Abstract

It has been widely seen that multimedia application has increased in hand held devices such as mobile devices, cellular phones, PDA’s, mobile audio / video player etc. These embedded devices and applications need a huge amount of power to function so improvement in power in these devices has turned out an important issue. This paper presents a novel approach for reducing the bit-width of the data used for the dynamic reconfiguration of the hand
Static Power Optimization for Reconfiguration of Hand Held Devices

held devices. Run time dynamic reconfiguration of hand held devices to maximize power according to user is a significant area for research. Remote reconfiguration is possible only when Request Processing Time is less. This is achievable only when majority of optimizations is performed statically. The bit streams available after the static analysis and preprocessing are used further for dynamic optimizations which will greatly reduce the runtime of the applications which further reduces the power consumed by the devices. Thus the paper aims to propose a new set of preprocessing algorithm in which the variables are identified based on different usage patterns and the generated bit stream is further compressed using the Huffman compression and Dynamic Huffman Coding.

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**Index Terms**

Computer Science          Wireless

**Key words**

Dynamic Reconfiguration

Request Processing Time

QIBO

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Critical Variables

Non-Critical Variables