



INTERNATIONAL  
COLOR  
CONSORTIUM

# ICC Spectral Imaging Experts' Day

**September 9, 2024**

**Gjøvik, Norway**

**NTNU**



# ICC Mission Statement

*Create, promote and encourage evolution of an  
**open, vendor-neutral, cross-platform** colour  
management system architecture and components*





## Founding Members

**Adobe Systems Incorporated**

**Agfa-Gevaert N.V.**

**Apple Computer, Inc.**

**Eastman Kodak Company**

**FOGRA-Institute (Honorary)**

**Microsoft Corporation**

**Silicon Graphics Inc.**

**Sun Microsystems, Inc.**

**Taligent, Inc.**





# Today's ICC

**55 international members.**

**11 Steering Committee meetings per year.**

**Regular ICC events in multiple countries.**

**3 full meetings per year on 3 different continents.**

**1 organization supporting industrial color interchange standards.**





# Join ICC!

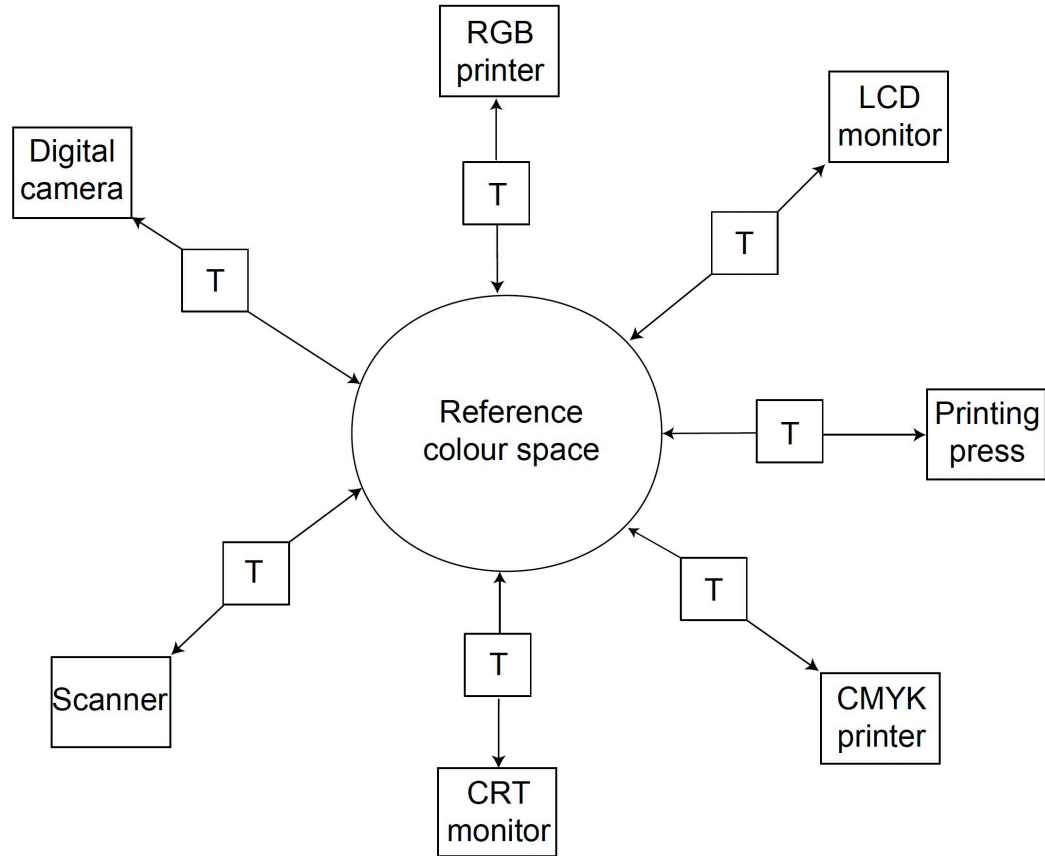
- **Active work areas:**
  - Packaging & Graphic Arts
  - Display
  - Architecture
  - HDR
- **Network:**
  - Active companies
  - Color scientists
- **Look ahead:**
  - Confluence of standards organizations





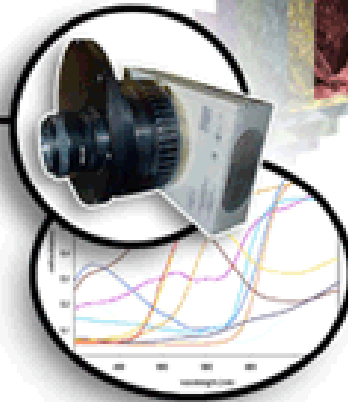
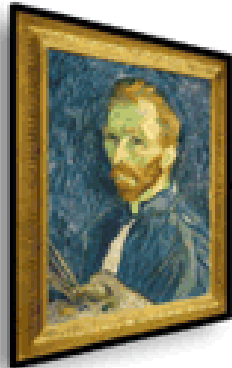
INTERNATIONAL  
COLOR  
CONSORTIUM

# SPECTRAL IMAGING



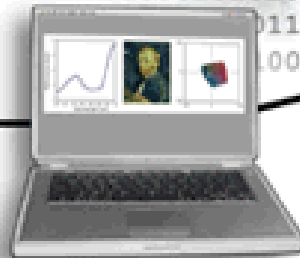


## Multi-Channel Visible Spectrum Imaging



## Digital Archiving

```
10100101001
11010101101
01101010011
10110010101
10101100101
01000101010
011
100
```



## and Reproduction







# Challenges

- **People are squishy**
- **Data is big**
- **World is broad**
- **Time is money**



# Today's Agenda

Spectral imaging research at Colourlab	Jon Hardeberg, NTNU
Observer metamerism and wide-gamut displays	Chris Bai, BenQ
Colour matching functions	Andrew Stockman, University College London
Measuring individual differences in colour-matching functions	Luvín Ragoo, NTNU
Correcting displays for individual differences in color appearance	Camilla Simoncelli, University of Nevada Reno
Comparing colour perception on LCDs with different backlights	You-Sheng Zhang, National Taiwan University of Science and Technology
New tools for spectral colour management	Ronnier Luo, Zhejiang University
Spectral imaging workflow	Max Derhak, Onyx Graphics
Non-linear image processing for hyperspectral images	Hilda Deborah, NTNU
Bidirectional reflectance capture and modeling	Aditya Sole, NTNU
Estimation of spectral reflectance from colorimetry	Tanzima Habib, NTNU
FILM2PAINT	Irina-Mihaela Ciortan, NTNU
Spectraklion: Recent developments in spectral filter array-based systems	Jean-Baptiste Thomas, Université de Bourgogne
Spectral imaging techniques in cultural heritage digitization	Dipendra Mandel, NTNU