



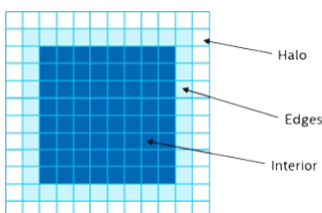
The Interview: Xe, FPGA & oneAPI – What's Up with That?

This Level1Techs conversation chases answers to that exact question with Jeff McVeigh, GM of Intel's Data Center XPU Products & Solutions group. From the "why" to the "how", Jeff and Wendell unpack the depth and breadth of oneAPI developer benefits.

[Watch \[39:05\]](#)

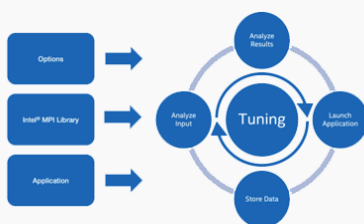
Developer Guide: oneAPI GPU Optimization

Get the best performance for oneAPI applications on GPUs. Includes 11 chapters covering parallelization, DPC++ thread hierarchy and mapping, kernels, memory, compilation, debugging, and more.

[Bookmark it](#)

Step-by-Step Case Study: Offload a C and MPI Application to DPC++

This in-depth study uses a 2D heat equation—a problem commonly used in parallel computing tutorials—to demonstrate the conversion of original code to a DPC++ implementation. Includes illustrations and code samples.

[Get started](#)

Cluster-wide Tuning using `mpitune_fast` Utility

Introducing an optimized utility that allows you to tune cluster or application parameters beyond the defaults and refine them to achieve best performance. Learn what it can do, then get it as part of the [Intel® MPI Library](#).

[Learn how](#)

Customer Showcase: Snapshots of oneAPI-fueled Innovations

- [Pushing Computational Science Beyond Boundaries](#) – Argonne, University of Oregon, and Intel are collaborating to integrate TAU, a toolkit for parallel program analysis, with the oneAPI software stack. Why? For the Aurora supercomputer launch, of course.
- [20x Speedup in DNA Decoding Pipeline](#) – Using DNA as a digital storage medium is a nascent concept pursued by the OligoArchive project. Find out how **Eurecom**—part of the OligoArchive consortium—used DPC++ to reduce DNA decoding from a day to 30 minutes.

- [oneAPI Powers IoT Obstetric Ultrasound Systems](#) – Watch how **Samsung Medison** used the Intel® oneAPI Base Toolkit to accelerate ultrasound image processing for efficient, accurate diagnosis on CPU-, GPU-, and FPGA-based systems. [1:45]
- [Reducing Simulation from 20 Hours to 10](#) – **SimYog Technology**, a start-up in the Electronic Design Automation space, achieved 2x performance improvement in its auto design simulations using [Intel® Advisor](#), part of the Intel® oneAPI Base Toolkit.
- [52x Performance Gain with oneMKL](#) – Actually, it was 52.7x. Intel teamed with **BRODA corporation** to optimize performance of its Random Number Generation (RNG) Sobol algorithm using the [Intel® oneAPI Math Kernel Library](#) (oneMKL) RNG domain.

See all [success stories](#).

Innovator Voices

- **James Reinders**, Sr. Software Engineer, Tech Evangelist, and multi-book author, discusses how [CERN is using Intel® DL Boost and oneAPI](#) to juice inference without losing accuracy
- **Ed Dixon**, Intel Data Scientist, shares multiple ways that [Intel is advancing human and AI collaboration](#), now and in the future.
- **Jim Jeffers**, Sr. Principal Engineer & Sr. Director of Intel Advanced Rendering & Visualization Architecture, announces that [advanced ray tracing APIs may soon be included in the oneAPI specification](#). He also shares how you can be part of the review process.
- **Erik Lindahl**, Biophysics Professor at Stockholm University, takes part in this second [Code Together podcast](#) focused on [porting GROMACS across heterogeneous architectures](#). Using this popular open source molecular dynamics application, Erik and post-doc colleague Andrey Alekseenko continue to explore ways of simplifying portable, performant programming. [23:23]

Technical Training

Code Cookbooks

- [New Chapter] [Intel® Advisor Cookbook](#) – Get the latest recipe for **modeling C++ app performance on a target GPU** in this 13-chapters-and-growing cookbook.

Live Webinars

[Register for one or all](#) of these sessions, offered on Wednesdays at 9 AM Pacific Time. (And if you can't attend, no problem. They're always available on-demand two days after the live event.)

- **Mar 10:** – Be a Cluster Champion! Tune Your Way to MPI Performance.
- **Mar 24** – Using Low-Precision Optimizations for High-Performance DL Inference Applications
- **Mar 31** – Visualize and Tune Heterogeneous Programs

On-Demand Sessions

Watch the most recent sessions at your convenience.

- [Easier Profiling of Cloud, Cluster, and Embedded Systems](#)
- [Accelerate FPGA Programming](#)
- [Maximize Your CPU Resources for XGBoost Training and Inference](#)

