

International Color Consortium

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Chiba University**

**William Li
Kodak Graphic Communications Group
ICC Chair**

What is the ICC?

“Making Color Seamless Between Devices and Documents”

- **Founded 1993**
- **Mission:**
 - To create, promote, and encourage the standardization and evolution of an open, vendor-neutral, cross-platform color management system architecture and components.

Who is the ICC?

- **69 active members, including 4 founding members**
- **Vendors & Users, including companies such as:**

Adobe

Agfa

Apple

Canon

Dainippon Screen

Kodak

Fogra

Fujifilm

Fujitsu

Heidelberg

Hewlett Packard

Kikuze Solutions

Konica Minolta

Kyocera Mita

Lexmark

Matsushita

NEC

Nikon

Onyx Graphics

Quark

R.R. Donnelly

Samsung

Seiko EPSON

Sharp

Sony

Sun Chemical

Toppan Printing

Toshiba

Xerox

X-Rite

Purpose of ICC

- **Consortium of companies:**
 - Not just a standards organization, but also a force for promoting color standardization.
 - **Goal:** Create, promote and encourage evolution of an open, vendor-neutral, cross-platform colour management system architecture and components.
- **Published ICC.1:2004-10 profile specification, also available as ISO 15076-1:2005.**
- **ICC v4 implementation**
 - Improved perceptual & colorimetric rendering intent interoperability.
 - Less ambiguity in specification.
 - Improved display profiles via chromatic adaptation.

ICC Heritage

- **Several profile-like formats appeared in early 1990s**
 - Kodak (Precision Transforms)
 - Apple (ColorSync)
 - EFI (EFI Color)
 - Adobe (PostScript CSA/CRD, PDF CalRGB)
- **Several proprietary closed systems for specific workflow goals**
 - Scitex Trans-4
 - Crosfield Celsis
- **ICC's profile specification based on the Apple ColorSync profile format**

ICC profile spec - recent history

Current version of the specification

- Oct 2004 - ICC.1:2004-10 Specification (v4.2.0)

Published as ISO standard

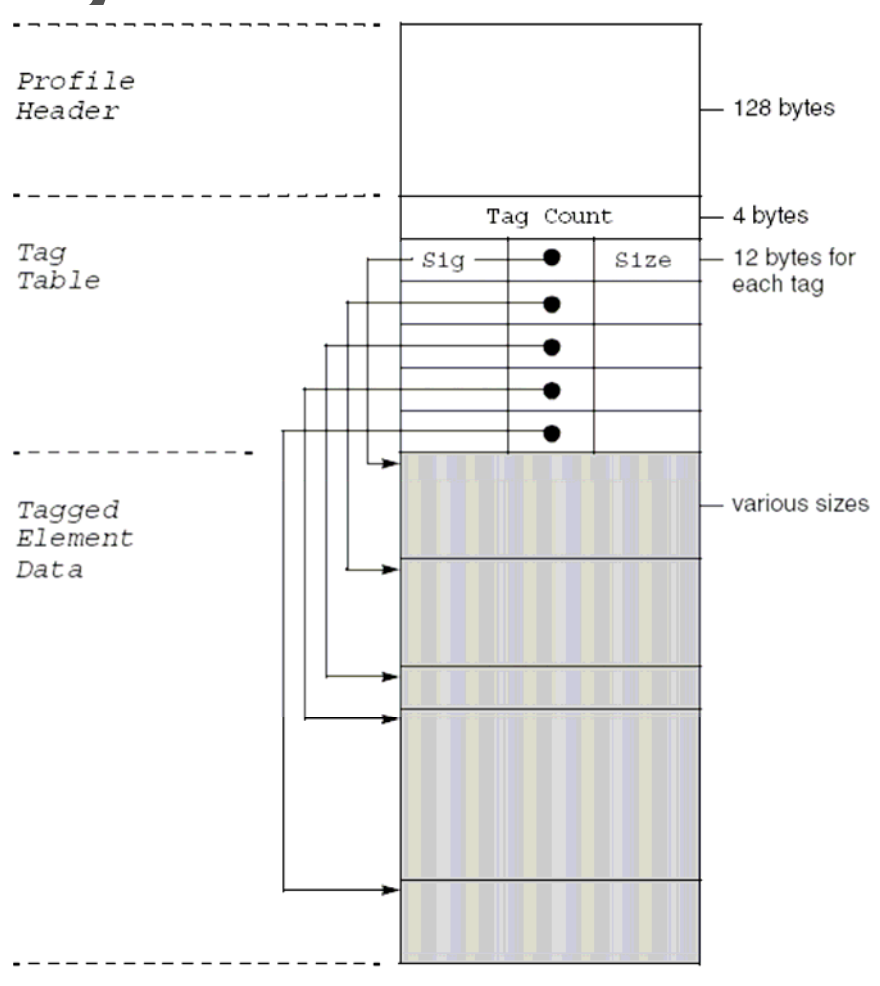
- May 2005 - ISO 15076-1 (based on ICC v4.2.0)
- May 2006 - ICC.1:2004-10 with errata, identical to ISO 15076-1

Recently approved amendments

- Feb 2005 - Perceptual Intent Reference Medium Gamut
- Jun 2006 - Motion Picture technology tags
- Nov 2006 - Floating Point Device Encoding Range
- Apr 2007 - Profile Sequence Identifier tag
- Apr 2007 - Colorimetric Intent Image State tag

ICC Profile Anatomy

- ICC profiles use a tagged format.
- Profiles made up of header plus individual tags.
- Tags can be informational or numeric, optional or required.
- Profile version (v2, v4) located in profile header.



ICC Structure

The business of the ICC is conducted through *working groups*.

Working Groups (WG):

1. Formed when a subject becomes important enough to the ICC.
2. Usually has closed terms of reference.
3. Elect a chair and vice-chair to drive completion of WG objectives.
4. Propose changes to the ICC profile specification, or other specifications if needed.

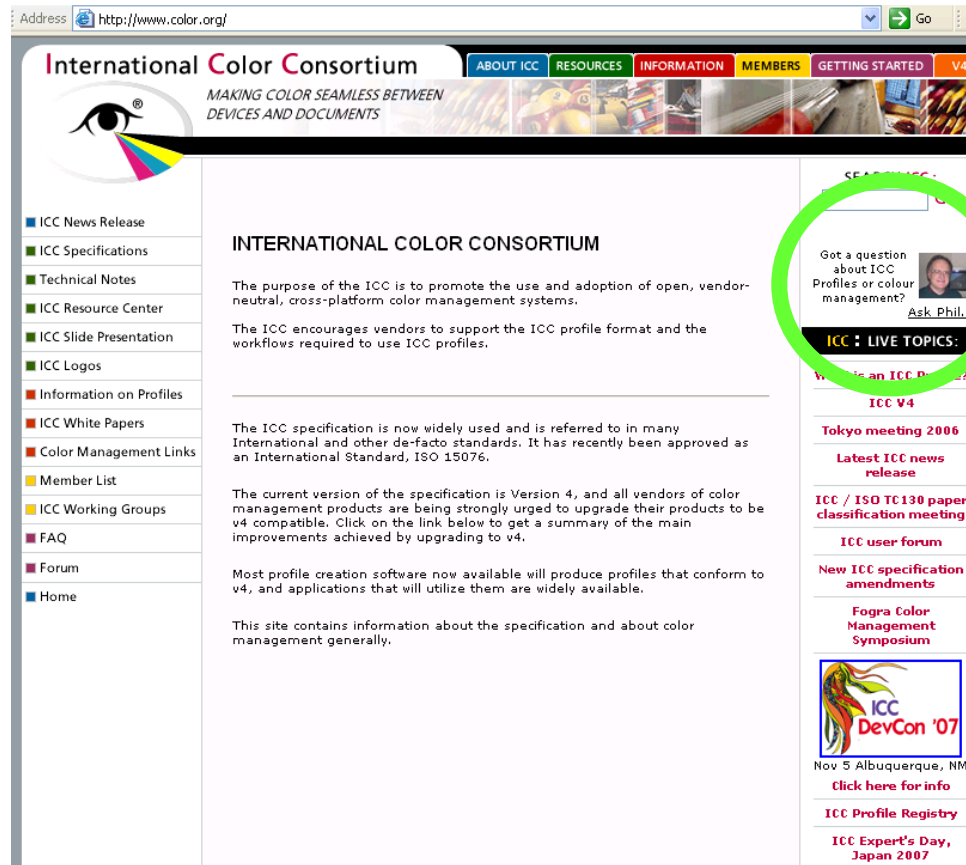
Current Working Groups

- **Architecture Working Group**
- **Digital Motion Picture Working Group**
- **Digital Photography Working Group**
- **Graphic Arts Special Interest Group**
- **ICC Profile Assessment Working Group**
- **Specification Editing Working Group**
- **Workflow Working Group**

- **ICC Steering Committee**

The ICC Website

- Visit <http://www.color.org>
 - ICC profile specification
 - White papers
 - Technical bulletins
 - FAQs
 - ICC Users Forum
 - Characterization Registry
 - Signature Registry
 - Profile Registry
 - WG information
 - Sign up!



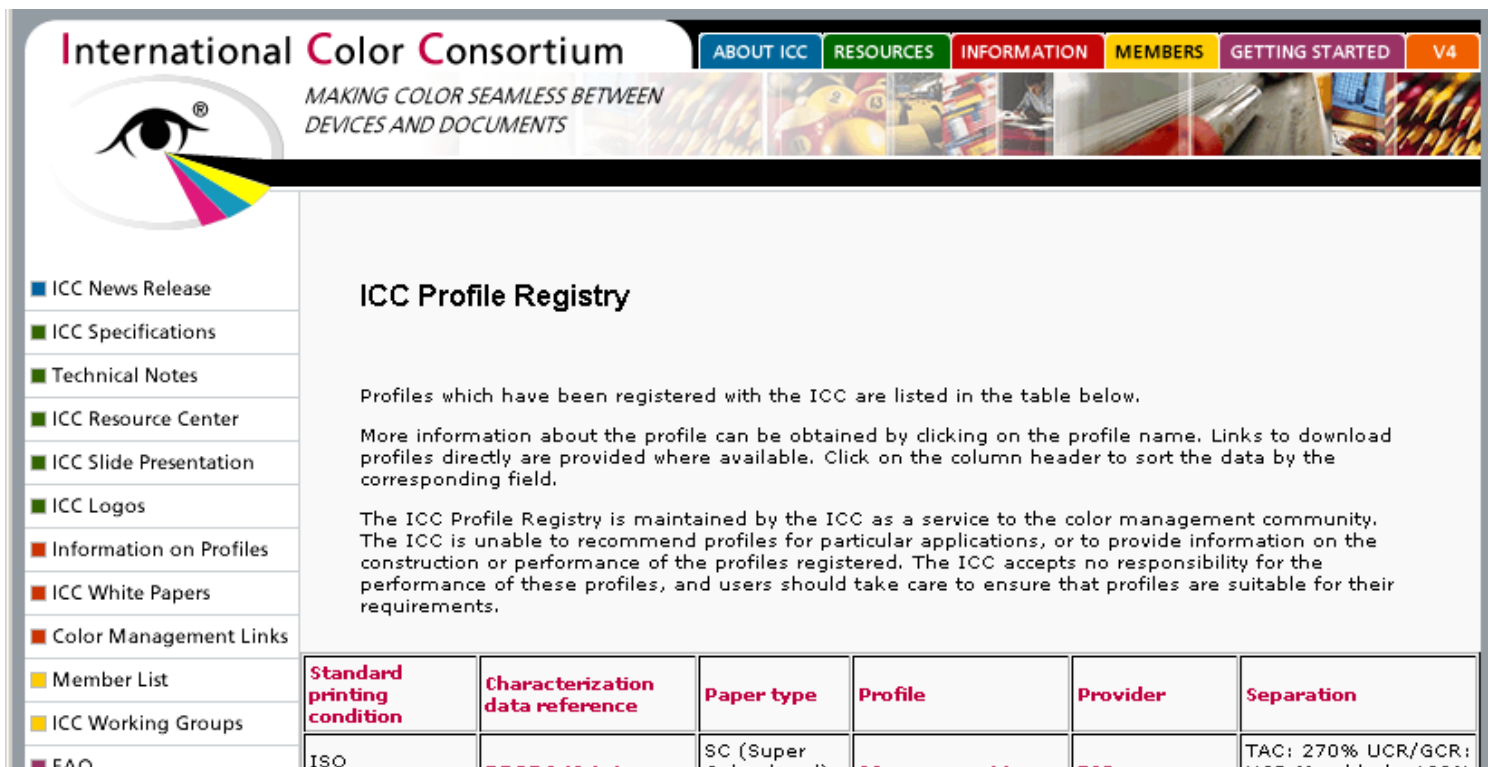
The screenshot shows the homepage of the International Color Consortium website. The browser address bar displays <http://www.color.org/>. The website header includes the ICC logo and the tagline "MAKING COLOR SEAMLESS BETWEEN DEVICES AND DOCUMENTS". A navigation menu contains links for ABOUT ICC, RESOURCES, INFORMATION, MEMBERS, GETTING STARTED, and V4. A left sidebar lists various resources such as ICC News Release, ICC Specifications, Technical Notes, ICC Resource Center, ICC Slide Presentation, ICC Logos, Information on Profiles, ICC White Papers, Color Management Links, Member List, ICC Working Groups, FAQ, Forum, and Home. The main content area is titled "INTERNATIONAL COLOR CONSORTIUM" and contains three paragraphs of introductory text. A right sidebar features a search box, a "Got a question about ICC Profiles or colour management?" section with a "Ask Phil" link, and a "LIVE TOPICS" section listing recent events like "Tokyo meeting 2006", "ICC / ISO TC 130 paper classification meeting", "ICC user forum", "New ICC specification amendments", "Fogra Color Management Symposium", and "ICC DevCon '07". A green circle highlights the "Ask Phil" link in the right sidebar.

Characterization and Profile Registries

- **Characterization registry:**
 - Stores standard characterization data for manual download
- **Profile registry:**
 - Stores standard profiles for manual and automated download
 - Used for PDF/X support

Profile registry - manual selection

- Users know the reference printing condition and wish to select a suitable ICC profile for that condition
- <http://www.color.org/registry>



International Color Consortium
MAKING COLOR SEAMLESS BETWEEN DEVICES AND DOCUMENTS

ABOUT ICC | RESOURCES | INFORMATION | MEMBERS | GETTING STARTED | V4

ICC News Release
 ICC Specifications
 Technical Notes
 ICC Resource Center
 ICC Slide Presentation
 ICC Logos
 Information on Profiles
 ICC White Papers
 Color Management Links
 Member List
 ICC Working Groups
 FAQ

ICC Profile Registry

Profiles which have been registered with the ICC are listed in the table below.

More information about the profile can be obtained by clicking on the profile name. Links to download profiles directly are provided where available. Click on the column header to sort the data by the corresponding field.

The ICC Profile Registry is maintained by the ICC as a service to the color management community. The ICC is unable to recommend profiles for particular applications, or to provide information on the construction or performance of the profiles registered. The ICC accepts no responsibility for the performance of these profiles, and users should take care to ensure that profiles are suitable for their requirements.

Standard printing condition	Characterization data reference	Paper type	Profile	Provider	Separation
ISO		SC (Super			TAC: 270% UCR/GCR:

Profile registry - automated download

- ISO TC130 is defining versions of PDF/X that allow users to include links to resources such as profiles rather than including the resource itself
 - to reduce file size
 - to avoid having to include the same resource in multiple documents
- This is particularly important in variable data workflows

Thank you

If you are interested in joining the ICC please contact me at william.li@kodak.com, or the ICC secretary Kip Smythe at ksmythe@npes.org