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Information technology — Coding of audio-visual objects

Part 5: **Reference software**

AMENDMENT 11: MPEG-J GFX Reference software

Technologies de l'information — Codage des objets audiovisuels

Partie 5: Logiciel de référence

AMENDEMENT 11: Logiciel de référence MPEG-J GFX

Reference number
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Foreword

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The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

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Amendment 11 to ISO/IEC 14496-5:2001 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

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Information technology — Coding of audio-visual objects

Part 5:
Reference software

AMENDMENT 11: MPEG-J GFX Reference software

Add the following new Clause 6:

6 MPEG-J GFX reference software

6.1 Notes regarding the reference software

Two separate reference software packages are provided as detailed below. One works with IM1 and MPEG-4 Systems, the other is independent of MPEG-4 Systems. The MPEG-4 Systems independent package contains two reference implementations, one for Java 2 Standard Edition (J2SE) and one for Java 2 Mobile Edition (J2ME).

6.2 MPEG-4 Systems Independent MPEG-J GFX Player

You are strongly urged to read the file README_first.txt before unzipping the zip packages contained within this package.

Location	Content
.classpath and .project	Eclipse project files
build.properties and build.xml	ANT makefiles. build.properties contains user-configurable settings.
README_first.txt	Notes about software to install and various settings needed in Visual Studio before compiling the native code.
README_j2se	Notes about additional software to install and various settings needed for compiling the J2SE version of this reference software with Eclipse or ANT. Instructions on how to run the reference software.
README_j2me	Instructions for setting up the J2ME environment for running the J2ME version of the reference software. Instructions for building and running the J2ME emulator and reference software.
conformance/	Conformance test source
conformance/j2me	Conformance tests for J2ME environment
conformance/j2se	Conformance tests for J2SE environment
data/	Audio-visual resources for user interface and samples.
docs/	Documentation and specification

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lib/vc7/ and lib/vc8/	Precompiled 3rd party libraries for Visual Studio .NET 2003 and 2005. For each compiler the release/ subdirectory contains the native player libraries after being compiled.
src/	Java code
src/org/iso/mpeg/mpegj/	MPEG-J GFX java source
j2se	Implementation for J2 Standard Edition
j2se/native/	Native (C/C++) code
j2se/native/GLRenderer	OpenGL ES renderer wrapping OpenGL. This is a DLL generated in lib/vc7/ or lib/vc8/
j2se/native/RenderEngine	Multimedia engine wrapping DirectShow. This is a DLL generate in lib/vc7/ or lib/vc8/.
j2se/native/Utils	Utility library for GLRenderer and RenderEngine DLLs.
j2se/src/	Java code
j2se/src/com/mindego/player	Player, MPEGlet management.
j2se/src/com/mindego/player/util	Various utilities
j2se/src/javax/microedition/m3g	Placeholder for JSR-184
j2se/src/javax/microedition/media	JSR-135 interfaces
j2se/src/javax/microedition/opengles	JSR-239 interfaces and implementation
j2se/src/javax/microedition/rms	J2ME Record Management System
j2se/src/javax/nio	JSR-239 NIO package (should be java.nio but this would conflict with J2SE 1.4+)
j2se/test/	Java test code, mainly of sample MPEGlets
j2se/test/com/mindego/player	Internal tests
j2se/test/com/mindego/test	Sample MPEGlets
j2me/j2me_cldc	Changes to Sun CLDC 1.1 RI to work with MIDP 2.0 RI & to include M3G.
j2me/midp2.0fcs	Changes to MIDP 2.0 RI to work with CLDC 1.1 and to include M3G. MPEG-J GFX reference software for J2ME
j2me/midp2.0fcs/build	Makefiles
j2me/midp2.0fcs/build/share/makefiles	Makefiles for building platform independent portions of CLDC 1.1, MIDP 2.0, M3G & GFX.
j2me/midp2.0fcs/build/share/config	Config files specifying properties of the MIDP-2 environment.
j2me/midp2.0fcs/build/win32/kvm	Folder for building and running CLDC 1.1/MIDP-2 environment for Windows.
j2me/midp2.0fcs/build/win32/kvm/makefiles	Makefiles for building Windows specific parts of the CLDC 1.1 & MIDP 2.0.
j2me/midp2.0fcs/src/classes	Java source code
j2me/midp2.0fcs/src/classes/com/mascotcapsule/mmedia	MPEG-J player
j2me/midp2.0fcs/src/classes/com/sun/cldc/io	Additional file needed for MIDP 2.0 to work with CLDC 1.1
j2me/midp2.0fcs/src/classes/com/sun/mmedia	Modification to Standard JSR-135 Player implementation to enable use for a video player.
j2me/midp2.0fcs/src/classes/javax/microedition/m3g	M3G Implementation. This is not part of the GFX reference software and is provided only to make an environment in which the reference software can run.

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j2me/midp2.0fcs/src/classes/javax/microedition/media	JSR-135 Interfaces.
J2me/midp2.0fcs/src/classes/javax/microedition/nio	JSR-239 NIO package (should be java.nio but this would conflict with J2SE 1.4+)
j2me/midp2.0fcs/src/native	Native C/C++ code
j2me/midp2.0fcs/src/native/kvm	Modification needed for MIDP 2.0 to work with CLDC 1.1. These files are not part of the MPEG-J GFX Reference Software. They are provided only to make an environment in which the reference software can run.
j2me/midp2.0fcs/src/native/micro3d	Native parts of M3G implementation. Provided in binary only. These files are not part of the MPEG-J GFX Reference Software. They are provided only to make an environment in which the reference software can run.
j2me/midp2.0fcs/src/native/dshow	Native parts of the MPEG-J & MIDP video players.
j2me/midp2.0fcs/src/native/dshow/dxinclude	DirectShow header files containing modifications needed to build the DirectShow BaseClasses when using Visual Studio 2005 and the Windows Server 2003 Platform SDK. These files are not part of the MPEG-J GFX Reference Software. They are provided only to make an environment in which the reference software can run.
j2me/midp2.0fcs/src/example	Examples
J2me/midp2.0fcs/src/example/mpegletcontroller	MPEGlet Controller and sample MPEGlets
J2me/midp2.0fcs/src/example/capabilitiestest	Test of ResourceManager capabilities API.

MPEG-4 Systems Dependent - MPEG-J GFX Updates to IM1 Player3D Player

Location	Content
Readme.txt	Readme file which gives content, installaion and configuration information.
/IM1/MpegjDec/	Modified files: MPEGJDec.cpp, MPEGJDec.h for MPEG-J GFX functionality
/IM1/mpegj/java/org/iso/mpeg/mpegj	Modified Files : MPEGlet.java for new states and API changes.
	Added Files : MPEGletContext.java, TerminalContext.java, MPEGletStateChangeException.java, UnavailableContainerException.java for MPEG-J GFX changes
/IM1/mpegj/java/org/iso/mpeg/mpegj/decoder	Added Files : DecoderControl.java, DecoderBase.java for new interfaces
/IM1/mpegj/java/org/iso/mpeg/mpegj/media	Added Files : AudioBuffer.java, BufferDataInfo.java, BufferInfo.java, BufferNotAvailableException.java, Decoder.java, SceneBufferInfo.java, VideoBuffer.java
/IM1/mpegj/java/org/iso/mpeg/mpegj/media/control	Added Files : StreamControl.java, VideoRendererControl.java
/IM1/mpegj/java/org/iso/mpeg/mpegj/media/protocol	Added Files : ElementaryStream.java
/IM1/mpegj/java/org/iso/mpeg/mpegj/renderer	Added Files : GFXRenderer.java, GFXRendererException.java, GLRenderer.java, ListRenderers.java

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/IM1/mpegj/java/org/iso/mpeg/mpegj/resource	Modified Files : DynamicCapabilityObserver.java, ResourceManager.java
	Added Files : DynamicCapabilityManager.java, ResourceManagerBase.java, UserDataListener.java, MediaManager.java, CapabilityManager.java_solaris
/IM1/mpegj/java/org/iso/mpeg/mpegj/systems	Added Files : DecoderConfigDescriptor.java, MPEG4Context.java
/IM1/mpegj/java/org/iso/mpeg/mpegjRefImpl	Modified Files : MPEGJClassLoader.java, MPEGControl.java for JAD and new Control functionality.
	Added Files : UserDataProcessor.java, UserData.java, DescriptorsProcessor.java for User data functionality.
/IM1/mpegj/java/org/iso/mpeg/mpegjRefImpl/resource	Added Files : StaticCapabilitiesList.java
	For static capabilities functionality
/IM1/mpegj/java/	Modified Files : make.bat, cleanup.bat

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