

**INTERNATIONAL ORGANISATION FOR STANDARDISATION  
 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 N2903**

**October 1999**

**Source:** Leonardo Chiariglione – Convenor  
**Title:** Resolutions of 49th WG 11 meeting  
**Status:**

**1 WG11 approves the reports from the Requirements, Delivery, Systems, MDS, Video, Audio, SNHC, ISG, Liaison and HoD groups.**

**2 Subgroup recommendations**

**2.1 The Requirements group**

**2.1.1 recommends to approve the following documents:**

<i>Name</i>	<i>No.</i>
<b>MPEG-4 Requirements Document, V.12</b>	<b>2992</b>
<b>MPEG-4 New Profiles under Consideration</b>	<b>2993</b>
<b>Study on V.2 MPEG-4 Audio FPDAM</b>	<b>2946</b>
<b>MPEG-4 Overview</b>	<b>2995</b>
<b>MPEG-7 Requirements Document V.10</b>	<b>2996</b>
<b>MPEG-7 DDL development document V.2</b>	<b>2997</b>
<b>Overview of MPEG-7 Descriptors and Description Schemes V.0.2</b>	<b>2998</b>
<b>MPEG-7 Development Process</b>	<b>2999</b>
<b>MPEG-7 Intellectual Property Management and Protection, V.0.1</b>	<b>3001</b>
<b>First ideas on Multimedia Framework</b>	<b>3002</b>

**2.1.2 recommends to establish the following AdHoc groups :**

<i>Title</i>		<i>No.</i>	<i>Mtg</i>
<b>AHG for Study on potential new MPEG-2 Levels and Progressive Profile(s)</b>	<b>Craig Birkmaier</b>	<b>3003</b>	<b>yes</b>
<b>AHG on DDL development</b>	<b>J. Hunter</b>	<b>3004</b>	<b>yes</b>
<b>AHG on IPMP in MPEG-4</b>	<b>N. Rump, H. Inoue, Y. K. Chang</b>	<b>3034</b>	<b>no</b>
<b>AHG on MPEG-7 Intellectual Property Management &amp; Protection</b>	<b>N. Rump, K. Hill</b>	<b>3006</b>	<b>no</b>
<b>AHG on Multimedia Framework</b>	<b>K. Hill, R. Koenen</b>	<b>3007</b>	<b>no</b>

**2.1.3 recommends to make publicly available the following documents :**

<i>Title</i>	<i>No.</i>
<b>MPEG-4 Requirements Document V.12</b>	<b>2992</b>
<b>MPEG-4 Overview</b>	<b>2995</b>
<b>MPEG-7 DDL development document V.2</b>	<b>2997</b>
<b>MPEG-7 Requirements Document V.10</b>	<b>2996</b>

- 2.1.4 The Requirements Group thanks companies and national bodies that have submitted Profile support statements.**
- 2.1.5 The Requirements Group intends to make statements of support for Profiles and their intended deployment public on the MPEG homepage after the Maui meeting. This will happen in the form of making public the Profiles under Consideration document, or an excerpt of that document. Companies that rather wish not to be mentioned publicly are kindly requested to inform MPEG and to withdraw their support in a written input to the 50<sup>th</sup> MPEG meeting.**
- 2.1.6 The Requirements group understands that companies that support a profile to be included into the MPEG-4 Standard, commit to doing the conformance work for the profile. This includes generating test bitstreams for each of the desired Levels. Companies that cannot commit to doing conformance for a profile are kindly requested to withdraw their support for such a profile.**
- 2.1.7 The Requirements Group asks companies supporting scalable visual profiles for Version 2 to reconsider their requests in the light of the work on Fine Granular Scalability, and to see whether their needs can be met by FGS, or by making a combination of FGS and other types of scalability. The reason for this request is the desire to keep the amount of profiles limited.**
- 2.1.8 The Requirements Group informs National Bodies that suggestions for new Profiles and Levels can be found in the document 'MPEG-4 Profiles Under Consideration', N2993, and asks NBs to use this document as a reference when they cast their votes on the Version 2 FPDAM ballots. Note that some of the Level definitions in this document also apply to Profiles already in the standard (so-called 'V.1 Profiles'), and that these elements are added in the amendment known as Version 2.**
- 2.1.9 Having heard contributions on the Studio Profile(s), the Requirements group agrees with the desirability to have 1) normative definition of the I-DCT and 2) the possibility of having an 'uncoded' block mode.**
- 2.1.10 The Requirements Group confirms the desirability of being able to combine low latency sprites with grey scale shape in MPEG-4 Visual, and advises that the syntax be changed so as to allow this combination, as soon as possible.**
- 2.1.11 The Requirements group recommends that MPEG reassesses its position with respect to standardising digital rights management technology, considering that new technology is emerging, and that protecting digital assets is of increasing importance for the success of the MPEG-4 standard.**
- 2.1.12 The Requirements group recommends that the DDL work, which has clearly left the requirements stage, be continued in the context of the Systems Group as from the next meeting.**
- 2.1.13 The Requirements group recommends that a conceptual model of MPEG-7 Descriptors and Description Schemes be developed and maintained, and that proposers of new technology attempt to address the relation of their proposal with this conceptual model in their submissions, in accordance with the guidelines found in N2999 (MPEG-7 Development Process)**
- 2.1.14 Frank Nack is thanked for his successful efforts in leading the DDL work. Best wishes**

for his future endeavours.

2.1.15 That the following output documents from previous meetings remain on the MPEG home page for public access:

<b>MPEG-4 Applications Document</b>	<i>N2563</i>
<b>Results of AAC Subjective tests</b>	<i>N2006</i>
<b>Overview of MPEG-4 Profile and Level definitions</b>	<i>N2458</i>
<b>MPEG-4 Audio verification test results: speech codecs</b>	<i>N2424</i>
<b>MPEG-4 Audio verification test results: audio on Internet</b>	<i>N2425</i>
<b>MPEG-4 Video verification tests: error resilience</b>	<i>N2604</i>
<b>MPEG-4 Video verification tests: temporal Scalability in Simple Scalable Profile</b>	<i>N2605</i>
<b>MPEG-4 Video verification tests: Content Based Coding</b>	<i>N2711</i>
<b>MPEG-4 Intellectual Property Management &amp; Protection (IPMP) Overview &amp; Applications</b>	<i>N2614</i>
<b>Description of MPEG-7 Content Set</b>	<i>N2467</i>
<b>Licensing Agreement for MPEG-7 Content Set</b>	<i>N2466</i>
<b>Guide to obtaining the MPEG-7 Content Set</b>	<i>N2570</i>

2.2 The Systems group recommends

2.2.1 the approval of the following documents:

<b>Title</b>	<b>No.</b>
<b>DoC on 13818-6 FDAM 1</b>	<b>N2916</b>
<b>Text of 13818-6 FPDAM 1.2</b>	<b>N2917</b>
<b>Study of FPDAM 7 of MPEG-2 Systems</b>	<b>N2910</b>
<b>Disposition of comments on FPDAM 7 of MPEG-2 Systems</b>	<b>N2909</b>
<b>Study of Conformance FCD</b>	<b>N2920</b>
<b>Work plan for Systems conformant bitstream production</b>	<b>N3018</b>
<b>Corrigendum for 14496-1</b>	<b>N3019</b>
<b>Study of FPDAM 1 of 14496-1 (MPEG-4 Systems Version 2)</b>	<b>N3020</b>
<b>Study on Internet draft for the carriage of MPEG-4 on IP</b>	<b>N3021</b>
<b>Revised Text for WG 11 N2873 Draft Agreement with Sun Microsystems</b>	<b>N3022</b>
<b>Text of ISO/IEC 14496-5 PDAM 1</b>	<b>N2918</b>
<b>Text of ISO/IEC 14496-6 DCOR 1</b>	<b>N3023</b>
<b>Study of FPDAM 1 of 14496-6 (MPEG-4 DMIF Version 2)</b>	<b>N3024</b>
<b>MPEG-4 Systems Version 2 VM 8.0</b>	<b>N3025</b>
<b>Status of the Systems Version 1&amp;2 Software Implementation</b>	<b>N3026</b>
<b>Systems Software Implementation Work plan</b>	<b>N3027</b>
<b>Template for NB Comments</b>	<b>N3028</b>
<b>DMIF FAQ Version 4.0</b>	<b>N3029</b>

2.2.2 In the process of further verifying its reference software, the Systems sub-group has discovered errors in the code related to the script node. In case the proponents of this technology or another company interested in the technology do not help fixing the errors, the Systems sub-group recommends that this technology be removed from the 14496-1 through a corrigendum of 14496-1.

2.2.3 The Systems sub-group acknowledges the commitments of the following companies to

provide test streams for MPEG-4 Systems conformance: FT R&D, IBM, ENST, Optibase, HUT, Sun Microsystems Inc., Valley Consultants, and CSELT according to the work plan described in N3018 and encourages other companies to join this effort.

2.2.4 The Systems sub-group acknowledges the reception of document M5229 presenting the proposed guidelines *regarding normative references to external specification documents*. As the 14496-1/Amd 1 (MPEG-J) has been initiated prior to the JTC1 directive, the guidelines described in document M5229 can not be enforced to apply. Nevertheless, the Systems sub group will exert its best efforts to come as close as possible to these guidelines within the current 14496-1/Amd 1 (MPEG-J) timeline.

2.2.5 The Systems sub-group acknowledges the reception of document M5096 proposing possible improvement of N2873 (Draft Agreement with Sun Microsystems). All the comments proposed have been approved and included in N3022.

2.2.6 That National Bodies should comment on the design within MPEG of a textual language for MPEG-4 content authoring.

2.2.7 That the following companies: AT&T, CRL, CSELT, ENST, IBM, Nokia, Thomson-CSF, Samsung, UCL should be thanked for bringing compelling demonstrations of MPEG-4 applications.

2.2.8 That some IPMPS\_Type are reserved for ISO specific use and that further studies are conducted within the IPMP AHG to evaluate if the IPMP descriptor extensions proposed by the MPEG-PF is needed to be included within the normative part of the MPEG-4 standard.

2.2.9 That the following documents: N3020, N3025 will be released within 14 days after the Melbourne meeting to accommodate final text editing.

2.2.10 That the following documents: N2910, N3024 will be released within 21 days after the Melbourne meeting to accommodate final text editing.

2.2.11 to establish the following AdHoc Groups:

Title	Chair(s)	No.
AHG on Systems Conformance	Dufourd & al.	N3030
AHG on Advanced BIFS	Signes & al.	N3031
AHG on MPEG-J	Swaminathan & al.	N3032
AHG on MPEG-4 File Format	Singer & al	N3033
AHG on Intellectual Property Management & Protection within MPEG-4	Rump & al.	N3034
AHG on IM 1	Lifshitz & al.	N3035
AHG on MPEG-4 Content on MPEG-2 Systems and on the Internet	Carsten Herpel, Jan Van Der Meer, S. Casner	N3036
AHG on Multi-user applications	Olivier Avaro & al.	N3037
AHG on Back Channel and ESM	Young-Kwon Lim & al.	N3038
AHG on MPEG-7 Systems	O. Avaro et al.	N3039
AHG on MPEG-7 Linking	Joerg Heuer et al.	N3040
AHG on Multiple DII messages in download protocol	Matt Goldman (DiviCom)	N3041

2.2.12 to make publicly available the following documents:

<b>Title</b>	<b>No.</b>
<b>Study of FPDAM 7 of MPEG-2 Systems</b>	<b>N2910</b>
<b>Corrigendum for 14496-1</b>	<b>N3019</b>
<b>Study on Internet draft for the carriage of MPEG-4 on IP</b>	<b>N3021</b>
<b>Corrigendum for 14496-6</b>	<b>N3023</b>
<b>DMIF FAQ Version 4.0</b>	<b>N3029</b>

### 2.3 The Multimedia Description Scheme group recommends:

#### 2.3.1 recommends to approve the following documents:

<b>Title</b>	<b>No.</b>
<b>MPEG-7 Generic AV Description Schemes (V 0.7)</b>	<b>N2966</b>
<b>Supporting information for the Generic AV Description Schemes</b>	<b>N2967</b>
<b>MPEG-7 DS Validation Experiment on the Syntactic DS, the Semantic DS, and the Syntactic/Semantic Link DS</b>	<b>N2968</b>
<b>Validation of the MPEG-7 Summary DS</b>	<b>N2969</b>
<b>Validation Experiment for MPEG-7 Model-DS on Visual Data</b>	<b>N2970</b>
<b>Validation Experiments for Universal Multimedia Access</b>	<b>N2971</b>
<b>MPEG-7 Core/Validation Experiment on the Weight DS</b>	<b>N2972</b>
<b>Validation Experiment on MPEG-7 DS from the Viewpoint of Video Editing and Production</b>	<b>N2973</b>
<b>Digital Patient Record Validation Experiment for MPEG-7 Description Schemes</b>	<b>N2974</b>
<b>Validation Experiment for Ordered Relation Graphs</b>	<b>N2975</b>
<b>Description of Validation Experiments for MPEG-7 SpatioTemporalRegion DS</b>	<b>N2928</b>

#### 2.3.2 recommends to establish the following AdHoc groups :

<b>Title</b>	<b>Chair(s)</b>	<b>No.</b>	<b>Mtg</b>
<b>AHG on MPEG-7 Generic Description Schemes Development</b>	<b>P. Salembier, S. Quackenbush, C. Saraceno, S. Jeannin, T. Walker</b>	<b>N2976</b>	<b>Yes</b>
<b>AHG on Media and Meta DSs and Harmonization with other Schemes</b>	<b>J. Martinez, M. Cox,</b>	<b>N2977</b>	<b>Yes</b>
<b>AHG on DS Validation and Core Experiment</b>	<b>A. Benitez, N. Day, S. Devillers, Jin Soo Lee</b>	<b>N2978</b>	<b>Yes</b>
<b>AHG on Generic AV DS Conceptual Model</b>	<b>J. Smith, H. Rising, U. Srinivasan</b>	<b>N2979</b>	<b>Yes</b>
<b>Ah Hoc Group on Semantic DS</b>	<b>R. Leonardi, M. Tekalp</b>	<b>N2980</b>	<b>Yes</b>
<b>Ad Hoc Group on User Preferences in MPEG-7</b>	<b>I. Sezan, K. Yoon</b>	<b>N2981</b>	<b>No</b>
<b>Ad Hoc Group on MPEG-7 Linking</b>	<b>J. Heuer , E. Wan, O. Avaro</b>	<b>N3040</b>	<b>Yes</b>

#### 2.3.3 To encourage the development of description schemes describing processes in MPEG-7, in particular: Acquisition, Delivery, Editing, Presentation, Production, and Publication.

#### 2.3.4 To encourage the development of Audio and Semantic related Description Schemes. To actively work on the harmonization of the Meta / Media Description Schemes with

relevant standards including SMPTE Metadata Dictionary, Dublin Core, INDECS.

2.3.5 To extend to current MPEG-7 content set to include in particular video content in English, video content with multiple video and/or audio tracks, video content with text captions in one or more languages, other multimedia content such as web pages (with audio, video, sound, and text) and multimedia presentations (SMIL and MPEG-4), etc. This content should be used under the conditions described in document N2466: "Licensing Agreement for the MPEG-7 Content Set".

## 2.4 The Video group recommends

2.4.1 to thank the members of the Japanese National Body who have generously offered to donate video conformance bitstreams, which will be evaluated by the Video Sub-group for incorporation in ISO/IEC 14496-4;

2.4.2 to thank Intel Corp for their generous offer to donate object code for the MPEG-7 XM software, but to decline this offer so as to ensure that source code for all parts of the XM software is available to MPEG members;

2.4.3 that future contributions on watermarking will only be accepted if they justify clearly to the Requirements Sub-group why the proposed technology should be the subject of standardisation by MPEG, and strongly discourages proposals that do not provide this justification;

2.4.4 to issue at the next meeting in Maui a call for coding technology to be compared to existing and emerging MPEG 4 video standards in subjective tests, in order to confirm that MPEG-4 video provides state of the art technology or to identify suitable technology for extensions;

2.4.5 that WG11 thank the USNB for its comment on the subjective test document N2824 and to inform the USNB that the Main Profile could have performed better in the tests if the sprite tool had been included. This was not done because the sprite tool is considered too complex for the target application of the ACE profile.

2.4.6 to make MPEG-2 Video elementary bitstreams publicly available to allow for interested parties to self-assess the impact of using extension start codes identifiers "1101".

2.4.7 To request the help of the ISG at the Maui meeting to evaluate the performance on software and hardware complexity of fast motion estimation algorithms

2.4.8 to approve the following documents :

Title	No.
Text of ISO/IEC 14496-2 /DCOR1	2919
Study of ISO/IEC FCD 14496-4 (Video)	2920
Study of ISO/IEC 14496-2 /FPDAM1	2921
Study of ISO/IEC 14496-5 FDIS	2922
Response to comment by AT NB on ISO/IEC 14496-2 /FDIS	2923
Description of Core Experiments in FGS	2924
Text of ISO/IEC 14496-2 FGS Amendment WD 2.0	2925
Text of ISO/IEC 14496-2 MPEG-4 Video FGS VM v 2.0	2926
Text of ISO/IEC 14496-2 Studio Profile Amendment WD 2.0	2927

<b>Description of Core Experiments for MPEG-7 Shape/Motion descriptors</b>	<b>2928</b>
<b>Description of Core Experiments for MPEG-7 Colour/Texture descriptors</b>	<b>2929</b>
<b>Working draft of proposed amendment to ISO/IEC 13818-2</b>	<b>2930</b>
<b>MPEG-7 visual part of XM Version 3</b>	<b>2931</b>
<b>MPEG-4 Video VM 14.0</b>	<b>2932</b>
<b>Report Of The New Formal Verification Tests On MPEG-4 Coding Efficiency for Low and Medium Bit rates</b>	<b>2990</b>
<b>Text of ISO/IEC 14496-4 Version 2 WD 4.0</b>	

2.4.9 to establish the following AdHoc Groups :

<b>Title</b>	<b>Chair(s)</b>	<b>No.</b>	<b>Mtg</b>
<b>AHG on the study of MPEG-2 Video production processes for supplemental information</b>	<b>Gray, McVeigh</b>	<b>2933</b>	<b>Y</b>
<b>AHG on software integration and verification in MPEG-4 video</b>	<b>Ito, Morimatsu</b>	<b>2934</b>	<b>Y</b>
<b>AHG on conformance in MPEG-4 video</b>	<b>Tan</b>	<b>2935</b>	<b>Y</b>
<b>AHG on Object-based content creation for MPEG-7</b>	<b>Kim</b>	<b>2936</b>	<b>Y</b>
<b>AHG on Fine Granularity Scalability in MPEG-4 video</b>	<b>Ohm</b>	<b>2937</b>	<b>Y</b>
<b>AHG on the Studio Profile in MPEG-4 video</b>	<b>Yagasaki</b>	<b>2938</b>	<b>Y</b>
<b>AHG on core experiments for Color/Texture descriptors in MPEG-7</b>	<b>Manjunath, Vinod</b>	<b>2939</b>	<b>Y</b>
<b>AHG on core experiments for Shape/Motion descriptors in MPEG-7</b>	<b>Bober, Jeannin</b>	<b>2940</b>	<b>Y</b>
<b>AHG on editing the documents of the MPEG-4 Visual FDAM and the MPEG-4 video verification model</b>	<b>Jang, Nakaya, Son, Nagumo, Shin, Fukunaga</b>	<b>2941</b>	<b>Y</b>
<b>AHG on editing the document of the MPEG-7 Visual part of XM</b>	<b>Jeannin</b>	<b>2942</b>	<b>Y</b>
<b>AHG on organizing the software integration of MPEG-7 Visual part of XM tools</b>	<b>Herrmann</b>	<b>2943</b>	<b>Y</b>
<b>AHG on MPEG-4 video encoder optimization</b>	<b>Chiang, Sun</b>	<b>2944</b>	<b>Y</b>
<b>AHG on MPEG-7 Generic Description Scheme Development</b>	<b>Salembier, Quackenbush, Saraceno, Jeannin, Walker</b>	<b>2976</b>	<b>Y</b>

2.4.10 to make publicly available the following documents :

<b>Title</b>	<b>No.</b>
<b>Working draft of proposed amendment to ISO/IEC 13818-2</b>	<b>2930</b>

2.5 The Audio group recommends

2.5.1 that the following documents be approved:

<b>Title</b>	<b>No.</b>
<b>DoC on ISO/IEC 13818-4 / FPDAM 3</b>	<b>2912</b>
<b>Text of ISO/IEC 13818-4 / FDAM 3</b>	<b>2913</b>

<b>Study on MPEG-4 Version 1 Audio Conformance FCD</b>	<b>2945</b>
<b>Study on MPEG-4 Version 2 Audio FPDAM</b>	<b>2946</b>
<b>MPEG-4 Version 2 Audio Conformance WD</b>	<b>2947</b>
<b>MPEG-4 Audio conformance work plan</b>	<b>2948</b>
<b>MPEG-7 Audio Core Experiment Methodology</b>	<b>2949</b>
<b>Workplan for MPEG-7 Audio Core Experiment – Sound Effects</b>	<b>2950</b>
<b>Workplan for MPEG-7 Audio Core Experiment – Musical Instruments</b>	<b>2951</b>
<b>Workplan for MPEG-7 Audio Core Experiment – Speech recognition</b>	<b>2952</b>
<b>Workplan for MPEG-4 Version 2 Audio Verification Test</b>	<b>2953</b>
<b>Status and Workplan of MPEG-4 Version 2 Audio Reference Software</b>	<b>2954</b>
<b>Audio FAQ Update</b>	<b>2955</b>
<b>Status and Workplan for MPEG-4 Version 2 Audio Technical Matters</b>	<b>2956</b>
<b>Revised Report on complexity of MPEG-2 AAC Tools</b>	<b>2957</b>

2.5.2 that the following Ad-hoc groups be established:

<b>Title</b>	<b>Chair(s)</b>	<b>No.</b>	<b>Mtg</b>
<b>AHG on MPEG-4 Audio Version 2 Reference Software Editing</b>	<b>H. Purnhagen B. Teichmann</b>	<b>2958</b>	<b>N</b>
<b>AHG on Audio part of MPEG-4 Version 1 and Version 2 Conformance</b>	<b>T. Mlasko T. Moriya</b>	<b>2959</b>	<b>Y</b>
<b>AHG on MPEG-4 Audio Version 2 Study on FPDAM Editing</b>	<b>S-W Kim</b>	<b>2960</b>	<b>Y</b>
<b>AHG on MPEG-7 Audio Core Experiments</b>	<b>Chair: A. Lindsay Co-chair: P. Garner, M Casey, G Peeters, P. Philippe</b>	<b>2961</b>	<b>Y</b>
<b>AHG on MPEG-4 Audio Version 2 Verification Test</b>	<b>R Sperschneider F. Feige</b>	<b>2962</b>	<b>Y</b>
<b>AHG on MPEG-4 Audio Version 2 Technical Matters</b>	<b>B. Grill, M. Iwadare</b>	<b>2963</b>	<b>Y</b>

2.5.3 that the following documents be made publicly available:

<b>Title</b>	<b>No.</b>
<b>Audio FAQ Update</b>	<b>N2955</b>
<b>Audio contribution to Melbourne Press statement</b>	
<b>Revised Report on complexity of MPEG-2 AAC Tools</b>	<b>N2957</b>

2.5.4 The Audio group thanks AT&T for hosting the web site for MPEG-4 conformance bitstreams. (<http://www.research.att.com/projects/mpegaudio>)

2.5.5 The Audio group thanks Creative Technology Ltd. for supplying Structured Audio Sample Bank Format conformance bitstream.

2.5.6 The audio group thanks the MPEG-4 Platform Verification Bitstream Development Project for supplying MPEG-4 TwinVQ and CELP conformance bitstreams.

2.5.7 The Audio group thanks G. Zoia of EPFL for continuing work on Structured Audio Profiles and Level and for supplying Structured Audio conformance bitstreams.

2.5.8 Audio group supports AHG on MPEG-7 Generic Description Schemes Development (N2976).



2.5.9 The Audio group thanks AT& T, Bosch, Nokia and T-Nova for their efforts in test item selection for the MPEG-4 Version 2 verification test.

2.6 The SNHC group recommends:

2.6.1 that the following documents be approved:

Title	No.
Study of ISO/IEC 14496-2/AMD1 FPDAM	2921

2.6.2 that the following Ad-hoc groups be established:

Title	Chair(s)	No.	Meeting
AHG on study of generic 3D animation	E. Jang, M. Bourges-Sevenier	2982	No
AHG on SNHC conformance	G. Taubin, M. Han, F. Bossen	2983	No
AHG on FBA	E. Petajan, T. Capin	2989	No

2.6.3 that national bodies review and make comments on N2993, Proposed MPEG-4 Version 2 Profiles .

2.6.4 that national bodies voice their support for N2921, Study of 14496-2/AMD1 FPDAM.

2.6.5 that a call for proposals be issued in Maui, if it is shown that tools in MPEG-4 Version 2 are not competitive with tools available outside of MPEG to achieve efficient encoding of generic 3D model animation.

2.6.6 that companies interested in generic 3D model animation make themselves known and actively participate to the activities of the AHG on study of generic 3D animation.

2.6.7 that people involved in FBA activities attend future meetings to ensure the successful completion of MPEG-4 Version 2 activities.

2.6.8 that Mr. Pete Doenges be sincerely thanked for his dedication as chairman of the SNHC group. The group regrets his resignation, and wishes him all the best in his future activities outside of MPEG.

2.6.9 that Dr. Frank Bossen be thanked for successfully chairing the SNHC group during this week.

2.7 The Implementation Study Group recommends:

2.7.1 To approve the following document:

MPEG-7 XM Software Integration: Current status.	N2964
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2.7.2 To establish the following ad-hoc group:

Title	Chair(s)	No.	Mtg
AHG on MPEG-7 XM Development	Stephan Herrmann, Mark J. Buxton	N2965	N

2.7.3 To verify the backchannel mechanism for the transmission of SNHC rendering terminal QoS.

2.7.4 That the Audio, Video and MDS groups provide software for the integration of

## MPEG-7 XM.

### 2.7.5 That the following facts are recognized:

1. Using a weighting cost function in a single VBV, VCV and VMV model could be more appropriate than using the current approach with two VCV models.
2. The weighting cost function in a single VBV, VCV and VMV model has insufficiently been validated, compared to the validation of the current approach with two VCV models.

## 2.8 The Liaison group recommends

### 2.8.1 the approval of the following responses to National Bodies

Response to National Body Comments	2988
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### 2.8.2 the approval of following people as Liaison representatives.

Organization	Liaison Representatives
TC 46/SC 9	Keith Hill (with Albert Simmonds, present representative)
AGICOA	Didier Mary
OCLC	Jane Hunter
IEC TC100	Kate Grant

### 2.8.3 the approval of the following Liaison output documents:

Liaison to ITU-R WP 11A	2984
Liaison to SMPTE	2986
Liaison to IETF	2987
Liaison to SMPTE	3008
Liaison to EBU	3009
Liaison to DVB	3010
Liaison to DVD consortium	3011
Liaison to ATSC	3012
Liaison to Pro-MPEG	3013
Liaison to IECTC100	3014
Liaison to SC32/WG2	3015
Liaison to DVB on DSM-CC	3016

## 2.9 The HoD group

2.9.1 The HODs would like to thank IBM and in particular Peter Schirling for their continued support for MPEG in hosting the World Wide Web site and the ftp sites. The HODs note the increasing administrative burden that results from running the ftp site and web sites. They also note that there is a need for increased security on the part of IBM, and that this will result in changes to the administration of passwords. The HODs therefore invite IBM to indicate the charges that will need to be levied. National Bodies are invited to make proposals for collection of these charges that will result from IBM continuing to run the web and ftp sites for MPEG. They also invite other interested parties to make proposals for alternative arrangements that can deliver the accustomed levels of service. These proposals should be made by the 50th meeting in Maui.

2.9.2 The HoDs recommend the adoption of the following progression of the MPEG-7 work item

2001	Sep		IS
	Jul	23-27	FDIS
	Mar	5-9	FCD
	Jan	15-19	Study of CD
2000	Oct	23-27	CD

### 2.9.3 Recommends approval of the meeting plan including

- the 50<sup>th</sup> meeting in Maui, Hawaii, USA over the period 6<sup>th</sup> to 10<sup>th</sup> December 1999 and a meeting fee of about US\$250.
- the 51<sup>st</sup> meeting in the Netherlands over the period 20<sup>th</sup> to 24<sup>th</sup> March 2000 and acceptance of a meeting fee of approximately US\$300.
- The 52<sup>nd</sup> meeting in Beijing, China in over the period 17-21 July 2000
- the 53<sup>rd</sup> meeting in France over the period 23-27<sup>th</sup> October 2000
- the 54<sup>th</sup> meeting in Eilat, Israel over the period 15-19 January 2001
- the 55<sup>th</sup> meeting in Singapore over the period 5-9 March 2001 (to be confirmed).

2.9.4 The HODs thank the National Bodies of Singapore and Israel for their kind offers to host future MPEG meetings.

2.9.5 The HODs note the US National Body position on allowing software contributions to MPEG for non- normative tools in binary format. The HODs resolve that at present there should be no change to the current policy on this issue.

2.9.6 The HoD Group notes the concerns of the French National Body about the protection of intellectual property contributed to the MPEG-7 eXperimental Model (XM). WG11 reaffirms its existing policy on the contribution of software remain in force but that this policy may be subject to further review in the future.

## 3 WG11 approves the progression of the following MPEG-2 amendments and corrigenda

DoC on 13818-1 FPDAM 7	WG11 N2909
Text o 13818-2 FDAM 6	WG11 N2911
Text of 13818-4 FDAM 2	WG11 N2915
DoCof 13818-4 FPDAM 2	WG11 N2914
DoC on 13818-4/FPDAM 3	WG11 N2912
Text of 13818-4/FDAM 3	WG11 N2913
DoC on 13818-6 FDAM 1	WG11 N2916
Text of 13818-6 FPDAM 1.2	WG11 N2917

## 4 WG11 approves the MPEG-2 workplan:

Part	Title	CfP	WD	CD PDAM PDTR	FCD FPDAM FPDTR	FDIS FDAM DTR DCOR	IS AMD TR COR
MPEG-2							
1/Amd 5	Systems-related table entries for AAC						00/02

1/Amd 6	4:2:2 Profile @High level splice parameters and buffer model for ISO/IEC 13818-7 (AAC)						00/02
1/Amd 7	Transport of ISO/IEC 14496 data over ISO/IEC 13818-1					00/02	00/04
2/Amd 6	Number of lines per frame					00/02	00/04
4/Amd 2	System Target Decoder Model						00/02
4/Amd 3	Audio conformance bitstream					00/03	00/05
6/Amd 1	Additions to support data broadcasting					00/07	00/09
6/Amd 2	Addition to support Synchronized Download Services, Opportunistic Data Services and Resource Announcement in Broadcast and Interactive Services					99/12	00/02

**5 WG11 approves the progression of the following MPEG-4 corrigenda**

<b>Text of ISO/IEC 14496-1 DCOR 1</b>	<b>WG11 N3019</b>
<b>Text of ISO/IEC 14496-2 /DCOR1</b>	<b>WG11 N2919</b>
<b>Text of ISO/IEC 14496-6 DCOR 1</b>	<b>WG11 N3023</b>

**6 WG11 approves the following MPEG-4 amendment**

<b>Text of ISO/IEC 14496-5 PDAM 1</b>	<b>N2918</b>
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**7 WG11 approves the following Verification Models**

<b>MPEG-4 Systems Ver. 2 VM 8.0</b>	<b>WG11 N3025</b>
<b>MPEG-4 Video VM 14.0</b>	<b>WG11 N2932</b>

**8 WG11 approves MPEG-4 version 4 Conformance WD (WG11 N2991)**

**9 WG11 approves the MPEG-4 workplan:**

Part	Title	CfP	WD	CD PDAM PDTR	FCD FPDAM FPDTR	FDIS FDAM DTR DCOR	IS AMD TR COR
MPEG-4							
1	Systems						99/10
2	Visual						99/11
3	Audio						99/11
4	Conformance Testing					99/12	00/02
5	Reference Software						00/02
6	DMIF						
1/Amd 1	Systems Extensions					99/12	00/02
2/Amd 1	Visual Extensions					99/12	00/02
3/Amd 1	Audio Extensions					99/12	00/02
4/Amd1	Conformance Testing Extensions			99/12	00/07	00/12	01/02

5/Amd 1	Reference Software Extensions			99/12	00/03	00/07	00/09
6/Amd 1	DMIF Extensions					99/12	00/02

**10 WG11 approves the MPEG-7 Core Experiments documents (WG11 N2928, 2929, 2972)**

**11 WG11 approves the DDL document (WG11 N2997).**

**12 WG11 approves the visual portion of the XM document (WG11 N2931)**

**13 MPEG-7 approves the draft MPEG-7 development process (WG11 N2999).**

**14 Software for non-normative parts of MPEG-7 will be offered by contributors of Core Experiments in the form either of source code or of commercial software made available either directly or via a third party to all interested MPEG members for the platform(s) that MPEG will select and for which commercial software must be made available, at conditions acceptable by MPEG, that will be fair and reasonable (*as a point of information, currently the platforms for the XM are Intel/Linux and Intel/Windows32 - but some people use Linux on non-Intel platforms*). Every MPEG member is requested to bring elements and come prepared for a final decision that will be made at the Maui meeting.**

**15 WG11 approves the MPEG-7 workplan:**

Part	Title	CfP	WD	CD PDAM PDTR	FCD FPDAM FPDTR	FDIS DAM DTR DCOR	IS AMD TR COR
MPEG-7							
1	Multimedia Content Description Interface		99/12	00/10	01/03	01/07	01/09

**16 WG11 requests the SC29 Secretariat to initiate the procedure to subdivide the MPEG-7 work item in 6 parts:**

- 1. MPEG-7 Descriptors**
- 2. MPEG-7 Description Schemes**
- 3. MPEG-7 Description Definition Language**
- 4. MPEG-7 Systems**
- 5. MPEG-7 Reference SW**
- 6. MPEG-7 Conformance.**

**The request is made assuming that an satisfactory separation between Descriptors and Description Schemes will be found. If this will not be achieved, parts 1 and 2 will be merged in part 1 and part 2 will remain void.**

## 17 WG11 approves its integrated workplan:

Part	Title	CfP	WD	CD PDAM PDTR	FCD FPDAM FPDTR	FDIS FDAM DTR DCOR	IS AMD TR COR
MPEG-2							
10	Conformance testing extensions - DSM-CC						99/02
1/Amd 5	Systems-related table entries for AAC					99/03	99/05
1/Amd 6	4:2:2 Profile @High level splice parameters and buffer model for ISO/IEC 13818-7 (AAC)					99/03	99/05
1/Amd 7	Transport of ISO/IEC 14496 data over ISO/IEC 13818-1				99/03	99/10	99/12
2/Amd 5	4:2:2 Profile @High Level						99/02
2/Amd 6	Number of lines per frame				99/03	99/10	99/12
4/Amd 2	System Target Decoder Model					99/03	99/05
4/Amd 3	Audio conformance bitstream				99/03	99/10	99/12
6/Amd 1	Additions to support data broadcasting						99/05
6/Amd 2	Addition to support Synchronized Download Services, Opportunistic Data Services and Resource Announcement in Broadcast and Interactive Services			99/03	99/07	99/12	00/02
6/Cor 2						99/03	99/07
MPEG-4							
1	Systems						99/05
2	Visual						99/05
3	Audio						99/05
4	Conformance Testing				99/07	99/12	00/02
5	Reference Software					99/07	99/09
6	DMIF						99/02
1/Amd 1	Systems Extensions			99/03	99/07	99/12	00/02
2/Amd 1	Visual Extensions			99/03	99/07	99/12	00/02
3/Amd 1	Audio Extensions			99/03	99/07	99/12	00/02
4/Amd 1	Conformance Testing Extensions			99/12	00/07	00/12	01/02
5/Amd 1	Reference Software Extensions			99/07	99/12	00/03	00/05
6/Amd 1	DMIF Extensions			99/03	99/07	99/12	00/02
MPEG-7							
1	Multimedia Content Description Interface		99/12	00/10	01/03	01/07	01/09

**18 WG11 thanks Peter Doenges for his efforts in setting up and chairing the SNHC group since 1995 and regretfully accepts his resignation. Euee S. Jang is appointed as chair of the SNHC group.**

**19 WG11 approves its revised terms of reference (WG11 N3000)**

**20 WG11 approves its meeting schedule:**

<b>No.</b>	<b>yy</b>	<b>mm</b>	<b>Dd</b>	<b>City</b>	<b>Country</b>
<b>50</b>	<b>99</b>	<b>12</b>	<b>06-10</b>	<b>Maui, HI</b>	<b>US</b>
<b>51</b>	<b>00</b>	<b>03</b>	<b>20-24</b>	<b>Noordwijkerhout</b>	<b>NL</b>
<b>52</b>	<b>00</b>	<b>07</b>	<b>17-21</b>	<b>Beijing</b>	<b>CN</b>
<b>53</b>	<b>00</b>	<b>10</b>	<b>23-27</b>		<b>FR</b>
<b>54</b>	<b>01</b>	<b>01</b>	<b>15-19</b>	<b>Eilat</b>	<b>IL</b>
<b>55</b>	<b>01</b>	<b>03</b>	<b>05-09</b>	<b>(Singapore)</b>	<b>(SG)</b>

**21 WG11 approves its Melbourne press release for publication on the MPEG home page (WG11 N2907).**

**22 The Convenor would like to express his thanks to Dominique Curet, Jin Woong Kim and Peter Schirling for their support in the preparation of the Friday Plenary.**

**23 WG11 would like to thank Standards Australia, the host of its 49<sup>th</sup> meeting and the sponsors Motorola Research, Sony Australia Pty Ltd, Cable & Wireless – Optus, and Channel 9, in particular David Bruce-Steer, Project Manager and Myra Martin, Helen Gomes and Deralee Vercoe, meeting staff.**

Meeting closed at 21:30