

Modern graphic cards are no longer limited to 3D image rendering. Frameworks such as OpenCL enable developers to harness the power of many-core architectures for general-purpose data-processing. This thesis is focused on elementary primitives often used in database management systems, particularly on sorting and set intersection. We present several approaches to these problems and evaluate results of benchmarked implementations. Our conclusion is that both tasks can be successfully solved using graphic cards with significant speedup compared to the traditional applications computing solely on multicore CPU.