



VSI/PRO 1.20 FOR 2ND GENERATION INTEL CORE PROCESSORS HAS BEEN AWARDED EDITOR'S CHOICE AWARD FROM MILITARY EMBEDDED SYSTEMS.

"VSI/Pro 1.20" signal- and math-processing library aims to eliminate porting-to-2nd-gen-Intel-Core woes. Compliant with the Vector, Signal, and Image Processing Library (VSIPL) industry standard for DSP and COTS processor-based image- and signal-processing functionality (www.vsipl.org), VSI/Pro 1.20's optimization for Intel 2nd-Gen Core processors includes vectorized libraries incorporating the new 2nd-gen Core's Advanced Vector Extensions (AVX) instruction set, along with the SSE-based performance enhancements."

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VSI/Pro® – The premier math and signal processing library

Performance

Get the most out of your hardware. Optimized to take advantage of single-instruction, multi-data (SIMD) operations on the processors that support AltiVec™, SSE, and AVX. Provides excellent performance optimization for the complete range of DSP applications on PowerPC®/AltiVec (both G4 and G5) and x86/SSE architectures (both 32-bit and 64-bit). Customers have reported a factor of six to eight times performance boost compared to non-SIMD implementations and even up to a 62% performance increase using out libraries with their application!

Portability

Reuse your code. Implements the high-level VSIPL API. Develop your application on the desktop and deploy it on different target hardware systems without changing a single line of code.

Productivity

Compile and load right out of the box. API is designed for portability and performance, and reuse and interoperability, thereby raising the user's productivity while lowering costs.

Platform Independence

Choose your architecture. Support for a number of different operating systems and architectures from VxWorks® on G4/AltiVec™ to x86/Linux on GPUs.

Key Features

- Essential signal processing functionality including FFTs, FIR filters, convolutions and correlations
- Retargetability to diverse processor architectures without rewriting applications
- "Out of the box" productivity through optimized platform support
- Speeds application development with comprehensive debug mode of the library
- Open-standard API makes the development and long-term use of in-house algorithm libraries possible

VSI/Pro Product Line

VSI/Pro

VSI/Pro provides performance-portable signal processing functionality, including FFTs, correlations, convolutions, and linear, vector, and matrix operations to enable real-time and near-real-time applications.

VSI/Pro GPU

VSI/Pro GPU utilizes GPU acceleration to enhance performance while retaining standards-based portability of VSIPL to enable heterogeneous high performance embedded computing on NVIDIA® CUDA™ platforms. AMD® OpenCL™ support targeting additional GPUs including AMD Fusion® architecture available Q3 2012.

VSI/Pro VSIPL++

VSI/Pro VSIPL++ provides the most productive VSIPL++ for sequential VSIPL applications. Based on the VSIPL++ standard, users move incrementally to VSIPL++ while retaining their VSIPL investment.

VSI/Pro Configurations

Platforms: NVIDIA® CUDA™ on x86-64/Linux
x86/Linux
x86-64/Linux
x86-64 on VxWorks 6.9
G4/Altivec™/e600 on VxWorks® 5.5 & 6.x
G4/Altivec™/e600 on Linux
AVX support available on Linux x86-64 & VxWorks 6.9

* Custom builds available upon request

Open Standards

VSI/Pro is fully compliant with the VSIPL (Vector, Signal, and Image Processing Library) standard, as set forth by the VSIPL Forum (www.vsipl.org). VSIPL is an open standard that provides an API (Application Programming Interface) to a library of scalar, vector, linear algebra, matrix and signal processing functions (FFT, Window, Filter and Convolution) targeted towards high performance embedded systems.

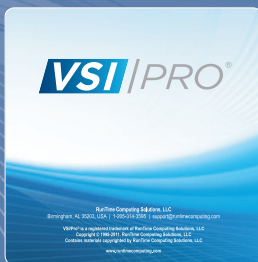


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WHAT DO VSI/PRO USERS HAVE TO SAY?
ON RELIABILITY:

"VSI/Pro from RunTime Computing Solutions, LLC (RTCS) is easily the most flexible and robust high performance math library on the market. VSI/Pro provided me with the solution I needed where other products had failed. The product is so easy to install and use. In addition, the support that we have received from RTCS has been very prompt and effective. I would recommend buying VSI/Pro over other competing math libraries for its professional support, portability, and performance."

— LESTER K. PERLAK,
DSPCon INC.



For More Information www.runtimecomputing.com

Product Data Sheet VSI/Pro

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