
**Information technology — Multimedia
framework (MPEG-21) —**

**Part 22:
User Description**

Technologies de l'information — Cadre multimédia (MPEG-21) —

Partie 22: Description de l'utilisateur

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

This second edition cancels and replaces the first edition (ISO/IEC 21000-22:2016), which has been technically revised. It also incorporates the Amendment ISO/IEC 21000-22:2016/Amd. 1:2018.

The main changes compared to the previous edition are as follows:

— addition of technologies related to loudness control and visual expression.

A list of all parts in the ISO/IEC 21000 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Information technology — Multimedia framework (MPEG-21) —

Part 22:

User description

1 Scope

This document standardizes four data formats: User Description (UD), Context Description (CD), Service Description (SD), and Recommendation Description (RD). This document also specifies technologies related to loudness control and visual expression.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at <http://www.electropedia.org/>

— ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

MPEG-21 UD

four standard descriptions that contain information about user, context, service and recommendation

3.2

user description

UD

set of data which may contain static and/or dynamic information about the user

EXAMPLE Identity, interactions, preferences, security settings.

3.3

context description

CD

set of data that describes the context and environmental situation in which the user is located

EXAMPLE Device in use, physical position, environmental variables (such as temperature and humidity), traffic conditions, security settings.

3.4 service description

SD
set of data containing pertinent information (including security settings) about services (or a set of sub-services)

3.5 recommendation description

RD
set of recommendation data, containing subsets from *UD* (3.2), *CD* (3.3), *SD* (3.4) and additional logical relations and metadata related to the subsets

**3.6
user**
human or software agent, industrial process or device that is performing autonomous activities

**3.7
service**
independent, value-adding operation, which brings values to users, or applications providing benefits responding to user's needs

**3.8
context**
environmental situation for the user

EXAMPLE Device in use, physical location, etc. [21000-22:2019](https://standards.iteh.ai/catalog/standards/iso/2896b696-ee54-4e74-8f64-86beabf70103/iso-iec-21000-22-2019)

**3.9
application**
entity in charge of responding to the users' requests

EXAMPLE An interface allowing users to choose their preferred programmes on a smart TV.

**3.10
manager**
<UD/C/SD> entities that provide functionalities of filtering, accessing, storing, editing, updating and securing *UD* (3.2), *CD* (3.3) and *SD* (3.4)

**3.11
recommendation engine**
process (or a set of processes) in charge of exploiting all available information contained in *UD* (3.2), *CD* (3.3) and *SD* (3.4) to produce a recommendation, i.e. *RD* (3.5), for an enriched user experience