

Coprocessing Threads RISC-V System-on-Chip Co-design Assembler

Brown Deer Technology

The Coprocessing Threads® (COPRTHR®) RISC-V SoC Co-design Assembler enables rapid design of custom computer architectures for FPGA and ASIC deployment.

COPRTHR-3 provides a hardware-software co-design workflow with command line tools and an IDE for multicore device assembly, programming, and emulation.

Toolchain Features

- Custom RISC-V processor core library
- Modular multicore SoC assembly
- Device-virtual machine emulation of custom SoC processors
- Custom RISC-V ISA multicore cross-compiler and linker
- Binary ISA transformation/translation tools
- Co-design optimization of hardware architecture and software

Applications

- Digital signal processing
- Sensor front-end processing
- Autonomous control systems
- Reconfigurable accelerators

