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Identification of Parallelism in Handel C

By

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Hardware designed using Hardware Definition Languages (HDLs), such as Handel C, benefit from the exploitation of parallelism. Handel C, is different than traditional HDLs in that it describes the behavior (algorithm) of the system and not the structure. Problems arise in hardware, as well as software development, when inexperienced developers attempt to find parallelism that exists in a behavioral specification. While some simple parallelism is easily identified, it may not provide the performance increase that might be available if less obvious parallelism can be discovered. This work discusses how Handel C is capable of specifying parallelism as well as a tool that has been developed for aiding hardware designers in detecting and exploiting this parallelism.

