IDEAlliance® **Off-Press Proof Application Data Sheet**

GMG ColorProof Canon imagePROGRAF iPF 6300/6350/8300 series printers using GMG ProofPaper semimatte 250 for 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 soft 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 on www.swop.org or www.gracol.org.

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

I. Manufacturer

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781.740.4077

SWOP® • GRACoL® IDEAlliance® Certified Proofing System Print Predictability

Certified: Jan 29, 2010

II. Product

GMG ColorProof – Canon imagePROGRAF iPF 6300/6350/8300 printer using Canon Inks and GMG ProofPaper semimatte 250 for GRACoL Coated #1

III. Introduction

The GMG ColorProof color management software combined with the Canon iPF 6300/6350/8300 inkjet printer provides a contract-quality proofing system in ContoneProof mode.
The GMG ColorProof software includes four main components that are part of the standard software package:

- GMG ColorProof with 4-D GMG color engine
- GMG ProfileEditor
- GMG RIP Server for PDF and PostScript®
- GMG SpotColor Editor

The GMG ColorProof software can drive up to three printers in parallel without compromising quality or performance. All connected printers will meet the color requirements for GRACoL® compliant proofing.

IV. Control Guide

IDEAlliance specifies that control aids such as an ISO 12647-7 Digital Control Strip 2007 should be printed on each off-press proof. As a minimum requirement, any control strip used for proofing applications should contain solid patches 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. The accuracy of the original values should be verified for all control strips. Use and interpretation of a control guide is the responsibility of the creator.

GMG recommends usage of the IDEAlliance ISO 12647-7 Digital Control Strip v2.

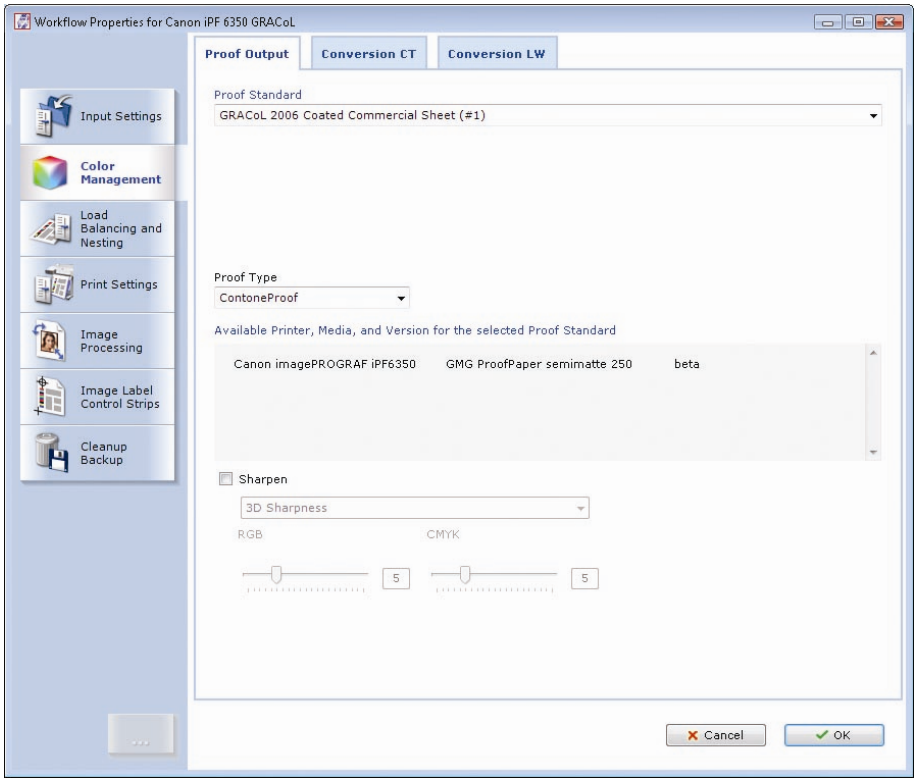
V. System Components

The following GMG ColorProof components and calibration procedures must be used to achieve conformance with this specification:

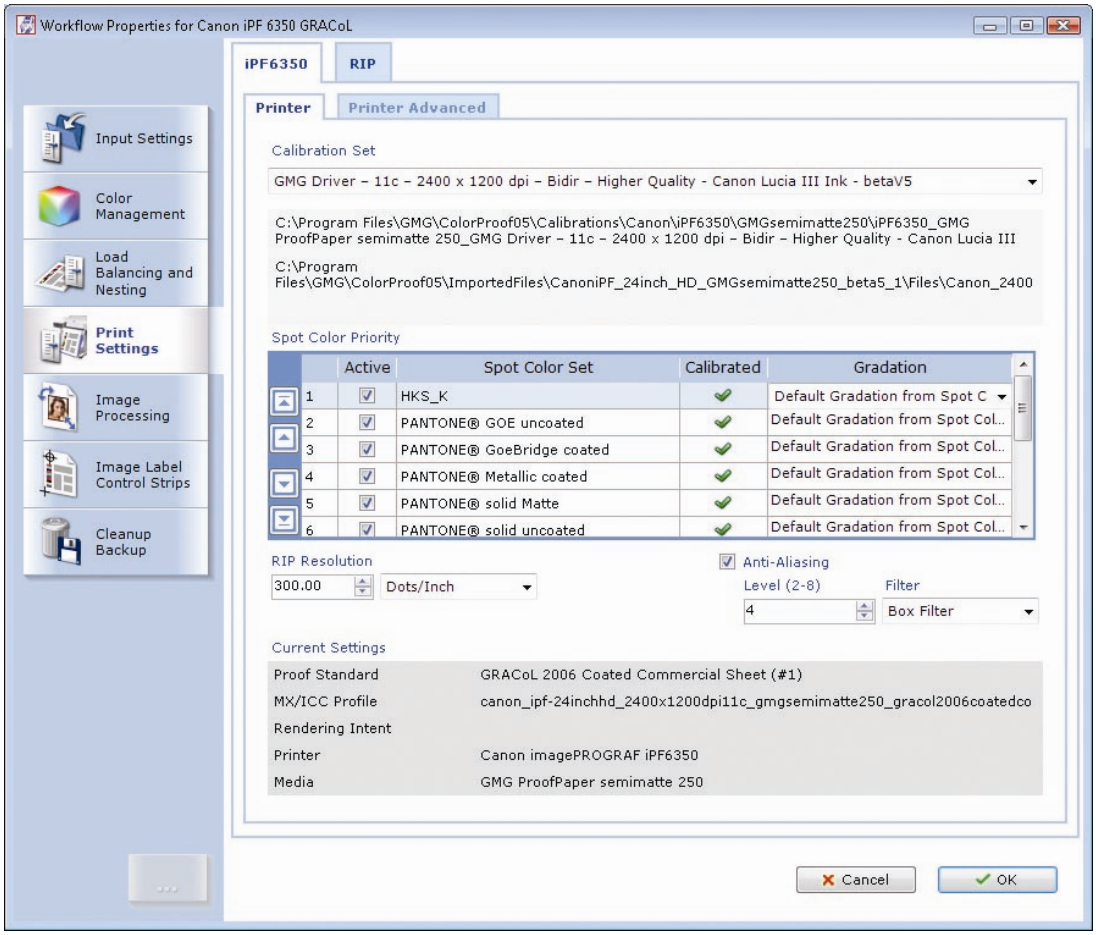
- GMG ColorProof Off-Press Proofing System Components
- GMG ColorProof Software 5.1.0.3 or later
- Canon imagePROGRAF iPF 6300/6350/8300 printer using Canon Lucia EX Inks
- GMG ProofPaper semimatte 250
- X-Rite Eye-one iSis UV excluded
  Note: for full list of supported spectrophotometers please refer to the GMG ColorProof manual

• Hotfolder / Workflow Setup:
To follow this ADS sheet you will need to have the Canon imagePROGRAF iPF 6300/6350/8300 installed for use in ColorProof and have at least one Hotfolder/Workflow setup. Complete instruction on how to set up a Hotfolder and Workflow can be found in the CP05 Manual. The Interactive Help can be accessed from within ColorProof by pressing the F1 Key, (or in the PDF located in C:\Program Files\GMG\ColorProof05\Documentation\GMG-CP05_Manual_en.pdf.) (Section 7.3)

1. To configure your Workflow to print GRACoL #1 proofs, open the Workflow Properties window.
2. Click **Color Management** (2nd option down on left-hand column).
3. Under **Proof Standard,** select GRACoL 2006 Coated Commercial Sheet (#1)
   Choosing this will display the available calibration sets specified in this Proof Standard.
   Under **Proof Type** only Contone Proof will be available



4. Next select **Print Settings** (4th option down on left)
5. On **Printer** Tab, from the Calibration Set dropdown menu select: **GMG Driver 11c -2400 x 1200 dpi – Bidir – Higher Quality – Canon Lucia III Ink**

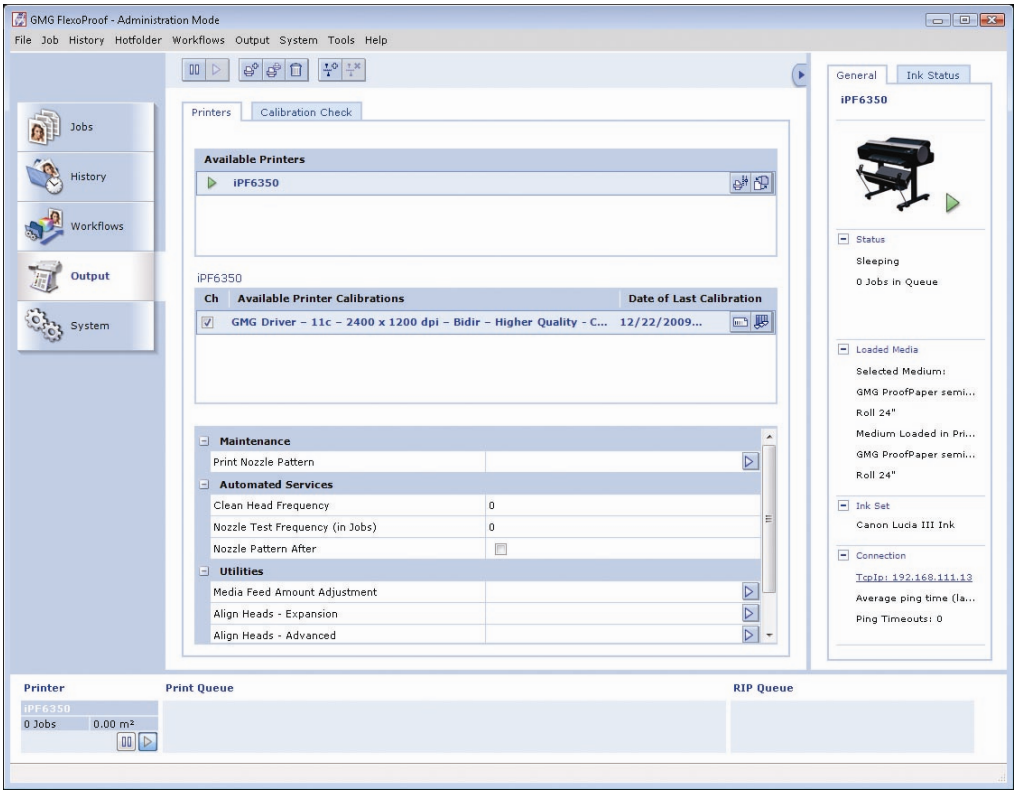


Printer Calibration Procedure

Once the Workflow is configured, the Printer needs to be calibrated to meet GRACoL proofing requirements
The Canon imagePROGRAF iPF 6300/6350/8300 printer must be calibrated using GMG ColorProof Calibration Wizard.

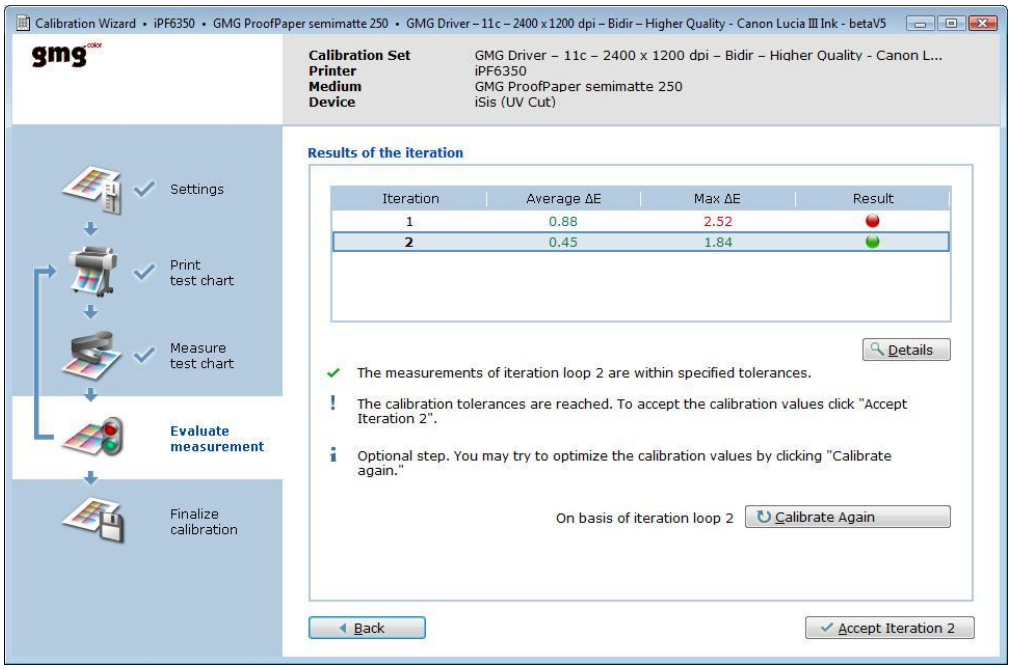
How to start GMG Calibration Wizard

1. Click the **Output** button from the navigation panel on the left of the main window.
2. Select iPF6350 from the **Available Printers** list.
3. From **Available Printer Calibrations** list select **GMG Driver 11c - 2400 x 1200 dpi – Bidir – Higher Quality – Canon Lucia III Ink** This is the calibration set specified during workflow setup.
4. Click the **AutoCali Wizard** button on the right side of the calibration set. The GMG AutoCali Wizard is started.



5. Follow the instructions of the wizard.

The iteration cycle continues until the measured values are in the **tolerances** of the target values.
The printer calibration file with the new output values is automatically saved after a successful calibration.



GMG Calibration Wizard after successful calibration.

In the above example, the measured (current) values of the first iteration cycle were outside the tolerances defined in the **Quality Criteria** of the calibration set. Therefore, **Print** and **Measure** steps have been repeated in a second iteration cycle. The output values for iteration 2 are derived from a calculation based on the first iteration, resulting in acceptable values. The status is set to calibrated and the printer can be used. The updated calibration file is saved.

A successful calibration can normally be reached in less than 3 iterations. If the calibration tolerances cannot be reached, make sure the proper printer maintenance has been performed including nozzle checks and print head cleanings, then try calibrating again.

Once the workflow is configured and the printer is calibrated, all necessary steps are complete.

VI. Finishing Procedures

By using the GMG ColorProof off-press proofing system, described in this ADS, no finishing procedure is required.

VII. Finished Proof Characteristics

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 finishing procedures.

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

All measurements to control and verify SWOP and GRACoL proofs must be done with the X-Rite Eye One Pro (D50, 2 degree observer, no UV cut filter, white backing).

VIII. Sample Proofs

GMG Americas has supplied three (3) sets of hard copy proofs for retention that conform to this Application Data Sheet by an IDEAlliance certifying contractor.

Appendix 1
Characterization Data CIELab Values

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

Patch ID Top	CIELab Data			Maximum
	L*	a*	b*	CIE ΔLab
A1	30.05	-22.65	-28.82	-
A2	54.96	-37.12	-50.00	5
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	5
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	5
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	5

Patch ID Bottom	CIELab Data			Maximum
	L*	a*	b*	CIE ΔLab
B1	15.18	8.84	-24.61	-
B2	24.13	17.20	-46.14	6
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	6
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	6
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 measurements comparing measured proof data to this reference data requires the use of a calibrated spectrophotometer.