

Cortex-M3 Based Virtual Platform Implementation for Software Development

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Abstract : In this paper, we present Cortex-M3 based virtual platform which can virtualize wearable hardware platform and evaluate hardware performance. Cortex-M3 is very popular microcontroller in wearable devices, hardware sensors and display devices. This platform can be used to implement software layer for specific hardware architecture. By using the proposed platform the software development process can be parallelized with hardware development process. We present internal mechanism to implement the proposed virtual platform and describe how to use the proposed platform to develop software by using case study which is low cost wearable device that uses Cortex-M3.

Keywords : electronic system level design, software development, virtual platform, wearable device

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