



ARM NEON Programming and Optimization

Summary:

Hidden inside many of the latest ARM Cortex application processors is a sophisticated DSP engine. Fully supported by ARM, GNU and other popular toolchains, this masterclass will provide a detailed introduction to NEON™ technology, before going on to show how it can be applied in software.

Learn how to take advantage of NEON to optimize common signal processing functions used in Filtering, Sample Rate Conversion, Audio and Video Codec applications.

Length:

2 days

Modules:

- ARM Architecture Overview
- NEON Introduction
- NEON Instruction Set
- Compiling for NEON
- Simple Vectorization example
- NEON Micro-architecture
- NEON Coding Examples
- Benchmarking and Performance Analysis
- Benchmarking Example