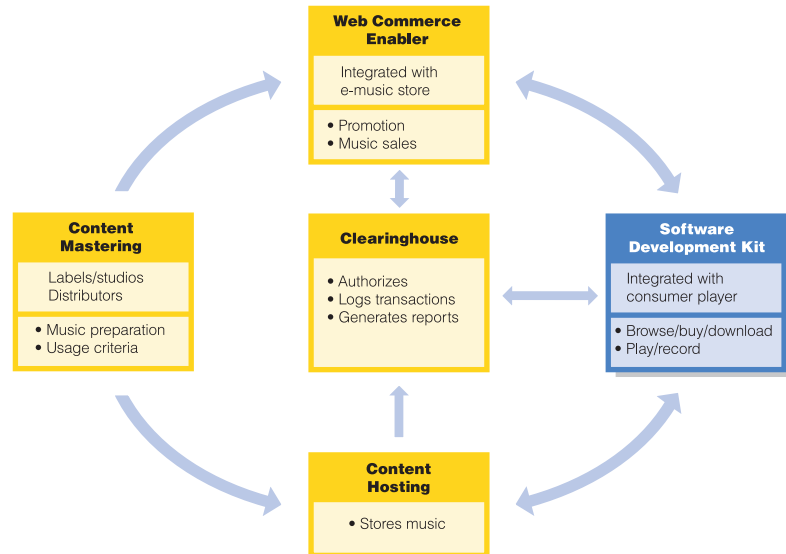




EMMS Player Software Development Kit

Highlights

- Enables enforcement of digital rights management and control for EMMS-formatted content in a PC client application
- Controls transfer of electronic content and metadata to portable devices and other portable media based on the usage rules under which the content was licensed
- Utilizes secure container technology to obtain valid licenses and download creative works
- Enables software developers and portable device manufacturers to create their own customized and branded player applications for downloaded music
- Provides a tamper-resistant environment for playing, recording, checking-out, viewing, transferring and managing a library of EMMS-formatted content
- * Provides superdistribution capabilities for content to be distributed between end users via email or other means



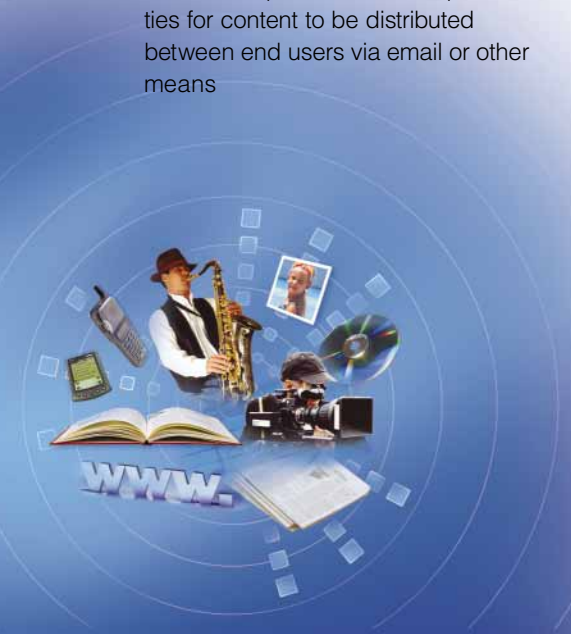
Overview

The Electronic Media Management System (EMMS) Player Software Development Kit (SDK) enables business partners to develop consumer applications that download, play back and manage a music library in a highly secure environment according to licensed-digital property rights. It also enables control over permitted interaction with CD-R drives and SDMI-compliant devices. Its superdistribution capabilities allow content to be distributed between end users via email. The EMMS Player SDK is targeted for widespread deployment in a variety of software applications and for use with consumer devices.

Extensive configuration support

The EMMS Player SDK can support a variety of configurations by providing:

- A fully functional player application with customizable "skins" to create varied, branded graphical user interfaces (GUIs)
- A Secure Authenticated Channel toolkit to provide a two-way verification mechanism between application modules in a PC client.
- A Trusted Device Interface that facilitates and provides security for transfer of content and metadata to other portable devices.





Player application

The player application provided in the EMMS Player SDK can be customized through the use of template files that define the appearance, or skins, of the GUI. Template files contain sections of special tags, called *content lines*. Each content line defines a characteristic of the application's appearance. The player application can have as many different looks as there are template files.

Secure Partition Module

The base EMMS rights-management and copy-protection features are provided in the EMMS Player SDK within a tamper-resistant environment called the Secure Partition Module. The Secure Partition Module is a renewable environment that is designed to thwart hacking attacks and thwart attempts to reverse-engineer the code. The Secure Partition Module processes secure containers, manages copy protection, and performs the decryption, encryption and decompression of EMMS-formatted content. It utilizes a controlled interface—an External Processing Loop—to pass content to a registered and authenticated decode module for decompression.

Trusted Device Interface

A Secure Authenticated Channel toolkit is available to provide a two-way verification mechanism between the EMMS system and Licensed Compliance Modules (LCMs) of third party device manufacturers. By applying digital signet and relocation-independent hashing technologies, it can establish a level of trust between the Trusted Device Interface module and a device-driver module.

Superdistribution

The EMMS Player SDK provides the capability to package content into a single file that can be distributed to end users via email or other means, such as bulk distribution CDs. This capability enables consumers to engage in superdistribution and viral marketing utilizing email. Content can be emailed to others, who in turn, can pass on the content to their friends for sampling and purchase.

EMMS functionality also includes the capability to link directly back to specific retail stores to purchase the content and to ensure proper digital property rights are associated with a superdistribution package.

Standards support—Secure Digital Music Initiative

IBM is committed to the objectives of the Secure Digital Music Initiative (SDMI) and will continue active involvement in creating new standards for distribution of digital music and other media content.

Developer options

The EMMS Player SDK comes in two versions—one for developing applications and one for production use. The developer's version of the EMMS Player SDK allows the use of a debugging program when testing applications that utilize EMMS functions in a tamper-resistant environment. The production version contains the code necessary to ship with the completed application.

Key Features

Customization

Provides a set of APIs and templates that enable software developers and device manufacturers to develop custom applications that support uses of digitally distributed music

Security

- Enables custom applications to utilize EMMS digital rights management and copy protection features when processing EMMS-formatted content
- Enables custom applications to utilize the Secure Partition Module's tamper-resistant environment to perform EMMS functions
- Provides controls for transfer of content and metadata to consumer devices based on specified usage rules

e-business services

IBM Global Services is ready to assist companies at every stage in the content life cycle. IBM Global Services offers: assessment of requirements, development of a functional specification, application development using EMMS Player SDK, integration with existing applications or systems, and skins customization. IBM Global Services is available to make EMMS an optimized solution for content distribution that meets each company's individual needs.

System Requirements

Attention: Your system configuration may vary depending on the operations you intend to support with your Player application.

Software

- Microsoft Windows 95 OSR2, Windows 98, Windows ME, Windows NT Workstation with Service Pack 6 (or higher), or Windows 2000 Professional
- Adobe Acrobat Reader 4.0 (or higher)
- A Web browser

Recommended Minimum Hardware

- 200-Mhz Pentium processor
- 32-MB of memory
- 5-GB hard disk
- Any supported CD-R drive
- Universal Serial Bus (USB) (needed only for Portable Device support)
- A broadband Internet connection, such as DSL or cable modem
- Any audio adapter supported by the operating system.

For more information

For more information about the EMMS Player Software Development Kit, please contact your local IBM sales representative, or visit our Web site at: ibm.com/software/emms.





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U.S.A.

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