

Code compression has been shown to be efficient in code size reduction and, recently in performance improvement. In this paper we use a compression method, the ComPacket, which has a very fast decompressor in hardware, to compress selective regions of the code (the inner-loops) to improve performance and in the complementary regions we use the instruction based compression (IBC) method to sustain the code size reduction both at the same time. Using the Leon (SPARC v8) platform and benchmarks from Mediabench and MiBench suites we reached 29% of memory area reduction, on average, and a speed-up of 1.8 simultaneously.