

Intel® Media SDK Library Distribution and Dispatching Process

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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.

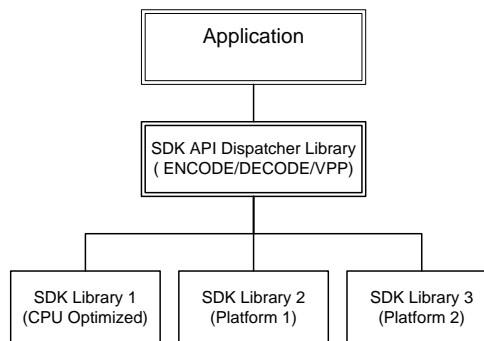


Figure 1: Intel® Media SDK Library Dispatching Mechanism

Dispatching Procedure

The following describes the Intel® Media SDK dispatching procedure:

1. If the application initializes a `MFX_IMPL_HW` or `MFX_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 `MFX_IMPL_HW` session, the session initialization fails. The Dispatcher returns `MFX_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 `MFX_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.

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