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Information technology — Automatic identification and data capture techniques — Reading and display of ORM by mobile devices

Technologies de l'information — Techniques automatiques d'identification et capture de données — Lecture et affichage de l'ORM par dispositifs mobiles

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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. 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).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: Foreword — Supplementary information.

The committee responsible for this document is ISO/IEC JTC 1, *Information technology*, Subcommittee SC 31, *Automatic identification and data capture techniques*.

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Introduction

This is a technical engineering document intended for verifier manufacturers and application specification developers for two distinct scanning environments. One is when a bar code is sent to a mobile device or other display device (MQR) for reading by a bar code scanner (generally used for personal applications such as access control and coupons). The other is when a mobile device is used to read a bar code (MBR) with its internal photographic camera from a printed or electronically displayed symbol (generally used for advertising where the mobile device runs an application to access the internet).

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Information technology — Automatic identification and data capture techniques — Reading and display of ORM by mobile devices

1 Scope

This International Standard specifies a method to assess the symbol quality rendered on electronic displays (i.e. the symbol produces its own light) when the reading device is a two-dimensional bar code imager.

In addition, this international standard specifies a method to assess the quality of symbols that are intended to be read with general-purpose cameras in ambient lighting conditions.

Further, this international standard describes modifications, which are to be considered in conjunction with the symbol quality methodology when applied to a particular symbology specification as defined in ISO/IEC 15415 and ISO/IEC 15416. It defines alternative illumination conditions, display pixel conditions and the reporting of the grading results. This document also describes appropriate ranges of symbol X-dimensions.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 15415, *Information technology — Automatic identification and data capture techniques — Bar code symbol print quality test specification — Two-dimensional symbols*

ISO/IEC 15416, *Information technology — Automatic identification and data capture techniques — Bar code print quality test specification — Linear symbols*

ISO/IEC 19762, *Information technology — Automatic identification and data capture techniques — Harmonized vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 19762 and the following apply.

3.1
MQR
application environment where a bar code symbol is rendered on an electronic display such as found on a typical mobile device and is intended to be read by a bar code scanner

Note 1 to entry: MQR is not an acronym.

3.2
MBR
application environment where a bar code symbol is intended to be read with a general-purpose camera such as that found on a typical mobile device in ambient lighting conditions

Note 1 to entry: MBR is not an acronym.

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