



Certified 04/08/08



Off-Press Proof Application Data Sheet

DALiM DiALOGUE - Apple 23" Cinema HD Display - 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

Dalim Software GmbH
Strassburger Strasse, 6
Kehl am Rhein, D-77694
Germany
<http://www.dalim.com>

II. Product

Dalim Software / DALiM Engine / Apple Cinema Display 23 inches / GRACoL Coated #1

III. Introduction

DALiM DiALOGUE is a standalone system that allows the real time high-resolution viewing and collaboration of a job to be conducted from a standard web browser, without the requirement of pre-installing an application-specific browser plug-in or downloading any client software. Using 100% in-house developed technology, DALiM DiALOGUE has the ability to stream data to the browser, allowing the user to view the file at high resolution in real-time.

DALiM DiALOGUE is compatible with almost any 3rd party automated workflow or asset management system. It is also JDF-enabled, allowing systems interconnectivity to a range of other JDF-enabled devices.

DALiM DiALOGUE uses advanced color management technology and incorporates ICC profile calibration. The ICC profile support allows all DALiM DiALOGUE users to see color-accurate, high-resolution soft proofs in real-time, regardless of geographical distance. Users can generate and simulate specific ICC profiles for each job, for example substrate whiteness.

IV. Control Guide

IDEAlliance specifies a control guide such as an ISO 12647-7 Digital Control Strip 2007 be supplied on every off-press proof. As a minimum, the guide used for proofing applications should contain solids for the primary process colors (YMCK), two-color overprints (RGB) and a three-color overprint (YMC), as well as 25%, 50%, and 75% tints 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.



V. System Components

The following components and methods should be used in order to attain conformance described in this document.

DALiM DiALOGUE Application Server

Users need to have a valid login to access a DALiM DiALOGUE server, version 4.1 or later, through an Internet or local area network (LAN).

Remote Client

- . Macintosh system with OS X operating system (at least Mac OS X 10.3.5)
- . Or Windows XP or Vista with latest Java installed (www.java.com)
- . At least 512Mb of installed RAM
- . "Safari" (Mac), Internet Explorer (PC) or "Firefox" web browser
- . 23" Apple Cinema HD Display
- . X-Rite 'Eye-One Pro' Spectrophotometer
- . X-Rite, Eye-One Match 3, MeasureTool 5

Viewing Booth

The viewing area should be divided into two areas.

AREA ONE

To situate the specified Viewing Booth, using normalized D50-spec illumination. The angle that the color proofs will be placed in the viewing booth for scrutiny should match the angle that the color-matched monitor is offered towards the viewer.

AREA TWO

To situate the color-matched computer monitor.

Room Description

The ambient light in the room designated to contain the color-matched computer monitor should be controllable. This means that the room should be free of any strongly-colored walls and/or objects that may adversely affect user peripheral vision when called upon to access color. The ambient room illumination should not vary greatly in either brightness or color temperature (e.g. in the case of different times of the day and/or year). Ideally, the room should be painted a neutral gray color and illuminated by D50-type illumination. In such cases, it is also advised that the room illumination be periodically checked as to the actual color temperature of the lamps, to counteract the effects of lamp age. Both the viewing booth area and monitor proofing area should be shielded from direct incident and/or reflected lighting. Both the viewing booth and computer monitor should be kept at least 1.00 metre (approx 3 feet) from room walls.

VI. Finishing Procedures (Calibration)

System set-up

- Start-up the computer.
- Turn on the 23 Inch Apple Cinema HD Display, setting it to maximum brightness.
- Turn on the viewing booth.
- Have Spectrophotometer and profile creation application standing by.

Calibration of Monitor using Eye-One Pro and Eye-One Match 3

Before starting the calibration procedure, the display should have been turned on since at least 60 minutes.

- 4.1. Use of XRite Eye-One Pro and X-Rite Eye-One Match 3 to create the monitor profile
- 4.2. Use a pre-set white-point setting of D50 or 5000K that matches the viewing booth specifications.
3. Select a Gamma setting of 2.2.
4. Choose to get a monitor luminance of 160 cd/m²
5. Open the Macintosh "System Preferences" application. Make sure that the right monitor profile is selected in the "Monitor -> Color" preferences pane.

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Activate Monitor Profile on DALiM DiALOGUE Server

1. Launch web browser and enter the DALiM DiALOGUE server URL to connect to the DALiM DiALOGUE system. Type in your login and password.
2. Click on the 'Color Management' icon in the user interface (5th from the left).
3. Select the ICC monitor profile (as created above), and click on "Upload".
4. Select this monitor ICC profile as being your default Monitor Profile.

Set-up Document Profile on DALiM DiALOGUE Server

1. Click on the 'Job' icon in the user interface (1st from the left).
2. Navigate through to the folder containing the files of the documents to be assessed.
3. Select the correct Document Profile by clicking on the "Job Profile" icon in the user interface (1st on the right).
4. Select the GRACoL 2006 Coated 1 ICC profile
5. Click on the 'Job' icon again and click on the document icons to launch the DALiM DiALOGUE remote soft-proofing applet.
6. In the user interface, select the 'Absolute Colorimetric' color analysis check button.
7. Use the "Zoom Factor" selection to render the displayed file at the same size as the printed sheet.
8. Select a neutral gray background in the 'Preferences...' menu.

VII. Finished Proof Characteristics (Checking)

A proof with the color characteristics referenced in Appendix 1 is to be expected when measured from the IDEAlliance ISO 12647-7 Digital Control Strip 2007 having been properly made to all the listed system components and procedures.

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

An Eye-One Pro spectrophotometer was used to perform the measurements.

You must check that the monitor displays the correct colors of the control strip. To do so, we provide an application utility CMYK to RGB that prepares tables for X-Rite Measure Tool.

1. Open the CMYK to RGB application, select the table containing the reference values for the ISO 12647-7 patches for GRACoL 2006 Coated #1 (values are in Appendix I), the corresponding ICC profile, the monitor ICC profile and generate the RGB-values table.
2. Save the table in a file.
3. Import this file into X-Rite MeasureTool and start measuring the real XYZ values.
4. Save the resulting file.
5. Copy and paste the measured values into the "DALiM SWOP ISO Control Strip Checking" spreadsheet in the colored area. The spreadsheet will automatically calculate the normalized X_N , Y_N , Z_N values and the ΔE_{2000} with given X, Y, Z values.

To pass, please refer to the Appendix I criteria.

VIII. Sample Proofs

Dallim Software has made this Application Data Sheet and the corresponding monitor proofing system available to the IDEAlliance certifying contractor to perform independent, corroborating measurements in the course of certification.

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.