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Threading APIs and ArBB

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Will I run into interoperability issues with other threading packages?

The runtime is designed to be thread safe within native threading APIs and TBB. ArBB must exist within a single thread of control though.

How can I ensure that my application thread pool and the Ct thread pool are not competing for resources?

Developers can specify the maximum number of threads that ArBB uses. Unlike other parallelism solutions, ArBB dynamically adapts to changes in the availability of underlying thread resources. Ct uses the TBB runtime as its underlying threading runtime, ensuring TBB interoperability. The TBB scheduler ensures that resources are not oversubscribed.

Will I be able to do performance analysis on dynamically compiled code, and will I be able to visualize how code is parallelized?

Yes. Intel® Parallel Studio can be used to find hot spots and create thread profile views of ArBB programs. A performance tuning guide will be available later during beta to assist developers with performance tuning.

Will I have to put a lot of effort into debugging data races?

ArBB is deterministic, i.e., it allows developers to program using sequential constructs without worrying about threading issues such as data races and deadlocks.

How does ArBB work with Intel's other parallel programming analysis tools and other development environments?

Intel's other parallel programming analysis tools and third-party integrated development environments can be used to create, analyze and tune ArBB applications.

How does ArBB use threading?

ArBB is a programming model that introduces implicitly parallel operators on new aggregate data types. ArBB is implemented in standard C++, and is backed by a runtime library which generates code that simultaneously takes advantage of both SIMD and threaded parallelism.

Will I be able to view the contents of Arrays in ArBB?

Yes, but you need to install the debugger addins for windows and linux in order for them to merge seamlessly with your existing debugging tools.

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