

# Intel® Media SDK Library Distribution and Dispatching Process

[Overview](#)

[Dispatching Procedure](#)

[Software Libraries](#)

[Platform-Specific Libraries](#)

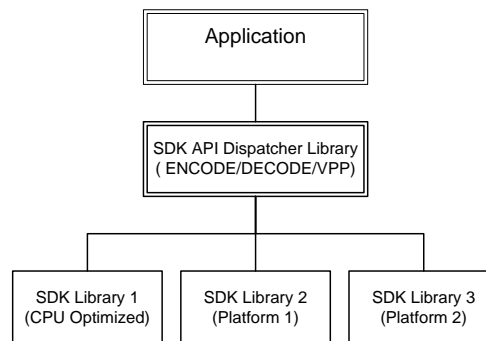
[Legal Information](#)

## Overview

This document describes the Intel® Media SDK libraries distribution and dispatching process.

As illustrated in Figure 1, the Intel Media SDK Dispatcher (further abbreviated as the Dispatcher) is at the core of the Intel® Media SDK architecture, between an application and any platform-specific libraries. The application must link the Dispatcher, a static library, during build time.

At runtime, when the application initializes a session, the Dispatcher locates the appropriate platform-specific library, and redirects subsequent function calls to the same functions in it. If an appropriate library is not found, the Dispatcher selects the software library and redirects subsequent function calls to the same functions in the selected library.



**Figure 1: Intel® Media SDK Library Dispatching Mechanism**

## Dispatching Procedure

The following describes the Intel® Media SDK dispatching procedure:

1. If the application initializes a `MFEX_IMPL_HW` or `MFEX_IMPL_AUTO` session, the following procedure follows:
  - a. The Dispatcher tries to locate the [platform-specific library](#). If successful, the dispatching procedure is complete.
  - b. If the session is a `MFEX_IMPL_HW` session, the session initialization fails. The Dispatcher returns `MFEX_ERR_UNSUPPORTED` to the application.
2. The Dispatcher tries to locate the [software library](#). If successful, the dispatching procedure is complete.
3. The session initialization fails. The Dispatcher returns `MFEX_ERR_UNSUPPORTED` to the application.

The following sections describe different libraries mentioned in the above procedure.

## Software Libraries

Intel® Media SDK software libraries are functionally backwards compatible for applications running on any legacy platforms that do not have the same level of hardware acceleration. The libraries also function as a CPU workload when the application runs multiple transcoding sessions.

The software libraries usually reside in the application's local folder, or any folder that is part of the OS default library search paths. The Dispatcher locates the software libraries by their reserved names:

Library Name	Intel® Media SDK Software Implementation
<code>libmfxsw32.dll</code>	Software library for IA-32 architecture
<code>libmfxsw64.dll</code>	Software library for Intel® 64 architecture

The application must package the software libraries as needed in its installation package. If the application uses only the platform-specific libraries, the application does not have to carry the software libraries.

## Platform-Specific Libraries

Intel® Media SDK platform-specific libraries implement hardware acceleration on corresponding platforms. The platform-specific libraries are part of the platform graphic driver package. Hence, installing the platform graphic driver also installs the platform-specific libraries.

Applications do not need to carry any platform-specific libraries.

## Legal Information

INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH INTEL PRODUCTS. NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY INTELLECTUAL PROPERTY RIGHTS IS GRANTED BY THIS DOCUMENT. EXCEPT AS PROVIDED IN INTEL'S TERMS AND CONDITIONS OF SALE FOR SUCH PRODUCTS, INTEL ASSUMES NO LIABILITY WHATSOEVER AND INTEL DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATING TO SALE AND/OR USE OF INTEL PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

UNLESS OTHERWISE AGREED IN WRITING BY INTEL, THE INTEL PRODUCTS ARE NOT DESIGNED NOR INTENDED FOR ANY APPLICATION IN WHICH THE FAILURE OF THE INTEL PRODUCT COULD CREATE A SITUATION WHERE PERSONAL INJURY OR DEATH MAY OCCUR.

Intel may make changes to specifications and product descriptions at any time, without notice. Designers must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined." Intel reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The information here is subject to change without notice. Do not finalize a design with this information.

The products described in this document may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.

Contact your local Intel sales office or your distributor to obtain the latest specifications and before placing your product order.

Copies of documents which have an order number and are referenced in this document, or other Intel literature, may be obtained by calling 1-800-548-4725, or by visiting [Intel's Web Site](#).

MPEG is an international standard for video compression/decompression promoted by ISO. Implementations of MPEG CODECs, or MPEG enabled platforms may require licenses from various entities, including Intel Corporation.

Intel and the Intel logo are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

### Optimization Notice

Intel's compilers may or may not optimize to the same degree for non-Intel microprocessors for optimizations that are not unique to Intel microprocessors. These optimizations include SSE2, SSE3, and SSE3 instruction sets and other optimizations. Intel does not guarantee the availability, functionality, or effectiveness of any optimization on microprocessors not manufactured by Intel.

Microprocessor-dependent optimizations in this product are intended for use with Intel

microprocessors. Certain optimizations not specific to Intel microarchitecture are reserved for Intel microprocessors. Please refer to the applicable product User and Reference Guides for more information regarding the specific instruction sets covered by this notice.

Notice revision #20110804