

Status Report #4

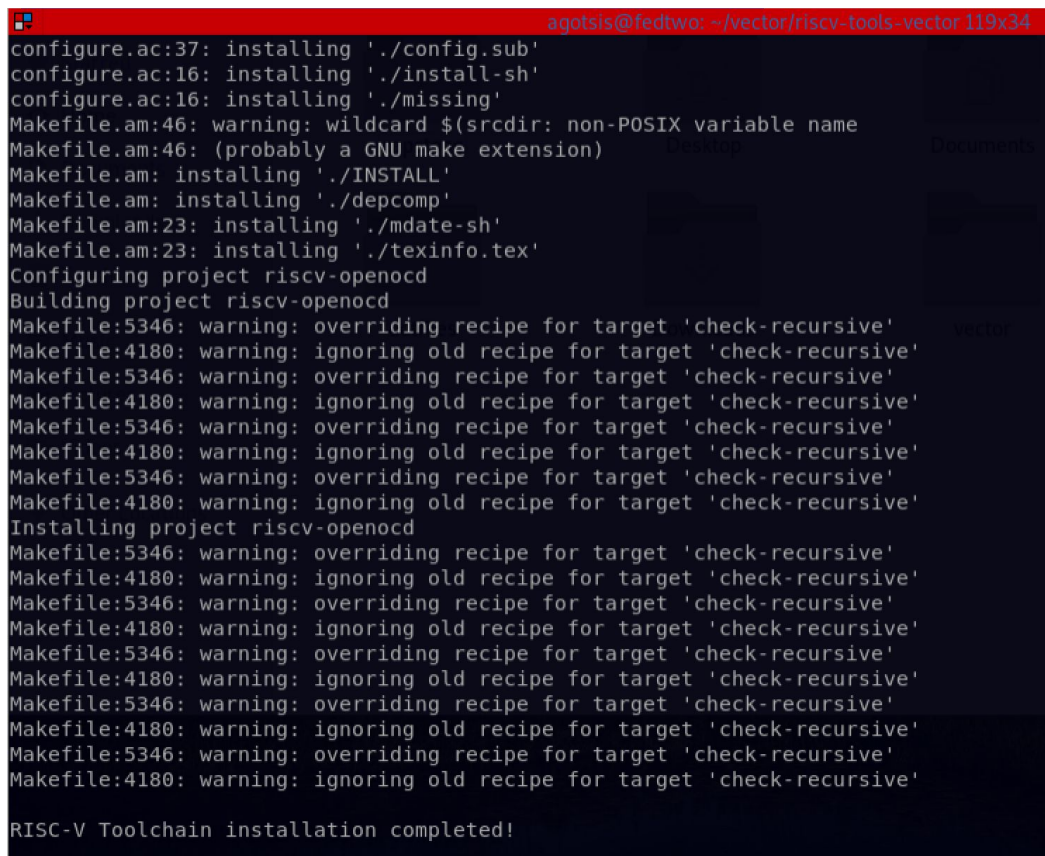
Alex Gotsis (agotsis)

Wannabee Larabee - Team A3

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Accomplishments

The big accomplishment this week was finishing the integration of the changes necessary for riscv-gcc to properly translate intrinsics to vector instructions, and succeed in getting GCC to compile. This might not sound like a lot of work, but trust me, it was quite an endeavor. It took a lot of arcane configuration changes and understanding of the build process on top of adding the vector instructions. See below for a screenshot of a completed compilation.

A screenshot of a terminal window with a red title bar. The title bar text is 'agotsis@fedtwo: ~/vector/riscv-tools-vector 119x34'. The terminal output shows the installation process of the RISC-V toolchain. It starts with 'configure.ac:37: installing './config.sub'', followed by 'configure.ac:16: installing './install-sh'', and 'configure.ac:16: installing './missing''. Then, 'Makefile.am:46: warning: wildcard \$(srcdir: non-POSIX variable name (probably a GNU make extension)' is shown, followed by 'Makefile.am: installing './INSTALL'', 'Makefile.am: installing './depcomp'', 'Makefile.am:23: installing './mdate-sh'', and 'Makefile.am:23: installing './texinfo.tex''. The next steps are 'Configuring project riscv-openocd', 'Building project riscv-openocd', and then a series of 'warning: overriding recipe for target 'check-recursive'' and 'warning: ignoring old recipe for target 'check-recursive'' messages from 'Makefile:5346:' and 'Makefile:4180:'. Finally, it says 'Installing project riscv-openocd' and repeats the same warning messages. The last line is 'RISC-V Toolchain installation completed!'.

Schedule

I do believe that we are on schedule; right in line with our Gantt chart. My steps for the next week will be to validate that the compiled version does indeed spit out vector instructions when asked. We also need to work a little bit more as a team on what our benchmarks will be, and I need to get to work on preparing those. We will also likely start testing the array of cores we have up and running.