Intel® Integrated Performance Primitives (Intel® IPP) 6.1

FAQs

Contents

Licensing

For more information, see the Intel® Software Products End-User License Agreement.

How do I get Intel® IPP for Intel® Core™ i7, Intel® Atom™, Intel® Core™ Duo, Intel® Pentium®, Intel® Xeon®, and Intel® Itanium® 2 processors?

Intel IPP is offered as three different products: Intel IPP for Windows*, Intel IPP for Linux*, and Intel IPP for Mac OS*. All three versions are available as part of the Intel® Compiler Professional Editions and Intel® Compiler Suite Professional Edition products. Intel IPP for Windows and Linux are also available as standalone products. Each product includes support for multiple processors, including Intel Core i7, Intel Atom, Intel Core Duo, Intel Pentium, Intel Xeon, and Intel Itanium 2 processors.

Is cryptography for Intel® IPP sold with Intel IPP?

Yes. Cryptography for Intel IPP is part of the main Intel IPP product, but is packaged separately in order to comply with United States export regulations. Cryptography for Intel IPP is available to download for all registered users of Intel IPP.

When I buy a copy of Intel® IPP, can I redistribute the runtime library files (such as lib, DLLs) with my company's software?

Yes. Your purchase of Intel IPP (and updates through the support service subscription) includes redistribution rights. See the end-user license agreement for redistribution details. The static library files can be redistributed as outlined in the end-user license agreement.

What are the redistributable files?

In general, the redistributable files include linkable files (.dll and .lib files for Windows*, .so files for Linux*). With your purchase of Intel® IPP (and updates through the support service subscription), you receive the "ippredist.txt" file, which outlines the list of files that can be redistributed. See the end-user license agreement for redistribution details. The evaluation versions of Intel IPP do not provide redistribution rights.

Do I need to buy an Intel® IPP license for each copy of our software that we sell?

No. There is no royalty fee for redistribution of Intel IPP. Please check the Intel IPP end-user license agreement for more details.

How many copies of my company's application can redistribute the Intel® IPP library files?

You may redistribute an unlimited number of copies of the files that are found in the directories defined in the Redistributables section of the end-user license agreement.

Where can I view a copy of the Intel® IPP product license before making a decision to purchase the product?

You can view the end-user license agreement online.

Are there royalty fees for using Intel® IPP?

No. There is no royalty fee for redistributing the Intel IPP library files with your software. By licensing the Intel IPP product for your developers, you have rights to redistribute the Intel IPP library files with your software for an unlimited number of copies. For more information, please refer to the end-user license agreement.

Does this mean that, if I buy Intel® IPP, I don't have to pay license fees to patent holders related to the functions of Intel IPP?

The Intel IPP software library contains a variety of functions that may be used by developers as they implement products, including products that support various industry standards. Implementations of products in accordance with such standards, or the standard-enabled platforms, may require licenses from various entities, including Intel Corporation. Such licensing is not provided by Intel IPP.

What are the license terms and/or license fees for using Intel® IPP samples?

Intel IPP samples are provided to show how to use Intel IPP functionality. Some of these samples illustrate the use of Intel IPP in implementing functionality defined by industry standards. These samples are not product-feature-complete codec solutions.

When products are built in accordance to industry standards, there is often intellectual-property licensing involved. Such industry standards are international standards promoted by various standards bodies, such as ISO, ITU-T, and other organizations. When companies produce products in accordance with industry standards, they must ensure that they secure the appropriate technology and intellectual property licensing from the standards bodies and other third parties. Intel IPP material provides pointers to the standards bodies. Industry-standard licensing is not provided as part of Intel IPP, nor is it provided with these example illustrations.

How many copies of Intel® IPP do I need to secure for my project team or company?

The number of Intel IPP copies that you need is determined by the number of developers who are writing code, compiling, and testing using Intel IPP API, as well as the number of build machines involved in compiling and linking, thereby needing the full development tools file set of Intel IPP. For example, two developers with up to eight build-and-test machines at any given time would require eight copies.

How do floating licenses work with Intel® IPP?

Floating licenses for Intel IPP are intended to accompany the use of floating licenses for the Intel® compilers, (i.e. a developer using the floating license for Intel IPP is assumed to be doing so while using a floating license for the Intel compiler). Floating licenses are not available for the standalone IPP products. Please check the Floating License section of the Intel IPP End-User License Agreement for more information.

Threading

Does Intel® IPP support multithreading? Is it thread-safe?

Yes. Intel IPP supports multithreading in both static and dynamic libraries. All the functions have been tested to be thread-safe.

Which Intel® IPP functions contain OpenMP* code?

Intel IPP Threading Functions provide a detailed list for IPP threading functions.

How can I determine the number of threads that Intel® IPP creates?

Use the function **ippGetNumThreads** to find the number fo threads created by Intel IPP.

How do I control the number of threads that Intel® IPP creates?

Call the function ippSetNumThreads to set the number of threads created.

Is it possible to prevent Intel® IPP from creating threads?

The OpenMP* software responds to the environmental variable OMP_NUM_THREADS. By setting OMP_NUM_THREADS to 1, you are essentially turning off Intel IPP threading. Additionally, if you are calling the Intel IPP functions from multiple threads, it is best to have Intel IPP threading turned off. There are two ways to disable multithreading:

- Use IPP's nonthreaded static libraries,

OR

- Use ippSetNumThread(1) function

How can I obtain performance data for Intel® IPP threaded functions?

The Intel IPP Performance Tests measure the performance of Intel IPP functions. Check the Intel IPP threaded API list and generate performance data for these Intel IPP functions that contain OpenMP code. Refer to "Using the Performance Tool in Intel IPP" for more information on using this tool.

How do I resolve issues with libguide.dll and my thread manager tool?

It is not possible in all cases to determine the cause of incompatibility with thread manager software. The **ippSetNumThreads** function has been developed so that threading can be disabled when necessary. Please also check the sections above for other ways to prevent Intel® IPP functions from creating threads.

When my application calls Intel® IPP functions from a separate thread, the application hangs; how do I resolve this?

This issue occurs because the threading technology used in your application and in the Intel IPP (OpenMP) are incompatible. The **ippSetNumThreads** function has been developed so that threading can be disabled when necessary. Please also check the sections above for other ways to prevent Intel IPP functions from creating threads.

What is the difference between libiomp5md.lib library and libguide40.lib?

Both of them are Intel OpenMP* runtime libraries. The libiomp5md.dll is the new Intel OpenMP compatibility library and the libguide40.dll is the legacy OpenMP library. Starting with Intel® IPP 6.0, we use libiomp5md.dll as the default library. Libguide40.dll is still included, but we strongly recommend that you use/distribute the newer libippomp5md.dll.

More Information

You can find out more about product usage tips, FAQs, compatibility, optimizations and more at the Intel IPP Knowledge Base at http://software.intel.com/en-us/articles/intel-ipp-kb/all/1/.

You can also participate in product discussions or share product usage experiences in the Intel IPP forum at http://software.intel.com/en-us/forums/intel-integrated-performance-primitives/.