

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24日·第048次

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

Host: 李威威

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

- 加州大学伯克利分校计算机科学教授 Krste Asanovi在超级计算 2022 大会的演讲上预测, RISC-V将在未来两到三年内在性能上超越竞争对手的架构
- Mozilla基金会发布了2021-2022年的 State of Mozilla 报告
: <https://www.mozilla.org/en-US/foundation/annualreport/2021/>
- Canonical Ubuntu将再次加入了RISC-V Summit
- 世界上第一个建立在RISC-V计算机上的网站: <http://riscv.ighuff.com/>
- Call for Participation: RISC-V Devroom 2023: <https://lists.fosdem.org/pipermail/fosdem/2022q4/003474.html>
- SiFive 开始输出 X280 和 RVV1.0 : support OpenBLAS on the SiFive X280 which is RISC-V Vector 1.0 compliant.
#3825 <https://github.com/xianyi/OpenBLAS/pull/3825>
- Ubuntu 抢先支持了 LicheeRV 开发板:
<https://ubuntu.com/blog/canonical-enables-ubuntu-on-sipeeds-licheerv-risc-v-board>
- 在RVV的讨论中, Bruce Hoult提出: “There is zero RVV 1.0 hardware in the hands of end-users, and so zero software running on it.” : <https://lists.riscv.org/g/tech-vector-ext/message/857>

RISC-V 韩语社区的同步与八卦

- Effinix公司有RISCV Sapphire SoC支持linux
 - 最近支持TinyML 框架 (ML framework for microcontrollers)
 - [RISC-V SoCs | Efinix, Inc. \(efinixinc.com\)](https://www.efinixinc.com/risc-v-socs)
- 郑在俊 (kernel研究会), linux kernel贡献者RISC-V, 公交卡、出书
 - [커널연구회 커뮤니티/기술교육/쇼핑몰/협동프로젝트 \(kernel.bz\)](https://kernel.bz)

RISC-V 日语社区的同步与八卦

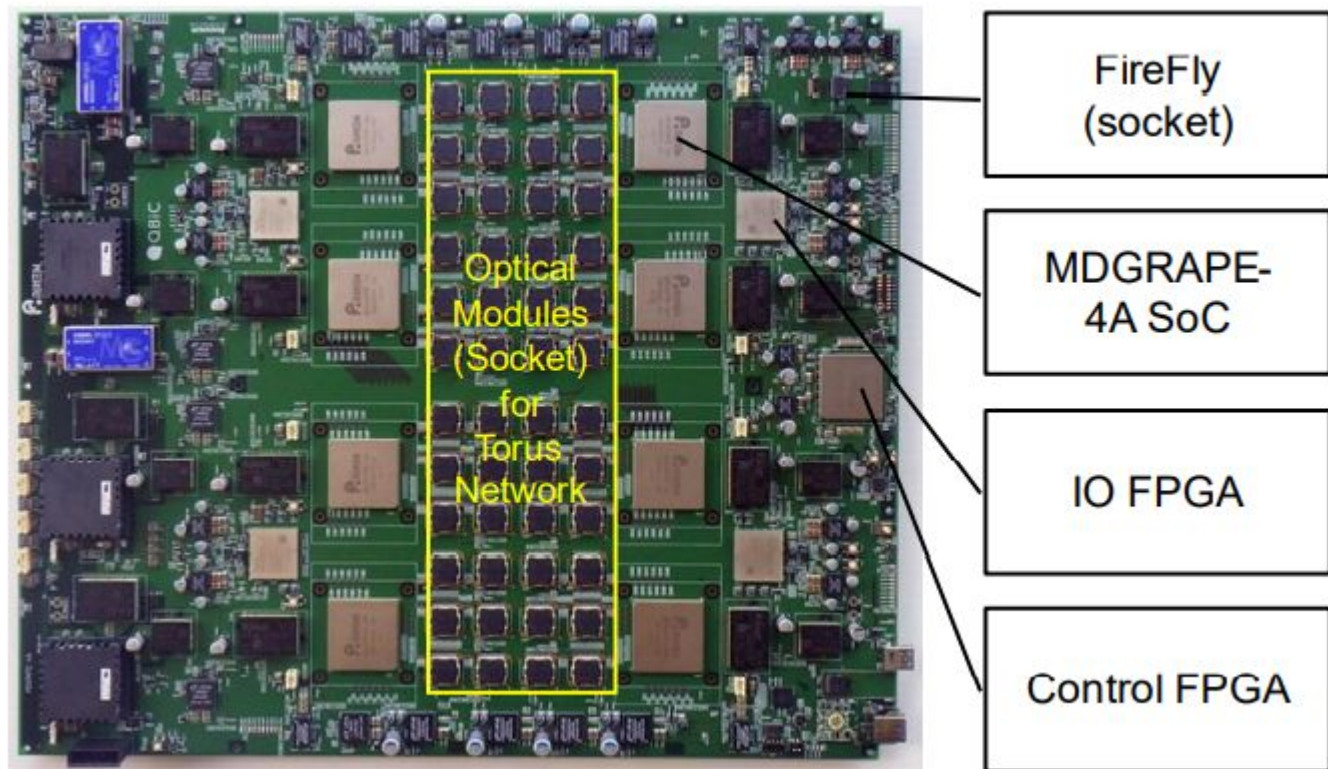
- MD - molecular dynamics
- GRAPE-4 1995, the first TFLOPS machine
- MD - molecular dynamics
- MDGRAPE-3 2006, the first PFLOPS machine
- MDGRAPE-4 2014
- MDGRAPE-4A 2019, 用了RISC-V

Computer System	Elapsed time for single step (μ s)	Performance (μ s/day, dt=2.5fs)
MDGRAPE-4A	200	1
Commodity Cluster	1,000	0.2
GPU	2,000	0.1
Laptop	100,000	0.002

*These are rough order estimate and detailed values are dependent on simulation conditions. Anton, the other special computer developed by D. E. Shaw Research is one or two orders of magnitude ahead of MDGRAPE-4A.

一个node

- 8个SoC



一个SoC

- Global memory 256k
- 2 General Purpose (GP) Cores
- RV32 只用于 GP core, 此外加入了
- Four-way 32-bit fixed-point SIMD unit
- for manipulate 3D vectors
- 主要的运算在Computing Accelerators
 - 64 pipeline processors (PP)
 - Long-range unit (LRU)

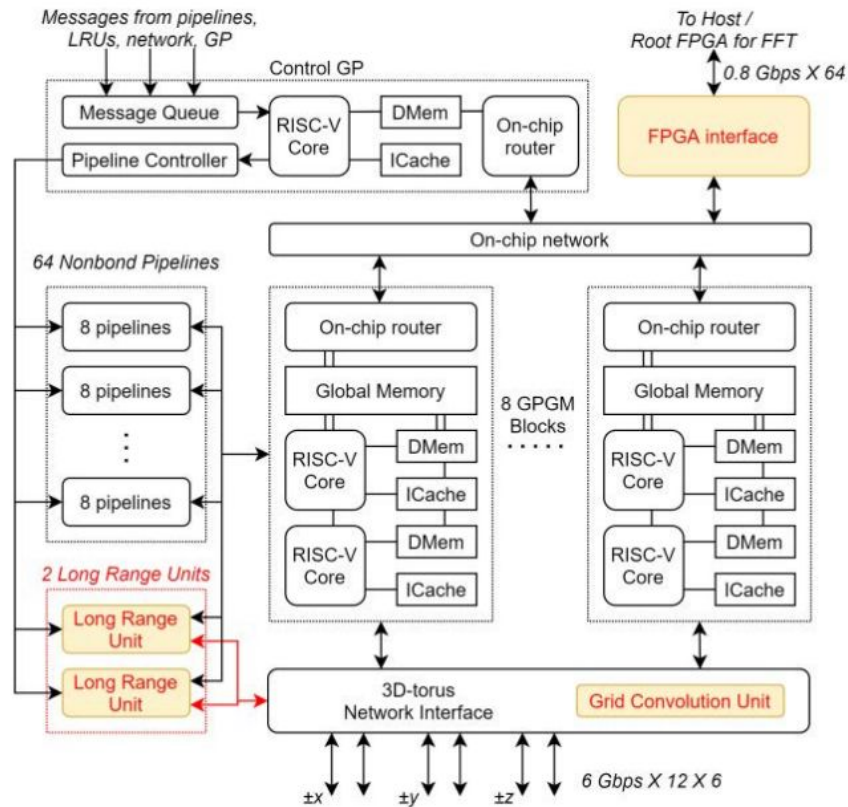


Fig. 1: Block diagram of MDGRAPE-4A SoC. DMem in GPGM and CGP blocks are scratchpad memories of 64 KB and 256 KB, respectively. ICache in GPGM and CGP blocks are instruction cache memories of 64 KB. Other parts are described in the main text.

Advanced from MDGRAPE-4

Message flow (green arrows)

Data flow (blue arrows)

Design: RIKEN and D-Clue Technologies

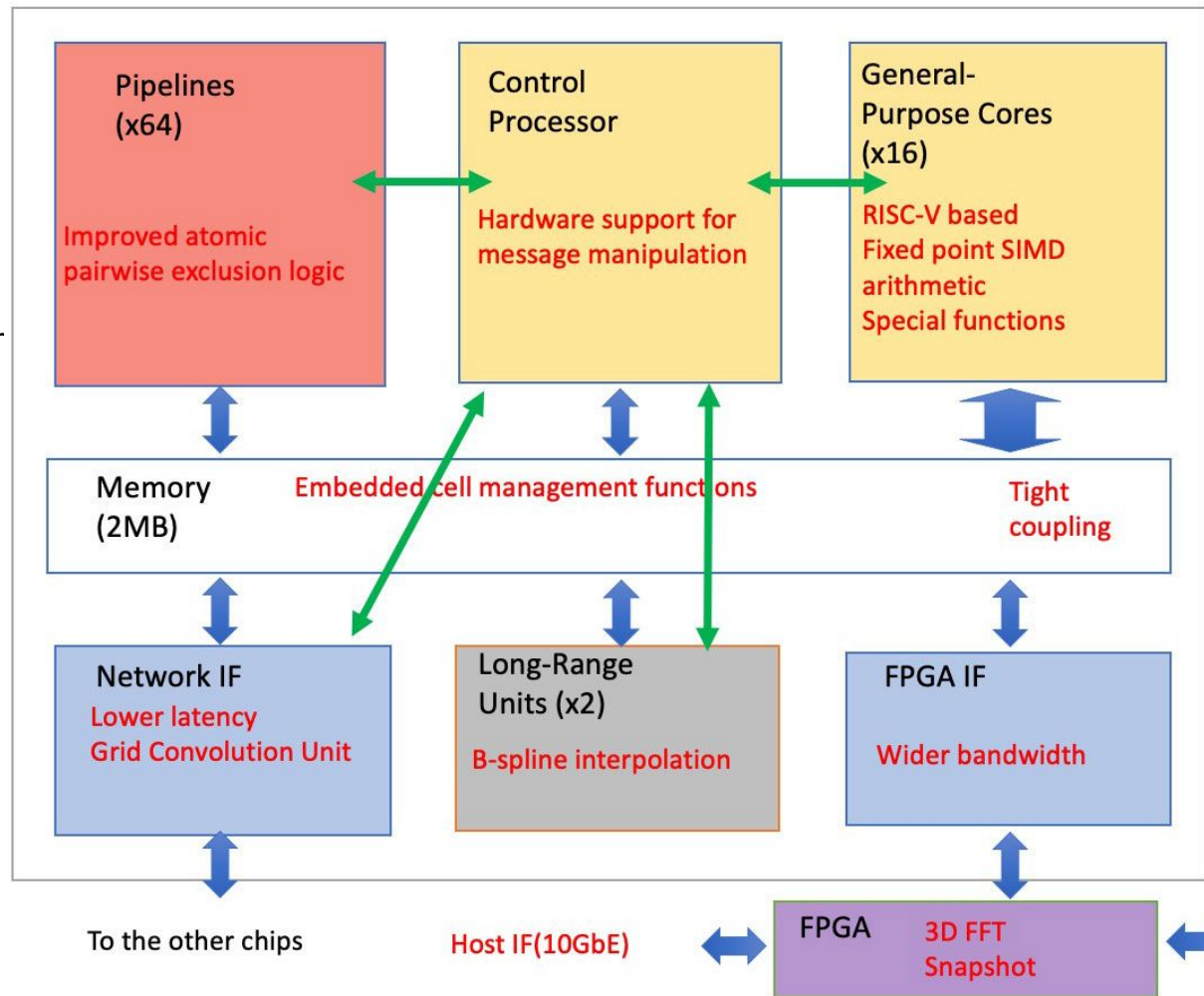
Manufacturer: ALCHIP TSMC 40G 16.28mm

Logic: ~50M gates

SRAM: ~72M bits

Power: 85W

Clock: 0.6GHz, 0.8GHz (pipelines)



- Hornet (TIER IV): 自动驾驶用的 SIMT RISC-V 设计, 面向激光雷达等处理
- (Green500) 下一代 PEZY-SCx 的管理核心基于 Rocket 魔改
 - 从 4-way OoO MIPSr6 变成了 In-Order
 - 7nm プロセス / 1 GHz 動作 → 物理設計完了, 5nm プロセス / 1.5 GHz 動作 → 論理設計中
- 原因: 需要更大的地址空间(奔着 Sv48)
- RISC-V Days Tokyo 2022 Spring & Autumn 有日本特色的内容:
- 「日本信创」与 RISC-V (我が国半導体産業復活の基本戦略、ポストムーアの半導体技術とAIチップ設計拠点の活動)
 - 日本的产业政策、押宝 AI 和超算
 - 官方提供「AIチップ設計拠点」, 用来仿真 RTL 设计
 - 『Emulator上でのRISC-VプロセッサによるLinuxブート』
 - 被仿真的的是一个把神经网络核心塞进流水线的设计 (东工大一色研)
- ArchiTek: 和 SiFive 合作做边缘推理芯片 (AI processor “AiOnlc™”)
- Akaria Processors, compact and low-power CPU “NS11” and application CPU “NS72”
 - NS72 更像有 RVV 1.0 的大核(十级流水, 乱序发射, VLEN 256/512 的向量部件), 有 ECC

RISC-V 俄语社区的同步与八卦

- 沃罗涅日电子工程研究所 (АО «НИИЭТ») 已开始开发基于 RISC-V 架构的微控制器
- Микрон计划在 2023 年初发布第一批基于 RISC-V 架构的微控制器中试产品, 可用于物联网 (IoT) 设备。<https://www.mcu.mikron.ru/>
<https://github.com/iamcsharper/iamcsharper.github.io?>



AOSP for RISC-V - 汪辰、陆旭凡

- Google AOSP upstream PR
Android (RISC-V) Review 双周报 第 4 期 (in Chinese) : <https://zhuanlan.zhihu.com/p/585980181>
 - 对 bionic 的移植工作已经接近尾声
 - Nov/15, RVI Android SIG 月会

support GKI kernel/modules building on Google upstream master

- [use platform_get_irq() to get irq number]([2308369](#)): merged
 - [ANDROID: support gki kernel build for riscv64]([2310347](#)): abandoned and replaced with [ANDROID: GKI: Add 64-bit RISC-V config]([2310710](#))
 - [Initial support for riscv64 kernel build]([2310387](#)): co-work with googler and in reviewing.
 - [ANDROID: Virtual device modules for RISC-V 64-bit]([2308370](#)): co-work with googler and in reviewing.
- RVI Android SIG upstream:
<https://github.com/aosp-riscv/kernel-build/pull/1>
<https://github.com/aosp-riscv/kernel-common-modules-virtual-device/pull/1>
https://github.com/aosp-riscv/kernel_common/pull/1

RISC-V GCC进展

Palmer提交了对-march选项文档说明修改的Patch:

<https://gcc.gnu.org/pipermail/gcc-patches/2022-November/605249.html>

riscv-gnu-toolchain仓库中qemu更新至7.1.0, 支持RVV扩展:

<https://github.com/riscv-collab/riscv-gnu-toolchain/pull/1160>

钟居哲提交了RVV spilling register的修改, 正在进行vsetvl的修改:

<https://gcc.gnu.org/git/?p=gcc.git;a=commit;h=5576518a5667ad826937125a19b7c59c34d8733c>
<https://gcc.gnu.org/git/?p=gcc.git;a=commit;h=a62d957342e3e9ee9bda812f737279f1166e03ba>
<https://gcc.gnu.org/git/?p=gcc.git;a=commit;h=ca73d4c80ea06087d9dd22594e5670bb15e21066>

Christoph 提交了新的Intrinsic命名规则说明:

<https://github.com/riscv-non-isa/riscv-c-api-doc/pull/31>

陈逸轩同学修复了两个gcc回归测试中发现的错误:

<https://gcc.gnu.org/git/?p=gcc.git;a=commit;h=acc205eff4091d761af45f992ab43f8d09cbb5ad>
<https://gcc.gnu.org/pipermail/gcc-patches/2022-November/606975.html>

RISC-V GNU Toolchain双周会slides链接:

https://docs.google.com/presentation/d/19s1ppXz4HXVA_XkCxN3BIPHS_xF-yDJDJdScuzX2TWQ/edit#slide=id.g196321be534_0_50

Clang/LLVM 进展 (PLCT)

1. 逻辑运算替换分支指令 : <https://reviews.llvm.org/D137949>
2. 允许用户以 ABI 名称访问 GPR 寄存器 : <https://reviews.llvm.org/D137508>
3. 允许用户通过名称或 ABI 名称访问 FPR 寄存器 : <https://reviews.llvm.org/D137761>
4. 为模拟器添加RV32F拓展指令集 : <https://reviews.llvm.org/D138447>
5. 减少模板展开次数, 加快编译速度, 降低内存消耗 : <https://reviews.llvm.org/D137041>
6. zc*子扩展中zca, zcd, zcf
 - a. <https://reviews.llvm.org/D130483>
 - b. <https://reviews.llvm.org/D134177>
 - c. <https://reviews.llvm.org/D134176>
7. Flang 解决 rv float underflow flag issue#59132: <https://reviews.llvm.org/D138503>

Clang / LLVM 社区的更新（廖春玉、陆旭凡）

1. D138550 [ELF] Combine .riscv.attributes
2. D138502 [RISCV] Simplify eliminateFrameIndex in advance of reuse [nfc-ish]
3. D138636 [LSR] Hoist IVInc to loop header if its all uses are in the loop header
4. D138369 [MLGO][LoopUnroll] Add logging mechanism for loop partial unroll
5. D138368 [MLGO] Add LoopPropertiesAnalysis pass

QEMU/Spike/Sail/ACT进展 (PLCT)

- Spike
 - Zc*扩展支持已合并至上游
 - <https://github.com/riscv-software-src/riscv-isa-sim/pull/1141>
 - <https://github.com/riscv/riscv-opcodes/pull/107>
- QEMU
 - Zc*扩展更新到v5版本
 - <https://github.com/plctlab/plct-qemu/tree/plct-zce-upstream-v5>
- ACT
 - CMO支持进行了更新
 - <https://github.com/riscv-non-isa/riscv-arch-test/pull/226>

gem5 进展 (PLCT)

V8 for RISC-V 更新(邱吉、陆亚涵)

- Port 上游更新
 - 4031878: [riscv] Implement target_builtin_at func | <https://chromium-review.googlesource.com/c/v8/v8/+4031878>
 - 4041646: [riscv][regalloc] Resolve tail-call gap moves | <https://chromium-review.googlesource.com/c/v8/v8/+4041646>
 - 3866190: [assembler] Introduce RelocInfo::NEAR_BUILTIN_ENTRY | <https://chromium-review.googlesource.com/c/v8/v8/+3866190>
- Bug修复
 - 4032017: [riscv64] fmv_x_w should use sext32 to extend rd. | <https://chromium-review.googlesource.com/c/v8/v8/+4032017>
 - 4032016: [riscv64] Fix failed: vector[] index out of | <https://chromium-review.googlesource.com/c/v8/v8/+4032016>
 - 4050268: [riscv] Fix vector move | <https://chromium-review.googlesource.com/c/v8/v8/+4050268>
 - 4039240: [riscv] Optimize ComputeCodeStartAddress func | <https://chromium-review.googlesource.com/c/v8/v8/+4039240>

Spidermonkey for RISC-V更新（邱吉、陆亚涵）

- Spidermonkey 正式开始upstream流程
 - Upstream Url: <https://phabricator.services.mozilla.com/D161986?id=647929>
- Test Status:
 - **jit-test:** [9996 pass| 21 failed| 12 timeout| 0 ignore]
 - **jstests:** [44270 pass| 2failed| 1 timeout| 6684 ignore]
 - **jsapi-tests:** 4 unexpected failures.

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

1. Authored jdk-mainline PRs:

- <https://github.com/openjdk/jdk/pull/11130> (8296916: RISC-V: Move some small macro-assembler functions to header file)

2. Co-authored jdk-mainline PRs:

- <https://github.com/openjdk/jdk/pull/10907> (8291555: Replace stack-locking with fast-locking)
- <https://github.com/openjdk/jdk/pull/11044> (8139457: Array bases are aligned at HeapWord granularity)

3. Reviewed jdk-mainline PRs:

- <https://github.com/openjdk/jdk/pull/11010> (8296448: RISC-V: Fix temp usages of heapbase register killed by MacroAssembler::en/decode_klass_not_null)
- <https://github.com/openjdk/jdk/pull/11051> (8296301: Interpreter(RISC-V): Implement -XX:+PrintBytecodeHistogram and -XX:+PrintBytecodePairHistogram options)
- <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/11058> (8296602: RISC-V: improve performance of copy_memory stub)
- <https://github.com/openjdk/jdk/pull/11076> (8296630: Fix SkipIfEqual on AArch64 and RISC-V)
- <https://github.com/openjdk/jdk/pull/11085> (8296771: RISC-V: C2: assert(false) failed: bad AD file)
- <https://github.com/openjdk/jdk/pull/11155> (8296975: RISC-V: Enable UserVA20U64 profile by default)

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)

5. Familiarize myself with Generational ZGC:

- <https://bugs.openjdk.org/browse/JDK-8272979>
- https://github.com/openjdk/zgc/tree/zgc_generational

OpenJDK for RISC-V 更新(RV32/PLCT 史宁宁)

PR:

1、Fix the error reg in enc_cmpUEqNeLeGt_imm0_branch_long

<https://github.com/openjdk-riscv/jdk11u/pull/565>

2、Fix the call_VM_leaf in riscv32.ad

<https://github.com/openjdk-riscv/jdk11u/pull/568>

3、Fix the error in pr461

<https://github.com/openjdk-riscv/jdk11u/pull/569>

4、Add 64bit support for implementation() in riscv32.ad

<https://github.com/openjdk-riscv/jdk11u/pull/570>

5、Fix the param type in castX2P of riscv32.ad

<https://github.com/openjdk-riscv/jdk11u/pull/571>

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

Merged & New JDK-mainline PRs:

- <https://github.com/openjdk/jdk/pull/11344> | (8297549: RISC-V: Support vloadcon instruction for Vector API)

Reviewed JDK-mainline PRs:

- <https://github.com/openjdk/jdk/pull/11239> | (8297238: RISC-V: C2: Use Matcher::vector_element_basic_type when checking for vector element type in predicate)

Vector-API support:

- [RISC-V: Add vector_signum_rvv function](#)
- [RISC-V: Add SignumVF/SignumVD node for Vector API](#)

Articles update (in Chinese):

- <https://zhuanlan.zhihu.com/p/585962713> | (How to run OpenJDK Vector incubator JMH tests)

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

Merged & New JDK-mainline PRs:

- <https://github.com/openjdk/jdk/pull/11239> | (8297238: RISC-V: C2: Use Matcher::vector_element_basic_type when checking for vector element type in predicate)

Vector-API support:

- [RISC-V: Matcher::min_vector_size Support vector api load/store mask.](#)

OpenJDK8 backporting (章翔)

- javac调试以及删除冗余代码
- <https://github.com/zhangxiang-plct/jdk8u/pull/155>
- <https://github.com/zhangxiang-plct/jdk8u/pull/156>
- <https://github.com/zhangxiang-plct/jdk8u/pull/157>
- <https://github.com/zhangxiang-plct/jdk8u/pull/158>
- <https://github.com/zhangxiang-plct/jdk8u/pull/159>
- <https://github.com/zhangxiang-plct/jdk8u/pull/160>
- <https://github.com/zhangxiang-plct/jdk8u/pull/161>
- <https://github.com/zhangxiang-plct/jdk8u/pull/162>
- <https://github.com/zhangxiang-plct/jdk8u/pull/163>
- <https://github.com/zhangxiang-plct/jdk8u/pull/164>
- <https://github.com/zhangxiang-plct/jdk8u/pull/165>
- <https://github.com/zhangxiang-plct/jdk8u/pull/166>
- <https://github.com/zhangxiang-plct/jdk8u/pull/167>
- <https://github.com/zhangxiang-plct/jdk8u/pull/168>
- <https://github.com/zhangxiang-plct/jdk8u/pull/169>
- <https://github.com/zhangxiang-plct/jdk8u/pull/170>
- <https://github.com/zhangxiang-plct/jdk8u/pull/171>
- <https://github.com/zhangxiang-plct/jdk8u/pull/172>
- <https://github.com/zhangxiang-plct/jdk8u/pull/173>
- <https://github.com/zhangxiang-plct/jdk8u/pull/174>
- <https://github.com/zhangxiang-plct/jdk8u/pull/175>

教程: [构建aarch64 for OpenJDK8 core](#)

- C1&C2调试

- <https://github.com/zhangxiang-plct/jdk8u/pull/178>
- <https://github.com/zhangxiang-plct/jdk8u/pull/179>
- <https://github.com/zhangxiang-plct/jdk8u/pull/180>
- <https://github.com/zhangxiang-plct/jdk8u/pull/181>
- <https://github.com/zhangxiang-plct/jdk8u/pull/182>
- <https://github.com/zhangxiang-plct/jdk8u/pull/183>
- <https://github.com/zhangxiang-plct/jdk8u/pull/184>
- <https://github.com/zhangxiang-plct/jdk8u/pull/185>
- <https://github.com/zhangxiang-plct/jdk8u/pull/186>
- <https://github.com/zhangxiang-plct/jdk8u/pull/187>
- <https://github.com/zhangxiang-plct/jdk8u/pull/188>
- <https://github.com/zhangxiang-plct/jdk8u/pull/189>
- <https://github.com/zhangxiang-plct/jdk8u/pull/190>
- <https://github.com/zhangxiang-plct/jdk8u/pull/191>
- <https://github.com/zhangxiang-plct/jdk8u/pull/192>
- <https://github.com/zhangxiang-plct/jdk8u/pull/193>
- <https://github.com/zhangxiang-plct/jdk8u/pull/194>
- <https://github.com/zhangxiang-plct/jdk8u/pull/195>
- <https://github.com/zhangxiang-plct/jdk8u/pull/196>
- <https://github.com/zhangxiang-plct/jdk8u/pull/197>
- <https://github.com/zhangxiang-plct/jdk8u/pull/198>
- <https://github.com/zhangxiang-plct/jdk8u/pull/199>

openEuler RISC-V

- PR: [+90 \(中间仓: 1 src-oe: 89\)](#)

- Init package: python-stuf、iopmg、gpac、kf5-kcalendarcore、mold、kf5-syndication、plasma-milou、plasma-nm
- Fix: [etcd](#)
- Upgrade: 22
- 合规性修复: 54

- other

- [aria2](#)、[bazel](#)、[oesuite](#)
- [Electron](#) (共20; succeeded: 19; failed: 1)
- [qt6及相关软件包](#) (共49; succeeded: 19; unresolvable: 28; failed: 1)
- [compiler-rt 15](#)、[clang15](#) build succeeded
- upgrade [VLC to 3.0.18-1](#)
- [KDE](#): (共186; succeeded: 176; unresolvable: 8; failed: 2)

- 软件包版本

Toolchain gcc-12.1.1-3 / glibc-2.36-10
binutils 2.37-6
libffi 3.4.2-2
libmpc 1.2.0-2
gmp 6.2.1-3
rust 1.60.0-5 → 1.62.1(✓) → 1.65.0(updating)
java-latest-openjdk-18.0.2.9-0 → 19.0.0.36-1(✓)
llvm/clang 12.0.1-2 → 13.0.1(✓) → 14.0.5(✓) → 15.0.4(✓)
python 3.10.2-4
perl 5.28.0-435 → 5.34.0(✓)
golang 1.17.3-3
nodejs 16.14.2-1
qt5 → qt6

Gentoo for RISC-V 的情况更新 (Gentoo 小队)

- Support statistics (8023/19592, 40.95%) : <https://whale.plctlab.org/riscv/support-statistics/>
- A total of 98 keywording commits: <https://whale.plctlab.org/riscv/RISC-V-双周会/20221124/commits.txt>
 - dev-java/openjdk: rekeyword riscv 17.0.5_p8 gentoo@gentoo@83331e9
 - Bug: <https://bugs.gentoo.org/878441>
 - net-misc/remmina: keyword riscv 1.4.27 gentoo@gentoo@1c34ab8
 - net-p2p/qbittorrent: keyword 4.4.5-r1 for ~riscv gentoo@gentoo@c726123
 - sci-astronomy/stellarium: Keyword 1.1 riscv gentoo@gentoo@2f5d4b8
- **riscv** overlay
 - sys-firmware/u-boot-bin: version bump, 2022.10 gentoo/riscv@1b126b3
- WIP
 - sys-cluster/ceph: still need to fix bugs
 - app-office/libreoffice: pushing to the main portage tree, bug: <https://bugs.gentoo.org/881389>
 - pangolin and orb_slam3, pangolin: alexfanqi/riscv@b6f6fac

Arch Linux RISC-V (东东、潘瑞哲)

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

Report generated on: 20221124

Package update count: 2341

Distinct package update count: 1797

[core] 254 / 261 (97.31%)

[extra] 2843 / 3075 (92.45%)

[community] 8751 / 9791 (89.37%)

Highlight packages:

linux - 6.0.7.arch1-1 --> 6.0.9.arch1-1
firefox - 105.0.3-1 --> 107.0-1
qt6-webview - 6.4.0-1 --> 6.4.1-1
qt6-webengine - 6.4.0-5 --> 6.4.1-1
rust - 1:1.64.0-2 --> 1:1.65.0-1
rust-analyzer - 20221031-1 --> 20221121-1
racket - 8.6-1 --> 8.7-1
nodejs - 18.11.0-2.2 --> 19.1.0-1
mariadb - 10.9.3-3 --> 10.9.4-2
qt5-wayland - 5.15.7+kde+r49-1 -->
5.15.7+kde+r53-1
kotlin - 1.7.20-1 --> 1.7.21-1
sqlite - 3.39.4-1 --> 3.40.0-1
graphviz - 7.0.0-1 --> 7.0.1-2

Fedora for RISC-V (傅炜)

- RPM packaging
 - [rawhide/F38] 【On Going】[\[https://openkoji.iscas.ac.cn/repos/fc36dev/\]](https://openkoji.iscas.ac.cn/repos/fc36dev/) as build repo
 - Libffi (on going)
 - Rpm-list-builder for Python v3.11 upgrade 接近尾声, will upstream yaml 实现无痛升级
- 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) 文档化中 [perl-bootstrap koji 调研][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 1.65 (blocked) / 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】and 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 kernel patches analysis
- Team document: https://github.com/fedora-riscv/Fedora_riscv_devel_docs 持续更新中
- Koji deployment docs and scripts :
 - https://gitee.com/etux/koji_tools , 一键批量部署实现
 - <https://openkoji.iscas.ac.cn/koji/hosts>

Debian for RISC-V I(于波)

- [Build status&news](#)

1. Installed: 15300+ (python3.11 transitions)

2. [Udd FTBFS packages](#) ~298

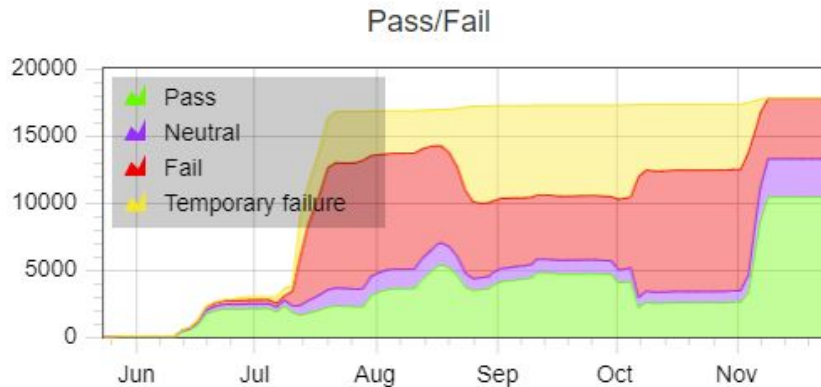
3. Official port news

- [Debci update](#)

[Britney's Job History](#)

- Some works

1. <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1023861> [libunwind nmu]
2. <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1023924> [9base QA RC done]



Debian for RISC-V II

3. <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1023946> [rdiff-backup update done]
4. <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1022176> [jpy ftbfs done]
5. <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1024041#20> [mariadb-10.6 patch]
6. <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1024210> [dbus-python patch]
7. <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1024366> [gimp-gap QA done]
- 8*. <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1024548> [C::B NMU done]
9. <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=1024680> [pydevd patch]

Deepin for RISCV

deepin-rv-stage2:

succeeded: 4047
failed: 184
unresolvable: 1093
blocked: 1219
building: 1

obs提交:

<https://build.tarsier-infra.com/project/requests/home:revy:deepin-riscv-stage2> Requests in state = accepted

Github提交:

<https://github.com/deepin-community>

netkit-telnet guvcview gloox lyx biometric-authentication xfonts-75dpi xfonts-100dpi xfonts-base superlu-dist recode bats qt-gstreamer

文章:

[obs经验分享](#)

[github修包经验分享](#)

FW相关更新（王翔）

❖ opensbi

- sbi_ecall_replace.c中存放了很多扩展实现，拆分成单独的文件
- sbi debug console支持，还有内存权限的问题
- ae350头文件防止重复引用
- allwinner删除多余的头文件
- allwinner移除奇怪的类型转换
- 连接脚本优化对齐
- 修正macos下makefile中echo -e无效的问题
- 修正makefile中计算平台父目录的bug，替换字符串可能出现非法目录，改为通过shell获得
- sbi_domain的一些修改：优化mmio匹配；添加in_region优化sbi_domain_memregion_init和is_region_subset；修正is_region_valid，当移位为__riscv_xlen时移位操作没执行出错

固件相关更新(洛佳)

- SBI标准变动提案(prs组)
 - 调试接口我打算投赞成票(虽然技术上不好, 但有人用), uefi deprecate sbi我打算投反对票(sbi可支持各大引导程序, 并不形成竞争关系)
- fast-trap优化: 上下文切换通路更多, 尽可能少破坏空间局部性, 延迟更低
 - rustsbi的延迟仅有opensbi的47%, 且多核下表现稳定
 - rustsbi真实硬件上的综合延迟降低61%, 模拟器上降低33%。与vectored trap相比, vector traps真实硬件只能降低21%。
 - 可用于固件和内核开发, 链接: <https://github.com/YdrMaster/fast-trap>
- SBI测试和跑分用内核: 因为fence指令很难测试正确性, 就假设可能刷新的全部被刷新, 这种模型下可以做出专用的模拟测试系统(或者和硬件结合的测试系统)
- 适配原型设计系统: 已有unmatched主板
 - 计划中: Intel Horse Creek主板、某服务器主板、某集群计算方案
- 启动S态应用(包括操作系统内核和引导程序), 分为直接启动、LinuxBoot和UEFI
 - 直接启动可启动zCore、rCore和各类科研内核, LinuxBoot可启动Ubuntu和OpenWrt, 希望支持openEuler。目前还没有UEFI软件。

香山开源RISC-V处理器 - ICT / PCL

- 南湖流片进展
 - 定位最近 SPEC 的性能上升源自于 PTW 的缓存策略
 - 继续推进双核在 FPGA 上的验证工作
 - 调试更多外设, 目标在 FPGA 上连接 GPU 启图形界面
- 昆明湖开发进展
 - 前端: Loop Cache 设计与优化方案确定, RTL 初步功能点测试正常; 继续调优 FDIP、调研 L2 BTB 的设计
 - 后端: 发射前读改后读基本完成, 即将改为同步读寄存器堆设计
 - 访存: 设计 Decoupled LQ 方案和 L1 分 Slice 的方案
 - 缓存: Coupled L2 主干设计完成, 接入 tl-test 开始验证

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>

Update

- [VP] Add support for vp.inttoptr & vp.ptrtoint - <https://reviews.llvm.org/D137169>
- [mlir] Initial MLIR VP intrinsic integration test on host and RVV emulator. - <https://reviews.llvm.org/D137816>

WIP

- MLIR Vector Dialect Dynamic Vector Length Support Proposal
- Add more VP intrinsic integration test cases (fixed & scalable vector)

Chisel and Additional Technology / Sequencer

- Vector <https://github.com/sequencer/vector.git>
 - Build System 迁移到Nix
 - 测试框架基本鲁棒
- RocketChip更新到Scala 2.13
- slang接入Chisel实现自动blackbox
 - <https://github.com/chipsalliance/chisel3/pull/2851>
- 通用序列化 API
 - <https://github.com/chipsalliance/chisel3/pull/2857>
- TSN28HPC PLL Schematic 设计
 - Inhouse Design

OpenHW & OpenHW Aisa Working Group

- fix v1 alu指令的编码错误
: <https://github.com/openhwgroup/corev-llvm-project/pull/22>
- AWG月度工作会议(本周六上午8:30)
 - 欢迎参加 [Zoom](#)
 - 欢迎添加日程 [agenda](#)

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

