# INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

# ORGANISATION INTERNATIONALE DE NORMALISATION

# ISO/IEC/JTC 1/SC 29/WG 11

# CODING OF MOVING PICTURES AND AUDIO

**ISO/IEC JTC 1/SC 29/WG 11 N13900**

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# MPEG Media Transport enables new services for the delivery of multimedia

Geneva, CH − The 106th MPEG meeting was held in Geneva, CH, from 28 October to 1 November 2013**.**

**MPEG Media Transport moves to Final Draft International Standard status**

ISO/IEC JTC1/SC29/WG11 MPEG is proud to announce the completion of the new *MPEG Media Transport* (MMT) standard which has been promoted to Final Draft International Standard (FDIS) status at the 106th MPEG meeting.  This standard enables the efficient delivery of emerging types of services in the heterogeneous environments such as: hybrid service or multiscreen service.

MMT inherits technical advantages of the widely used MPEG2-TS standard, such as a self-contained multiplexing structure, strict timing model and reference buffer model in the emerging IP environments. At the same time, this standard also brings modern features such as the flexible splicing of content, name based access of data and AL-FEC (application layer forward error correction) enabling multiple Qualities of Service within one packet flow. This standard also supports the carriage of MPEG-DASH segments and MPD for uni-directional environments such as broadcasting.  MMT will be formally referenced as ISO/IEC 23008-1 in ISO/IEC.

**Compact Descriptors for Visual Search reaches committee draft status**

The Committee Draft (CD) of Compact Descriptors for Visual Search (CDVS) has been issued during the 106th MPEG meeting. CDVS defines a very compact image description which enables comparing and finding pictures that include similar content, e.g. when showing the same object from different viewpoints. A new technology has been included for keypoint detection, comparable in performance to other established methods, but allowing much more compact representation of descriptor values. By its compactness, CDVS also enables fast search in large databases and could well be used in applications for real-time object identification. The completion of the standard as ISO/IEC 15938-13 is targeted for October 2014.

**Proposal selected amongst responses to CfP for Dynamic Range Control**

At its 106th meeting, MPEG selected technology for program level and Dynamic Range Control (DRC) from submissions that were received and evaluated in response to its Call for Proposals issued at its last meeting. This new technology and corresponding standard, which is expected be issued in January 2015, addresses industry demand for high-quality dynamics compression and regulatory requirements for loudness control.

The selected proposal includes a codec-independent DRC that is designed to work with all MPEG audio codecs and will be extended during the standardization process to work with the MPEG-H (ISO/IEC 23008-3) 3D Audio standard. The DRC offers various new feature such as improved DRC gain resolution, flexible configuration, and decoder-side modifications of the DRC effect. Time-domain and sub-band domain DRCs are also supported.  The program level control supports loudness normalization, which includes dynamically compressed and down-mixed audio.

An amendment to ISO Base Media File Format (ISO/IEC 14496-12) that is currently in progress will also be extended to support the DRC standard by providing support for not only the new DRC features, but also to support other important related areas such as loudness measures.

**Graphics Tool Library reaches Final Draft International Standard status**

At the 106th MPEG meeting, MPEG's Graphics Tool Library (GTL) - ISO/IEC 23002-4:2012 Amd. 1 has reached FDIS status and will be soon published as an International Standard.

One of the GTL objectives is to make possible the usage of different hardware and software platforms by locally generating the decoder implementation therefore taking advantage of the devices characteristics.

The MPEG GTL is a part of MPEG Reconfigurable Media Codec (RMC) framework. It consists of a collection of Functional Units (FUs) that implement generic or decoder specific functionalities. The compressed bitstream can be accompanied by the decoder network description and therefore, a run-time decoder is generated before the decoding starts. The network description can be constructed based on different types of constraints such as energy efficiency, adaptation to changing characteristics (network bandwidth, scene type, applications,…). GTL also makes possible the fast decoder prototyping that fits to content characteristics and usage scenarios.

**New amendments and plans for a new edition of AVC are announced**

MPEG announces that several amendments to ISO/IEC 14496-10 Advanced Video Coding have been finalized at the 106th meeting including:

* “3D-AVC”, which carries video texture of an AVC high profile compatible base view along with one or several depth maps and allows more efficient compression of additional views, such that the bit rate of either multiview or multiview-plus depth representations can be further decreased;
* “Multi-resolution frame compatible” (MFC), which enhances frame-compatible stereo formats to full resolution by encoding a very compact difference signal;
* “Additional colour space and tone mapping descriptors”, which enables signalling of metadata as needed e.g. for wide-gamut chroma formats.

MPEG also plans to issue a new edition of ISO/IEC 14496-10, which will integrate the three new amendments along with previous separate enhancements. Like the current version of AVC, the new edition will be available for free download from the ISO/ITTF public web site upon completion.

**Digging Deeper – How to Contact MPEG**

Communicating the large and sometimes complex array of technology that the MPEG Committee has developed is not a simple task. Experts, past and present, have contributed a series of tutorials and vision documents that explain each of these standards individually. The repository is growing with each meeting, so if something you are interested is not yet there, it may appear shortly – but you should also not hesitate to request it. You can start your MPEG adventure at <http://mpeg.chiariglione.org/>

**Further Information**

Future MPEG meetings are planned as follows:

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| --- | --- | --- | --- | --- | --- |
| No. 107 | San Jose, CA | US | 13 – 17 | January | 2014 |
| No. 108 | Valencia | ES | 31-04 | March-April | 2014 |
| No. 109 | Sapporo | JP | 07-11 | July | 2014 |
| No. 110 | Strasbourg | FR | 20-24 | October | 2014 |

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The MPEG homepage also has links to other MPEG pages that are maintained by the MPEG subgroups. It also contains links to public documents that are freely available for download by those who are not MPEG members. Journalists that wish to receive MPEG Press Releases by email should contact Dr. Arianne T. Hinds at a.hinds@cablelabs.com