Information technology — Coding of multimedia and hypermedia information —
Part 5: Support for base-level interactive applications
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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialised system for worldwide standardisation. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organisation to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organisations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. 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 vote.

International Standard ISO/IEC 13522-5 was prepared by Joint Technical Committee ISO/IEC JTC 1, Information technology, Subcommittee SC 29, Coding of audio, picture, multimedia and hypermedia information.

ISO/IEC 13522 consists of the following parts, under the general title Information technology – Coding of multimedia and hypermedia information:

– Part 1: MHEG object representation – Base notation (ASN.1)
– Part 3: MHEG script interchange representation
– Part 4: MHEG registration procedure
– Part 5: Support for base-level interactive applications
– Part 6: Support for enhanced interactive applications

Annexes A and B form an integral part of this part of ISO/IEC 13522. Annexes C and D are for information only.
Information technology —
Coding of multimedia and hypermedia information —

Part 5:
Support for base-level interactive applications

1 Scope

This part of ISO/IEC 13522 specifies semantics and final-form interchange syntax for MHEG-5 objects, based on concepts defined in ISO/IEC 13522-1. These objects are intended for use in the domain of simple client/server interactive multimedia applications, e.g. (Near) Video on Demand applications, navigation and browsing applications.

1.1 Specificity of the scope

Since it is expected that this part of ISO/IEC 13522 be used for interoperability of applications across platforms, the scope focuses on a specific and precise definition of MHEG-5 classes. This part of ISO/IEC 13522 recognises the semantics implied by the specification of the MHEG-5 objects and by interpretation of MHEG-5 behaviours within the using system.

1.2 Issues outside the scope of this part of ISO/IEC 13522

The scope excludes any standardisation of models, services, systems, protocols or applications that are likely to make use of MHEG-5 objects.

The coded representation of content data is not in the scope of this part of ISO/IEC 13522.

2 Normative References

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC 13522. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO/IEC 13522 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO/IEC 13522-5:1997(E)

— RFC 1521:1993: MIME (Multipurpose Internet Mail Extensions) Part one: Mechanisms for specifying and describing the format of Internet message bodies.

3 Terms and definitions
For the purposes of this part of ISO/IEC 13522, the following definitions apply:

3.1 abstract class
Class that is never instantiated into an interchangeable MHEG-5 object.
NOTE — An abstract class defines attributes, behaviours and semantics of actions that may be exchanged as parts of any MHEG-5 object of the concrete subclasses of this abstract class.

3.2 action
Set of elementary actions.

3.3 active
State of any MHEG-5 object when the Activation behaviour has been completed successfully for this object. An active object has its RunningStatus set to True.

3.4 application domain
Specific domain of applications making use of this part of ISO/IEC 13522 and providing additional tools and values in order to create a practical instance of an MHEG-5 environment.
NOTE — More information on application domains is provided in Annex D of this part of ISO/IEC 13522.

3.5 application scope
Common scope of all MHEG-5 objects (scenes and ingredients) accessed from an MHEG-5 application.

3.6 attribute
Named and typed value attached to a class.

3.7 available
State of any MHEG-5 object when the Preparation behaviour has been completed successfully for this object. An available object has its AvailabilityStatus set to True.

3.8 base class
MHEG-5 class which defines some attributes, behaviours and semantics of actions that are shared by a given MHEG-5 class.

3.9 concrete class
Class of any MHEG-5 object that may be encoded and interchanged according to the specifications provided in Annex A or Annex B of this part of ISO/IEC 13522.

3.10 elementary action
Abstract representation of a message that may be sent to an object.
NOTE — This part of ISO/IEC 13522 defines the semantics of available elementary actions for each MHEG-5 class. Note that the MHEG-5 class Action (with a capital A) has a different meaning described in clause 49 of this part of ISO/IEC 13522.

3.11 event
Abstract representation of an occurrence of a special meaning for any MHEG-5 object. Events are used to trigger Link conditions and bring out the execution of sequences of elementary actions.

3.12 exchanged attribute
Attribute that is part of the interchangeable byte-code representation of an MHEG-5 object, and transmitted with that object.