

Download Multicore And Gpu Programming An Integrated Approach

A graphics processing unit (GPU) is a specialized electronic circuit designed to rapidly manipulate and alter memory to accelerate the creation of images in a frame buffer intended for output to a display device. GPUs are used in embedded systems, mobile phones, personal computers, workstations, and game consoles. Modern GPUs are very efficient at manipulating computer graphics and image processing. This paper presents the research work on multicore microcontrollers using parallel, and time critical programming for the embedded systems. Due to the high complexity and limitations, it is very hard to work on the application development phase on Leonel Sousa, INESC-ID, IST, Universidade de Lisboa, Department of Electrical and Computer Engineering, Faculty Member. Studies Computer Architecture, High Performance Computing, and Embedded Systems. Leonel Sousa received a Ph.D. degree in GPS Solut (2010) 14:207–216 DOI 10.1007/s10291-009-0135-2 ORIGINAL ARTICLE A GPU based real-time GPS software receiver Thomas Hobiger Æ Tadahiro Gotoh Æ Jun Amagai Æ Yasuhiro Koyama Æ Tetsuro Kondo Received: 7 May 2009 / Accepted: 7 July 2009 / Published online: 8 August 2009 Ó Springer-Verlag 2009 Abstract Off-the-shelf graphics processing units provide Introduction low-cost massive ...