

*Intel® Integrated Performance Primitives v6.0 for Mac OS**

Release Notes

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Overview

The Intel® Integrated Performance Primitives (Intel® IPP) 6.0 for Mac OS* contains install package for both architectures.

- Intel® IPP for Mac OS* on IA-32 Intel® Architecture
- Intel® IPP for Mac OS* on Intel® 64 Platforms

This Release Notes file refers to the Intel® IPP 6.0 for Mac OS* on IA-32 Intel® Architecture.

Intel® Integrated Performance Primitives (Intel IPP) is a software library which provides a broad range of functionality including general signal, image, speech, graphics, data compression, cryptography, text strings and audio processing, vector manipulation and matrix math, as well as more sophisticated primitives for construction of audio, video and speech codecs such as MP3 (MPEG-1 Audio, Layer 3), MPEG-4, H.264, H.263, JPEG, JPEG2000, GSM-AMR* and G.723, plus computer vision. By supporting a variety of data types and layouts for each function and minimizing the number of data structures used, the Intel IPP library delivers a rich set of options for developers to choose from while designing and optimizing an application.

The Intel IPP application programming interface (API) is a cross-platform, low-level software interface that abstracts multimedia and signal processing functionality from the processor underneath. This allows transparent use of recent Intel® architecture enhancements such as Intel® Core™2 Quad and Intel® Core™ 2 Duo Microarchitectures, Intel® 64 Technology (Intel® EM64T), Streaming SIMD Extensions

(SSE), SSE2, SSE3, SSSE3, SSE4.1, MMX™ technology, and Intel XScale® technology. Intel IPP is optimized for the broad range of Intel® microprocessors: Intel® Atom™ Processor, Intel® Core™2 Quad processors, Intel® Core™ 2 Duo Processors, Intel® Xeon® processors, Intel® Pentium® 4 processor, the Intel® Itanium® 2 processor and Intel® IXP4XX Network Processors. With a single API across the range of architectures, application developers can have platform compatibility and reduced cost of development. Using Intel IPP, you can simplify integration of basic functions and focus more of your time and efforts on building the value-add functionality that will differentiate your product in the market.

What Is New in the Intel® IPP 6.0?

- Expanded Optimizations in latest Intel Micro-architecture
 - Intel® Atom™ Processor support
 - Intel® Core™ i7 processor support
- High-level Data Compression library Support Izo and new continued performance improvement for zlib, gzip, bzip2 algorithms.
- New Deferred Mode Image Processing (DMIP) Layer is introduced as a [sample](#) on top of Intel IPP libraries, it provides solutions on pipelined image operations for larger images, utilizes in memory optimization and improves performance on multi-threading environment.
- New Unified Image Codec (UIC) frameworks implementation to standardize the interfaces as plug-and-play of various image codecs (JPEG, JPEG2000, etc), it is introduced via [sample](#) implementation.
- Threaded Static Libraries are added to cover all functional domains (in directory `.\lib*_t.lib`)
- New Functional Domains
 - Data Integrity Functions based on operations over finite fields for error-correcting coding, support Reed-Solomon Algorithm (ippDi)
 - Generated domain/functionality for Spiral (ippGen)
- New functions in existing domains, check "*NewFunctionsList.txt*" in directory `\doc` for more details :
 - New 3D Image Processing functions - 3D geometry, filtering, remap, etc (ippRR)
 - New Video coding functions for Video Enhancement on Denoising / Deinterlasing / Demosaicing
 - New function implementation in Image Processing domain `ippiCopy*` and `ippiTranspose*` functions
 - New Speech Coding functions to support Microsoft* RT Audio, G722.1C (SIREN14), Noise suppressor, Acoustic Gain and Level Control
- New features and enhancement in Intel IPP samples, download completed samples from [Intel IPP Sample Website](#)
 - New Video AVS Codec Support for both Decoding and Encoding (UMC

Sample)

- ALS Decoder Profile support in AAC Decoding
- Speech Coding Feature enhancement (USC sample)
 - Microsoft RT Audio support via USC RTA codec support
 - ITU G722.1 Annex C support (a.k.a. super-wideband SIREN14 codec)
 - RFC 3047, RFC 3351, RFC 4352, RFC 4749, RFC 4867 voice RTP payloads support
 - Acoustic Noise Suppressor support
 - Acoustic Gain and Level Control support
 - G.728J codec 40kbps support
- New Document User's Guide for Intel 64 architecture is added, please check this "*userguide_win_ia64.pdf*" in directory \doc
- Internationalization is supported. Intel IPP returns statuses in local languages.
- Other Changes from Intel IPP v5.3 to v6.0
 - The default OpenMP runtime library for Intel IPP has been changed from libguide to libiomp. See the User Guide in the doc directory for more information
 - The Optimized libraries for Intel® Pentium III processors (a6) are removed. Check "*ippstart.htm*" for current support Optimized CPUs in Intel IPP

System Requirements

- An Intel(R) Pentium(R) 4 based system
- Mac* OS X 10.4 or higher
- gcc* Version 4.0
- 650 MB of free hard disk space

Installation

Note: the default installation directory for the Intel(R) IPP version 6.0 for Mac OS* is "/Library/Frameworks/Intel_IPP.framework/Versions/6.0.x.xxx/ia32(or em64t)/"

Installation Instructions:

1. If you received the product on CD-ROM, insert the CD-ROM in a CD-ROM drive. Locate the .dmg image file (e.g. *m_ipp_b_6.0.x.xxx.dmg*) on the CD-ROM and double-click it. If you received the product as a download, double-click on the downloaded file, which will have a name of the form *m_ipp_b_6.0.x.xxx.dmg*
2. Open the mounted disk to view the contents. Locate and click on Install.
3. The Intel(R) Integrated Performance Primitives 6.0 Installer will appear. Click Continue

4. The README information will appear. Read and click Continue.
5. The Software License Agreement will appear. Click the Continue button after reading the license agreement.
6. Note the Volume where the destination folder for your installation will be located, and click the Continue button.
7. At this point the installer will install the IPP on your system. Click the Close button on the final screen to exit the installer.

Uninstalling Intel IPP

Please follow the steps below to uninstall Intel IPP. If you installed as 'root', you will need to log in as 'root'.

To uninstall the Intel IPP, use `/Library/Frameworks/Intel_IPP.framework/Versions/Current/uninstall.sh`

Note, that all files will be uninstalled immediately.

Resources for Additional Information

- For the latest product support information and errata, please visit [Intel IPP Support Website](#).
- Extensive Intel IPP samples have been created to help demonstrate the use of Intel IPP and to help accelerate the development of your application, components, and audio/video/image/speech codecs. More information can be found at the [Intel® IPP Sample Website](#).
- To get started using the library and to find information on building options, please refer to the Getting Started document included in this release.
- Cryptography for Intel IPP requires additional registration to download, please click [<Cryptography Download>](#) from Intel IPP Website for details.

Known Limitations

This is the Known Limitations section.

Technical Support and Feedback

Self Help and User Forums

A rich repository of self-help product information such as tutorials, getting started tips, known product issues, product errata, compatibility information and answers to frequently asked questions can be found at the [Intel IPP Technical Support site](#). It's a great place to find answers quickly or to gain insight in using our products effectively.

[The Intel IPP User Forum](#) is the place to ask questions of and share information with other users of Intel® IPP.

Submitting Issues

Steps to submit an issue:

1. Go to <https://premier.intel.com/>.
2. Log in to the site. Note that your username and password are case-sensitive.
3. Click on the "Go" button next to the "Product" drop-down list.
4. Click on the "Submit Issue" link in the left navigation bar.
5. Choose "Development Environment (tools,SDV,EAP)" from the "Product Type" drop-down list.
6. If this is a software or license-related issue, choose "**Intel® IPP for Mac OS***" from the "Product Name" drop-down list.
7. Enter your question and complete the fields in the windows that follow to successfully submit the issue.

Guidelines for problem report or product suggestion:

1. Describe your difficulty or suggestion.

For problem reports please be as specific as possible, so that we may reproduce the problem. Please include a small test case if possible.

2. Describe your system configuration information.

Be sure to include specific information that may be applicable to your setup: operating system, name and version number of installed applications, and anything else that may be relevant to helping us address your concern.

License Definitions

Please see the license file for the license definitions and restrictions on the library.

MPEG-1, MPEG-2, MPEG-4, H.263, H.264, MP3, DV, G.722.1, G.723.1A, G.726, G.728, G.729, GSM/AMR, GSM/FR, JPEG, JPEG 2000, Aurora, TwinVQ, AC3 and AAC are international standards promoted by ISO, IEC, ITU, ETSI and other organizations. Implementations of these standards, or the standard enabled platforms may require licenses from various entities, including Intel Corporation.

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