欢迎第一次加入的伙伴(开会时请从下一页开始展示)

- 开放编辑，直接点击 request for edit 然后在东亚时区群里at吴伟
- 如果没有找到自己的内容分类，可以添加1-2页在最开始或中间
- 欢迎在开始的前5分钟进行自我介绍
- 日常八卦在东亚时区RISC-V双周同步微信群中，欢迎加入

东亚时区RISC-V双周会

2025年02月20日·第 97 次

https://github.com/cnrv/RISCV-East-Asia-Biweekly-Sync

Host: 蔡玮霖

Organizer: PLCT Lab plct-oss@iscas.ac.cn

会议议程（15:00 - 16:00）

- 自我介绍、等待参会者接入、非技术话题八卦（没有的话就直接跳过）
- RVI 的更新和八卦（基本上跟东亚双周会群内消息同步）
- Unratified Specs 的参考实现进展
- 东亚地区小伙伴的项目更新
- 自由讨论

RISC-V International 同步、全球开源社区八卦（陈逸轩）

- [sig-academia-training]Kurt Keville当选2025年主席
- 英国初创公司 VyperCore 为可持续化的 RISC-V 加速器芯片发起云端评估平台
- Nvidia RTX 5090’s GPU AMP (AI management processor) 采用 RISC-V 架构
- lowRISC C.I.C 宣布找到典型设计验证(Design Verification)痛点，降低开销、资源消耗。
- 晶心科技 D45-SE 处理器实现 ISO 26262 ASIL-D 功能安全认证

RISC-V 中文社区的同步与八卦（杨延玲）

- 进迭时空Bianbu Cloud成功运行DeepSeek本地大模型
  加速智算未来丨玄铁成功适配DeepSeek-R1系列蒸馏模型
  RISC-V助力融合创新！DeepSeek-R1蒸馏模型已适配算能RISC-V融合服务器
  Andes 晶心科技成功让 DeepSeek 在 AX45MPV 平台上成功运行，大家快来一睹它自动生成的新闻稿成果！
  "香山"RISC-V处理器核成功适配并本地部署DeepSeek-R1大模型
  奕斯伟计算 | 技术新突破！RISC-V AI SoC成功适配DeepSeek模型
  在RISC-V平台上用XTheadVector为运行DeepSeek加速：RISC-V + AI 的潜能是无限的

- 首款兼容Framework笔电的DC-ROMA RISC-V主板正式发布，开启模块化笔记本新时代！
  首款兼容Framework笔电的RISC-V主板正式发售！加速可持续计算发展

- 全球首款RISC-V+OpenHarmony5.0原生鸿蒙解决方案发布

- 洪泰Family | 超睿科技完成过亿元A1轮融资 专注研发RISC-V架构高性能CPU
  AheadComputing Inc. 获 2150 万美元种子资金

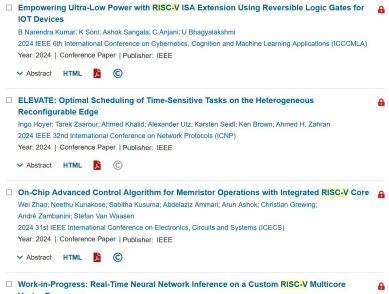
RISC-V 韩语社区的同步与八卦

-

RISC-V 德语社区的同步与八卦（罗云翔）

- [embedded world 2025 11 – 13.3.2025 in Nuremberg]
  Andes Technology, DeepComputing, Semidynamics, Siemens, SiFive and Synopsys

- Easy migration from Arm to RISC-V: an L110 case study
  Codasip推出L110 RISC-V核心，高效能低功耗，支持定制，简化从Arm迁移至RISC-V的过程
- Securing a 4G-connected Smart Meter Gateway with CHERI
  CHERI技术通过硬件增强RISC指令提升设备安全性，Codasip与Sequans合作展示4G连接的智能电表网关，确保关键系统在云依赖世界中的完整性，减少IoT设备安全漏洞，提升性能与低功耗，为未来安全物联网提供解决方案。
- Empowering Ultra-Low Power with RISC-V ISA Extension Using Reversible Logic Gates for IOT Devices
  本研究引入了一种开源的RISC-V指令集扩展（RV32IM），用于极低功耗的软件定义Wi-Fi物联网（IoT）收发器设备。更新指令旨在处理四进制调制中复杂数学运算的需求，几乎不增加能耗，仅使用两个主要操作码。通过两种新型架构模型评估了六个IoT测试用例，仿真结果显示循环计数改进幅度达19%至68%。在22纳米FD-SOI技术下，相较于基准RV32IM设计，功耗增加小于1%，面积增加28%。在500kHz带宽、SF=11的条件下，蓝牙LE解调峰值功耗为380微瓦，LoRa前导码检测为225微瓦。
  2024 IEEE 6th International Conference on Cybernetics, Cognition and Machine Learning Applications (ICCCMLA) Germany



RISC-V 日语社区的同步与八卦

-

RISC-V 中国峰会进展（吴伟）

Clang/LLVM 进展 (PLCT)

- MIPS 厂商拓展 XMIPSCMove 和 XMIPSLSP 支持

  https://github.com/llvm/llvm-project/commit/0cb7636a462a

- Flang 现在可以在 ELF header 中设置正确的 ABI flag

  https://github.com/llvm/llvm-project/commit/8da8ff8768bc

- [RISCV] Add a generic OOO CPU

  https://github.com/llvm/llvm-project/commit/8da8ff8768bc

- P 拓展支持从 0.12 更新到 0.14

  https://github.com/llvm/llvm-project/pull/123271

GCC 进展(提交人不在线)

- 将FRM，VXRM设置为全局寄存器

  https://gcc.gnu.org/git/?p=gcc.git;a=commit;h=55d288d4ff5360c572f2a017ba9385840ac5134e

  https://gcc.gnu.org/git/?p=gcc.git;a=commit;h=1c8e6734d2dd3a6236d94c6e4e0c6780f35ede9f

- 玄铁修复了Xtheadvector intrinsic调用导致的一些编译ICE问题

  xtheadvector fp16 conversion intrinsic caused crash in optimized build · Issue #24 · XUANTIE-RV/xuantie-gnu-toolchain

- 更新了P扩展的Binutils支持到0.14版本

  https://github.com/ruyisdk/riscv-binutils/tree/p-dev

- 在Binutils中添加OP_VE作为.insn指令表示

  https://sourceware.org/git/?p=binutils-gdb.git;a=commit;h=d7657a4ceef9c34e8057850472c84102862d5aad

QEMU/Spike 进展（呼唤志愿者）

Sail/ACT进展 (PLCT)

- Build
  - Implement CMake build system #647
  - model/CMakeLists: add Lean variant #728
  - Remove support for linking C emulator to Spike #732
- Feature
  - Implement Sscofpmf #706
  - Support Smcntrpmf in Sail-RISCV #690
  - Refactor chip reset #597
  - Use better types for virtual memory translation code and support Sv57 #637
- Virtual Memory SV-32 Address Translation Scheme Tests and Covergroups #516
- Fixed NAN_BOXED data in F/D-ext tests from decimal to hex #614

V8 for RISC-V 更新（邱吉、陆亚涵）

1. **Enable Leaptiering**
   6249680: [riscv][leaptiering] Enable leaptiering support | https://chromium-review.googlesource.com/c/v8/v8/+/6249680
   6268144: [leaptiering][riscv] Port leaptiering to riscv32 | https://chromium-review.googlesource.com/c/v8/v8/+/6268144
2. Optimize maglev code
   6276485: [riscv] remove some unused maglev code | https://chromium-review.googlesource.com/c/v8/v8/+/6276485
3. 6275206: [riscv] Optimize the use of temporary registers | https://chromium-review.googlesource.com/c/v8/v8/+/6275206

Port Upstream

4. 6251719: [riscv] Support int f(double) builtins in simulators | https://chromium-review.googlesource.com/c/v8/v8/+/6251719

Spidermonkey for RISC-V更新（邱吉、陆亚涵）

OpenJDK on RISC-V (PLCT 杨飞)

1. Authored/Co-authored JDK-mainline PRs:
- https://github.com/openjdk/jdk/pull/22879 (8346832: runtime/CompressedOops/CompressedCPUSpecificClassSpaceReservation.java fails on RISC-V)
- https://github.com/openjdk/jdk/pull/21273 (8337511: Implement JEP 404: Generational Shenandoah (Experimental))
- https://github.com/openjdk/jdk/pull/22874 (8346787: Fix two C2 IR matching tests for RISC-V)
- https://github.com/openjdk/jdk/pull/22410 (8345110: RISC-V: Optimize and and clean up byte reverse assembler routines)
- https://github.com/openjdk/jdk/pull/22452 (8345236: RISC-V: Remove revb_h_h_u and revb_h_w_u macro assembler routines)
- https://github.com/openjdk/jdk/pull/22505 (8345351: RISC-V: Rename macro-assembler routine cmpxchg_weak to weak_cmpxchg)
- https://github.com/openjdk/jdk/pull/22750 (8346231: RISC-V: Fix incorrect assertion in SharedRuntime::generate_handler_blob)
- https://github.com/openjdk/jdk/pull/22752 (8346235: RISC-V: Optimize bitwise AND with mask values)
- https://github.com/openjdk/jdk/pull/22800 (8346475: RISC-V: Small improvement for MacroAssembler::ctzc_bit)
- https://github.com/openjdk/jdk/pull/22804 (8346478: RISC-V: Refactor add/sub assembler routines)
- https://github.com/openjdk/jdk/pull/22884 (8346838: RISC-V: runtime/CommandLine/OptionsValidation/TestOptionsWithRanges.java crash with VMs)
- https://github.com/openjdk/jdk/pull/22888 (8346868: RISC-V: compiler/sharedstubs tests fail after JDK-8332689)
- https://github.com/openjdk/jdk/pull/22347 (8344916: RISC-V: Misaligned access in array fill stub)
- https://github.com/openjdk/jdk/pull/22387 (8345047: RISC-V: Remove explicit use of AvoidUnalignedAccesses in interpreter)

2. Reviewed JDK-mainline PRs:
- https://github.com/openjdk/jdk/pull/21922 (8342881: RISC-V: secondary_super_cache does not scale well: C1 and interpreter)
- https://github.com/openjdk/jdk/pull/22386 (8344306: RISC-V: Add zicond)
- https://github.com/openjdk/jdk/pull/22437 (8345177: RISC-V: Add gtests for cmpxchg)
- https://github.com/openjdk/jdk/pull/22445 (8345178: RISC-V: Add gtests for narrow cmpxchg)
- https://github.com/openjdk/jdk/pull/22476 (8345179: RISC-V: Add gtests for weak cmpxchg)
- https://github.com/openjdk/jdk/pull/22574 (8345322: RISC-V: Add concurrent gtests for cmpxchg variants)
- https://github.com/openjdk/jdk/pull/22605 (8345669: RISC-V: fix client build failure due to AlignVector after JDK-8343827)

JDK 24

This release will be the Reference Implementation of version 24 of the Java SE Platform, as specified by JSR 399 in the Java Community Process.

Status

JDK 24 is in Release Candidate phase. The overall feature set is frozen. No further JEPs will be targeted to this release.

The stabilization branch, jdk24, is open for critical bug fixes, with approval, per the JDK Release Process (JEP 3). Integrate most stabilization changes via backports from the main line.

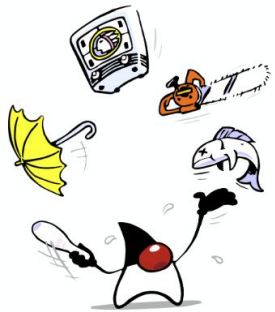
- Release Candidate Bugs
- Fix-Request Process
- Bug-Deferral Process

- Bug fixes not backported from the main line
- Your bug fixes not backported from the main line

Release-candidate binaries under the GPL are available here.

Schedule

2024/12/05	Rampdown Phase One (branch from main line)
2025/01/16	Rampdown Phase Two
2025/02/06	Initial Release Candidate
2025/02/20	Final Release Candidate
2025/03/18	General Availability



Go community work update (PLCT 蒙卓)

1. Authored/Co-authored Go-mainline CLs:
   - 647596: runtime: unify C -> Go ABI transitions on riscv64 | https://go-review.googlesource.com/c/go/+/647596
   - 435015: cmd/compile: don't merge symbols on riscv64 when dynamic linking | https://go-review.googlesource.com/c/go/+/435015 [merged]
   - 612635: cmd/link,cmd/internal: add R_GOT_PCREL_ITYPE_RELOC for riscv64 | https://go-review.googlesource.com/c/go/+/612635 [merged]
   - 420114: all: implement plugin build mode for riscv64 | https://go-review.googlesource.com/c/go/+/420114 [merged]

2. Reviewed Go-mainline CLs:
   - 648855: internal/bytealg: clean up and simplify the riscv64 equal implementation | https://go-review.googlesource.com/c/go/+/648855
   - 631937: cmd/internal/obj/riscv: implement vector load/store instructions | https://go-review.googlesource.com/c/go/+/631937
   - 646775: cmd/internal/obj/riscv: add support for vector integer arithmetic instructions | https://go-review.googlesource.com/c/go/+/646775
   - 646736: internal/bytealg: vector implementation of equal for riscv64 | https://go-review.googlesource.com/c/go/+/646736
   - 646737: internal/bytealg: vector implementation of compare for riscv64 | https://go-review.googlesource.com/c/go/+/646737
   - 631936: cmd/asm,cmd/internal/obj/riscv: implement vector configuration setting instructions | https://go-review.googlesource.com/c/go/+/631936 [merged]
   - 639858: crypto/internal/fips140/subtle: provide riscv64 assembly implementation for xorBytes | https://go-review.googlesource.com/c/go/+/639858 [merged]
   - 631615: internal/runtime/atomic: add Xchg8 for riscv64 | https://go-review.googlesource.com/c/go/+/631615 [merged]
   - 631935: cmd/internal/obj/riscv: update references to RISC-V specification | https://go-review.googlesource.com/c/go/+/631935 [merged]

3. News
   - 1.24 Released https://go.dev/doc/go1.24

RuyiSDK (Xi Jing, PLCT)

- RuyiSDk 包管理器发布v0.27版本：
  - 新增了 ruyi telemetry upload 命令。支持在 CI 等临时性场合也能确保遥测数据在任务结束、环境被清理之前得到上传了。
  - 支持分别指定软件包版本的服务等级。如果某个软件包的某个版本存在已知问题，在安装或解压该版本时，ruyi 会输出提示信息，该信息可由打包人员在软件源维护。后续也将支持按照服务等级过滤软件包：届时将可以跳过存在已知问题的版本，或仅使用经过验证的版本等。
  - 工程化方面支持了 pygit2 1.17.0。ruyi 的单文件分发版本已经切换至该版本了。
  - 更新了 RuyiSDK 软件源的一些软件包：
    - board-image/buildroot-sdk-milkv-duo
    - board-image/buildroot-sdk-milkv-duo256m
    - board-image/buildroot-sdk-milkv-duos-sd
    - board-image/uboot-revyos-sipeed-lpi4a-16g
    - board-image/uboot-revyos-sipeed-lpi4a-8g
  - 修复了一些软件包得到自动化版本升级之后，无法正常下载的问题。
- RuyiSDK IDE 为了提升易用性，目前以新插件的方式进行了功能扩展。RuyiSDK IDE Plugins 插件 v0.0.1 发布，新增 RuyiSDK 菜单及官网访问命令。目前插件整合到RuyiSDK IDE 的工程工作还在完善，当前需要手动将插件拷贝到 RuyiSDK IDE dropins目录使用，未来我们会完善相关工程，提供更加便捷的安装和使用方式。当前您可以参考下方的使用说明来安装和使用。

  插件使用说明：
  1. 下载 org.ruyisdk.ide_0.0.1.jar。
  2. 访问 https://mirror.iscas.ac.cn/ruyisdk/ide/0.0.3/ 下载 ruyisdk-0.0.3 并解压。
  3. 将 org.ruyisdk.ide_0.0.1.jar 放入 ruyisdk ide 的 dropins 目录。
  4. 执行 ./ruyisdk 重启 IDE。
  5. 通过菜单栏 RuyiSDK > Official Website 访问官网。
- 操作系统支持矩阵
  - CI: Fix restrict field
  - duo/duo256m: Add NixOS
  - Refactor Tools
  - Updator: Allow bootstrap a new image, Add pulgin to update images from mirrorsite

详见RuyiSDK双周进展报告：https://github.com/ruyisdk/wechat-articles

openEuler RISC-V (周嘉诚)

Status / 20240220

- openEuler 25.03:
  - mass-rebuilding & bug-fixing
- openEuler 24.03 LTS Service Pack 1:
  - Official (RVA20): Released 🎉 [DL Link]
  - Preview (RVA22+V): Released 🎉 [DL Link]
- Updates
  - kernel: RVCK updated to 6.6.0-72.1
  - openssl: sha256 RVV support ready for upstreaming
  - CI: preparing GHAction service based on oERV
- Following releases in 1H'25
  - Late Q1 - openEuler 25.03
  - Late Q2 - openEuler 24.03 SP2
- Activities: See you @
  - 02-27,Tokyo: RISC-V Day Tokyo 2025 Spring
  - 02-28, Beijing: XuanTie RISC-V Eco Summit
- Features:
  - 6.6-based common kernel for QEMU, SG2042 (Pioneer) & TH1520 (LPi4A)
  - UEFI-supported Hardware & QEMU images
  - Penglai TEE-enabled firmware variants
- Images:
  - UEFI ISO
  - UEFI qcow2 Image w/ Penglai TEE
  - Legacy-boot Images for Pioneer & LPi4A

Gentoo for RISC-V 的情况更新（Gentoo 小队）

Arch Linux RISC-V (Felix & PRZ)

-

Arch Linux RISC-V (Felix & PRZ) - Electron

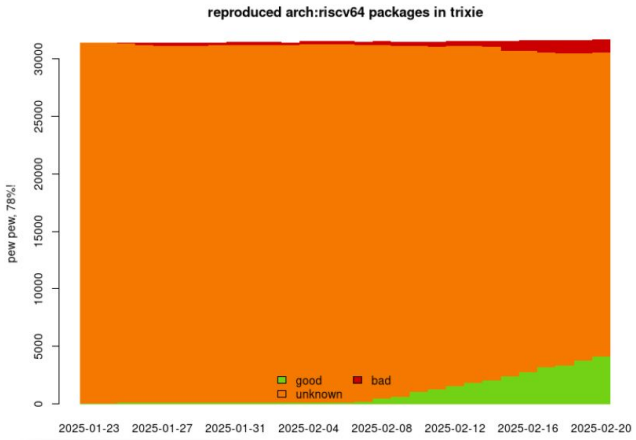
-

Fedora on RISC-V status update（20250220）

- **RPM packaging**
  - Koji Status: **F41, GA on Nov 12**
    - **F41: 23952/24320[98.48%] srpm**
    - **Rawhide/F42: 10245/24571 [41.69%] srpm**
    - **https://www.fedoravforce.com**
- **main package version:**
  - Toolchain: gcc-15.0.1-0.3、glibc-2.40.9000-27.0、binutils-2.43.50-11
  - **libffi-3.4.6-5**
  - java-21-openjdk
  - java-latest-openjdk
  - perl-5.40.1-515
  - python3.13-3.13.1-3
  - llvm-19.1.7-5.0
  - golang-1.23.3-1
  - rust-1.84.1-2

- Desktop support Fedora 42:
  - **DONE:**
  - building:**XFCE/LXDE/LXQT/Cinnamon/Sway/Budgie/Sugar/GNOME/Mate/KDE/Deepin**
  - **Key Desktop App**
    - firefox-131.0-2
    - libreoffice-24.8.3.2-2
    - Thunderbird-115.11.1-1
    - chromium-126.0.6478.182-2
- Image and REPOs :
  - **https://images.fedoravforce.com**
  - Images: rsync://mirror.iscas.ac.cn/fedora-riscv/releases/41/Spins/
  - REOP: rsync://mirror.iscas.ac.cn/fedora-riscv/releases/41/Everything
  -
- ROS/ROS2 upgraded to F42
- Sail for rawhide[UPSTREAMING]
- function testing for F41:
  - **Podman, Image: fedorariscv/base**
  - Ceph[ONGOING]
  - K8s[ONGOING]

Debian for RISC-V（于波）



- Official port update

  0. Debian Trixie release note for riscv64

  1.repro-build support riscv64 [1][2]

  2. Long build queue due to DDL for release

  3. Trixie release note add riscv64[MR]

- Debci

  Enable apt-cacher-ng among most riscv64 workers

- Some works

  1. strace[enable test on rv64], pyftww[ignore rv64 test], gnome-decoder[timeout rv64]

  2. python-cassandra-driver [ftbfs on rv64], trixie releasenote [for rv64]

  3. qtrvsim [ITP done], zlog [ITP done], coin3[close rv64 bug], git-subrepo[sponsor upload]

  4. python-tkeet[new upload], tox-current-env[new upload], python-indexed[sponsor upload]

RevyOS (郑景坤)

- New Images
  - Lichee Pi 4A: 20250123 : https://mirror.iscas.ac.cn/revyos/extra/images/lpi4a/20250123/
  - Milk-V Meles: 20250123 https://mirror.iscas.ac.cn/revyos/extra/images/meles/20250123/
  - New kernel (6.6.73 & 6.6.77), new SDK (2.0.2)
  - Milk-V Pioneer: 20241230

    https://mirror.iscas.ac.cn/revyos/extra/images/sg2042/20241230/
- Community Additions
  - KVM via OpenSBI-H（TH1520，**实验性支持**）
  - Lichee Pi 4A RTL8723DS 蓝牙支持、AIC8800 Wi-Fi 初步支持
  - 新官网（mkdocs -> Docusaurus 3）
  - wishlist / 许愿清单
  - known compatibility issue / 已知兼容性问题列表
- ROS2（本周无更新）
  - RevyOS maintains two ROS2 distributions: Humble and Jazzy.
  - jazzy build 1388/1481 > 1388/1481 (93.7%)
  - humble build 1548/1719 -> 1490/1740 (85.6%)
  - CI test results:

    Pass: 39,323/39,578 > 39,410/39,664 (99.36%)

    Failed: 146, Skipped:108

    Total time: 6.18 hours

RevyOS supported devices

Image download directory

1、Lichee Pi 4A

2、Lichee Cluster 4A

3、BeagleV-Ahead

4、Milk-V Pioneer

5、Milk-V Meles

6、Lichee Console 4A

7、RISC-V Book

8、Lichee Book

SD card support

1、Lichee Pi 4A

2、beaglev-ahead

3、Milk-V Meles

4、Lichee Console 4A

Mainline support

1、LicheePi 4A

2、Milk-V Meles

2、Milk-V Pioneer

基于 OpenSBI-H 的 KVM 虚拟化

RevyOS 为 `TH1520` 平台提供基于 OpenSBI-H 的 KVM 虚拟化。

目前已验证支持的开发板：

- Milk-V Meles
- Sipeed Lichee Pi 4A

> ⚠ 注意
> TH1520 平台的 OpenSBI-H 为**实验性支持**。可能会遇到 KVM 启动时间久、控制台输出缓慢、特定场景性能下降严重等问题。

软件包安装

> ⓘ 备注
> 旧版本系统不被支持，请使用最新版本镜像。

在安装之前，请务必执行一次全系统更新，并安装 `6.6.77` 版本内核。此版本附带了 `kvm` 内核模块。

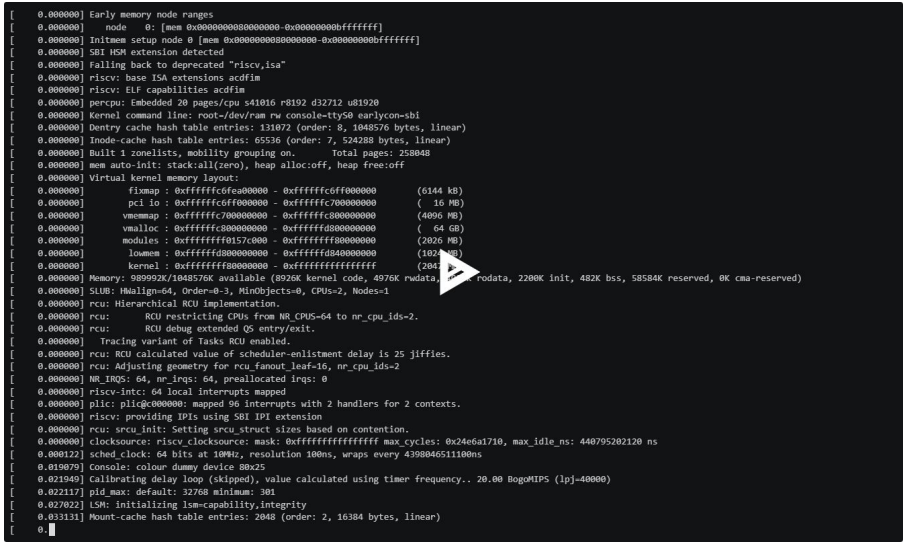
安装结束后，重启系统。

```
sudo apt update; sudo apt upgrade -y
sudo apt install -y th1520-mainline-opensbi-h qemu-system wget linux-image-6.6.77-th1520
# 如需使用 U-Boot 引导 VM:
# sudo apt install -y u-boot-qemu
sudo reboot
```

验证

若您的开发板已连接 UART 串口，则可以在启动时的串口打印中看到类似如下字样：

```
Hypervisor Extension     : Emulated
Shadow PT Space Base     : 0x3ff000000
Shadow PT Space Size     : 4096 pages
```



- 文档：https://docs.revyos.dev/docs/desktop/kvm/

致谢：

- OpenSBI-H - dramforever, ZenithalHourlyRate
- TH1520 OpenSBI-H 适配 - wxjstz
- RevyOS - RevySR
- 测试及文档撰写 - KevinMX

Sophgo Linux Upstream Status Update（汪辰）

https://github.com/sophgo/linux/wiki [Last updated: Feb/19/2025]

- CV18XX Series
  - https://lore.kernel.org/linux-riscv/20250209122936.2338821-1-inochiama@gmail.com/ Reset 补丁第 1 版，Inochi 接手继续
  - https://lore.kernel.org/linux-riscv/20250213215655.2311793-1-alexander.sverdlin@gmail.com/ RTC 补丁第 11 版，Alexander Sverdlin 接手继续
  - https://lore.kernel.org/linux-riscv/20250213182210.2098718-1-alexander.sverdlin@gmail.com/ Duo Module 01 EVB 支持第 4 版
- SG2042
  - https://lore.kernel.org/linux-riscv/20250211051801.470800-1-inochiama@gmail.com/ PinCtrl 第 2 版
  - https://lore.kernel.org/linux-riscv/cover.1738737617.git.unicorn_wang@outlook.com/ PWM 支持第 7 版，已经被 for-next 收录，有希望进入 v6.15
  - https://lore.kernel.org/linux-riscv/cover.1739351437.git.unicorn_wang@outlook.com/ 温控第 1 版，已经被 for-next 收录，有希望进入 v6.15
  - https://lore.kernel.org/linux-riscv/cover.1736923025.git.unicorn_wang@outlook.com/ PCIe 支持第 3 版补丁评审继续讨论中
  - https://lore.kernel.org/linux-riscv/cover.1736921549.git.unicorn_wang@outlook.com/ MSI 中断控制器第 3 版补丁评审继续讨论中
- SG2044
  - https://lore.kernel.org/linux-clk/20250204084439.1602440-1-inochiama@gmail.com/ 时钟第 2 版
  - https://lore.kernel.org/linux-riscv/20250216123953.1252523-1-inochiama@gmail.com/ 以太网控制器第 5 版

RT-Thread (RISC-V) Upstream Status Update（汪辰）

PR list：

- bsp: cvitek: c906_little: fix building warnings: https://github.com/RT-Thread/rt-thread/pull/9953
- fix bug in setting PLIC_PRIORITY[n]:https://github.com/RT-Thread/rt-thread/pull/9862

RFC discussion

- RT-Thread mainline v5.2.0-beta is pre-released and is currently in the testing phase. Welcome to test it more. If you have any questions, please record them in https://docs.qq.com/sheet/DVGFtUHdqbGNmeEFI?tab=BB08J2&nlc=1.
- RT-Thread main repository attempts to establish PR automatic review allocation mechanism: https://github.com/RT-Thread/rt-thread/pull/9913
- RT-Thread main repository attempts to establish automatic unit test mechanism for PR: https://github.com/RT-Thread/rt-thread/pull/9933.
- RT-Thread launches [BSP slimming plan for main repository: https://github.com/RT-Thread/rt-thread/issues/9960.

Box64 RISC-V 进展

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opensbi（王翔）

- 修正关于工具链相关的文档
  https://lists.infradead.org/pipermail/opensbi/2025-February/008021.html
- 修正sbi_fwft中sbi_fwft_feature_t枚举只有32位在rv64上传参数丢失高位的问题
  https://lists.infradead.org/pipermail/opensbi/2025-January/008009.html
- 修正sbi_see中sbi_sse_hart_mask/sbi_sse_hart_unmask的返回状态
  https://lists.infradead.org/pipermail/opensbi/2025-February/008064.html
- 修正一些fdt_driver为const防止被意外修改
  https://lists.infradead.org/pipermail/opensbi/2025-February/008066.html
- 移除fdt_pmu_setup中不必要的长度检测
  https://lists.infradead.org/pipermail/opensbi/2025-February/008067.html
- fdt_pmu_evt_select从静态数组改成动态分配
  https://lists.infradead.org/pipermail/opensbi/2025-February/008097.html
- 修正MPXY数据结构为每个domain持有的
  https://lists.infradead.org/pipermail/opensbi/2025-February/008082.html
- 添加sbi_ecall单元测试
  https://lists.infradead.org/pipermail/opensbi/2025-February/008089.html
- 修复字符串拷贝bug，拷贝空字符串导致目标字符串丢失'\0'
  https://lists.infradead.org/pipermail/opensbi/2025-February/008090.html
- 添加sbi_bitops单元测试
  https://lists.infradead.org/pipermail/opensbi/2025-February/008091.html
- fdt设备初始化时改变兼容字符串的匹配顺序，优先匹配dt兼容字符串的第一个
  https://lists.infradead.org/pipermail/opensbi/2025-February/008104.html

RustSBI团队进展（洛佳）

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RustSBI团队进展（洛佳）

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香山开源RISC-V处理器 - ICT / PCL（提交人不在线）

香山开源技术讨论群：879550595（QQ）

- **前端**
  - 修复重定向时 RAS 判断 Call/Ret 的条件问题 (#4232)
  - 预译码增加对 JALR target 的独立检查 (#4234)
  - 预译码增加对 JALR 位置的检查 (#4269)
  - ICache miss 通路上 MSHR 选择提前 (#4173)
  - ITTAGE region table 读取提前 (#4216)
  - 去除一些时序不好的 Clock Gating (#4223)
- **后端**
  - 修复部分指令信息在硬件性能计数器丢失的问题 (#4257)
  - 修复 scountovf 寄存器读取时未受 counteren 控制的问题 (#4267)
  - 修复写 mcontrol6 寄存器的 dmode 字段时未考虑 chain 的影响 (#4256)
  - 修复向量无序规约求和中 fflags 标志位生成出错的问题 (#4244)
  - 支持低功耗轮询拓展 (zawrs) (#4211)
- **访存与缓存**
  - 在 CoupledL2 以及 OpenLLC + OpenNCB 的 SoC 中已经支持 Issue C (CoupledL2 #333)、(OpenLLC #47)、(OpenNCB #3)
  - 修复 Uncache 合并和 load replay 相关的两处 Bug (#4268)、(#4275)
  - 修复虚拟化 onlyStage1 或 onlyStage2 场景下的 corner case，以及 MMU 的 X 态传播问题 (#4252)、(#4253)、(#4266)
  - 修复与 cbo 指令相关的冲刷、异常处理和违例检查等一系列 Bug (#4262)
  - 修复 cas 请求发生 miss 后，未向 MSHR 传递 amo_cmp 的 Bug (#4272)
  - 修复非对齐访存的异常处理、违例检查和错误唤醒相关的四处 Bug (#4227)、(#4228)、(#4239)、(#4263)
  - 修复 PMA 配置缺失和预取指令权限检查的两处 Bug (#4226)、(#4235)
  - 修复 WriteEvictOrEvict 回复状态不符合手册标准的 Bug (CoupledL2 #352)
  - 修复 SnqQuery 嵌套 Evict 时，SnqQuery 回复状态不符合一致性要求的 Bug (CoupledL2 #353)
  - 修复一系列 DataCheck、Poison 相关 Bug (CoupledL2 #335)、(CoupledL2 #337)、(CoupledL2 #339)

banshanjdk-8 让你的 java8 程序在 RISC-V 平台极限加速

Chisel and Additional Technology / Sequencer（提交人不在线）

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OpenHW & OpenHW Aisa Working Group

甲辰计划进展(吴伟)

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自由讨论 / AOB

BACKUP

准备加入更多的国际开源组织进行同步观测

欢迎追加或提议