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Part 5: Gesture Interface Markup Language (GIML)

Technologies de l'information — Interface utilisateur — Interfaces fondées sur la gestuelle entre dispositifs et méthodes —

Partie 5: Langage de balisage de l'interface gestuelle (GIML)

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Foreword

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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 35, *User interfaces*.

A list of all parts in the ISO/IEC 30113 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.

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Introduction

This document provides definition, syntax, structure and explanation of GIML (Gesture Interface Markup Language) which is used to formally describe gestures for gesture-based interfaces of ICT products, systems and services. The gestures are recognized by the gesture software for the gesture-based interfaces and translated into corresponding gesture commands of the ICT products, systems and services. Some examples of the gestures are defined in international standards such as ISO/IEC 30113-1 and ISO/IEC 30113-11.

GIML is defined in terms of XML (Extensible Markup Language) which is a special subset of SGML (Standard Generalized Markup Language). It is useful in exchanging data in various ICT products and services and used to describe syntax and features of the standard gestures.

GIML is designed to achieve the following goals:

— The standard gestures are formally and consistently defined in a well-formed format.

— The standard gestures are concretely expressed as both human-readable and machine-readable.

— The information of the standard gestures is exchanged and shared among ICT products, systems and services.

This document focuses on the syntax and the structure of GIML. The XML schema of GIML is presented in Annex A. Some examples of GIML are listed in Annex B.

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Information technology — User interface — Gesture-based interfaces across devices and methods —

Part 5:
Gesture Interface Markup Language(GIML)

1 Scope

This document defines GIML (Gesture Interface Markup Language). The syntax and the structure of GIML are described in this document.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 30113-1, *Information technology — User interface — Gesture-based interfaces across devices and methods — Part 1: Framework*

ISO/IEC 30113-11, *Information technology — Gesture-based interfaces across devices and methods — Part 11: Single-point gestures for common system actions*

3 Terms and definitions

No terms and definitions are listed in this document.

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

— IEC Electropedia: available at https://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

4 General

GIML is used to describe syntax and features of gestures which support interactions between human users and gesture interfaces of ICT product, systems and services. The gesture interfaces provide information and controls for the users to accomplish specific tasks as defined in ISO/IEC 30113-1. They include mice, touch screens, 3D mice, joysticks, game controllers, wired gloves, depth-aware cameras, stereo cameras, etc.

The gestures of the users are translated into gesture commands for the ICT product, systems and services. According to ISO/IEC 30113-1, gesture software implements functionalities of the gesture interfaces including gesture recognition, command processing and feedback generation. Some of the standard gestures are single-point gestures for common system actions as defined in ISO/IEC 30113-11.

Since GIML is used to describe syntax, structure and schema (as specified in Annex A) of the standard gestures in a well-formed format, the GIML-based descriptions are used in developing gestures, gesture interfaces, gesture software, etc. The GIML-based descriptions of the standard gestures can be understood by human and machines. Also, the description of the standard gestures can be utilized in exchanging and sharing information about the gestures.

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