INTERNATIONAL STANDARD

IEC 61966-2-2

First edition
2003-01

Multimedia systems and equipment – Colour measurement and management –

Part 2-2: Colour management – Extended RGB colour space - scRGB

Mesure et gestion de la couleur dans les systèmes et appareils multimédia –

Partie 2-2: Gestion de la couleur – Espace chromatique RVB étendu - scRVB

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PRICE CODE P

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

MULTIMEDIA SYSTEMS AND EQUIPMENT – COLOUR MEASUREMENT AND MANAGEMENT –

Part 2-2: Colour management – Extended RGB colour space – scRGB

FOREWORD

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International Standard IEC 61966 has been prepared by Technical Area 2: Colour measurement and management, of IEC technical committee 100: Audio, video and multimedia systems and equipment and ISO TC 42: Photography.

The text of this standard is based on the following documents:

FDIS	Report on voting
100/556A/FDIS	100/626/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

IEC 61966 consists of the following parts, under the general title *Multimedia systems and equipment – Colour measurement and management*:

Part 2-1: Colour management – Default RGB colour space – sRGB

Part 2-2: Colour management – Extended RGB colour space – scRGB

Part 3: Equipment using cathode ray tubes

Part 4: Equipment using liquid crystal display panels

Part 5: Equipment using plasma display panels

Part 7-1. Colour printers – Reflective prints – RGB inputs

Part 8: Multimedia colour scanners

Part 9: Digital cameras

It is published as a double logo standard.

In the ISO the Standard has been approved by 9 P-members out of 10 having cast the vote.

The committee has decided that the contents of this publication will remain unchanged until 2007. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

The contents of the corrigendum of August 2003 have been included in this copy.

INTRODUCTION

The IEC 61966 standards are a series of methods and parameters for colour measurements and management for use in multimedia systems and equipment applicable to the assessment of colour reproduction.

The method of digitization in this part is designed to provide high bit precision, large colour gamut and extended dynamic range that is linear with respect to scene radiance. Based on IEC 61966-2-1 (sRGB), this colour space is well suited to meet the needs of the multimedia, gaming and computer graphics applications. This standard provides a robust solution to these needs. The white point and colour primaries of the scRGB solution are directly inherited from the IEC 61966-2-1 (sRGB) standard. The encoding transformations provide all of the necessary information to encode an image.

MULTIMEDIA SYSTEMS AND EQUIPMENT – COLOUR MEASUREMENT AND MANAGEMENT –

Part 2-2: Colour management – Extended RGB colour space – scRGB

1 Scope

This part of IEC 61966 is applicable to the encoding, editing and communication of relative scene radiance, wide dynamic range, extended colour gamut, and extended bit precision RGB colours as a colour space used in computer systems and similar applications by defining encoding transformations. Primaries and white point values of the colour space defined in this standard are identical to CIE chromaticities for ITU-R BT.709-5 reference primaries and CIE standard illuminant D65 as its white point. The scRGB colour space is an extension of sRGB and it is considered compatible with sRGB.

Additional transformations, such as white point adaptation methods, are beyond the scope of this standard. The appropriate CIE recommendations should be referred to for guidelines in this area.

2 Normative references

The following referenced documents are indispensable for the application 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.

IEC 60050(845):1987, *International Electrotechnical Vocabulary (IEV) – Chapter 845: Lighting*