

okay, thanks a lot, now, what you think about the old 8048 MCU? I think its TOO challenging to fit such RV32E simulator in it as it has limited address space, I dont think it can fit into 4kB, possibly my goal and wish is to have max 8kB interpreter... any thought?



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You are correct that fitting an RV32E simulator into an 8048 MCU with limited address space would be a challenging task. The 8048 has a maximum addressable memory of only 4KB, which would make it difficult to fit even a minimalistic RV32E interpreter into such a small space.

If your goal is to have a maximum 8KB interpreter, then you may want to consider using a slightly more modern MCU with more memory and processing power. For example, the ATmega328P used in the popular Arduino Uno board has 32KB of flash memory and 2KB of SRAM, which should be sufficient to implement a compact RV32E interpreter. Similarly, the PIC18F45K22 has 32KB of flash memory and 2KB of RAM, and could also be a good candidate for this task.

That being said, it may still be possible to implement a simplified version of the RV32E interpreter on the 8048, depending on the specific requirements of your application. You could consider using a subset of the RV32E instruction set, or implementing the interpreter in a more compact way (e.g. using compressed instructions or optimized data structures). However, this would likely require a significant amount of optimization and careful coding to fit within the limited address space of the 8048.

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