nov 19, 2021 • [view change](#)



### Iris Clark

[Main](#) updated Nov 05, 2021 • [view change](#)

## Space contributors

- [Fei Yang](#) (14 days ago)
- [Iris Clark](#) (28 days ago)