ISO/IEC 24757:2008-11 (E)

Information technology - Keyboard interaction model - Machine-readable keyboard description

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Conformance 1

3 Normative references 1

4 Terms and definitions 1

5 Requirements 2
5.1 Description of keys and keyboard layouts 2
5.2 States resulting from the interaction of function keys used for input 2
5.3 Special keys 4
5.4 Dead keys 4
5.5 Stickiness and stable (explicit) locking or temporary (implicit) latching 5
5.6 Supplementary keys (accessible or not by the computer software) ; Email, Fn function keys, «Windows» keys, Sleep, On/Off) 6
5.7 Complex state change (mainly for accessibility purposes) 6
5.8 Keyboard feedback 6
5.9 Machine-readable keyboard description language 6

Annex A (normative) Protocol for the exchange of information between the hardware keyboard and the software 8

Annex B (normative) Formal description language 9

B.1 Introduction 9
B.2 Overview 9
B.3 Sections 9
B.3.1 Dictionaries 9
B.3.2 Meta-information 10
B.3.3 Non-functional information 10
B.3.4 Functional information 10
B.4 A specification in RELAX NG language of the keyboard description format 11
B.5 A description in EBNF language of the keyboard format 14
B.5.1 Rules for BNF syntax 14
B.5.2 Grammar for ISO/IEC 24757 Relax NG descriptions 15
B.6 An example keyboard description 16
B.7 Format in XML syntax 17

Annex C (informative) Brief History of computer keyboards and their associated software 24

C.1 The IBM keyboard 24
C.2 The AT and PS/2 keyboard 24
C.3 The USB keyboard 25

Annex D (informative) Format Mapping 26

D.1 General 26
D.2 Unix/Linux X Window xkb keyboard format 26
D.2.1 xkb description 26
D.2.2 xkb example 26
D.2.3 Example of keyboard description in ISO/IEC 24757 syntax 54
D.2.4 Program to convert xkb descriptions to ISO/IEC 24757 format 122

Bibliography 136