ISO/IEC 30116:2016-10 (E)

Information technology - Automatic identification and data capture techniques - Optical Character Recognition (OCR) quality testing

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Terms and definitions 1

4 Abbreviated terms 3

5 Quality grading 3

6 Measurement methodology for OCR-B 3
6.1 Overview of methodology 3
6.2 Obtaining the test image 3
6.2.1 Measurement conditions 3
6.2.2 Raw image 3
6.2.3 Reference grey-scale image 3
6.2.4 Binarized image 4
6.3 Reference reflectivity measurements 4
6.3.1 General requirements 4
6.3.2 Light sources 4
6.3.3 Effective resolution 4
6.3.4 Optical geometry 4
6.3.5 Inspection area 8
6.4 Basis of symbol grading 8
6.5 Capture the raw image 9
6.6 Image assessment parameters and grading 9
6.6.1 Determining the document horizontal axis 9
6.6.2 Character best-fit algorithm 9
6.6.3 Position of a character 11
6.6.4 Character evaluation value (CEV) in the best-fit location 11
6.6.5 Background noise 12
6.6.6 Contrast PCS of the characters 12

7 Reporting the grade 12

Annex A (normative) OCR-B character centreline coordinates 14

Annex B (normative) Threshold determination method 20

Annex C (normative) OCR reference decode algorithm 24

Annex D (informative) Example calculation of character evaluation value (CEV) 25

Bibliography 29