Intel® Software Development Products for Intel Platforms and Technologies

# Intel® Integrated Performance Primitives (Intel® IPP)

## Overview

Intel® Performance Libraries offer pre-built library functions optimized for Intel processors, enabling developers to focus on building value-add functionality.

Intel® Integrated Performance Primitives (Intel® IPP) is a cross-platform software library that allows users to write optimized applications that maximize performance on Intel processors. Intel IPP includes functionality for signal and image processing, cryptography, text strings and vector manipulation, matrix math, as well as more sophisticated primitives for construction of audio, video and speech codecs.

## What's New in the Intel Integrated Performance Primitives 4.0

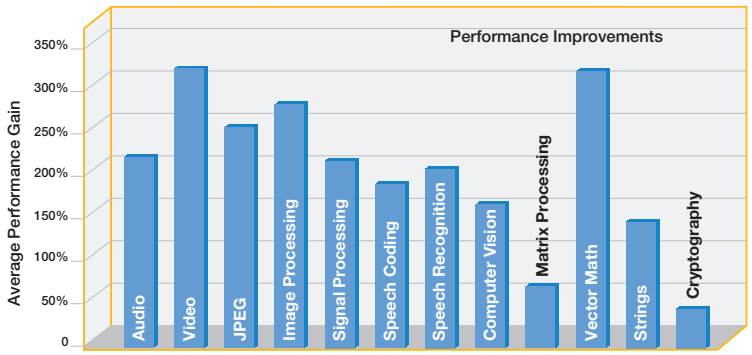
Intel IPP brings together support for Intel® Pentium®, Itanium®, Intel® Xeon™, and Intel® Personal Internet Client Architecture (Intel® PCA) processors into a single package. With a common API across the range of architectures, developers receive platform compatibility, reduced development costs, and ease of application porting. Unique features of each architecture are supported. Intel PCA support represents a subset of the functions for Pentium and Itanium processors.

## Features and Benefits

- **Programming interface** increases software performance on Intel's latest microprocessors, providing time-to-market advantages and reduced development costs. Developers access advanced processor features without having to write processor-specific code
- **Optimized** for Intel Itanium® 2, Intel® Xeon™, and Intel® Pentium® processors, and Intel® Personal Internet Client Architecture (Intel® PCA) processors based on Intel XScale® technology. Developers achieve compatibility with a common application programming interface (API) across the range of architectures, multimedia application
- **Threaded application support,** implemented as a thread-safe library for Pentium and Itanium processor-based environments, means applications can be threaded with the assurance that IPP functions are safe for use in a threaded environment
- **Encoder-decoder samples** accelerate development of applications, components, and codecs. MPEG, H.263, Imaging, MP3, and G.723 are just a few of the areas with aids to build applications faster, making the most of Intel IPP functionality
- **Trial version** is available

For Pentium, Itanium, and Intel Xeon processors, Intel IPP 4.0 introduces two new function domains for cryptography and text string support as well as function expansion for audio, video, speech coding, and speech recognition – plus improved small footprint support. Intel IPP is available for Windows* and Linux* operating systems (32- and 64-bit support). For Intel PCA processors, Intel IPP introduces support for Intel® Wireless MMX™ technology.

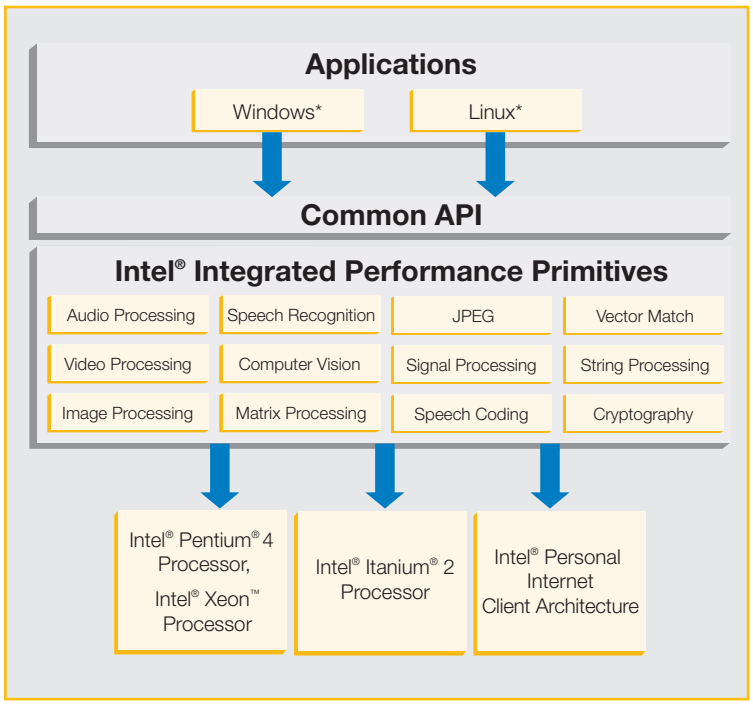
**Intel® Integrated Performance Primitives Application Domains**




All code running on a PC with an Intel® Pentium® 4 processor with HT Technology, 3.0 Ghz, 512 MB using Windows* XP. Performance tests and ratings are measured using specific computer systems and/or components and reflect the approximate performance of Intel products as measured by those tests. Any difference in system hardware or software design or configuration may affect actual performance. Buyers should consult other sources of information to evaluate the performance of systems or components they are considering purchasing. For more information on performance tests and on the performance of Intel products, see www.intel.com

**Performance Improvements of Intel® Integrated Performance Primitives as Compared to Optimized C Code**

Intel® software development products




An extensive variety of encoder-decoder samples has been implemented using Intel IPP functions to help demonstrate the use of Intel IPP and accelerate development of your application, components, and codecs. This sample code is provided under the terms and conditions outlined in the license agreement found with the main Intel IPP 4.0 beta installation package.

PERFORMANCE

## Creates Highly Optimized Applications Running on Intel Processors

Intel IPP is a cross-platform software library that provides a programming interface allowing users to write highly optimized applications to maximize performance on Intel processors, while providing time-to-market advantages. Users can access advanced processor features without writing processor-specific code.

COMPATIBILITY

## Covers a Range of Intel Architectures with One Application Program Interface

Intel IPP is optimized for Intel Itanium 2, Intel Pentium, Intel Xeon processors, and Intel Personal Internet Client Architecture (Intel PCA) processors based on Intel XScale technology. With a single application programming interface (API) across the range of architectures, multimedia application developers achieve compatibility and reduce development costs.

SUPPORT

## Intel® Premier Support

Every purchase of an Intel® Software Development Product includes a year of support services, which provides access to Intel® Premier Support and all product updates during that time. Intel Premier Support gives you online access to technical notes, application notes, and documentation. Install the product, and then register to get support and product update information. You must register for support to gain access to the Cryptography library and sample code.

REQUIREMENTS

## Hardware and Software

Refer to Intel Software Development Products Web site for details on system requirements for Intel® Performance Primitives at www.intel.com/software/products/perflib

Intel provides both the tools and support to enhance the performance, functionality and efficiency of software applications.

Compatible with leading Windows* and Linux* development environments, Intel® Software Development Products are the fastest and easiest way to take advantage of the latest features of Intel processors. Intel Software Development Products are designed for use in the full development cycle, and include Intel® Performance Libraries, Intel Compilers (C++, Fortran for Windows and Linux), Intel® VTune™ analyzers, Intel® Threading Tools and Intel® Cluster Tools.

The Intel® Premier Customer Support Web site provides expert technical support for all Intel software products, product updates and related downloads. **For additional product information visit: www.intel.com/software/products**

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