

This paper presents an environment based on SystemC for architecture specification of programmable systems. Making use of the new architecture description language ArchC, able to capture the processor description as well as the memory subsystem configuration, this environment offers support for system-level specification, intended for platform-based design. As a case study, it is presented the memory architecture exploration for a simple image processing application, yet a more robust environment evaluation is performed through the execution of some real-world benchmarks.