Abstract

Actually, multiprocessor architecture is one of the solutions to fulfill the heavy computational requirements of the new applications running on embedded systems such as multimedia and 3D games. The design of such systems pose various problems located at different levels: architecture topology, lack of multiprocessor RTOS. Hence, we suggest in this paper a new topology of multiprocessor architecture as well as a generic layer of inter-processor communication which allows the adaptation of the single processor operating systems to multiprocessor architectures.

Finally, we round off this article by a comparison between some possible
architecture for the design of a system. Those experiments are made through the 3D images synthesis application.

Reference


Index Terms

Computer Science Multiprocessors

Key words

multiprocessor architecture
architecture topology
multiprocessor RTOS
3D images synthesis application