Implicit Parallelism vs Explicit Parallelism

Parameter	Implicit Parallelism	Explicit Parallelism
Definition	Implicit Parallelism is defined as characteristics of parallel programming that automatically allow the compiler or interpreter to exploit the parallelism.	Explicit Parallelism is defined as characteristics of parallel programming that execute the concurrent computations with the help of primitives that are in the form of special purpose directives.
Programming Languages used	Implicit Parallelism makes use of conventional programming languages such as C, C++, and Fortran for writing the source code.	Explicit Parallelism requires more programming efforts and makes use of programming languages such as C, C++, Fortran, and Pascal.
Compilation of source code	In Implicit Parallelism, the source program is coded sequentially and then translated into parallel object code by a parallelizing compiler.	In Explicit parallelism, parallelism is explicitly specified in the source code itself.
Resource Allocation	In Implicit Parallelism, parallelism is detected by the compiler and then assigns the resources to the target machine code.	In explicit parallelism, as parallelism is specified explicitly, there is no need for the compiler to detect parallelism, and resources are allocated explicitly.
Programming efforts	Implicit parallelism requires fewer programming efforts by the programmers as compared to explicit parallelism.	Explicit parallelism requires more programming efforts by the programmers as compared to implicit parallelism.
Resource utilization	In Implicit parallelism, resource utilization is less efficient because resource allocation is done by the compiler according to the need.	In Explicit parallelism, resource utilization is more efficient because resources are allocated explicitly and make used of resources more efficiently.

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Scalability	Implicit parallelism is less scalable due to system control.	Explicit parallelism is more scalable as it has programmer control.
Applications	Implicit Parallelism is used in shared memory multiprocessors.	Explicit parallelism is used in loosely coupled multiprocessors.