Parallelization of video compression with OpenMP and ffmpeg*

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Abstract

The application of data compression has an increasing importance in the data transfer on digital networks. In the case of real time applications the limitations of these techniques are the compression/decompression time and the bandwidth of the network. In multicore environment the compression/decompression time is reducible with parallelism. OpenMP [1] (Open Multi-Processing) is a powerful API (Application programming Interface) that allows to add parallelism into existing source code. It is available in most modern FORTRAN and C/C++ compilers. H.264 [2, 3] is currently one of the most commonly used video compression format. Freeware version of H.264 is available in ffmpeg library [4]. This paper describes the use of OpenMP and ffmpeg library in real time video transfer on digital networks.

Keywords: OpenMP, H.264, ffmpeg

References

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