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

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)





COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2019

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 General	1
5 Syntax and structure	2
5.1 General.....	2
5.2 Elements.....	2
5.2.1 General.....	2
5.2.2 The <GIML> element.....	2
5.2.3 The <gesture> element.....	3
5.2.4 The <description> element.....	3
5.2.5 The <alternative> element.....	4
5.2.6 The <keyboard> element.....	4
5.2.7 The <mouse> element.....	5
5.2.8 The <range> element.....	5
5.2.9 The <minMovement> element.....	6
5.2.10 The <maxAngle> element.....	6
5.2.11 The <classification> element.....	7
5.2.12 The <xMovement> element.....	7
5.2.13 The <yMovement> element.....	7
5.2.14 The <zMovement> element.....	8
5.2.15 The <commandInstance> element.....	8
5.3 Attributes.....	8
5.3.1 General.....	8
5.3.2 The “id” attribute.....	9
5.3.3 The “name” attribute.....	9
5.3.4 The “desc” attribute.....	9
5.3.5 The “figure” attribute.....	10
Annex A (normative) XML schema of GIML	11
Annex B (informative) Examples of GIML	13
Bibliography	17

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

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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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.

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](#).

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*