

**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 **N3043**

December 1999

Source: Leonardo Chiariglione – Convenor
Title: Resolutions of 50th WG 11 meeting
Status:

- 1 WG11 approves the report of the Vancouver meeting.
- 2 WG11 approves the reports from the Requirements, Systems, MDS, Video, Audio, SNHC, ISG, Liaison and HoD groups.
- 3 Subgroup recommendations
 - 3.1 The Requirements group
 - 3.1.1 The Requirements group recommends to approve the following documents:

<i>Name</i>	No.
Applications, Operational Environments and Requirements for new Progressive Profiles and Levels	3153
Text of ISO/IEC 14496-1/FDAM 1 (Systems V.2)	3054
DoC on ISO/IEC 14496-1/FDAM 1 (Systems V.2)	3053
Text of ISO/IEC 14496-2/FDAM 1 (Visual V.2)	3056
DoC on ISO/IEC 14496-2/FDAM 1 (Visual V.2)	3055
Text of ISO/IEC 14496-3/FDAM 1 (Audio V.2)	3058
DoC on ISO/IEC 14496-3/FDAM 1 (Audio V.2)	3057
MPEG-4 Requirements Document, V.13	3154
MPEG-4 New Profiles under Consideration	3155
MPEG-4 version 2 profiles support and conformance commitment	3064
MPEG-4 Overview	3156
MPEG-4 Requirements for Multi-User Worlds	3205
MPEG-4 DMIF Roadmap	3202
Request for New Amendment: ISO/IEC 14496-2/Amd 2	3170
Text of ISO/IEC 14496-2/PDAM 2	3171
Call for Proposals for an MPEG-4 Textual Format	3157
MPEG-7 Overview v. 1	3158
MPEG-7 Development Process	3159
MPEG-7 Intellectual Property Management and Protection, V. 0.2	3160
Verifying MPEG-7 using real-world applications	3161
First Ideas on defining a Multimedia Framework, V 0.2	3162
Request for Subdivision: ISO/IEC 15938 (MPEG-7)	3063
Proposal for a New Work Item for MPEG-21	3200
Project Acceptance Criteria for MPEG-21	

3.1.2 The Requirements group recommends to establish the following Ad Hoc groups:

<i>Title</i>			<i>Mtg</i>
AHG for Study on potential new Progressive Profile and Levels	C. Birkmaier	3163	no
AHG on Study on Standard IPMP Systems	T. Senoh, N. Rump, H. Inoue	3164	yes
AHG on Study on standard Digital Watermarking technology	Y.-K. Chen, G. Depovere	3165	yes
AHG on MPEG-7 Intellectual Property Management & Protection	N. Rump, K. Hill	3166	no
AHG on Multimedia Framework	K. Hill, R. Koenen	3167	no
AHG on MPEG-7 Verification Experiments	N. Day et. al.	3168	no
AHG on MPEG-7 Applications Study	M. Bober, O. Hori	3169	no
AHG on Study on 14496-2 / PDAM 2	G. Taubin	3172	no

3.1.3 The Requirements group recommends to make publicly available the following documents :

<i>Title</i>	<i>No.</i>
MPEG-4 Requirements Document V.13	3154
MPEG-4 Overview	3156
MPEG-4 version 2 profiles support and conformance commitment	3064
Call for Proposals for an MPEG-4 Textual Format	3157

3.1.4 The Requirements group recommends to not yet adopt the proposed Graphics and Scene Graph profiles into the Systems part of the MPEG-4 standard, but to leave those profiles in the Profiles under Consideration Document for further Study, with the objective to define Graphics and Scene Graph Profiles at a later stage, when the ideas about products using V.2 functionality have further matured.

3.1.5 The Requirements recommends to allow an editing period of 2 weeks for the MPEG-4 Overview Document.

3.2 The Systems group recommends:

3.2.1 the approval of the following documents:

<i>Title</i>	<i>No.</i>
ISO/IEC 13818-1/FDAM 7	N3050
ISO/IEC 13818-6/FDAM 2	N3052
Disposition of comments on ISO/IEC 13818-6/FPDAM 2	N3051
Study of Corrigendum for 14496-1	N3188
Requirements for the Registration Authority for MPEG-4 IPMP	N3189
Study of Corrigendum for 14496-6	N3190
Conformance FDIS	N3067
Disposition of comments on ISO/IEC 14496-4/FCD	N3066
Systems Conformance bitstream production workplan	N3152
Status of the Systems Version 1&2 Software Implementation	N3191
Systems Software Implementation Work plan	N3192
FDAM 1 of 14496-1 (MPEG-4 Systems Version 2)	N3054
Disposition of comments on ISO/IEC 14496-1/FPDAM 1	N3053
FDAM 1 of 14496-6 (MPEG-4 DMIF Version 2)	N3060

Disposition of comments on ISO/IEC 14496-6/FPDAM 1	N3059
Draft of MPEG-J Reference Explanatory Report	N3197
MPEG-4 Systems VM 9.0	N3198
Conformance PDAM1 (Systems Part)	N3065
MPEG-7 Systems WD 0.1	N3199
MPEG-7 DDL WD 1.0	N3201
DMIF Roadmap	N3202
Request for Amendment 2 of 14496-1	N3203
Text for ISO/IEC 14496-1 Amendment 2 PDAM	N3204
Requirements for Multi-users Worlds	N3205
Call for Proposal for Textual Format	N3157
Request for Amendment 3 14496-1	N3206
MPEG Systems Contribution to the joint WG1/WG11 activity on Motion JPEG 2000	N3207
Frequently Asked Questions on Systems Revision 12.0	N3208

- 3.2.2 The Systems sub-group acknowledges the commitment of Conexant to fix the errors discovered in the implementation of the script node and thanks them for their dedication in improving the reference software. As per Melbourne resolution 2.2.2, the Systems sub-group recommends that this technology be maintained in 14496-1 unless the implementation is not submitted at the next MPEG meeting. In this case the said technology will be removed from 14496-1 by corrigendum.
- 3.2.3 The Systems sub-group acknowledges the commitments of the following companies to provide test streams and/or test tools for MPEG-4 Systems conformance: AT&T, FT R&D, IBM, ENST, Optibase, Philips, HUT, Sun Microsystems inc., and CSELT according to the work plan described in N3152 and encourage other companies to join this effort.
- 3.2.4 The Systems sub-group acknowledges the importance of key technologies (Flextime, Server Command, Extern Proto and Media Control) for which inclusion in Version 2 was not possible and recommends the approval of both a request for amendment 2 of 14496-1 (N3203) and text for 14496-1 PDAM 2 (N3204).
- 3.2.5 That the list of patent statements for 14496-1 FDAM 1 is adequately reflected to the best of our knowledge.
- 3.2.6 That the following companies: IBM, EPFL, Lucent, Nokia, OKI, Tampere University of Technology should be thanked for bringing compelling demonstrations of MPEG-4 technology.
- 3.2.7 That the following documents:
N3208 (Frequently Asked Questions on Systems Revision 12.0),
N3188 (Study of Corrigendum for 14496-1),
N3198 (MPEG-4 Systems VM 9.0),
N3190 (Study of Corrigendum for 14496-6)
N3050 (13818-1 FDAM-7)
will be released within 10 days after the Maui meeting to accommodate final text editing.
- 3.2.8 That the following documents:

N3054 (FDAM 1 of 14496-1)
 N3060 (FDAM 1 of 14496-6),
 will be released by the 30th of January to accommodate final text editing.

3.2.9 to establish the following AdHoc Groups:

Title	Chair(s)	No.
Ad Hoc Group on MPEG-4 Conformance	Jean-Claude Dufourd et al.	N3209
Ad Hoc Group on MPEG-4 BIFS	Julien Signes	N3210
Ad Hoc Group on MPEG-4 Textual Format	Michelle Kim	N3211
Ad Hoc Group on MPEG-J	Viswanathan Swaminathan	N3212
Ad Hoc Group on IM1	Zvi Lifshitz	N3213
AHG on MPEG-4 Content on MPEG-2 Systems and IP Network	Jan Van der Meer	N3214
AHG on multi-user applications	Olivier Avaro	N3215
AHG on MPEG-7 Systems	Olivier Avaro	N3216
AHG on MPEG-7 Linking	Joerg Heuer	N3217
AHG on MPEG-7 DDL	Jane Hunter	N3218

3.2.10 to make publicly available the following documents:

Title	No.
Study of Corrigendum for 14496-1	N3188
Study of Corrigendum for 14496-6	N3190
MPEG-7 DDL WD 1.0	N3201
DMIF Roadmap	N3202
Requirements for Multi-users Worlds	N3205
Frequently Asked Questions on Systems Revision 12.0	N3208
Text for ISO/IEC 14496-1 Amendment 2 PDAM	N3204

3.3 The Multimedia Description Scheme group

3.3.1 recommends to approve the following documents:

Name	No.
MPEG-7 Multimedia Description Schemes XM	N3112
MPEG-7 Multimedia Description Schemes WD	N3113
Supporting information for MPEG-7 Description Schemes	N3114
MPEG-7 Software integration policy & Workplan for DS integration	N3115
MPEG-7 Principle Concept List	N3116
Mathematical Models for Description Schemes Concepts	N3117
Multimedia Description Schemes FAQs	N3118
Core Experiment on the Probability Model DSs	N3119
Core Experiment on the Weight DS	N3120
Core Experiment on the Summary DS	N3121
Core Experiment on Collection Structure DS	N3122
Core Experiment on the Semantic DS	N3123
Core Experiment on Space and Frequency View DS	N3124
Core Experiment on Mosaic DS	N3125
Validation Experiment on Segment Hint DS	N3126
Core Experiment on Region Locator DS	N3127

Core Experiment on User Preferences	N3128
Core Experiment on the Media Title DS	N3129
Core Experiment on Media Trans-coding Hint DS	N3130
Core Experiment on Measuring Entropy for Descriptors and Description Schemes	N3131
MPEG-7 Application Verification Experiments	N3132

3.3.2 recommends to establish the following AdHoc groups :

Title		No.	Mtg
Ad Hoc Group on Editing the Multimedia Description Schemes XM and WD	P. Salembier, P. van Beek, A. Benitez, J. Heuer, J. Martinez, J. Smith, T. Walker	N3133	No
Ad Hoc Group on MPEG-7 Media/Meta DSs and Harmonization with Other Schemes	J. Martínez, M. Cox, C. Jörgensen, E. Rehm, K. Hill, P. Mulder	N3134	Yes
AHG on MPEG-7 DS Validation and Core Experiments	A. Benitez, T. Walker, J.-S. Lee, P. Mulder	N3135	Yes
AHG on DDL integration of MPEG-7 Ds and DSs	C. Saraceno, S. Jeannin, P. Garner	N3136	Yes
AHG on Conceptual Modeling	J. Smith, H. Rising, U. Srinivasan	N3137	Yes
AHG on MPEG-7 Semantic information representation	R. Leonardi, M. Tekalp, H. Rising, R. Mehrotra	N3138	Yes
AHG on User Preferences	I. Sezan, K. Yoon	N3139	No
AHG Linking	J. Heuer, E. Wan, R. Crinon	N3217	No

3.3.3 recommends to make publicly available the following documents:

Name	No.
MPEG-7 Principle Concepts list	N3116
Multimedia Description Schemes FAQs	N3118

3.3.4 That the following documents: Multimedia Description Schemes XM (N3112), and WD (N3113) will be released before the 31st of December 1999 to accommodate text editing.

3.3.5 That the FAQs document (N3118) for the MDS group will be released before the 24th of December 1999 to accommodate text editing.

3.3.6 To work on the validation of the Media and Meta DSs through harmonization with existing practices such as those corresponding to the SMPTE Metadata Dictionary, the Extended Dublin Core and others (e.g., RegelwerkMusic, SMEF, VIDAS, P/Meta, P/FTA).

3.3.7 The Multimedia Description Schemes Group would like to thank Mr. Peter Mulder (NOB) and the MPEG Convenor for their effort in gathering content for the MPEG-7 experiments. The MDS group also would like to thank the International Olympic Committee for their interest in helping MPEG-7.

3.3.8 The Multimedia Description Scheme Group would like to ask participants in the MPEG-7 core experiments of the Audio, Video and MDS groups to contribute the descriptions resulting from their experiments to MPEG so that they may be shared

among all MPEG members. The description can be contributed to the AHG on MPEG-7 DS validation and Core Experiment (N3135).

3.4 The Video group

- 3.4.1** thanks the following companies for their commitment to provide bitstreams for MPEG-4 Video Version 1 conformance: General Instruments, Sarnoff Corporation, Texas Instruments and Sony by the 15 January, 2000. The text of ISO/IEC 14496-4/FDIS will be delivered within a period of four weeks from the end of the 50th meeting to accommodate final editing.
- 3.4.2** thanks the following companies for their commitment to provide bitstreams for MPEG-4 Video Version 2 conformance: Fujitsu, Oki, NTT, Samsung, Sharp, Optivison, Sarnoff Corporation, Siemens, Bosch, Sony and Hitachi by the 51st WG11 meeting.
- 3.4.3** recommends to issue a call for evidence justifying testing of 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 possible suitable technologies for extension (N3098).
- 3.4.4** confirms that the list of patent statements received for MPEG-4 Version 2 is, to the best knowledge of the Video sub-group, adequate.
- 3.4.5** recommends the approval of the text of ISO/IEC 14496-2/FDAM1 within a period of four weeks from the end of the 50th meeting to accommodate final editing.
- 3.4.6** announces that an efficient solution for fine-granularity scalability has been developed in the context of MPEG-4 video, which has been proven to be technically stable as standalone tool. However, further investigations are necessary with regard to the syntax stability in combination with other MPEG-4 tools (especially Temporal Scalability, which is required in the context of the Streaming Video Profile under consideration). The Video Group plans to have a stable solution for the remaining issues available by March 2000, such that a PDAM could be issued in Noordwijkerhout.
- 3.4.7** recommends to thank Intel Corporation for providing computer equipment and software for subjective evaluation of video coding techniques. As the first experience in Maui meeting shows, computer display for video viewing allows high flexibility in comparing different coding techniques.
- 3.4.8** recommends that all descriptors which were approved for the XM before Maui, should be integrated within the XM by 20 January 2000. If a descriptor is not integrated by 20/01/2000, then the descriptor cannot be promoted to the WD during the March 2000 meeting. Any descriptor not integrated by the March meeting should be removed from the XM document. The descriptors approved during the Maui meeting should be integrated by 22/03/2000, otherwise they will be removed from the XM. If the descriptors are integrated by 15/01/00, then they can be considered for WD during the March meeting. Integration means that the code can be compiled and successfully run on at least one architecture by Stephan Herrmann.
- 3.4.9** recommends to approve the text ISO/IEC 13818-2:2000/PDAM1 to carry video elementary stream supplemental information. The text of the PDAM is contained in

N3062 and the justification is contained in N3061. The schedule of progress for this amendment is described in the following table.

Stage	Meeting
PDAM	12/99
FPDAM	03/00
FDAM	07/00
AMD	10/00

3.4.10 to approve the following documents:

Title	No.
Justification for MPEG-2 Video Elementary Stream supplemental information	3061
Text of ISO/IEC 13818-2:2000/PDAM1	3062
Text of ISO/IEC 14496-4/FDIS (Visual)	3067
DoC to ISO/IEC 14496-4/FCD (Visual)	3066
Study of ISO/IEC 14496-2/DCOR1	3091
Text of ISO/IEC 14496-2/FDAM1	3056
Description of Changes from ISO/IEC 14496-2/ FPDAM1 to ISO/IEC 14496-2/FDAM1	3092
DoC to ISO/IEC 14496-2/FPDAM1	3055
Text of ISO/IEC 14496-4/PDAM1 (Visual)	3065
Study of ISO/IEC 14496-5/FDIS (Video part)	3145
MPEG-4 Video VM 15.0	3093
Text of ISO/IEC 14496-2 Studio Profile Amendment WD 3.0	3094
Text of ISO/IEC 14496-2 FGS Amendment WD 3.0	3095
Description of Core Experiments in FGS	3096
Text of ISO/IEC 14496-2 MPEG-4 Video FGS VM v 3.0	3097
Call for evidence justifying the testing of video coding technology	3098
Description of Core Experiments for MPEG-7 Shape/Motion descriptors	3099
Description of Core Experiments for MPEG-7 Colour/Texture descriptors	3090
MPEG-7 visual part of XM 4.0	3068
Text of WD 1.0 of MPEG-7 Visual	3069
Case study of tools for potential inclusion in a technical report on non-normative tools in MPEG-4	3140

3.4.11 to establish the following AdHoc Groups:

Title	Chair(s)	No.	Mtg
AHG on the study of MPEG-2 Video elementary stream supplemental information	Buxton, Tahara	3100	Y
AHG on software integration and verification in MPEG-4 video	Ito, Morimatsu	3101	N
AHG on conformance in MPEG-4 video	M. Frater, S. Bauer	3102	Y
AHG on Fine Granularity Scalability in MPEG-4 video	Ohm	3103	Y
AHG on the Studio Profile in MPEG-4 video	Yagasaki	3104	Y
AHG on editing the documents of the MPEG-4 Visual FDAM and the MPEG-4 video verification model	Jang, Nakaya, Son, Nagumo, Shin, Fukunaga	3105	Y

AHG on study of the publication of Technical Report on non-normative aspects of MPEG-4 Video.	M. Frater	3106	N
AHG on MPEG Video FAQ	M. Pickering	3107	N
AHG on core experiments for Color/Texture descriptors in MPEG-7	Manjunath, Vinod	3108	Y
AHG on core experiments for Shape/Motion descriptors in MPEG-7	Bober, Jeannin	3109	Y
AHG on editing the document of the MPEG-7 Visual part of XM and WD	Jeannin, Ohm, Cieplinski, M. Kim	3110	N
AHG on organizing the software integration of MPEG-7 Visual part of XM tools	Herrmann	3111	N
AHG on DDL integration of MPEG-7 D / DS	Saraceno, Jeannin, Garner	3136	Y

3.4.12 to make publicly available the following documents:

Title	No.
Call for evidence justifying the testing of video coding technology	3098
Text of ISO/IEC 14496-2 FGS Amendment WD 3.0	3095
Text of ISO/IEC 13818-2:2000/PDAM1	3062

3.5 The Audio group recommends

3.5.1 that the following documents be approved:

Title	No
MPEG-4 Version 1 Audio Conformance FDIS	3067
DoC on Audio Conformance FCD	3066
Doc of ISO/IEC 14496-3/FPDAM 1	3057
Text of ISO/IEC 14496-3/FDAM1	3058
MPEG-4 Version 2 Audio Conformance PDAM	3065
Status and Workplan of MPEG-4 Version 2 Audio Reference Software	3071
Audio Contribution to MPEG-7 WD	3072
Proposed Corrections to 14496-3, MPEG-4 Version 1 Audio	3073
Workplan for MPEG-4 Audio Conformance	3074
Report on MPEG-4 Version 2 Audio Verification Test	3075
Information on Use of MPEG-4 Low-overhead Audio Transport Multiplex (LATM)	3076
MPEG-7 Audio Core Experiment Methodology	3077
Framework for MPEG-7 Audio Descriptors	3078
Status of MPEG-7 Audio Core Experiments	3079
Workplan for MPEG-7 Speech Recognition Core Experiment	3080
Workplan for MPEG-7 Timbre Similarity Core Experiment	3081
Workplan for MPEG-7 Sound Effects Core Experiment	3082
Workplan for MPEG-7 Music Genre Core Experiment	3083
Audio FAQ Update	3084

3.5.2 that the following Ad-hoc groups be established:

Title	Chair	No.	Meeting
AHG on MPEG-4 Audio Reference Software Editing	H. Purnhagen B. Teichmann	3085	No

AHG on Audio part of MPEG-4 Version 1 FDIS and Version 2 PDAM Conformance	T. Mlasko S Hotani	3086	No
AHG on MPEG-4 Audio Version 2 FDAM Editing	S-W Kim	3087	No
AHG on MPEG-7 Audio Core Experiments	Chair: A. Lindsay Co-chair: J. Koehler, M Casey, G Peeters, S. Quackenbush	3088	00/03/19

3.5.3 that the following documents be made publicly available:

Title	No.
Audio FAQ Update	3084
Audio contribution to Maui Press statement	
Report on MPEG-4 Version 2 Audio Verification Test	3075

3.5.4 The Audio group thanks AT& T, Bosch, FhG, Nokia, NEC, NTT, NTT DoCoMo, Philips, Samsung, T-Nova and Univ. Hannover for their participation in the MPEG-4 Version 2 verification test.

3.5.5 The Audio group thanks Philips for making MPEG-1 and MPEG-2 Audio conformance testing bit-streams available at <http://www.licensing.philips.com/mpeg/index.html>.

3.5.6 Considering the clarification in the MPEG-7 source code policy made at this meeting, submission of non-normative source code associated with the speech recognition core experiment will be complete by the start of the July 2000 MPEG meeting.

3.5.7 The Audio Group thanks FhG for providing the Audio Reference software archive and source code control framework that will support the further development of MPEG-4 Audio Reference source code.

3.5.8 The Audio FAQ Update will be made public after an editing and review period to end 1st Feb 2000.

3.5.9 The MPEG-4 Version 2 Audio FDAM text will be available after an editing and review period to end 1st Feb 2000.

3.5.10 The MPEG-4 Version 1 Audio Conformance text will be delivered to the Conformance editor after an editing and review period to end 1st Feb 2000.

3.5.11 Considering the input from the German National Body recommends companies represented in MPEG to see that simple licensing of MPEG-4 audio is available within a short time.

3.6 The SNHC group recommends

3.6.1 that the following documents be approved:

Title	No.
DoC on ISO/IEC 14496-2/AMD1 FPDAM	N3055
Text of ISO/IEC 14496-2/AMD1 FDAM	N3056

Text of ISO/IEC 14496-2/AMD2 PDAM	N3146
Text of SNHC part of ISO/IEC 14496-4 FDIS (Conformance)	N3067
Text of SNHC part of ISO/IEC 14496-4/AMD1 PDAM (Conformance)	N3065
SNHC work plan on conformance	N3147

3.6.2 that the following Ad-hoc groups be established:

Title	Chair	No.	Meeting
AHG on FBA	E. Petajan, T. Capin	3149	19 Mar 2000
AHG on study of 3D animation coding	E. Jang, M. Bourges-Sevenier	3150	NO
AHG on 3DMC conformance	G. Taubin, M. Han	3148	19 Mar 2000
AHG on Editing the Version 3 Visual Profiles	G. Taubin	3172	19 Mar 2000

3.6.3 that the following documents be made publicly available:

Title	No.
SNHC contribution to Maui Press statement	N3047

3.6.4 that the list of patent statement is adequate to the best knowledge of SNHC group.

3.6.5 that WG11 supports continued cooperation with Web3D.

3.6.6 that a 2nd amendment be made to MPEG-4 visual to support 3D mesh profiles with the following schedule.

Status	Date
Approval of Visual PDAM2	10 Dec 99
SC29 sends out the Visual PDAM2	13 Dec 99
Editorial Group produces draft of FPDAM and DOC of PDAM	18 Mar 00
Plenary approves FPDAM and DOC of PDAM	20 Mar 00
SC29 sends out Visual FPDAM 2	20 Mar 00
Editorial Group starts producing draft of DAM and DOC of FPDAM	20 Jul 00
Editorial Group compares draft with actual comments	20 Jul 00
Plenary approves FDAM 2 and DOC of FPDAM 2	21 Jul 00

3.6.7 The SNHC group thanks Samsung AIT for kindly accepting to take over the maintenance of the reference S/W for 3D mesh coding.

3.7 The Implementation Study Group recommends:

3.7.1 To approve the following documents:

Experimental conditions for evaluating encoder motion estimation algorithms.	N3141
MPEG-7 software integration policy and work-plan for DS integration.	N3115
Schedule for the software implementation of XM visual tools.	N3142

3.7.2 To establish the following ad-hoc groups:

Title	Chair(s)	No.	Mtg
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AHG on complexity evaluations of video tools	Marco Mattavelli	N3143	N
AHG on MPEG-7 XM Development	Stephan Herrmann, Eric Rehm, J. Charlesworth	N3144	N

3.7.3 To continue assessing different implementations of the IPMP interface and of IPMP non-normative applications with the System IPMP group clarifying what are the possible implementation scenarios.

3.8 The Liaisons group recommends

3.8.1 Approval of the Liaison documents listed below

	Title
N3173	Liaison to ITU-R JWP 10-11Q
N3174	Establishing Liaison with OCLC
N3175	Liaison to ATSC on Data Broadcasting
N3176	Liaison to ATSC on ES Supplementary Information
N3177	Liaison to DVD Consortium
N3178	Liaison to EBU
N3179	Liaison to ProMPEG
N3180	Liaison to DVB
N3181	Liaison to DVB
N3182	Liaison Statement to ITU-T SG16 Regarding Video Coding Activities and IDCT Specification
N3183	Liaison to IEC TC100
N3184	Liaison Statement to RIAA
N3185	Liaison to ITU-T SG16/Q.11, 14 on MPEG-4/Audio
N3186	Liaison to Web3D on Convergence with MPEG-4
N3220	Liaison to IOC

3.8.2 that SC29 complete the OCLC Liaison approval (N3174)

3.8.3 that SC29 complete the IOC Liaison approval

3.8.4 that SC29 be informed that a Liaison has existed for some time with CISAC (Confédération Internationale des Sociétés d'Auteurs et Compositeurs) with Dominique Yon as liaison person.

3.8.5 that the response to national Bodies be approved (N3187)

3.9 The HoD group

3.9.1 Requests that its members should develop a solution to host the MPEG WWW site and the ftp site based upon the draft call for information of N3070;

- 3.9.2** Recommends that consideration be given to the publication of a technical report as part 7 of ISO/IEC 14496 for the purpose of describing non-normative tools that offer significant enhancements to the performance of software contained in Part 5;
- 3.9.3** Recommends that the MPEG-4 software (ISO/IEC 14496-5) be published electronically on the ISO's web site as soon as possible to facilitate distribution to companies implementing the standard. At the same time it is believed that availability of the MPEG-4 software via the WWW will have beneficial effects on the sale of the other parts by virtue of their normative value. It is further recommended that ISO devise a means to allow tracking those who download the said software and that the site contain a general disclaimer regarding the permitted use of the software, the absence of any liability of the part of the originators of the software, the possible infringement of patents etc.;
- 3.9.4** Notes that the situation with respect to patent statements received for MPEG-4 Version 2 has improved significantly. Companies are reminded that it is in their interests to submit these statements, and that the final deadline for submission of these statements be set as two weeks before the time at which editors must forward FDAM documents to the ISO. Before sending the final text of the version 2 drafts to the SC29 Secretariat the editors shall obtain from the Convenor the latest list of patent statements;
- 3.9.5** Recommends that MPEG-4 version 2 Systems, Audio and DMIF be promoted to FDAM assuming that the corrections of Corrigendum 1 will be approved. MPEG-4 version 2 Visual should be promoted to FDAM introducing the corrections of Corrigendum 1 into its version 1 portion.
- 3.9.6** Recommends that the policy for source code to be used in the development of the MPEG-7 standard should be
1. Code for normative tools shall be delivered in source code
 2. Core experiments can use software that is in object form with output provided according to an agreed interface. If a proposal is selected for the XM, a source code version of the informative tool shall be delivered and integrated for final acceptance of the tool even if the tool does not perform as well as the version used for core experiments.
- Exceptions to rule 2 are made in the following cases:
1. The code utilises an API documented and supported by a number of independent vendors
 2. When standard mathematical routines such as MATLAB are involved. However, in this case the proponent will take care of integrating the routines in the XM
 3. In the case of segmentation in space and time as done in MPEG-4 Video for space segmentation
 4. When it is possible to utilise publicly available code in source code only that can be used by MPEG members directly without any modification.
- 3.9.7** Recommends approval of the revised Guide to meeting hosts (N3049)
- 3.9.8** Recommends approval of the meeting plan including
- the 51st meeting in the Netherlands over the period 20th to 24th March 2000 and acceptance of a meeting fee of approximately NLG 675.
 - The 52nd meeting in Beijing, China over the period 17-21 July 2000

- the 53rd meeting in Lyon (venue to be confirmed) over the period 23-27th October 2000
- the 54th meeting in Eilat, Israel over the period 15-19 January 2001
- the 55th meeting in Singapore over the period 5-9 March 2001 (invitation to be confirmed).

4 MPEG Phase 2 related resolutions

4.1 WG11 approves the progression of the following MPEG-2 amendments

Text of 13818-1 FDAM 7	N3050
Rationale for 13818-2:2000 PDAM-1	N3061
Text of 13818-2:2000 PDAM-1	N3062
DoC on 13818-6 FPDAM 2	N3051
Text of 13818-6 FDAM 2	N3052

4.2 WG11 nominates the following individuals as recipients of the ISO certificate for outstanding contributions

13818-1 FPDAM 7	Regis Crinon, Carsten Herpel, Yoshinori Matsui, Jan van der Meer
13818-6 FDAM 2	Regis Crinon

4.3 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						00/04
2/Amd 6	Number of lines per frame					00/02	00/04
2:2000/ Amd 1	Video elementary stream supplemental information			99/12	00/03	00/07	00/09
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						00/02

5 MPEG Phase 4 related resolutions

5.1 WG11 approves the progression of the following MPEG-4 standard

DoC on 14496-4 FCD	N3066
Text of 14496-4 FDIS	N3067

5.2 WG11 nominates the following individuals as recipients of the ISO certificate for

outstanding contributions

14496-4 FDIS	Jean-Claude Dufourd, Michael Frater, Takuyo Kogure, Torsten Mlasko, Eric Petajan, Jens Spille
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5.3 WG11 approves the progression of the following version 2 MPEG-4 amendments

DoC on 14496-1 FPDAM 1	N3053
Text of 14496-1 FDAM 1	N3054
DoC on 14496-2 FPDAM 1	N3055
Text of 14496-2 FDAM 1	N3056
DoC on 14496-3 FPDAM 1	N3057
Text of 14496-3 FDAM 1	N3058
Text of 14496-4 PDAM 1	N3065
DoC on 14496-6 FPDAM 1	N3059
Text of 14496-6 FDAM 1	N3060

5.4 WG11 approves the report of the MPEG-4 Audio version 2 Verification Tests (N3075)

5.5 WG11 nominates the following individuals as recipients of the ISO certificate for outstanding contributions

14496-1 FDAM 1	William Belknap, Gerard Fernando, Young-Kwon Lim, David Singer, Viswanathan Swaminathan, Riitta Väänänen
14496-2 FDAM 1	Ulrich Benzler, Frank Bossen, Tolga Capin, Norio Ito, Euee S. Jang, Eishi Morimatsu, Yuichiro Nakaya, Eric Petajan,
14496-3 FDAM 1	Jürgen Herre, Sanae Hotani, Sang-Wook Kim, Heiko Purnhagen, Ralph Sperschneider
14496-6 FDAM 1	Guido Franceschini, Javier Zamora

5.6 WG11 approves the following Verification Models

MPEG-4 Systems Ver. 2 VM 9.0	N3198
MPEG-4 Video VM 15.0	N3093

5.7 WG11 approves the progression of the following version 3 MPEG-4 amendments

Rationale for 14496-1 PDAM 2	N3203
Text of 14496-1 PDAM 2	N3204
Rationale for 14496-2 PDAM 2	N3170
Text of 14496-2 PDAM 2	N3146

The processing of these two amendments will have to be subject to strict time constraints:

99/12/10	Approval of PDAM 2
99/12/13	SC29 sends out the PDAM 2 for ballot
00/03/18	Editorial group produces draft of FPDAM and DoC of PDAM
00/03/20	Plenary approves FPDAM and DoC of PDAM
00/03/20	SC29 sends out FPDAM 2 for ballot
00/07/17	Editorial group starts producing draft of FDAM and DoC of FPDAM
00/07/20	Editorial group compares draft with actual comments

00/07/21	Plenary approves FDAM and DoC of FPDAM
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5.8 WG11 approves the call for evidence of performance of new video coding algorithms (N3098).

5.9 WG11 welcomes the proposal by WG1 to develop a Motion JPEG 2000 standard based on the preliminary requirements outlined in N3151. WG11 offers N3207 as a starting point for this project. It is the understanding of WG11 that the solution identified in N3207 is both a superset of the current JPEG2000 file format and a subset of MP4 as defined in ISO/IEC 14496-1 FDAM 1.

5.10 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						00/02
5	Reference Software						00/02
6	DMIF						
1/Amd 1	Systems Extensions						00/02
2/Amd 1	Visual Extensions						00/02
3/Amd 1	Audio Extensions						00/02
4/Amd1	Conformance Testing Extensions				00/07	00/12	01/02
5/Amd 1	Reference Software Extensions				00/03	00/07	00/09
6/Amd 1	DMIF Extensions						00/02
1/Amd 2	Extended BIFS				00/03	00/07	00/09
2/Amd 2	3D Mesh profiles				00/03	00/07	00/09

6 MPEG Phase 7 related resolutions

6.1 WG11 approves the following subdivision of the MPEG-7 work item

- 1. Systems**
- 2. Description Definition Language**
- 3. Visual**
- 4. Audio**
- 5. Multimedia Description Schemes**
- 6. Reference SW**
- 7. Conformance**

and the rationale for the said subdivision (N3063)

6.2 WG11 approves the working drafts of MPEG-7

Text of WD of 15938-1	N3199
Text of WD of 15938-2	N3201
Text of WD of 15938-3	N3069

Text of WD of 15938-4	N3072
Text of WD of 15938-5	N3113
Text of WD of 15938-6	N3068

6.3 WG11 approves the MPEG-7 Core Experiments documents (N3099, 3090, 3079, 3119-3125, 3127-3131)

6.4 MPEG-7 approves the MPEG-7 development process (WG11 N3159).

6.5 WG11 approves the MPEG-7 workplan:

Part	Title	CfP	WD	CD PDAM PDTR	FC 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

7 MPEG Phase 21 related resolutions

7.1 WG11 approves the request for the proposed new work item "Multimedia Framework" (N3200) and requests the SC29 Secretariat to process the document for approval.

7.2 WG11 approves the first draft of the scope of the Multimedia Framework (N3162)

7.3 WG11 supports the holding of a workshop on the Multimedia Framework co-located with its 51st meeting.

8 WG11 approves its integrated workplan:

Part	Title	CfP	WD	CD PDAM PDTR	FC 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						00/04
2/Amd 6	Number of lines per frame					00/02	00/04
2:2000/ Amd 1	Video elementary stream supplemental information			99/12	00/03	00/07	00/09
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						00/02

MPEG-4							
1	Systems						99/10
2	Visual						99/11
3	Audio						99/11
4	Conformance Testing						00/02
5	Reference Software						00/02
6	DMIF						
1/Amd 1	Systems Extensions						00/02
2/Amd 1	Visual Extensions						00/02
3/Amd 1	Audio Extensions						00/02
4/Amd 1	Conformance Testing Extensions				00/07	00/12	01/02
5/Amd 1	Reference Software Extensions				00/03	00/07	00/09
6/Amd 1	DMIF Extensions						00/02
1/Amd 2	Extended BIFS				00/03	00/07	00/09
2/Amd 2	3D Mesh profiles				00/03	00/07	00/09
MPEG-7							
1	Multimedia Content Description Interface		99/12	00/10	01/03	01/07	01/09

9 WG11 approves its meeting schedule:

No.	yy	mm	Dd	City	Country
51	00	03	20-24	Noordwijkerhout	NL
52	00	07	17-21	Beijing	CN
53	00	10	23-27	(Lyon)	FR
54	01	01	15-19	Eilat	IL
55	01	03	05-09	(Singapore)	(SG)

10 WG11 approves its Maui press release for publication on the MPEG home page (WG11 N3047).

11 The Convenor would like to express his thanks to Antonio Ferreras, Lena Pedersen and Peter Schirling for their support in the preparation of the Friday Plenary.

12 WG 11 expresses its gratitude to the American National Standards Institute (ANSI) for hosting this meeting and to the member organizations of NCITS L3 whose financial support contributed to making this meeting possible. These include the IBM Content Solutions Division, and Microsoft Corporation.

WG 11 also wishes to thank Hughes DirectTV for providing the D1 tape drive, Intel Corporation for making available one high-resolution monitor, The University of California for their support of a coffee break service, and to Steve Rose for his significant efforts in enabling the Internet access for this meeting.

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WG 11 expresses its gratitude to the US Organizing committee, and Preferred Meetings Inc. for their assistance in organizing and running the Maui Meeting. In particular, Mike Zeug, Bernie Brower, Peter Schirling, Mike Rubinfeld, Andy Tescher, and Julie Higgins, and Valerie Ritacco.

Meeting closed at 09:50