ISO 15076-1 :2005-12 (E)

Image technology colour management_- Architecture, profile format and data structure_- Part_1: Based on ICC.1:2004-10

Contents

Page

Foreword . . . iii

Introduction . . . vi

1 Scope . . . 1

2 Compliance and registration . . . 1

3 Normative references . . . 1

4 Terms and definitions . . . 2

5 Basic numeric types and abbreviations . . . 4
5.1 Basic number types . . . 4
5.2 Abbreviations . . . 7

6 Profile Connection Space and rendering intents . . . 7
6.1 Introduction . . . 7
6.2 Rendering intents . . . 8
6.3 Profile Connection Space . . . 9
6.4 Converting between CIEXYZ and CIELAB encodings . . . 13

7 Profile requirements . . . 13
7.1 General . . . 13
7.2 Profile header . . . 15
7.3 Tag table . . . 20
7.4 Tag data . . . 21

8 Required tags . . . 21
8.1 Overview . . . 21
8.2 Common requirements . . . 22
8.3 Input profiles . . . 22
8.4 Display profiles . . . 23
8.5 Output profiles . . . 24
8.6 DeviceLink profile . . . 25
8.7 ColorSpace conversion profile . . . 26
8.8 Abstract profile . . . 26
8.9 Named colour profile . . . 26
8.10 Priority of tag usage . . . 27

9 Tag definitions . . . 27
9.1 General . . . 27
9.2 Tag listing . . . 27

10 Tag type definitions . . . 36
10.1 Overview . . . 36
10.2 chromaticityType . . . 37
10.3 colorantOrderType . . . 37
10.4 colorantTableType . . . 38
10.5 curveType . . . 39
10.6 dataType . . . 39
10.7 dateTimeType . . . 40
10.8 lut16Type . . . 40
10.9 lut8Type . . . 44
10.10 lutAtoBType . . . 46
10.11 lutBtoAType . . . 49
10.12 measurementType . . . 52
10.13 multiLocalizedUnicodeType . . . 53
10.14 namedColor2Type . . . 54
10.15 parametricCurveType . . . 55

10.16 profileSequenceDescType 57
10.17 responseCurveSet16Type 57
10.18 s15Fixed16ArrayType 60
10.19 signatureType 60
10.20 textType 60
10.21 u16Fixed16ArrayType 61
10.22 uInt16ArrayType 61
10.23 uInt32ArrayType 61
10.24 uInt64ArrayType 62
10.25 uInt8ArrayType 62
10.26 viewingConditionsType 62
10.27 XYZType 63

Annex A (informative) Colour spaces 64

Annex B (normative) Embedding profiles 67

Annex C (informative) Relationship between ICC profiles and PostScript CSAs and CRDs 71

Annex D (informative) Profile Connection Space 73

Annex E (informative) Chromatic adaptation tag 86

Annex F (normative) Profile computational models 89

Annex G (informative) Tables of required tags and tag list 91

Bibliography 97