

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

2022年11月10日·第047次

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

Host: 陈嘉炜

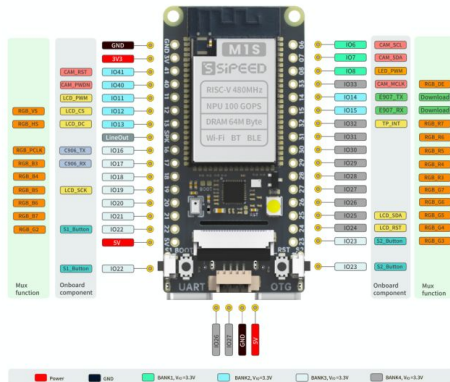
Organizer: PLCT Lab plct-oss@iscas.ac.cn

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

- 日本的 RISC-V Day
- 北美的 RISC-V Summit
- SC2022 里面的 RISC-V 厂商和活动
- <https://riscv.org/blog/2022/11/xuantie-c908-high-performance-risc-v-processor-catered-to-aiot-industry-chang-liu-alibaba-cloud/>
- [Andes Technology Unveils The AndesCore AX60 Series, An Out-Of-Order Superscalar Multicore RISC-V Processor Family](#)
- PLCT许愿池计划2023启动啦！
- 新的RISC-V小设备



RISC-V 韩语社区的同步与八卦

- 韩国ZARAM Technology （主要做低功耗嵌入式、通信半导体）
 - 把自家设计的RISC-V CPU和韩国电子技术研究院进行知识产权共有
 - 上个月新闻说IPO，估值一亿美元左右
 - 未来方向与边缘计算、低功耗、riscv相关
- 关于SK海力士和三星收购arm新闻的follow up，海力士明确表示不参与收购。三星没有正式的反应，但是一直增加现金性资产，很多媒体都推测不会进行arm的收购。

RISC-V 日语社区的同步与八卦

- 本月16日~17日三天是日本RISC-V Days, 可以网上参加
[RISC-V Days Tokyo 2022 Autumn](#)[RISC-V 協会](#) | [RISC-V Alliance Japan \(riscv.or.jp\)](#)
 - 参会单位包括谷歌, RISC-V Alliance Japan, Redhat 以及庆应大学、清华大学
- 日本的RISCV Alliance 社群有关于llvm和riscv的读书会, 内容偏基础一些各位有兴趣可以参加或者看过去的录像。

<https://kobe-processor-architecture.connpass.com/event/262150>

RISC-V 俄语社区的同步与八卦

- 本周暂无动静

AOSP for RISC-V - 汪辰、陆旭凡

- Google AOSP upstream PR
Android (RISC-V) Review , Issue 20221110 (in Chinese) : <https://zhuanlan.zhihu.com/p/581900441>
- RVI Android SIG upstream:
 - support GKI kernel/modules building for android emulator:
 - <https://github.com/riscv-android-src/kernel-manifest/pull/1>
 - <https://github.com/riscv-android-src/kernel-common/pull/2>
 - <https://github.com/riscv-android-src/kernel-common-modules-virtual-device/pull/1>
 - <https://github.com/riscv-android-src/kernel-prebuilts-common-modules-virtual-device-5.10-riscv64/pull/1>
 - <https://github.com/riscv-android-src/manifest/pull/9>
 - <https://github.com/riscv-android-src/kernel-prebuilts-5.10-riscv64/pull/2>
 - <https://github.com/riscv-android-src/riscv-android/pull/11>
 - <https://github.com/riscv-android-src/riscv-android/pull/15>
 - initial changes about supporting Android apk for chromium
 - <https://github.com/aosp-riscv/chromium/pull/1>
 - <https://github.com/aosp-riscv/working-group/pull/52>
- Articles update (in Chinese):
 - Linux driver modules: kobject & kset: <https://zhuanlan.zhihu.com/p/578581653>
 - Notes: How to write a Linux kernel module: <https://zhuanlan.zhihu.com/p/579301578>
 - Linux sysfs: <https://zhuanlan.zhihu.com/p/579434022>

RISC-V GCC进展

提交了profiles在gcc上的patch, 在gnu toolchain双周会上讨论了遇到的一些开发问题, 正在整理意见更新实现中:

profile gcc patch: <https://gcc.gnu.org/pipermail/gcc-patches/2022-November/604869.html>

issues record: sig-toolchains@lists.riscv.org | [Profile implement progress and problems](#)

-march string proposal: sig-toolchains@lists.riscv.org | [Toolchain conventions: the -march string](#)

psABI requirement: <https://github.com/riscv-non-isa/riscv-elf-psabi-doc/pull/351>

钟居哲与Kito正在继续推进RVV gcc实现, 目前intrinsic framework已合入gcc上游, RVV C intrinsic API 1.0将在近期release, 将成立TG讨论有关问题, gcc会遵循该版本的intrinsic实现

RVV patches: <https://gcc.gnu.org/git/?p=gcc.git&a=search&h=HEAD&st=author&s=juzhe>

RVV C intrinsic API: [riscv-admin/rvv-intrinsics](#)

下一psABI会议上继续讨论Zc扩展的问题:

tech-code-size@lists.riscv.org | [zcmt requires new linker relaxation](#)

欢迎陈逸轩同学加入GNU小队参与有关工作

RISC-V GNU Toolchain双周会slides链接:

https://docs.google.com/presentation/d/1WgZrLwTQI_oySdIR7ugAT-KGvf9xMvKSLgz9EAHxkWg/edit#slide=id.g182888ba841_0_0

Clang/LLVM 进展 (PLCT)

1. [RISCV] Add support for static chain <https://reviews.llvm.org/D129106>
2. [RISCV] Support for mapping symbol in RISCV. <https://reviews.llvm.org/D137417>
<https://github.com/riscv-non-isa/riscv-elf-psabi-doc/pull/196>
3. [LLDB] Optimize lldb build time and memory consumption.
<https://reviews.llvm.org/D137041>
4. [LLDB][RISCV] Allow accessing registers through ABI names.
<https://reviews.llvm.org/D137508>
5. [LLDB][RISCV] Allow accessing FPR registers through ABI names
<https://reviews.llvm.org/D137761>

Clang / LLVM 社区的更新（廖春玉、陆旭凡）

1. [IndVars] Forget the SCEV when the instruction has been sunk.
<https://reviews.llvm.org/D137060>
2. [MemorySSA] Delete dead MemoryUseOrDef for CallInst when clone loop basicblock
<https://reviews.llvm.org/D137553>
3. [LoopFlatten] Forget all block and loop dispositions after flatten
<https://reviews.llvm.org/D137651>
4. [RFC] Unify memory effect attributes
<https://discourse.llvm.org/t/rfc-unify-memory-effect-attributes/65579>

QEMU/Spike/Sail/ACT进展 (PLCT)

- Spike
 - Zc*扩展支持
 - <https://github.com/riscv-software-src/riscv-isa-sim/pull/1141>
 - <https://github.com/riscv/riscv-opcodes/pull/107>
- QEMU
 - 完善可变XLEN支持
 - <https://github.com/plctlab/plct-qemu/tree/plct-rv32u-dev>

gem5 进展 (PLCT)

- V拓展
 - 对V拓展指令重新分类, 添加类别信息
<https://github.com/plctlab/plct-gem5/pull/16>
 - 在指令分类基础上完成向量寄存器对齐(align)和重叠(overlap)检查
<https://github.com/plctlab/plct-gem5/pull/18>
 - 新增vslideup.vi 和 vslidedown.vi指令
<https://github.com/plctlab/plct-gem5/pull/19>

V8 for RISC-V 更新(邱吉、陆亚涵)

- Port Upstream

3971517: [riscv][wasm] Allocate feedback vectors on demand |

<https://chromium-review.googlesource.com/c/v8/v8/+3971517>

Spidermonkey for RISC-V更新（邱吉、陆亚涵）

- Test status
 - Jit-test 通过率99.38% 9751 Pass 60 Failure 0 timeout
 - Jstests 通过率99.9% 44259 Pass 3 Failure 1 timeout
- Patch
 - 7b126a1ecc3e Implement func (#52)
 - 78ce02b344973 Fix jump long (#51)
 - ab7ee829337b8 Implement riscv branchandlink (#50)
 - 6d2729dd14fbf Fix compareD (#49)
 - 0c86149c7827c Implement copy sign bit (#48)
 - 64d6cd88b4191 Fix wasm load/store error (#47)
 - 356638fcddeff fix wasm conversion error (#46)
 - 70e8c5de2e18c fix cmp set (#45)
 - ba48fda2d4b2e Fix NotSigned (#44)

OpenJDK for RISC-V 更新(RV64及upstream)杨飞

1. Merged jdk-mainline PRs:

- <https://github.com/openjdk/jdk/pull/10917> (8286301: Port JEP 425 to RISC-V)
- <https://github.com/openjdk/jdk/pull/10965> (8296285: test/hotspot/jtreg/compiler/intrinsics/TestFloatIsFinite.java fails after JDK-8280378)

2. Reviewed jdk-mainline PRs:

- <https://github.com/openjdk/jdk/pull/10921> (8296136: Use correct register in aarch64_enc_fast_unlock())
- <https://github.com/openjdk/jdk/pull/10884> (8295948: Support for Zicbop/prefetch instructions on RISC-V)
- <https://github.com/openjdk/jdk/pull/10878> (8295968: RISC-V: Rename some assembler intrinsic functions for RVV 1.0)
- <https://github.com/openjdk/jdk/pull/10880> (8295967: RISC-V: Support negV/negVL instructions for Vector API)
- <https://github.com/openjdk/jdk/pull/10691> (8295261: RISC-V: Support ReductionV instructions for Vector API)
- <https://github.com/openjdk/jdk/pull/11005> (8296435: RISC-V: Small refactoring for increment/decrement)
- <https://github.com/openjdk/jdk/pull/11009> (8296447: RISC-V: Make the operands order of vrsb_vx/vrsb_vi consistent with RVV 1.0 spec)
- <https://github.com/openjdk/jdk/pull/11036> (8296515: RISC-V: Small refactoring for MaxReductionV/MinReductionV/AddReductionV node implementation)

3. Loom RISC-V Port:

- Upstreamed: <https://github.com/openjdk/jdk/commit/91292d56a9c2b8010466d105520e6e898ae53679>
- Will be delivered with JDK 20 (General Availability - 2023/03/21)
- TODO: Postcall NOP optimization

4. Foreign-API RISC-V Port:

- New development branch at: <https://github.com/feilongjiang/jdk/tree/riscv-foreign-api>
- Need rebasing with: <https://git.openjdk.org/jdk/pull/10872> (8295044: Implementation of Foreign Function and Memory API (Second Preview))
- Need further rebasing with: <https://git.openjdk.org/jdk/pull/11019> (8296477: Foreign linker implementation update following JEP 434)

OpenJDK for RISC-V 更新(RV32/PLCT 史宁宁)

1. Fix the `cmovl_cmpl` <https://github.com/openjdk-riscv/jdk11u/pull/552>
2. Fix the `cmpUEqNeLeGt_imm0_XXX` instructs in `riscv32.ad` <https://github.com/openjdk-riscv/jdk11u/pull/553>
3. Fix the `loadB2L/loadUB2L` <https://github.com/openjdk-riscv/jdk11u/pull/554>
4. Update the `loadUI2L` in `riscv32.ad` <https://github.com/openjdk-riscv/jdk11u/pull/555>
5. Fix the `storeLConditional` <https://github.com/openjdk-riscv/jdk11u/pull/556>
6. Improve the `compareAndSwapL/compareAndSwapLAcq` <https://github.com/openjdk-riscv/jdk11u/pull/557>
7. Fix the `compareAndExchangeL/compareAndExchangeLAcq` <https://github.com/openjdk-riscv/jdk11u/pull/558>
8. Fix the `weakCompareAndSwapL/weakCompareAndSwapLAcq` <https://github.com/openjdk-riscv/jdk11u/pull/559>
9. Add the `lShiftL_regl_immGE32` in `riscv32.ad` <https://github.com/openjdk-riscv/jdk11u/pull/560>
10. Fix the `cmp_l2i` in `cmpl3_reg_reg` <https://github.com/openjdk-riscv/jdk11u/pull/561>
11. Fix the `fp_args` of `double` in `calling_convention` <https://github.com/openjdk-riscv/jdk11u/pull/562>
12. Fix the count num of `double` and `array` in `generate_native_wrapper` <https://github.com/openjdk-riscv/jdk11u/pull/563>
13. Fix the bugs in long `cmp` of `macroAssembler_riscv32.cpp` <https://github.com/openjdk-riscv/jdk11u/pull/564>

OpenJDK for RISC-V 更新(RV64及upstream)张定立

Merged & New JDK-mainline PRs:

- <https://github.com/openjdk/jdk/pull/11009> | (8296447: RISC-V: Make the operands order of vrsb_vx/vrsb_vi consistent with RVV 1.0 spec)
- <https://github.com/openjdk/jdk/pull/11074> | (8296638: RISC-V: NegVI node emits wrong code when vector element basic type is T_BYTE/T_SHORT)

Reviewed JDK-mainline PRs:

- <https://github.com/openjdk/jdk/pull/10691> | (8295261: RISC-V: Support ReductionV instructions for Vector API)
- <https://github.com/openjdk/jdk/pull/11036> | (8296515: RISC-V: Small refactoring for MaxReductionV/MinReductionV/AddReductionV node implementation)

Vector-API support:

- [Add emit_data64 for loadcon](#)
- [Fix typo and instruct format of loadcon/vcompress/vexpand](#)
- [RISC-V: Add PopulateIndex node for Vector API](#)

OpenJDK for RISC-V 更新(RV64及upstream) 曹贵

Merged & New JDK-mainline PRs:

- <https://github.com/openjdk/jdk/pull/11036> | (8296515: RISC-V: Small refactoring for MaxReductionV/MinReductionV/AddReductionV node implementation)

Reviewed JDK-mainline PRs:

- <https://github.com/openjdk/jdk/pull/11074> | (8296638: RISC-V: NegVI node emits wrong code when vector element basic type is T_BYTE/T_SHORT)
- <https://github.com/openjdk/jdk/pull/11009> | (8296447: RISC-V: Make the operands order of vrsb_vx/vrsb_vi consistent with RVV 1.0 spec)

Vector-API support:

- [RISC-V: Support vector api AddVI/AddVL mask node](#)
- [RISC-V: Support vector api AndV/OrV/XorV mask node](#)

OpenJDK8 backporting (章翔)

1、修复一些小的问题

- <https://github.com/zhangxiang-plct/jdk8u/pull/125>
- <https://github.com/zhangxiang-plct/jdk8u/pull/126>
- <https://github.com/zhangxiang-plct/jdk8u/pull/127>
- <https://github.com/zhangxiang-plct/jdk8u/pull/128>
- <https://github.com/zhangxiang-plct/jdk8u/pull/129>
- <https://github.com/zhangxiang-plct/jdk8u/pull/130>
- <https://github.com/zhangxiang-plct/jdk8u/pull/131>
- <https://github.com/zhangxiang-plct/jdk8u/pull/132>
- [Fix lookup_interface_method by replacing Klass with InstanceKlass](#)
- [Fix InstanceKlass::vtable_length_offset](#)
- [Fix typo on putfield_or_static](#)

2、解释器移植成功，能跑通“Hello World”

```
00:01:00 jdk
00:00:18 langtools
00:02:43 TOTAL
-----
Finished building OpenJDK for target 'default'
● zhangxiang@k9-plct:~/rv-jdk8u/jdk8u$ qemu64 build/linux-riscv64-normal-core-slowdebug/jdk/bin/java Hello
hello world
○ zhangxiang@k9-plct:~/rv-jdk8u/jdk8u$
```

⊗ 3K △ 0 Ⓜ 0 ⚙ (gdb) Launch (jdk8u)

openEuler RISC-V

1. PR: [+96\(中间仓:17 src-oe:79\)](#)

- Init: scim、signon-plugin-oauth2、polkit-kde、kcalc、hyfetch、babeld、accounts-qml-module
- Fix: hadoop-3.1、etcd、dump等
- Upgrade: >62

2. Other

- openeuler riscv衍生版eulaceura发布: [gemu镜像](#) [使用说明](#)
- qBittorrent(及其引擎 libtorrent)、KeepassXC、Remmina、botan2: [详情](#)
- [Electron](#) (共20; succeeded: 19;failed:1)
- [llvm15](#) build succeeded
- [qt6及相关软件包](#) (共49; succeeded: 7;unresolvable:40;failed:1)

3. Upgrade package



升级脚本: 升级RISC-V软件包版本, 版本不低于oe_master
Building: 16.14.291 -> 3.5.4.0(v) -> 4.9.0.0(v) -> 15.0.3(v)

Gentoo for RISC-V 的情况更新 (Gentoo 小队)

- Support statistics (7935/19585, 40.25%) : <https://whale.plctlab.org/riscv/support-statistics/>
- A total of 108 keywording commits: <https://whale.plctlab.org/riscv/RISC-V-双周会/20221110/commits.txt>
 - net-vpn/strongswan: Keyword 5.9.8 riscv [gentoo/gentoo@6d5b5b3](#)
 - net-proxy/ziproxy: Keyword 3.3.1-r2 riscv [gentoo/gentoo@1c5718a](#)
 - www-servers/fnord: Keyword 1.11-r2 riscv [gentoo/gentoo@c07ad17](#)
- Solve some new dependencies in GNOME 43 to keyword it
 - Bug: <https://bugs.gentoo.org/880237>
 - 6 commits:
 - [gentoo/gentoo@9814756](#) [gentoo/gentoo@561fc3d](#) [gentoo/gentoo@5c27452](#)
 - [gentoo/gentoo@1b10926](#) [gentoo/gentoo@5e21ab0](#) [gentoo/gentoo@6df5edd](#)

Arch Linux RISC-V (东东、潘瑞哲)

[Arch Linux RISC-V Bi-Week Package
Update Stats Report]

Report generated on: 20221110

Package update count: 2378 updates

Distinct package update count: 1965

[core] 253 / 261 (96.93%)

[extra] 2705 / 3078 (87.88%)

[community] 8721 / 9756 (89.39%)

Highlight packages:

linux - 6.0.2.arch1-1 --> 6.0.7.arch1-1

rust - 1:1.64.0-1 --> 1:1.65.0-1

rust-analyzer - 20221024-1 --> 20221031-1

docker - 1:20.10.20-1 --> 1:20.10.21-1

glib2 - 2.74.0-2 --> 2.74.1-1

gtk4 - 1:4.8.1-1 --> 1:4.8.2-1

qt5-wayland - 5.15.6+kde+r50-1 --> 5.15.7+kde+r49-1

archiso - 67-1 --> 68-1

imagemagick - 7.1.0.51-1 --> 7.1.0.52-1

telegram-desktop - 4.2.4-1 --> 4.3.1-1

graphviz - 6.0.1-1 --> 7.0.0-1.1

Arch Linux RISC-V (东东、潘瑞哲) Cont.

- Rust 1.65.0
 - <https://github.com/felixonmars/archriscv-packages/pull/1925>
 - Backported:
 - <https://github.com/rust-lang/cc-rs/pull/676> Use specified compiler in is_flag_supported
 - The last hunk of <https://github.com/tikv/jemallocator/pull/40> Fix build on riscv64gc-unknown-linux-gnu
 - Regenerate checksums and replace with sed after patching vendors
- GCC libitm upstreamed [PATCH v4] RISC-V: Libitm add RISC-V support.
 - <https://gcc.gnu.org/pipermail/gcc-patches/2022-October/604620.html>
 - Ready for bpo & manual tests, will have a PATCH v5 for clarifying error messages

Fedora for RISC-V (傅炜)

- RPM packaging
 - [rawhide/F38] **【On Going】**[<https://openkoji.iscas.ac.cn/repos/fc36dev/>] as build repo
 - **Libffi (updating)**
 - **Rpm-list-builder**
- 软件版本:
 - Toolchain gcc-12.2.1-2 / glibc-2.36-4 **(up-to-date)**/Binutils 2.39-3 **(up-to-date)**
 - java-latest-openjdk-19.0.0.0.36-2**(up-to-date)**
 - perl-5.36.0-492[rawhide]**(up-to-date)** need testing and merging, 文档化中 [perl-bootstrap koji][文字]
 - Python 3.11**(up-to-date)** need testing and merging, 文档化中 [rpmlb + yaml, mock]
 - Rust 1.63.0-1→Rust 1.64 [need qemu fix from Felix] **(updating)**
 - LLVM/Clang 14.0.0-1→ 14.0.5-3[rawhide]**(updating)** **【赵佳盛】**
 - Go 1.18-1→ 1.19-1[rawhide]**(updating)****【海滨】**
 - **firefox** and **Chromium** are blocked **dependencies**
 - **scala【On Going】**
 - **Mingw-w64-tools 【On Going】**working on dependencies for Fedora 37/38
 - **libvirt-8.8.0-1【On Going, depends on Mingw】**
- Images:
 - **QEMU/D1/JH7110** Images , waiting for VisionFive V2
 - **Sophgo Server**
- Team document: https://github.com/fedora-riscv/Fedora_riscv_devel_docs

Debian for RISC-V (干波)

- [Build status&news](#)

1. Installed: ~15000 (blocked by atomic&cargo issues)

2. [Udd FTBFS packages](#) ~278

3. [Official port news](#) (porterbox available)

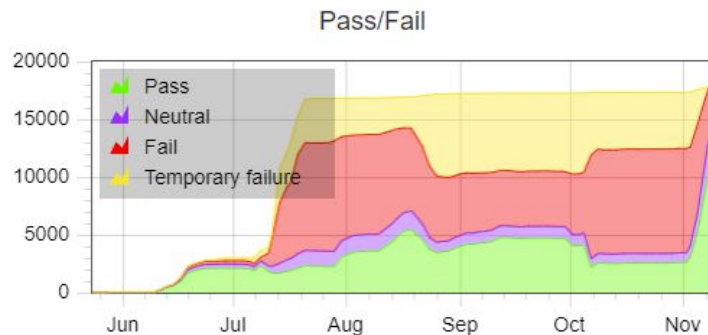
- [Debci update](#)

1. [Britney's Job History](#)

- Some works

1. <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=922579#42> [fretrue issue confirmed]

2. <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1023128> [fretrue RM done]



Debian for RISC-V II

- 3*. <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1023551> [morse-simulator NMU RC done]
- 4. <https://github.com/yuzibo/talks/blob/main/debian/2022-11-04-Debian-QA-overview.pdf>
- 5*. <https://salsa.debian.org/python-team/packages/tkcalendar> [new queue]
- 6*. <https://sourceforge.net/p/codeblocks/code/13001/> [upstream support riscv done]
- 7. <https://salsa.debian.org/sunmin/86Box> [ITP package]

Deepin for RISC-V

- [deepin-riscv-stage1](#) deepin-stage1 源码包 打包数量:6518
 - 添加了 firefox/libreoffice 等应用包
 - 修复部分包编译不通过的问题
- [deepin-riscv-board](#) deepin-riscv 板子每日CI构建
 - 支持 D1 三块板子(Nezha/MQ-pro/lichee-rv-dock)
 - 支持 JH7100 两块板子(visionfive-v1/BeagleV_Starlight)
 - 支持 JH7110 一块板子(Star64)
 - [刷写镜像下载地址](#)
- [th1520 支持镜像](#) 支持平头哥曳影1520
- [deepin-riscv-stage2](#) deepin-stage2 构建状态:
 - succeeded: 4326
 - failed: 460
 - unresolvable: 1734
- [deepin-rv-packages-monitor](#) 监控页面

FW相关更新（王翔）

❖ opensbi

- 添加对RZ/Five的支持
- 简化直接调用fdt_parse_uart_node_common的fdt_parse_xxx_uart_node的函数的代码
- uart->reg_shift和uart->reg_io_width只在8520中使用，移除多余的代码
- 添加对debug triggers支持。（存在的问题：只支持type6不支持type2，查找trigger没考虑chained，当前的install没有考虑chained）
- 修正semihosting的llvm编译问题，llvm的char默认无符号和-1比较报错

固件相关更新(洛佳)

- RustSBI 发布 0.3.0 正式版(docs.rs/rustsbi、github.com/rustsbi/rustsbi)
 - 支持开发虚拟化环境和模拟器, 这是O开头的SBI做不到的
 - 平台支持分为两种开发模式:独立包和原型系统
- RustSBI Prototyping System 正在开发中
 - 预期将解决适配难度过大的问题, 即使无Rust基础, 一个下午就能适配新的硬件平台
 - 免费获得Penglai TEE、Dram's Emulated Hypervisor和Raven the Firmware Debugger
 - 可与C语言生态配合使用, 但是O开头的SBI不能和Rust生态配合使用
- 平台支持独立包的进展
 - rustsbi-qemu预计合并入QEMU项目上游, rustsbi-d1提供成熟的开发工具和单元测试工具
 - 快速陷入支持包fast-trap发布0.0.0版本
- SBI环境的单元测试和跑分用内核
 - 选择marchid get、ipi delay作为测试指标, RustSBI在真实单核芯片上性能达到竞品的1.6倍, 在多核模拟器上最高达到竞品的20~30倍, 核越多性能越好

香山开源RISC-V处理器 - ICT / PCL

- 南湖流片进展
 - DMA 基础功能在 FPGA 上调试通过, 成功联通 GMAC 和 PCIe, 实现了 NFS 和 SSD 的访问
 - 推进双核、FLASH 和 JTAG 在 FPGA 上的调试工作
 - 对近期的代码修改进行 SPEC 性能分析
- 昆明湖开发进展
 - 前端: 开始实现 Loop Buffer, 继续调优 Loop Predictor 和预取
 - 后端: 浮点加法规约模块的流水线划分完毕; 继续重构后端流水线
 - 访存: 细化新版 LSQ 的设计方案(新的违例检查框架、LQ 不存数据)
 - 缓存: 对 Coupled L2 的进行主流水线各流水级功能划分, 撰写设计文档

MLIR RISC-V Vector (RVV) Dialect Proposal - 张洪滨

提交人不在线 hongbin2019@iscas.ac.cn

相关链接

- RFC Patch - <https://reviews.llvm.org/D108536>
- RFC Post - <https://discourse.llvm.org/t/rfc-add-risc-v-vector-extension-rvv-dialect/4146/32>
- MLIR + RVV 集成测试环境搭建文档 - <https://gist.github.com/zhanghb97/ad44407e169de298911b8a4235e68497>
- MLIR + RVV 环境搭建 - <https://github.com/buddy-compiler/buddy-mlir/blob/main/thirdparty/build-rvv-env.sh>
- MLIR + RVV 相关实验 - <https://github.com/buddy-compiler/buddy-mlir/tree/main/examples/RVVExperiment>

WIP

- MLIR VP Ops on RVV Backend Integration Test and Issues Report - <https://discourse.llvm.org/t/mlir-vp-ops-on-rvv-backend-integration-test-and-issues-report/66343/1>
- VP Intrinsic 测试用例相关链接：
 - 集成测试汇总表: <https://www.notion.so/MLIR-VP-Op-RVV-Integration-Test-df0b5470a4824b2cb101df4dd4205ea2>
 - 集成测试 Web 服务: <https://buddy.isrc.ac.cn/rvv/rvv-vp-intrinsic-add-scalable.mlir?line=1&column=1>
- [VP] Add support for vp.inttoptr & vp.ptrtoint - <https://reviews.llvm.org/D137169>

Chisel and Additional Technology / Sequencer

- 向量单元设计进展
 - Load/Store 调试通过
 - verilator单元测试框架完成, VCS正在TODO
 - 正在用力修 bug中
- RocketChip Working Group CI
 - Already on sequencer/rocket and sequencer/vector
- Rocket Standalone
 - 开始cosim
- 不小心做了个 PLL in TSMC28

(提交人不在 线)

OpenHW & OpenHW Aisa Working Group

- AWG
 - 欢迎更多会员和参与者
- COREV LLVM项目
 - 代码rebase, 欢迎review(<https://github.com/openhwgroup/corev-llvm-project/pull/21>)
 - 待讨论:多指令集版本支持方案(CV32E40PV1、CV32E40PV2)
- COREV GCC项目
 - 讨论了CV32E40P的测试用例问题
 - 待讨论:多指令集版本支持方案(CV32E40PV1、CV32E40PV2)

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

CHIPS Alliance

ISCAS将提供CI资源到chipsalliance, 负责未来RocketChip的CI工作

