



Certified 04/08/08



Off-Press Proof Application Data Sheet

Remote Director and EIZO CG221 on GRACoL Coated #1

The IDEAlliance Print Properties Working Group has established a certification process for off-press proofs as input material to publications. In accordance with this process: "The appearance of a hard copy or monitor proof used in this application must have the ability to closely match specific CGATS or other documented characterization data sets within outlined tolerances. See further explanations and recommendations outlined on www.swop.org or www.gracol.org.

NOTE: It is important for the industry to understand that performing certification on any one display with any one monitor proofing system does not necessarily guarantee the same result on a different display of the same model of monitor. IDEAlliance notes that each monitor of a particular brand and model is unique. That is, for any given brand of monitor, while our experience in certification shows that while most displays pass the ISO criteria, an individual monitor may fail the ISO criteria due to manufacturing issues or may fail at some point in the future as a result of use. IDEAlliance therefore recommends that in addition to calibrating each monitor routinely, users should also verify the uniformity of the display over time as well. The monitor proofing systems vendors have agreed to provide a monitor uniformity test with their system and over the next 12 months will implement software to automate that process for users.

The following information is intended to assist producers and consumers in the use of vendor specified proofing materials in an off-press proof application:

I. Manufacturer

Integrated Color Solutions (ICS)
60 Madison Avenue, Suite 1105
New York, NY 10010
Phone: (212) 683-0585 Fax: (212) 683-0578

II. Product

Remote Director/EIZO CG221/GRACoL Coated #1

III. Introduction

Color proofing is the safeguard that syncs together the goals and vision of the client, designer, agency and printer, assuring each party is visually on the same page. ICS's Remote Director™ is the first SWOP® Certified monitor-based contract proofing system that applies advanced color management to verify the accuracy of every monitor and every proof. Running on commercially available hardware, Remote Director software allows multiple reviewers in dispersed locations to view, collaborate and comment on color as well as content and build a digital record of the proofing process from start to finish, including legal sign-off. Reviewers can collaborate in real-time or work at their own convenience, allowing photographers, agencies, clients, prepress shops and printers to communicate more effectively while accomplishing in hours what used to take days. The GRACoL/SWOP Certification guarantees that Remote Director proofs match the Certified Press Proofs used in Publication production. It's the next step in the design-to-print evolution.

IV. Control Guide

IDEAlliance specifies a control guide such as an ADS Proofing Certification Strip be supplied on every off-press proof. As a minimum, this guide should contain solids for the primary process colors (YMCK), two-color overprints (RGB) and

a three-color overprint (YMC), as well as a 25%, 50%, and 75% tint in stated line screen resolution of each of the primary process colors and 3-color gray patches. All control guides should be checked for accuracy of the original values. Use and interpretation of a control guide is the responsibility of the creator.



Remote Director is set up to automatically display the patches of the IDEAlliance Control Strip and measure the same. This is done through the Color Management pull-down menu, under Monitor, Validate, GRACoL-2006 Coated #1, and Quick Verification. The automated program will calculate and display color differences and errors in compliance with the IDEAlliance specifications based on ΔE_{2000} color difference calculations. Make sure that proof parameters are defined to be an illuminant of D50 and target luminance of 160 cd/m² for the display.

V. System Components

MINIMUM SYSTEM REQUIREMENTS

Macintosh Specifications

- PowerMac G4 with OS 10.4 (Tiger)
- Quartz Extreme capable
- 1GB RAM
- 2GB available hard-disk space

Windows Specifications

- Intel® Pentium® III processor or greater
- Microsoft® Windows® 2000 Server, Windows 2003 Server, or Windows XP Pro with Service Pack 2
- 1GB RAM
- 2GB available hard-disk space

Display Specifications

- 24-bit color video card
- Minimum display resolution (1280 x 1024 pixels), depending on display

Instrument Specifications

- GretagMacbeth® "EyeOne Monitor", or "EyeOne Pro" Spectrophotometer, or X-Rite® "DTP94" Colorimeter

Network Specifications

- 512 Kbps DSL/Cable connection (minimum)
- 1 Mbps Cable (recommended)
- Internet access to the Remote Director application machine
- Port 443: Open Outbound to "tserver.icscolor.com"

VI. Finishing Procedures

Open an existing proof, or create a new proof. Add at least one CMYK image or PDF.

The Proof Parameters should be set to illuminant D50 and a display target luminance of 160 cd/m² should be selected. The source profile should be set to GRACoL2006_Coated1v2.icc (from the Tools palette, Color tab, Source Profile field).

The display must have been properly warmed up, at least 45 minutes, preferably 1 hour prior to calibration and measurements. The instrument must also be warmed up in contact with the display for at least 45 minutes, see the RD

Users Guide for options on measurements. The certification process is done with the instrument in physical contact with the display. It is also important that the USB connection to the display is connected to the computer.

The display must be calibrated, and validations should reflect a good calibration, average error should be less than 0.5, peak error should be less than 0.75, and the white point error should be less than 0.5.

VII. Finished Proof Characteristics

A proof with the color characteristics referenced in Appendix 1 is to be expected when measured from the ADS Proofing Certification Strip having been properly made to all the listed system components and finishing procedures.

Note: Three-color grays are comprised of Cyan, Magenta, Yellow: 75, 66, 66; 50, 40, 40; and 25, 19, 19 values.

An X-Rite (GMB) EyeOne Pro spectrophotometer was used to perform the measurements.

The user may at this time perform a Quick Verification (Color Management:Monitor:Validate:GRACoL:GRACoL-2006 Coated #1:Quick Verification. This is an automated process and will present the IDEAlliance Control Strip CMYK values for measurements and evaluation to data in Appendix 1.

VIII. Sample Proofs

ICS has had their monitor system verified that it conforms to this Application Data Sheet by an IDEAlliance certifying contractor. The complete IT8/7.4 target has been measured and found to pass all specifications for certification.

IX. Additional Proof Data

An image file of the IDEAlliance Control Strip CMYK can be downloaded from the www.gracol.org website, numerical data is included in Remote Director.

Appendix 1
Characterization Data CIELab Values

IDEAlliance ISO 12647-7 Digital Control Strip 2007 for GRACoL 2006 Coated #1

| Patch ID | CIELab Data | | | Maximum |
|----------|-------------|--------|--------|------------------|
| | L* | a* | b* | ΔE -2000 |
| A1 | 30.05 | -22.65 | -28.82 | - |
| A2 | 54.96 | -37.12 | -50.00 | 7 |
| A3 | 66.60 | -25.13 | -37.01 | - |
| A4 | 82.64 | -9.99 | -17.85 | - |
| A5 | 26.45 | 41.59 | -1.73 | - |
| A6 | 47.93 | 74.11 | -3.01 | 7 |
| A7 | 60.35 | 51.93 | -5.67 | - |
| A8 | 80.03 | 20.38 | -5.35 | - |
| A9 | 48.53 | -5.30 | 49.19 | - |
| A10 | 88.94 | -5.02 | 93.17 | 7 |
| A11 | 90.56 | -4.57 | 63.58 | - |
| A12 | 92.84 | -2.51 | 24.77 | - |
| A13 | 52.53 | -53.19 | -19.34 | - |
| A14 | 37.89 | 52.56 | -22.07 | - |
| A15 | 70.88 | 22.91 | 72.40 | - |
| A16 | 50.86 | 15.13 | 33.06 | - |
| A17 | 42.17 | 33.42 | 13.25 | - |
| A18 | 34.60 | 23.09 | -17.15 | - |
| A19 | 52.45 | -18.04 | 26.12 | - |
| A20 | 36.56 | -1.43 | -26.62 | - |
| A21 | 92.88 | -0.08 | -1.96 | - |
| A22 | 87.93 | -0.20 | -1.98 | - |
| A23 | 77.43 | -0.40 | -1.93 | - |
| A24 | 59.77 | -0.53 | -1.61 | - |
| A25 | 39.75 | -0.57 | -1.02 | - |
| A26 | 25.57 | -0.21 | -0.53 | - |
| A27 | 14.95 | 0.19 | -0.14 | 7 |

| Patch ID | CIELab Data | | | Maximum |
|----------|-------------|--------|--------|------------------|
| | L* | a* | b* | ΔE -2000 |
| B1 | 15.18 | 8.84 | -24.61 | - |
| B2 | 24.13 | 17.20 | -46.14 | 7 |
| B3 | 40.84 | 17.09 | -35.77 | - |
| B4 | 69.57 | 8.37 | -19.26 | - |
| B5 | 26.22 | 35.38 | 24.54 | - |
| B6 | 47.37 | 68.25 | 48.79 | 7 |
| B7 | 59.09 | 47.55 | 39.25 | - |
| B8 | 78.62 | 17.92 | 18.20 | - |
| B9 | 28.47 | -39.38 | 12.04 | - |
| B10 | 50.12 | -68.43 | 25.00 | 7 |
| B11 | 62.69 | -41.44 | 20.96 | - |
| B12 | 80.64 | -14.75 | 8.25 | - |
| B13 | 42.57 | -16.27 | -48.19 | - |
| B14 | 48.28 | 70.95 | 17.76 | - |
| B15 | 72.70 | -25.21 | 65.09 | - |
| B16 | 70.23 | 19.71 | 18.63 | - |
| B17 | 53.40 | 36.61 | 28.63 | - |
| B18 | 41.61 | 32.01 | 26.83 | - |
| B19 | 45.40 | -26.20 | -3.82 | - |
| B20 | 95.00 | -0.02 | -1.96 | 3 |
| B21 | 92.43 | 0.19 | -2.06 | - |
| B22 | 86.74 | 0.31 | -2.04 | - |
| B23 | 75.52 | 0.07 | -1.50 | - |
| B24 | 57.54 | -0.12 | -1.44 | 3 |
| B25 | 39.39 | -0.30 | -0.55 | - |
| B26 | 23.00 | 0.17 | -0.25 | - |
| B27 | 8.46 | 0.34 | 0.44 | - |

Note: Color is measured with a calibrated EyeOne Pro spectrophotometer.