Embedded Software Optimization for MP3 Decoder

Implemented on General-Purpose Embedded Processor

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Abstract: This paper proposes a software optimization flow on embedded platform, which mainly includes algorithm optimization, implementation optimization and platform-based optimization. This flow is applied to the optimization of the MP3 decoder on the low power general-purpose embedded processor ARM platform. The last optimized decoder requires 26.2MIPS and 70Kbytes memory space to decode 128Kbps, 44.1Hz joint stereo MP3 format file in real time.

Key words: Embedded System, Software Optimization, MP3 Decoder

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