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Information technology — Generic digital audio-visual systems — Technical Report on ISO/IEC 16500 — Description of digital audio-visual functionalities

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Contents Page

Foreword

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

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

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 a vote.

In exceptional circumstances, when a technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example), it may decide by a simple majority vote of its participating members to publish a Technical Report. A Technical Report is entirely informative in nature and does not have to be reviewed until the data it provides are considered to be no longer valid or useful.

Attention is drawn to the possibility that some of the elements of this Technical Report may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC TR 16501 was prepared by DAVIC (Digital Audio-Visual Council) and was adopted, under the PAS procedure, by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, in parallel with its approval by national bodies of ISO and IEC.

Introduction

ISO/IEC TR 16501 provides a detailed listing of the core functions, generic tool capabilities and sample applications required by users and providers of digital audio-visual applications and systems. It introduces the concept of a contour and defines the functions required for IDB (Interactive Digital Broadcast) and EDB (Enhanced Digital Broadcast) contours. The Technical Report complements ISO/IEC 16500. It is the source of the requirements used to identify the generic tool technologies defined in ISO/IEC 16500 and, in particular, it identifies the user needs and market requirements which are addressed by the contour technology toolsets defined in ISO/IEC 16500-3.

Information technology — Generic digital audio-visual systems — Technical Report on ISO/IEC 16500 — Description of digital audio-visual functionalities

1 Scope

This Technical Report describes the functions that may be supported by systems using ISO/IEC 16500. These functions have been derived by analyzing the requirements of a number of example applications from the viewpoints of a range of participants, including:

- content providers
- service providers
- delivery system providers
- end-users
- equipment manufacturers
- IPR holders
- rights collection agencies
- regulatory authorities
- business support services
- financial services

Applications, tools and functions are described from a behavioral viewpoint. The report does not assume any technical implementation for a particular service.

The Technical Report consists of a main body, and a series of Annexes. The main body introduces the concept of a contour in the context of ISO/IEC 16500 and outlines its use in compliance and conformance definitions. The behaviour and parameters of sets of core functions and generic tools that can be derived from the functions are then presented. Nineteeen example applications are analysed and described in terms of generic and application specific functionalities. The main body concludes with an integrated summary listing of the functionalities required by users and providers of digital audio-visual applications and systems organised under a set of functional groupings . The User and Market Requirements and the corresponding Functional Requirements required for the IDB (Interactive Digital Broadcast) contour are defined in Annex A. Similar information is provided in Annex B for the EDB (Enhanced Digital Broadcast) contour. This overall structure is designed to readily incorporate future descriptions of new core functions, generic tools, sample applications and additional contours.