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A Comparison Between The GCA/GATF Off-Press Proof
Comparator And The GATF Standard Offset Color Control Bar
For Identifying When A Cromalin Off-Press Proof Is
Prepared To Specifications For Web Offset Publication

By

William F. Breakstone

A thesis submitted in partial fulfillment of the
requirements for the degree of Master of Science in the
School of Printing Management and Sciences
in the College of Graphic Arts and Photography
of the Rochester Institute of Technology

May 1990

Thesis Advisor: Professor Miles F. Southworth

School of Printing Management and Sciences
Rochester Institute of Technology
Rochester, New York

CERTIFICATE OF APPROVAL

MASTER'S THESIS

This is to certify that the Master's Thesis of
William F. Breakstone

with a major in Printing Technology has been approved
by the Thesis Committee as satisfactory for the thesis
requirement for the Master of Science degree at the
convocation of:

Thesis Committee:

Miles Southworth
Thesis Advisor

Joseph L. Noga
Graduate Program Coordinator

Miles Southworth
Director or Designate

**A Comparison Between The GCA/GATF Off-Press Proof
Comparator And The GATF Standard Offset Color Control Bar
For Identifying When A Cromalin Off-Press Proof Is
Prepared To Specifications For Web Offset Publication**

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ACKNOWLEDGEMENTS

The completion of this Masters Thesis is a great accomplishment in my life. To set out, and achieve a Masters of Science degree from The Rochester Institute of Technology is the pinnacle of academic achievement in the Graphic Arts Industry. The doors that have opened up for me while forming my own printing company would not have opened quite as wide if it were not for me being a Master's degree candidate from RIT. I owe my professional success and the success of this study to the following people:

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This paper is dedicated to my father, Gerald Eugene Breakstone. I know he would have been proud.

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Abstract

Off-press proofing is a method of simulating the way a set of separation negatives or positives will look when printed without having to go to the printing press.

In 1965, The Graphic Arts Technical Foundation (GATF) developed a proofing control device for production Lithography. The Standard Offset Color Control Bar was also utilized for off-press proofing.

In 1983, The Graphic Communications Association, in cooperation with GATF, introduced The Off-Press Proof Comparator. This control device was designed specifically for this technology and intended to be used by both technical and non-technical personnel with equal and successful results.

This thesis is concerned with the accuracy of both proofing bars using the Du Pont Cromalin system of off-press proofing to determine whether one control bar is better for judging whether a proof is made correctly to SWOP standards. It is also concerned with whether one control bar is more versatile than the other for both technical or non-technical personnel to use.

The experiment consisted of a total sample population of forty experts from four different fields of the graphic arts industry. These four groups represent technical and

non-technical users. Each participant was asked to look at samples of each color bar and choose which sample was made to SWOP standards. The results were applied to statistical methods of evaluation to give a final result.

The final results of this thesis support The Graphic Communications Association's claim that the Off-Press Proof Comparator is not only more accurate, but also more versatile for all members of the graphic arts community.

The implications of this thesis are that a "master" comparative device can aid in evaluating if proofs are made correctly. A pictorial element is a helpful reference tool when used in conjunction with the "master" comparative device. A greater emphasis needs to be placed on viewing off-press proofs under corrected viewing conditions.

Chapter I

Introduction

The sole purpose of any proofing system is to accurately reproduce the way a set of separation films will look when they are printed. If a proofing system cannot accomplish this objective, then the system is useless. The optimum way to arrive at a proof that most accurately represents the finished product would be to burn a set of plates, put them on press, and run under production conditions. This is termed "press proofing." Although exceedingly accurate, it is costly to makeready a large press to produce pre-production proofs. Press proofing utilizes a full set of plates, ink, press time and enough paper to achieve color balance on the printing press. Press proofing also provides a slow turn-around rate per proof. All this adds up to a very expensive process of determining if separation films are made correctly or not. Although most applications do not warrant the expense involved with this method of evaluation, big advertising agencies, national magazines and book publishers will always have the budget for press proofing their most important work.

There is however, an alternative for proofing the average printing job. What is commonly referred to today

as "pre-press proofing" or "off-press proofing" represents a viable alternative to actual press proofing methods. The off-press proof is based upon the assumption that with the available technology, an accurate simulation of a press proof is possible. Off-press proofing systems also claim to be able to take into account, and adjust to, press factors, such as dot gain, and solid ink density. The greatest claim for off-press proofing is its cost and processing time. The average off-press proof takes less than an hour to make and will generally cost under \$100, while a press proof can cost hundreds of dollars, and take 3 to 4 hours to print.

You may ask why would we need press proofing at all? An off-press proof is based upon chemical means of process coloration. Although very close, the subtleties of color printing can not be completely captured by this process. There exists a distinct dichotomy between quality and price when choosing a proofing method. In today's competitive marketplace, price generally wins out. For this reason, off-press proofing remains today the most common form of proofing film.

"In 1945, The Department of Commerce released a research bulletin. The U.S. Coast and Geodetic Survey was entitled: Color Proofs On Plastic Directly from Negative."¹

The survey described a chemical formula that could be

coated on a plastic vinyl substrate to produce a color proofing method for map evaluation. The study even gave the names of manufacturers where the ingredients could be purchased. As far as records indicate, this survey was one of the first published, dealing specifically with artificial proofing. It also appears, from records available, that it was not until 1954, ten years later, that a company named "Unitronics, Inc.," marketed the first off-press proofing system for the graphic arts industry.

"The Colomat System was introduced as:

'Intermediate Colorproofing with Diazo-Sensitized Film - New Process Provided Inexpensive Four Color Proofs From Photographic Positives in Few Minutes.'"²

Off-press proofing systems began to gain instant popularity in the 60's with photoengravers and printers. By the early 70's, virtually every major manufacturer of graphic arts film and processing products had their own system for off-press proofing. Such names as Du Pont, 3M, Agfa-Gevaert, Enco, Spectra, Polychrome, and Kodak, were just some of the many manufacturer's marketing off-press proofing systems. What seems most interesting about all of the off-press proofing manufacturers listed above, are that they almost all use very different methods of

achieving a proof. In fact, 3M, Enco and others, manufacture more than one. The primary reason for this is that one system might prove better or more cost efficient for a particular job. In general, the two primary types of off-press proofs are overlay and single-sheet.

With so many different kinds of off-press proofing systems available by so many manufacturers, a logical solution to eliminate the confusion of choosing a system would be for the United States to standardize one particular system. At this point in time, no one standard system exists in the United States. The reason why no one standard system is being used is primarily due to the large market shares held by powerful companies in the graphic arts industry, such as 3M and Du Pont. Neither one would back down from such a commercially successful market. Other reasons why no one system is being used by proof makers lies with their individual needs. Many factors make a pre-press proofing system attractive to the proofmaker. Such factors are whether a system is positive or negative working, the initial cost of the equipment, the mark-up rate per proof, the ease of use, whether it is transferable to various substrates, whether it uses ink pigments or if it is an overlaid or surprint type, and most importantly, does the proof maker feel that the proofing system accurately represents what is seen on

press.

Although experts do not foresee any one standard system of off-press proofing for the United States in the future, steps have been taken to offer versatile control devices to span the gamut of systems available today. The GCA/GATF Off-Press Proofing Comparator, a newly developed control system based upon the older GATF Standard Offset Color Control Bar, will aid in the use and accurate determination of proofs that are made to specification requirements.

Footnotes For Introduction

¹ Map Reproduction: Color Proofs On Plastic Directly From Negatives, Department of Commerce, U.S. Coast And Geodectic Survey, Bulletin No. 2, (Washington, D.C.: April 1944, Revised November 1951), pg.1-3

² Theodore Hommel, Intermediate Color Proofing With Diazo-Sensitized Film, Unitronics, Inc. (St. Louis Missouri: November 1, 1954), p.1

Chapter II

Theoretical Basis For Study

In the past, when a press proof was shown to an advertising agency or publisher, the production manager of that agency assumed that the press proof would look like a production run. This was indeed a logical assumption, because the separation films and press proof were made by the same printer who would be printing their job. The printing buyer would merely give a visual inspection of the proofs before approving the job. Today, it may not be assumed that the company who generates the separation films is the same company that is printing the job. Further, with thousands of printers in the industry today, it may not be assumed that the color separator has ever even heard of the printer, less calibrated their standards to match the printers standards.

The printing industry today is changing from a craft oriented, in-house operation, to a highly specialized, technology-oriented industry. In fact, most color separating companies have their own printing presses to produce press proofs. On the opposite side of the coin, most printing companies today have off-press proofing systems, which means a color separator may proof random separation films on one system and the client may approve

composed spreads at their printer on an entirely different system. Proofing separation film has become a very complicated end of the business.

Off-press proofing encompasses a large sector of today's proofing business. For this reason, the advertising and publishing production manager are now faced with a problem. Visual evaluation of color proofs alone is not acceptable due to the extreme subtleties of the new technology. The agency manager has to know almost as much about printing and color as both the color separator and printer combined. Although knowledgeable, agency production personnel do not generally possess this kind of combined knowledge. There is now a device that can aid both technical and non-technical people in the graphic arts industry, in judging off-press proofs accurately and quickly.

The Graphic Arts Technical Foundation (GATF) has been the leading research and manufacturing source of control devices for color proofing in the past. In 1965, GATF developed the GATF Standard Offset Color Control Bars.¹ This device contained various targets, scales and tints, in order to give the color separator and printer an accurate reading of all the vital signs of a proof. It was considered an accurate device, due to all the different scales of measurement located on a single control bar, however, special training and knowledge was

needed to accurately evaluate all of the scales. The Standard Offset Color Control Bar is still in use today in various forms. It is used extensively to evaluate off-press proofs. There does exist limitations to this control device. For example, this system was not intended to be used by untrained personnel, nor was it intended to be used solely for off-press proofs. It aspired to a more general application of all types of proofing, therefore, not taking factors inherent to off-press proofing into account

The Graphic Communications Association (GCA), in cooperation with GATF, introduced in 1983, a new control device called the GCA/GATF Off-Press Proof Comparator.² This comparator utilizes a "master" copy made to SWOP specification by the color separator, and distributed to his clients for comparative purposes. When an off-press proof is made, the four process films of the bar are placed at the bottom of the proof during processing. The master is then compared to the proof. If variation in any of the control devices on the bar should be evident, it means that the proof was improperly made. If the master bar and the bar on the proof match, but the separation image does match the original, it is a good indication that the separations were not made correctly.

Both proofing control devices are similar in many of the same screens, target, gauges and density patches,

however they differ drastically in GCA's visual pictorial element. The benefit of such a visual tool is most beneficial for non-technical users who do not have to know how to use a densitometer or know how to read targets and scales accurately to check their proofs.

The question now arises as to the accuracy of a comparative method of measurement and whether it is scientifically acceptable in evaluating proofs. A basis for this study was to determine whether the GCA/GATF Off-Press Proof Comparator is indeed more universally acceptable amongst technical and non-technical users than that of the GATF Standard Color Control Bar in determining whether Cromalin off-press proofs are made correctly or not.

SEE NEXT PAGE FOR EXAMPLES OF GCA PROOF COMPARATOR AND
GATF STANDARD COLOR CONTROL BAR

Footnotes For Study Basis

¹ Zenon Elyjiw, "GATF Standard Offset Color Control Bars, "Graphic Arts Technical Foundation Research Progress Reports, Graphic Arts Technical Foundation (Pittsburgh, Penn. 1968) p.1

² GCA/GATF Proof Comparator Analysis - Draft, Graphic Communications Association (Arlington, VA, 1983), pg. 1-4

Chapter III

Literature Review

"The eye has been proven to be a sensitive and accurate means of comparing two items in close proximity, but it is poor if expected to provide a memory for color.¹ The Graphic Communications Association, upon this premise, has developed an off-press proof comparator, to allow both technical and non-technical personnel to be able to judge an off-press proof with equal accuracy.

The GCA expects great things from its comparator, but old, "helter-skelter" practices of proof evaluation in the industry will have to be abolished to be able to reap the benefits a system can offer. A large percentage of control bars used in the industry are copies. This means that second, third, even fourth generation control devices are being used to evaluate important and expensive printing jobs. In fact, GATF specifically issues a warning with any of their control devices that states: "If contact prints are made from any control device, either negative, or positive, the control bars, targets or scales will be different from the originals, and their indications will be misleading."² If GCA and GATF can successfully prove that only the "master" films will be

acceptable in determining whether an off-press proof was made correctly, then control bar piracy should be eliminated from any quality oriented shop. The dependent accuracy of the "original" control device can be better understood when taking a closer look at the independent accuracy of each scale, target and measurement device on The Comparator.

When Bob Miller of Liberty Photoengraving, and the Graphic Communication Association Off-Press Proofing Committee, of which he was chairman, undertook the job of coming up with a new device to assess off-press proofs, he turned to The Graphic Arts Technical Foundation for cooperation in production and marketing of their new product.³ GATF is a leading developer and supplier of film test images for the graphic arts industry.⁴ GATF has developed test images for nearly every function of the printing process. The GCA Comparator utilizes many of the same control targets and scales used in the original GATF Standard Offset Color Control Bars (See Figures 1 and 2). The reason why these targets, scales and gauges are so useful for proof evaluation are:

- 1) Test images are often more sensitive to change than just the job image.
- 2) Test images used from job to job retain a sense of continuity in evaluation; hence, a file may be

established for quality control purposes.

- 3) Test images are easier to evaluate because they were made specifically for that purpose; i.e., they tend to be more objectively evaluated.
- 4) Test images carry more complete information than most jobs. ⁵

To better understand how the GCA/GATF Comparator can accomplish these functions, it is necessary to look at each device separately to determine its usefulness. The Comparator is divided into seven individual testing areas: exposure control, dot gain, slur, doubling, color densities, grey balance and pictorial subject. ⁶ As previously stated, most of these test targets and scales were taken from the old color bar by GATF. The Graphic Arts Technical Foundation Progress Reports, numbers, 52, 69, 71, 76, and 79, provide an in depth explanations of each device and how they work, but for simplification, the following are brief descriptions of how each device may help one evaluate an off-press proof correctly.

Exposure Control

The comparator contains 5% and 95% halftone dots for each process color. After a proof is made, plugging or fading of dot areas can be checked to determine if exposure time was correct. The comparator also makes use

of 40% halftone dots in single, double, and triple color combinations. These patches can alert proofmakers to any dot gain in critical mid-tone areas.⁷

Dot Gain, Slur and Doubling

The GATF Dot Gain Scale is comprised of ten steps of a 200 line screen, in the form of numbers one through nine, in a background of a 65 line tint of uniform density.⁸ When the scale is reproduced along with a halftone, the number that shows equal amounts of density in the background, serves as a reference point to the amount of dot gain that occurs. A lower value indicates lower dot gain and increased sharpening, while a higher number indicates just the opposite. Dot gain can be caused by enlargement of dots due to improper contacting of negatives or positives, exposure or development. Because these factors are equally found in off-press proofing, as well as printing, the GATF Dot Gain Scale, is an important element in The Comparator.

Slur is a form of dot gain, however, where dot gain is "non-directional," slur is a "directional gain." Although slur and doubling are factors not found in off-press proofing, the GATF Slur Gauge and Dot Doubling Gauge are found on the Comparator so that it can be used universally for press proofs as well. The Slur Gauge is located right next to the dot gain scale. The gauge has

the word "SLUR" formed in horizontal lines. The background is made up of vertical lines the same as the word "slur", so when non-directional dot gain exists, the word "slur" is invisible. When directional dot gain exists, slur will affect the two linear elements differently. One group of lines will gain in width, while the other group will gain only slightly in length. The word "SLUR" will then appear. The GATF Slur Gauge makes for easy determination that a directional dot gain exists.⁹

Although dot doubling can also be determined on the slur gauge, it is more evident on the GATF Star Target. The target is located next to the slur and dot gain scales. The primary use of the target is to help the lithographer determine visually, whether he is suffering from any one of the three conditions just described. Slurring will be shown as an oval spot, and non-directional dot gain will appear as a dark, round spot in the center of the target, and a figure eight will form when doubling exists.¹⁰

Color Density

The GCA/GATF Comparator incorporates solid and 120 line tint areas to permit a visual or densitometric comparison with SWOP standard Ink references."¹¹ SWOP stands for "Recommended Specifications for Web Offset

Publications."¹² SWOP is presently recognized as a standard for ink density projections of all publications in the United States involving offset printing. The Comparator utilizes these tints and solid areas to help the proofmaker coordinate proof density to publication density.

Grey Balance

There are two rows located at the bottom of The Comparator that aid in the determination of whether grey balance has been accomplished. "The bottom row of neutral grey is created from black colorant; the row above consists of three-color overprints."¹³ If the two rows match, then grey balance has achieved. It is essential that the grey balance indicator be viewed under standard lighting conditions of 5000 degrees Kelvin, otherwise, grey hues might not match.

Pictorial Subject

This element differs from any other off-press proofing control device. The pictorial element is centrally located on the comparator. It consists of one basic image of "difficult to produce color yarns for knitting"¹⁴ Offset in the right hand corner, is a smaller picture of a female model with brown hair, red lips and good skin tone. This main element of the

comparator should be extremely useful for non-technical personnel to use to determine marketable changes in an off-press proof.

Although this type of pictorial element was introduced as an accurate testing device by GCA/GATF, a similar system was developed by Felix Brunner, the well known graphic arts researcher, from Lucarno Switzerland. "He tested a visual system in Zurich in the 1960's, and found it helpful, but it was discontinued because it required too much paper to be incorporated on all proofs."¹⁵

After its introduction in 1983, Brunner commented that the GCA/GATF Off-Press Proof Comparator was a poor system, and that one could not rely on visual targets for proof evaluation."¹⁶ It is interesting to note that the much acclaimed "Du Pont Cromalin Eurostandard System," developed by Brunner, now uses visual targest extensively for proof to press evaluations. The major difference between Brunner's system and GCA's system, is that the GCA/GATF Comparator is a quick reference off-press proof tool for use on a daily basis, and does indeed take up very little room on off-press proofs that are somewhat expensive to produce.

The Brunner Eurostandard is based on the Cromalin process. "Brunner claims that a Cromalin can be closely correlated to the rotary printing press, while the

flat-bed proofing press cannot.¹⁷ His premise is founded on the printing property of dot gain. Brunner plotted curves for dot gain from hundreds of prints produced by proofing and production. He found that the Cromalin's curves matched the production runs closer than that of the flat-bed proof press.¹⁸

The Eurostandard system is based on a control strip design by Felix Brunner. There are 36 measuring patches on the strip, with control elements for slur, doubling, ink trapping and irregular distortions of the characteristic printing curve for the Cromalin process, as outlined by Brunner.¹⁹

Summary

It has been stated that the use of any control device for color analysis, whether for proofing or production, is useless if copied. It has been further stated that a control device is a precision instrument if used correctly and according to manufacturers specifications.

The Committee for Off-Press Proofing, run by The Graphic Communications Association has developed an off-press proof control device that is intended to give both technical and non-technical personnel the ability to make accurate visual and measurable assessments of whether a proof was made correctly or not. GCA has worked in cooperation with The Graphic Arts Technical Foundation,

a leader in control device testing and manufacturer, to tie together past control devices made by GATF, with new color bars and targets introduced by GCA.

Felix Brunner, a leading research reprographer has developed a system of off-press proofing controls. This system is called The Eurostandard Cromalin System. The Eurostandard System praises the accuracy of the Cromalin off-press proof. These findings add validity to the choice of using Du Pont's Cromalin process, as a vehicle to carry out all proposed experimentation.

Footnotes Of Literature Review

¹ Miles F. Southworth, "More On Spectrum 1983," The Quality Control Scanner, (Livonia, N.Y. Vol. 3 No. 12, p.4

² Zenon Elyjiw, "GATF Standard Offset Color Control Bars," Graphic Arts Technical Foundation (Pittsburgh, Penn. 1968) No. 76, p.1

³ Southworth, p.1

⁴ Gary G. Field & George W. Jorgensen, "Preface," Test Images For Printing - An International Reference, The Graphic Arts Technical Foundation (Pittsburgh, Penn.)

⁵ Field & Jorgensen, Introduction

⁶ "GCA/GATF Proof Comparator Analysis - Draft," Graphic Communications Association, (Arlington VA. 1983, p.2

⁷ GCA/GATF Proof Comparator Analysis - Draft, p.2

⁸ Frank Preucil, Zenon Elyiw & Robert F. Reed, "The GATF Dot Gain Scale," Graphic Arts Technical Foundation (Pittsburgh Penn. 1965) No. 69 p.2

⁹ Frank Preucil et. al., p.2

¹⁰ George W. Jorgensen, "The GATF Star Target" Graphic Arts Technical Foundation Research Progress Report, Graphic Arts Technical Foundation (Pittsburgh Penn. 1970 revised) No. 52, pg.1-2

¹¹ GCA/GATF Proof Comparator Analysis - Draft, p.2

¹² "Recommended Specifications Web Offset Publications Booklet," American Association of Advertising Agencies et. al. (New York N.Y. 1981) p.6

¹³ GCA/GATF Proof Comparator Analysis - Draft, p.3

¹⁴ GCA/GATF Proof Comparator Analysis - Draft, p.4

¹⁵ Southworth, p.1

¹⁶ Southworth, p.4

¹⁷ Clive Goodacre, "How Brunner Set The Eurostandard,"
Supplement To Printing World, Feb. 17, 1982, p.1

¹⁸ Goodacre, p.1

¹⁹ Goodacre, p.2

Chapter IV

Hypothesis

There is no significant difference between the ability of the GCA/GATF Off-Press Proof Comparator or The GATF Standard Color Control Bar, to identify when a Du Pont Cromalin Off-Press Proof is or is not prepared to Specifications For Web Offset Publication.

Chapter V

Methodology

Qualitative versus Quantitative Experimentation

The scientific purist believes that only one method of experimentation can produce accurate and repeatable results. As the name implies, quantitative experimentation deals with distinct amounts or "quantities" of a substance. Qualitative experimentation, on the other hand, pertains to the quality or nature of its constituents, and may be perceived by any one of our five senses.¹ It is generally assumed that quantitative analysis will yield superior results, as compared to qualitative testing, because it is difficult to dispute results that correspond to numerical values. Qualitative experimentation, however, is still a very widely used form of scientific testing, due simply to the fact that not all elements may be measured quantitatively.

When initiating an experimental design, one attempts to take as many factors as possible into account and design the most accurate test that will produce repeatable results at a later date. If a device or procedure is used on a visual basis in industry, it would only be logical to

test that device or procedure under the same conditions to which it was intended to be used. If this means by a visual basis, so be it, however, the many factors which dictate precise qualitative testing may quickly become unmanageable. It can then be concluded that the key to accurate qualitative testing will be to provide as accurate a method of experimentation as might be designed for quantitative testing.

The Experimental Model

During an annual eye examination, the optometrist asks the patient to look at an eye chart on a wall, some twenty feet away. The lines on the eye chart get progressively smaller from top to bottom. He then asks the patient to read the lowest line possible to determine whether the patient's eyesight is either good or poor. When the doctor writes down the patient's prescription for eyewear, he writes down a numeric, quantitative account of the patient's eye exam. Although the test is an indication of the "quality" of the patient's eyesight, it is transcribed into numeric units. These units can be considered a scientifically accurate evaluation of the patient's ability to see. It should be noted that the doctor does not write down the letter or line number that the patient reads correctly, but an amount that corresponds to a prescription.

Because both the Comparator and the Standard Control bar are devices based upon visual evaluation, as similar to the eye examination model, it is only logical that they too be proven visually, or qualitatively. To accomplish this, numerical values will be assigned based upon toning density and degrees of exposure; as similar to the numerical values assigned to vision. If all possible permutations of these two variables are equally present in both control devices, and given an equal chance of being chosen by the population sample, it will be possible to rival the accuracy of the above model and either prove or disprove the proposed hypothesis.

Methodology

This experiment involves the use of two off-press proofing control systems, supported by Du Pont's Cromalin off-press proofing process. The GATF Standard Offset Control Bar has been a main-stay in the industry for many years and the GCA/GATF Off-Press Proof Comparator was introduced in 1983 to increase the overall use of off-press proofing controls in related graphic arts areas. The following detailed outline accurately describes all the steps followed and the thought processes implemented in preparing, testing and analyzing all the information concerned with the execution of this thesis experiment.

I. Materials and Equipment

There were two main elements necessary to prepare the samples for this experiment: 1) the separation films for each of the two control bars, and 2) the support proofing system.

The control bars that were tested are both manufactured by The Graphic Arts Technical Foundation (GATF). This provided a singular source to solicit these films from. A request for both control devices was placed by Professor Miles Southworth. This produced positive results, and both sets of film were sent to The Rochester Institute of Technology.

To prepare the proofs from the GATF film sets, it was determined that Du Pont's Cromalin off-press proofing system would be used in this thesis experiment for the following reasons:

Cromalin is an accepted and widely used proofing system throughout the printing, advertising and publication industry. ²

Cromalin uses toner pigments that correspond to SWOP specification inks.

Cromalin accurately simulates dot gain characteristics. ³

The equipment and supplies which the Cromalin process uses are: a photopolymeric adhesive coating in film form,

the coating laminator, toner powders, the Automatic Toning Machine (ATM), reflection densitometer, exposure unit and mounting substrate. Other miscellaneous items include: transmission densitometer, 12x lupe, cyan Brunner control strip and 5000 Kelvin light viewer.

It was absolutely essential to the success of this experiment to accurately simulate the sample preparation as close to actual production conditions as possible. To accomplish this, an Atlanta based color separation house, Vintage Graphics, agreed to help prepare the test samples using production personnel and actual production equipment and supplies. Vintage was under the direct supervision of this author during the course of this experiment. Vintage was chosen to aid in the preparation of the test samples for the following reasons:

Vintage has the latest Cromalin proofing technology and understands the process well.

Vintage is run by very knowledgeable veterans who strive for quality and repeatability.

Vintage has a good reputation with the clientele which encompass all of the sample groups in this thesis.

II. Sample Preparation

It was essential that when a sample was prepared, both control devices will be exposed and toned together.

This will yield exactly the same variations for each set of proofs. The objective was to prepare as many possible permutations of toning density and exposure variations necessary to accurately simulate the range of possible differences from samples in specification to samples out of specification found under normal production conditions. According to the "Recommended Specifications for Web Offset Publications," booklet, and seen in the "Standard Color Reference Swatches, " prepared by the "International Pre-Press Association," solid ink density for proofing with Cromalin should read within plus or minus .05 density of swatches. ⁴ It was therefore evident that all variations in the preparation of control bar proofs would need to have to exceed this value for samples prepared out of specification and be within this value for samples in specification. To establish these tolerances, exposure time was calculated.

To achieve precise exposure time for the Cromalin proofing system, Du Pont recommends that "Brunner Eurostandard Cromalin Specifications" be implemented.⁵ Due to the fact that Du Pont has accepted this standard for its proofing process, it was necessary to use the System Brunner control bar to determine exposure time. The following guidelines for exposure were specified in the Cromalin instruction manual:

"To find the optimum exposure it will be necessary to

use patch 31 of the cyan 'Eurostandard Cromalin Control Strip.' The microlines in the crossline patches have been specially designed to monitor changes in the screen dots, and thus, the time of exposure. Exposure is correct when the 8 microlines disappear in copying, but the 11 microlines are still visible." ⁶ (See Figure 3)

FIGURE 3
Exposure Control
Cyan Brunner Patch 31

0.5%	1%	6u	
		8u	Disappear
2%	3%	11u	Visible
		13u	
4%	5%	16u	

The exposure system that was used in this experiment was a Contralux 6000 Watt Quartz light source, on a Burgess "fast-draw" vacuum frame, with a OLEC integrator. When testing with the Brunner cyan strip was completed, it was determined that an exposure time of 11.0 units for the yellow and magenta printers, and 11.3 units for the cyan and black printers, yielded results made to specification.

Now that the exposure time was calculated, density readings needed to be established for specification

samples. Because each Standard Color Reference Swatches has a guaranteed shelf-life of only six months, a new set was purchased prior to this experiment. Using the reference swatch and a narrow band Macbeth densitometer, model RD 914, the density readings for the four colors are found in Table 1.

Table 1.
Reference Swatch Density Readings

Yellow	-	121
Magenta	-	150
Cyan	-	137
Black	-	180

In this particular experiment, the Macbeth RD 914 is a narrow band densitometer. A narrow band densitometer will give readings higher than might be expected from a wide band densitometer. It must be noted that each brand of densitometer, as well as within the same brand of densitometer, read densities different. As long as a densitometer references its readings back to the original swatch, it will give consistent results.

Once the exposure and toning density figures were established for SWOP Standards, both control bars were made to these specifications. These samples were checked

to make sure that they met SWOP requirements. Dot gain, slur, overprint and grey balance were found to be more than acceptable. Once they were found to be satisfactory, one additional sample of the GCA Proof Comparator was made to be used as a "master" comparative device. All specification samples were made at the same time, thus making sure the two samples made to SWOP and the master Comparator yielded the same results. The bars were examined under a GTI 5000 Kelvin light booth in a Macbeth neutral grey painted room. The light booth was checked by a Kodak Color Viewing Light Selector which determines if the light source has adequate amounts of red, green and blue light which results in a high Color Rendering Index(CRI).⁷ The light booth was found to be up to American National Standards Institute standards(ANSI). The resulting samples were then mounted to a seven by twelve inch piece of neutral grey Bainbridge board, leaving at least one inch of space around the color bars. The samples were then covered to keep them light fast and marked with a code. The master Comparator was trimmed down to size, covered and marked.

Now that the SWOP specification samples and master Comparator were made, it was important to consider how many samples were necessary for all the possible permutations of production errors found out in the industry. One important factor that played heavily into

this determination was the time it would take to administer the experiment to each participant. Because the test subjects were very busy executives, it was determined that the time it should take to administer the test should not exceed one-half hour. Another factor that was also taken into account was the degree of subtle differences caused by the changes in exposure and toning density. For example, if too subtle a change was made from the samples made to SWOP specifications and out of SWOP specifications, it might not be noticeable. Of course, if it was very subtle, it probably would not hurt the production of an actual job. It would, however, add more samples to the test and make decision making that much more difficult for the participants. Based upon this theory of restricting samples to enable more accurate and thought provoking choices, five permutations of exposure and toning values for each color bar were prepared. They were prepared by the following guidelines:

- 1) One set of each color bar made to SWOP specifications and one GCA master comparator made to SWOP specifications.
- 2) One set of each color bar with exposure time to SWOP specifications, but significantly undertoned.
- 3) One set of each color bar with exposure time to SWOP specifications, but significantly overtoned.

- 4) One set of each color bar with a very high exposure time, but toned to SWOP specifications.
- 5) One set of each color bar with a very low exposure time, but toned to SWOP specifications.

During the preparation of the "out of specification" samples, it was found that the Cromalin off-press proof process was very stable. Very subtle changes in either exposure or toning density (+ or - 5%, as dictated by Du Pont) had virtually no visual affects on either color bar. Much larger shifts in exposure and toning density, did however show noticeable changes. It was determined that these noticeable changes were not unlike many common production error found in actual day to day proofing and therefore, good samples for testing the hypothesis of this thesis. See Table 2.

Table 2.

Sample Characteristics

Preparation	Result
Exposure Normal	SID weak, poor grey balance, all
Under toned	screen tints weak, negative dot gain, dot structure weak in Cyan & Yellow printers. Although poor, a good example of what could end up in a

	clients hands.
Exposure Normal	Severe trapping problem, coating delamination, excessive dot gain, over exaggerated dot structure. Severe problems in this sample.
Exposure High Normal toning	Almost no adhesion of toner powder, ghost image. Severe problems in this sample as well.
Exposure Low Normal	Ink density weak, poor grey balance, weak dot structure, similar effects as undertoning. Changes in low end of exposure seem to affect proofs less than any other variables. Photopolymer is very stable at low end exposure.

The exposure and toning values used to achieve these results were calculated after repeated experimentation. It was determined that the values found in Table 3 most accurately represent a well balance set of possible production errors, using the Cromalin off-press proofing process.

Table 3.

Sample Exposure & Toning Values

SWOP DENSITIES: Y= 121, M= 150, C= 137, K= 180

OVERTONED: Y= 137, M= 213, C= 163, K= 195
UNDERTONED: Y= 84, M= 140, C= 107, K= 151
SWOP EXPOSURE: Y & M= 11.0 UNITS, C & K= 11.3 UNITS
OVER EXPOSED: Y & M= 53.0 UNITS, C & K= 53.3 UNITS
UNDER EXPOSED: Y & M= 3.0 UNITS, C & K= 3.3 UNITS

After all of the test samples were prepared, they were then mounted, covered and numerically coded to show how they were prepared. Each pair of commonly prepared color bars were then placed in an order of one through five for the GATF color bar and six through ten for the Proof Comparator.

III. Survey Testing

To perform the statistical analysis for this thesis experiment it was necessary to mark the two samples made to SWOP standards, and rank the balance from closest to SWOP standards to farthest out of SWOP standards. By utilizing densitometry, and visual analysis, a best to worst order was established by this author. To re-affirm this order, ten graphic arts industry specialists were asked to rank the samples. Nine of the ten agreed with the order set by this author. Ninety percent assurance was found to be suitable for pre-testing ranking. See Table 4.

Table 4.
Sample Ranking

SAMPLES	GATF	GCA/GATF
SWOP Standards	1	6
Exposure Low, Toning Normal	5	10
Exposure Normal, Undertoned	2	7
Exposure Normal, Overtone	3	8
Exposure High, Toning Normal	4	9

Test Site

Atlanta, Georgia was chosen as the test site of this experiment for the following reasons:

- A) Atlanta is the hub of the Southeastern United States and has a tremendous concentration of printing, advertising and publication concerns.
- B) Atlanta is the headquarters for this authors printing company, therefore accommodating for excellent client and vendor cooperation in this experiment.
- C) Because Atlanta is a relatively new city, many of the people employed in Atlanta come from all over the United States. This facilitates a good cross section of how the rest of the United States would

react to similar testing.

Sampling Populations

Four sampling populations were chosen to conduct this experiment:

Printing Production Managers

Advertising Production Managers

Color Separators

Publication Production Managers

These four sample populations were chosen due to their interconnective roles in proof approval and evaluation. Printing production managers tie together the entire process of pre-press to post-press proof approval. They are expected to evaluate the original copy to the off-press proof, and the off-press proof to the final printed copy.⁸ This multiple comparative nature makes printing production managers authorities on system limitations.

Color separators are expected to understand color theory. They are also experts on the mechanics of off-press proof technology, and the analysis of off-press proofs in determining if the proofs accurately reflect the originals.

Advertising production managers do not generally

possess the expertise of either a photoengraver or printer, therefore, they rely upon strong visual evaluation and personal preference when judging color proofs. They are a key player in off-press proof approval, due to the fact that advertising agencies are the final clients, and pay the bill.

Publication production managers utilize many of the functions found in the other three groups. They buy color as a client. They check originals to off-press proof to press. And publication production managers generally understand color theory, and how it relates to density and SWOP standards.

These descriptions are general in nature. Each individual working in any of these positions may possess varying degrees of knowledge and expertise. These four groups were chosen to represent a strong cross section of graphic arts professionals who are actively involved in off-press proof approval and color bar usage. Prior to actual testing, it was the GCA's contention that the Comparator would be better suited for all areas of the graphic arts, than that of the GATF bar.⁹

Based upon the varying levels of expertise outlined in the description of the four test groups above, the anticipated order of correct selection of proofs made to SWOP standards should prove to be:

- A) Color Separators
- B) Printing Production Managers
- C) Publication Production Managers
- D) Advertising Production Managers

The sample size of the above groups proved to be ten participants per group. It was determined that this figure would allow the entire experiment to be treated as a "large sample survey," ($n > 30$), which adds validity to the appropriate statistical testing that accompanies this experiment. (See section IV.)¹⁰

Participant Screening and Testing

An advantage of being part of the graphic arts community in Atlanta, came when choosing participants. Based upon previous experience with printing companies, color separators and existing clients, it was relatively easy to choose a homogeneous cross section of participants in each area. Pre-screening and qualifying expertise was accomplished by the following criteria:

- A) Participants needed to be currently employed.
- B) Participants needed to work for recognized organizations in the Atlanta graphics community.
- C) Participants needed to be employed in their present capacity for at least two years. (But not necessarily at the same company).

See Appendix A for a complete listing of chosen participants and their organizations.

After choosing a list of participants, it was necessary to call each participant and schedule an appointment. At each appointment, "Participant Directions" were read prior to testing. (See Appendix B) A "Survey Information Sheet" was also completed containing an account of their previous jobs, related experience in their industry and their years of experience at their present job. It also contains information about testing environment, testing instrumentation and actual participant color bar selections. (See Appendix C)

Each survey form was filled out prior to testing, and signed by the participant. Each survey concluded with two separate choices per participant; or a total of eighty cells of data. Each participant was thanked, and asked not to mention the test or their choices to anyone else in the industry. This would prevent bias answers for later participants.

Experimental Controls

It is exceedingly important in any form of scientific investigation to rule out factors that are not part of the experiment, but may introduce unwanted variability. Some variability that may cause inconsistency in this experiment, was controlled during preparation by using the

same densitometer to take all density readings. Similarly, using the same exposure unit and toning machine was used to insure that no mechanical variation came into play. Other factors, such as using the same roll of photopolymeric film and same jar of toning powder throughout preparation prevented chemical variability. And not informing participants of their rate of accuracy, until after the entire experiment was over, would prevent other participants from biasing their answers.

In the preparation and testing of this thesis experiment, all of these factors were taken into account and religiously observed.

IV. Statistical Testing and Inference

A normal distribution can be described as having a "bell-shaped curve," and will include a mean and standard deviation.¹¹

In qualitative, or subjective testing, a normal distribution may not be assumed. The sampled populations are not always distributed, nor are they symmetrically distributed with identical shapes.¹² In lieu of the need for statistical mathematics that describes qualitative testing, "nonparametric" and "distribution-free" statistics were developed.

"A nonparametric test is one which makes no hypothesis about the value of a parameter in a statistical

density function, whereas a distribution-free test is one which makes no assumption about the precise form of the sampled population."¹³ Because the proposed experiment makes use of a heterogeneous sample population, and the variables are independent, the conditions for both nonparametric and distribution-free testing apply. Moreover, definitions for both are not mutually exclusive, therefore, a test can be both distribution-free and non-parametric. The "Two-Sample Sign Test," which does not assume any exact shape for the sampled population of variate values, and utilizes paired data was chosen and implemented to test the results of this experiment.¹⁴

Two-Sample Sign Test

The Two-Sample Sign Test is based on paired data. To obtain comparative data for sign testing, a singular, conclusive result must therefore be obtained for each variant. The proposed design parameters for testing this experiment were tailored specifically for this statistic. This thesis experiment is based upon its ability to accurately narrow down the samples available, so that each participant may choose one sample that they believe is made to SWOP specifications. As previously stated, after survey testing, forty pairs of data were present. Each pair of sample values were replaced with a plus sign if the first value is greater than the second value, and a

minus sign if the first value is less than the second, or be discarded if the two values are equal.¹⁵

If there is no significant difference between the two color bars in determining when a Cromalin proof is made to SWOP specifications, then each color bar would have a 50% chance of being chosen. This is represented by the hypothesis:"

$$p=1/2$$

If p does not equal $1/2$, or showing that a majority of the total population(p) tested has chosen one color bar more often, then the null hypothesis becomes accepted. This would demonstrate a significant difference between the two color bars, and thus rejecting the hypothesis of this thesis.¹⁶ The Two-Sample Sign Test is an established test designed for an experiment of this nature. Taking into account the size of the population ($n>30$), with a reasonable level of significance of five percent, this test proved to be an accurate assessment of qualitative testing.

Footnotes Of Methodology

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- 2 Miles F. Soutworth, "Color Separation Class Notes," Fall, 1983, Rochester Institute Of Technology
- 3 "Cromalin: Standardization In Offset - How And Why?" Du Pont de Nemours and Co.(Wilmington,DE) p.3
- 4 Cromalin, p.3
- 5 Cromalin, p.11
- 6 Cromalin, p.11
- 7 Kodak Color Viewing Light Selector, Eastman Kodak Company.(Rochester, N.Y.)
- 8 Southworth, fall 1983
- 9 Graphic Communications Association,"Draft GCA/GATF Proof Comparator Analysis,"(Arlington Va, 1983)p.1
- 10 Nie, Hull, Jenkins et. al., "Statistical Package For The Social Sciences," McGraw Hill,(New York, N.Y. 1979) p.228
- 11 John E. Freund, "Modern Elementary Statistics,"(Englewood Cliffs, N.J. 1979) p.250
- 12 James V. Bradley, "Distribution-Free Statistical Tests,(Englewood Cliffs, N.J. 1968)
- 13 Bradely, p.15
- 14 Bradely, p.15
- 15 Freund, p.334
- 16 Freund, p.336

Chapter VI

Experimental Results and Conclusions

I. Proving or Disproving The Thesis Hypothesis

In order to compile the results of the survey, and administer the two-sample sign test, it is necessary to refer back to the ranking and numerical code given to each bar made to SWOP specifications and out of SWOP specifications, as discussed in the Chapter V.

Table 5.
Ranking By Degree of SWOP Standards

Ranking	GATF (exper. #)	GCA/GATF (exper. #)
SWOP 1	1	6
2	5	10
3	2	7
4	3	8
5	4	9

The results of each participants survey are now listed in Table 6 by group. The resulting answers are cross referenced to their ranking in Table 5, and administered

the Two-Sample Sign Test. Their sign is found in the right hand column. Non-accepted answers are assigned a "0" sign, and ties are listed accordingly.

Table 6
Test Results

Participant & Group	GATF #	GCA/GATF #	Sign (+ or -)
Printing			
1	2	8	+
2	4	6	-
3	5	6	-
4	1	6	tie
5	1	10	+
6	2	8	+
7	5	10	tie
8	1	10	+
9	1	6	tie
10	5	7	+
Advertising			
11	1	10	+
12	-	7	0
13	1	6	tie

14	5	6	-
15	2	10	-
16	2	6	-
17	5	6	-
18	2	20	-
19	4	6	-
20	5	6	-
Color Separators			
21	5	6	-
22	1	10	+
23	5	10	tie
24	5	6	-
25	-	9	0
26	5	6	-
27	-	10	0
28	5	6	-
29	5	6	-
30	1	6	tie
Publication			
31	5	6	-
32	5	6	-
33	2	10	-
34	5	8	+
35	5	8	+
36	1	10	-
37	5	10	tie

38	1	7	+
39	5	10	tie
40	5	10	tie

Compilation of Results:	ten	(10)	+ signs
	eighteen	(18)	- signs
	nine	(9)	ties
	three	(3)	N/A *

* All non-accepted (N/A) answers are discarded.

Non-accepted answers result from participants not yielding final color bar selections for lack of appropriate knowledge or disagreement in whether one can judge color bars made to SWOP standards.

After examining the results of the Two-Sample Sign Test, it was determined that the hypothesis: $p=1/2$ does not agree with the final data. Of the accepted participant surveys, approximately sixty-four percent chose the GCA/GATF Off-Press Proof Comparator. This rejects the null-hypothesis $p=1/2$ and disproves the null hypothesis, that there is no significant difference between the ability of the GCA/GATF Off-Press Proof Comparator and the GATF Standard Color Control Bar, to identify when a Du Pont Cromalin Off-Press Proof is or is

not prepared to Specifications for Web Offset Publication."

II) Group Results

If we refer back to the methodology section, the proposed order of technical proficiency in the four sample groups were projected to be color separators printing productions managers, publication production managers and advertising production managers. According to the final results, we see that three of the four groups tested have the same number of correct answers. Out of a possible twenty correct answers, the group containing print production managers, advertising production managers and color separators, all made eight correct choices of color bars made to SWOP standards.

Although the total number of choices for all three groups are the same, the distribution between the two color bars are only similar in two groups. Both advertising agencies and color separators each made six GCA Comparator choices and two GATF color bar choices for correct answers. The print production managers group had an even distrubution between both color bars with four choices each. And the publication production managers had only four correct answers; also with an even distribution between the two color bars. It appears that the final order of correct choices by group are: color separators,

advertising agency production managers, printing production managers and publication production managers.

III) Group Conclusions

One main premise outlined by the Graphic Communications Association in promoting the GCA Comparator was to offer an off-press proofing control device that could be successfully used by both technical and non-technical personnel. Based upon the final data collected in this thesis experiment, if no difference was present, then out of all the correct answers, fifty percent would have chosen the GCA bar and fifty percent would have chosen the GATF bar. In examining the results, it can be seen that out of the four groups tested, two groups overwhelmingly chose the GCA Comparator six to two. In applying the Two Sample Sign Test statistic to this data, the two groups that tied get discarded and the other two groups with (+) signs are accepted.

Table 7.

Two-Sample Sign Test For Group Proficiency

Group	GCA/GATF	GATF	Sign
Advertising Agency	6	2	+
Color Separators	6	2	+
Printing Managers	4	4	tie

Publication Managers	2	2	tie
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With both color separators and advertising production managers representing both technical and non-technical members of the graphic arts society, it can conclusively be stated that the GCA/GATF Off-Press Proof Comparator is a better indicator than the GATF Standard Color Control Bar for both technical and non-technical groups tested in this experiment.

IV) Conclusions Draw Upon Testing Characteristics

Because statistics cannot determine all variability based upon the difference in each human participating in the experiment, it is necessary to draw upon some of the specifics of the actual testing.

A Survey Information Sheet was filled out at the location of each test subject. All forty of the Survey Information Sheets can be found in Appendix C.

The Survey Information Sheet is broken down into five areas: 1) General information, 2) Light source and viewing area, 3) If SWOP needed to be explained or not, 4) Actual test results, and 5) Device and basis for choice. Prior to actual testing the participants were asked to treat the test as they would treat an actual color production project. The following results reflect these conditions.

Light Source and Viewing Area

The viewing area and light source section describes the actual light source that the participants viewed the color bar proofs under. Out of forty participants tested, only eighteen viewed the proofs under 5000 degree Kelvin lighting. SWOP standards dictate that all viewing should take place under 5000 degree Kelvin. Twenty one participants viewed the color bar proofs under normal office fluorescent lighting, and only one participant actually viewed the proofs under day light, a light source more equivalent to 5000 Kelvin lighting.

The viewing area section is broken down into designated viewing areas, light booths with neutral gray walls, office, pressroom, reception and or conference area. Only fourteen of the participants tested utilized viewing areas or booths. All fourteen viewing booths did have neutral gray walls. Two participants used the press room console lights without neutral gray walls. Nineteen participants performed the experiment in their offices, most with eggshell colored walls. Five did the test in the reception area or conference area.

The advertising production managers and color separators utilized 5000 Kelvin light more often than print and publication production managers. Color separators almost exclusively used neutral grey light booths and viewing areas. The light source and viewing

conditions are indeed important factors for judging when proofs are made correctly, and although the final results parallel the results found in the Two-Sample Sign Test, it is not possible to quantify the effects of the varied viewing conditions and light sources on the final results of this experiment. The split between technical and non-technical groups leads us to question whether the difference lies between group or light source.

Explaining SWOP Standards To The Test Participants

Out of forty participants polled, forty-three said they understood the concept of SWOP standards, and how to judge proofs made to SWOP standards. Out of the seven who needed SWOP explained, five were in the publication group, and two were in the advertising group. These two groups are non-technical groups, and therefore are the groups expected to need additional counseling. The one factor that cannot actually be calculated into the final results of this experiment, but does need to be noted, is whether some participants did not know how to judge proofs to SWOP standards, but did not let this author know, so SWOP could be explained.

Choice Of Devices Used To Evaluate The Color Bars

The three devices most commonly used for evaluation of the proofs were the GCA Proof Comparator "master",

magnifying printers lupe and reflection densitometer. The overwhelming first choice of evaluation tool was the GCA/GATF Comparator "master". Only in the printing group was the GCA/GATF Comparator "master" second to the densitometer. Out of forty-nine total devices indicated (participants were allowed to use more than one device for evaluation), thirty-two were the GCA Proof Comparator "master".

An analysis of components found in each of the two color bars tested were categorized by the following elements: 1) dot gain bar, 2) slur gauge, 3) star target, 4) ink density bars, 5) tint bars, 6) overprint bars, 7) grey balance bars and 8) pictorial element. For the sake of simplifying the results of this section, this researcher will categorize the results into the most common choices; pictorial element, solid ink density patches and other gauges, tints and targets. Sixty-one total answers were rendered. The overwhelming choice of area used for evaluation was the GCA pictorial element. More than fifty percent of the participants chose the pictorial element as their number one basis for choosing their color bar. Fourteen participants used the solid ink density bars for their evaluation and sixteen used a combination of the other elements, with no one gauge, target or tint being a clear cut favorite.

It was expected that the printing group would choose

fifty percent of their evaluation based upon the solid ink density patches. It was interesting to see that forty percent of the printing choices relied on the pictorial element, instead of the targets and gauges. The advertising group almost exclusively used the pictorial element. It was noteworthy to mention that the advertising group chose the targets and gauges more than the printing group did. By far, the most unexpected turn of events came from the color separators group and the publication group. Where one might expect a technical group such as color separators to rely exclusively on tints, targets and gauges of the color bars, and the publication group, a non-technical group, to rely heavily on the pictorial element, we see a rather peculiar switch. Eighty percent of the color separators chose the pictorial element as their basis for choice, yet only forty percent of the publication group chose the element. No participant chose the International Prepress Association (IPA) Reference Swatch for their evaluation at all.

V. Summary of Conclusions

As stated previously, the proposed hypothesis of this experiment is stated thus: there is no significant difference between the ability of the GCA/GATF Off-Press Proof Comparator or the GATF Standard Color Control Bar, in identifying when a Du Pont Cromalin Off-Press Proof is

or is not prepared to Specification For Web Off-Set Publication. This is a summarization of the conclusions supported by the analysis of the data:

1. This researcher has concluded that the proposed thesis hypothesis has proven to be false and the null hypothesis is rejected. The Two-Sample Sign Test of Paired Data provides statistical proof that the GCA/GATF Off-Press Proof Comparator increases one's ability to spot Cromalin proofs made to SWOP stands over the GATF Standard Color Control Bar.
2. It is suspected that the use of ANSI standard lighting and neutral grey viewing conditions had some effect on the ability of participants to accurately judge whether a Du Pont Cromalin off-press proof was made correctly and to SWOP specification. But due to the fact that the viewing conditions were chosen by each participant and not the test administrator, a further study would be necessary to isolate and quantify these results for conclusive proof.
3. Advertising Production Managers (non-technical) and Color Separators (technical) found the GCA/GATF Comparator significantly better than the GATF Control Bar, where as the Printing Production Managers (technical) and the Publication Production Managers (non-technical) did not. Through statistical analysis of paired data, the

Printing Production Managers and Publication Production Managers are disqualified by virtue of each group choosing the same number of correct responses, thus creating a tie and cancelling each other out. We therefore accept the first group. This supports the Graphic Communications Association's claim that the GCA/GATF Proof Comparator is a device that is equally valuable for both technical and non-technical people.

4. It can be concluded from the data collected in the Survey Information Test Form that the order of preferred method for evaluation of off-press proofs is visual reference by comparison, followed by visual inspection and concluded with densitometry.

5. The first choice of elements preferred to check proofs was the visual pictorial element, followed by the solid ink density patches, screen tint over-prints and dot gain targets. As the most used reference measuring device, one hundred percent (100%) of all Advertising Production Managers chose this method as their first choice. Color Separators chose this method eighty percent (80%) of the time, and both Printing and Publication Production Managers chose the pictorial element forty (40%) of the time.

6. As a final note, both IPA reference swatches and progressive proofs were made available to the participants of this experiment. No one utilized either device.

Chapter VII

Implications And Recommendations For Further Study

From the results of this thesis experiment it can be concluded that the GCA Off-Press Proof Comparator is better for judging Du Pont Cromalin proofs, properly made to SWOP standards, than that of the GATF Standard Color Control Bar. A qualified panel of industry experts agreed that the single most helpful color bar element that aided them most in their final selection was the small pictorial section when used in conjunction with a comparative "master" made to SWOP standards.

The findings of this thesis do not provide the final answer as to which color bar available today is best, nor does it provide the best method of proof evaluation, but it does however point to the fact that further areas of research are necessary to help answer these questions.

The question arises as to whether a pictorial element should be present in all off-press proofing control bars. Although pictorial elements are found in press proofing control bars, no equivalent design is being produced by other manufacturers of off-press proofing control bars. Further research could focus on whether such a simple means of off-press proof approval will increase the checking of off-press proofs for correct preparation in

all phases of the industry. It would also be interesting to see how other manufacturers would treat this application of a pictorial section in their existing color bars.

Another area that should be examined further is whether the findings of this experiment could be duplicated or improved using other manufacturers systems of off-press proofing. As popular as Du Pont Cromalin is, 3M Matchprint, Enco Pressmatch and Kodak Signature have become as recognized as Cromalin for off-press proof accuracy. A recommendation for further study could involve this experiment utilizing all or one of the systems listed above.

One area in particular that could be best served by additional reseach is the affects of ANSI standard lighting and viewing conditions on off-press proofing control bars and proofing systems. The experimental design of this thesis dictates that lighting and viewing conditions are left up to the discretion of the participants tested. Therefore, the affect the actual viewing conditions had on the final color bar choices could not be quantified numerically and factored into the final results. A recommendation for further study could involve testing off-press proof bars made to SWOP standards and out of SWOP standards using ANSI approved lighting conditions versus unapproved lighting conditions.

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Chapter IX

Vita

William Franklin Breakstone was born on January 17, 1962, in Yonkers, New York. There, he attended a trade and technical high school where he received a four year technical diploma in chemistry.

After graduating high school, Bill attended Emory University in Atlanta, Georgia. He completed his undergraduate degree in 1983 with a Bachelor of Arts Degree in English Literature. During Bill's college education, he started a small magazine publishing business out of his home. It is here that he became interested in the graphic arts.

Bill applied to The Rochester Institute Of Technology. He was accepted and immediately attended after graduating Emory. At R.I.T. Bill completed all necessary course work and had his thesis proposal accepted prior to leaving in 1984.

Knowing that owning his own printing company would be his ultimate career goal, he began paying his dues as a production manager in two high quality sheetfed shops in New York City. In 1985, Bill decided to moved back down to Atlanta. He began selling printing for another high

quality sheetfed printer. After one year, he knew it was time to venture out on his own.

In 1986, Bill Breakstone opened up Breakstone Creative Lithography, with one employee and an older four color proof press, he was in business producing color printing. One year later, Bill took in a business partner. Gordy Cain would take care of sales, while Bill would run production and manage the business. Hence, the name of the company changed to Breakstone Cain Lithography, Inc.

By the beginning of 1990, Breakstone Cain will have grown to over thirty employees, two printing facilities and sales in excess of 2.5 million dollars. At the age of 28, Bill Breakstone is ranked as one of the youngest CEOs in Georgia's graphic arts community.

Although the phenomenal growth of Breakstone Cain Lithography was the realization of a dream for Bill, his finest moment in 1990 was completing his R.I.T Master's Thesis.

Appendix A

Listing Of Survey Participants

Name	Company
Advertising	
Jennifer Chuprun	Cohen & Company
Chip Cipolla	Hutcheson Shutze
Marie Etheridge	Babbitt & Reiman
David Gray	Wilson, Horne, McClelland & Gray
Mary Anne Hagan	Cargill & Associates
Rand Hollon	Ogilvy & Mather
Bill Lewis	C & S Advertising
Di Medland	Fahlgen & Swink
Herb Nager	J Walter Thompson
Ed Young	Young, Martin & Massey
Color Separators	
Bernie Schmidt	Beck-Atlanta
Scottie Hooper	Color Solutions
Jack Bobeng	Color US
James Parker	Gibson Litho
Ed Schrager	Graphic Prep
Charlie Rezac	Hi Tech
Robert Elliott	Techtron-Atlanta
J.C. Sharpton	Total Prep
Jeff Finley	Viking Color
Ray Seufert	Vintage Graphics
Printing	
Randy Ladwig	American Graphics
Ken Raymond	Breakstone Cain Litho
Ed Southerland	Bryant Litho
Dave Miller	IPD
John Waller	National Graphics
James Poole	Oak Tree Printing
Lloyd Bryant	Perfect Image
Herb Harrelson	Ryco Printing
Cliff Mullinax	Stein Printing
George Armstrong	Williams Printing

Publications

Kris Royal	Atlanta Convention & Visitors Bureau
Suzy Goodin	Billian Publishing
Sue Maier	Bryant Publishing
Janice Van Meckland	Atlanta Magazine
Brian W. Buxton	Communication Channels
Jerry Jones	Georgia Trend Magazine
Casey Clavin	Prancing Horse Magazine
Sarah Green	Printing Assoc. Of Georgia
Randy Brunner	Southern Homes Magazine
Marty Barnes	Where Magazine - Atlanta

Appendix B

Participant Directions

Mr/Ms. _____, thank you for consenting to be a part of this study. Today we are going to look at two color bars. These bars are used specifically for judging off-press proofing. You will receive a "master" color bar that was made to Specification for Web Offset Publication requirements. I will then show you a series of five off-press proofs made from the same films that were used to make the master. You will then make a decision as to which proofs are acceptable by SWOP specifications. Use of the "master" as a comparative device, is purely up to you. You may use any method you wish in making these evaluations, such as a lupe, densitometer or I.A.P.

Reference Swatches. In the second test, the same procedures will follow, however, no "master" will be given out for comparison. Once again, you may utilize any procedure or instrumentation to make your evaluations. After the test is over, I will ask you to look at the evaluation elements on a test form. Each element on the form corresponds to the elements on each control bar. You may specify one or all of them. At this time, I will refrain from telling you the results of your test,

however, I would be happy to send you a copy of the results after the entire study is finished. Remember, there are no right or wrong answers, so please base your decisions, as if the samples were being evaluated under production conditions. Do you understand the directions?

Good, let us begin....

Appendix C

Survey Information Sheet

SAMPLE GROUP: COLOR SEP. PRINT. PUB. ADVERT.

NAME: _____

COMPANY: _____

ADDRESS: _____

TELEPHONE: _____

.....

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: _____

YEARS AT PRESENT COMPANY: _____

YEARS IN INDUSTRY: _____

OTHER JOBS HELD: _____

.....

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
 5000K Viewing Overhead Light _____
 Fluorescent Lighting _____
 Daylight _____
 Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
 Press/Scanner Room _____
 Conference _____
 Office _____
 Reception Area _____
 Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y/N

.....

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications _____

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications _____

Method or Device used for evaluation:

Lupe _____ Densitometer _____ IPA Ref. Swatches _____

"Master Comparator _____ Color/Screen Guide _____

(Visual) Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____

Ink Densities _____ Highlight Tints _____ Middleton Tints _____

2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____

Pictorial Element _____ Other _____

COMMENTS: _____

.....

DATE: _____

TIME: _____

SIGNATURE: _____

Appendix D

Completed Survey Forms By Group

Advertising

Color Separators

Printing

Publications

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Jennifer Chapman
COMPANY: Cohen + Company
ADDRESS: 3216-2 Peachtree Rd. W.E.
TELEPHONE #: 233-7331

.....

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Production Manager
YEARS AT PRESENT COMPANY: 3 2 - Production
YEARS IN INDUSTRY: 3
OTHER JOBS HELD: N/A

.....

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light _____
Florescent Lighting ✓
Daylight _____
Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room ✓
Office _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. White Walls

Did the SWOP concept need to be explained? (Y)N

.....

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications 1

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications 7

Method or Device used for evaluation:

Lupe 1 Densitometer SWOP Reference Swatches

"Master" Comparator 1 Color/Screen Guide
(Visual)

Other

.....

Basis for choosing above specific sample:

Dot Gain Bar 1 Slur Gauge 1 Star Target
Ink Densities 1 Highlight Tints Middleton Tints
2 Color Tints 3 Color Tints Gray Balance Bar
Pictorial Element Other

COMMENTS:

.....

DATE: 1/31/89

TIME: 12:00

SIGNATURE:

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 5

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 6

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ☒ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____
Ink Densities _____ Highlight Tints _____ Middletone Tints _____
2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____
Pictorial Element ☒ Other _____

COMMENTS: _____

.....

DATE: 12/19/88

TIME: 10:00

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Chip Cipolla
COMPANY: Hutchesson Schutz
ADDRESS: 50 Hunt Plaza Atlanta, Ga. 30303
TELEPHONE #: 523-2000

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Vice President
YEARS AT PRESENT COMPANY: 3 1/2
YEARS IN INDUSTRY: 32
OTHER JOBS HELD: Sales, Always within Print Production
Dealers.

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light _____
Florescent Lighting ✓ _____
Daylight _____
Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room _____
Office ✓ _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y/N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 2

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 10

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ✓ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar ✓ Slur Gauge ✓ Star Target ✓
Ink Densities ✓ Highlight Tints _____ Middletone Tints _____
2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____
Pictorial Element ✓ Other _____

COMMENTS: _____

.....

DATE: 12/21/88

TIME: 2:30

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Marie Otheiside
COMPANY: Dahlbit & Reiman
ADDRESS: 950 E. Paces Ferry Rd. Atlanta, Ga. 30326
TELEPHONE #: 365-0550

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Director of Print Production
YEARS AT PRESENT COMPANY: 6 months
YEARS IN INDUSTRY: 17
OTHER JOBS HELD: Account Ex., Direct Media, Production

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light _____
Florescent Lighting ✓
Daylight _____
Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room _____
Office ✓
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. Neutral Gray walls

Did the SWOP concept need to be explained? Y N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 2

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 6

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ✓ Color/Screen Guide _____
(Visual)

Other Color Intensity

.....
Basis for choosing above specific sample:

Dot Gain Bar ✓¹⁵ Slur Gauge _____ Star Target _____
Ink Densities _____ Highlight Tints _____ Middletone Tints _____
2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____
Pictorial Element ✓ Other _____

COMMENTS: _____

.....

DATE: 12/20/88

TIME: 9:00

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: David Gray

COMPANY: Wilson, Horne, McClelland & Gray

ADDRESS: 1100 Circle Parkway

TELEPHONE #: 984-9464

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Vice President Production

YEARS AT PRESENT COMPANY: 6

YEARS IN INDUSTRY: 10

OTHER JOBS HELD: Always worked in Production

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light ✓
Florescent Lighting _____
Daylight _____
Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room _____
Office ✓
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y/N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 1

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 10

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ☒ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____

Ink Densities _____ Highlight Tints _____ Middletone Tints _____

2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar ☒

Pictorial Element ☒ Other _____

COMMENTS: _____

.....

DATE: 12/20/88

TIME: 4:00

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION

ADVERTISING

NAME: Mary Anne Hagan
COMPANY: Cargill & Associates
ADDRESS: 1201 Peachtree Street
TELEPHONE #: 892-4500

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Production Manager
YEARS AT PRESENT COMPANY: 3
YEARS IN INDUSTRY: 3
OTHER JOBS HELD: Art Director

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth ☒
5000K Viewing Overhead Light _____
Florescent Lighting _____
Daylight _____
Other _____

AREA: Viewing Area ☒ Neutral Gray ☒ Y ☐ N
Press/Scanner Room _____
Conference Room _____
Office _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y ☒ N ☐

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications N/A

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 7

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ☒ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____
Ink Densities _____ Highlight Tints _____ Middletone Tints _____
2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____
Pictorial Element ☒ Other _____

COMMENTS: Could not pick the GATF bar because
she had never been exposed to this type
of color bar before.

.....

DATE: 12/19/88

TIME: 3:00 1 1

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION

ADVERTISING

NAME: Rand Hallen

COMPANY: Ogilvy & Mather

ADDRESS: One Midtown Plaza
1360 Peachtree St. Atlanta, Ga. 30309

TELEPHONE #: 888-5107

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Printing Management

YEARS AT PRESENT COMPANY: 6

YEARS IN INDUSTRY: 6

OTHER JOBS HELD: N/A

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth ☒
5000K Viewing Overhead Light ☐
Florescent Lighting ☐
Daylight ☐
Other ☐

AREA: Viewing Area ☒ Neutral Gray ☒ N
Press/Scanner Room ☐
Conference Room ☐
Office ☐
Reception Area ☐
Other ☐

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y ☒ N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 2

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 10

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ✓ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____
Ink Densities _____ Highlight Tints _____ Middletone Tints _____
2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar X
Pictorial Element ✓ Other _____

COMMENTS: _____

.....

DATE: 12/14/88

TIME: 2:02

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION

ADVERTISING

NAME: Bill Lewis

COMPANY: C+S Advertising

ADDRESS: 35 Broad St.

TELEPHONE #: 581-2397

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Creative Director

YEARS AT PRESENT COMPANY: 5 months

YEARS IN INDUSTRY: 12

OTHER JOBS HELD: Agency

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light _____
Florescent Lighting ☒ _____
Daylight _____
Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room _____
Office ☒ _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y/N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 1

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 6

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ✓ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____

Ink Densities _____ Highlight Tints _____ Middletone Tints _____

2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____

Pictorial Element ✓ Other Clarity

COMMENTS: _____

.....

DATE: 12/19/88

TIME: 2:00

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Di Medland
COMPANY: Fahlgren + Swink
ADDRESS: 2727 Paces Ferry Road, Atlanta, Ga. 30339
TELEPHONE #: 434-2424

.....

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Vice President Print Production
YEARS AT PRESENT COMPANY: 11
YEARS IN INDUSTRY: 17
OTHER JOBS HELD: Print Production Manager

.....

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth ☒
5000K Viewing Overhead Light ☐
Florescent Lighting ☐
Daylight ☐
Other ☐

AREA: Viewing Area ☒ Neutral Gray ☒ Y/N
Press/Scanner Room ☐
Conference Room ☐
Office ☐
Reception Area ☐
Other ☐

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y ☒ N

.....

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 5

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 4

Method or Device used for evaluation:

Lupe ☒ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ☒ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar ☒ Slur Gauge _____ Star Target _____
Ink Densities _____ Highlight Tints _____ Middletone Tints _____
2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____
Pictorial Element ☒ Other _____

COMMENTS: _____

.....

DATE: _____

TIME: _____

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION

ADVERTISING

NAME: Heidi Wages

COMPANY: J. Walter Thompson

ADDRESS: Atlanta Plaza 950 E. Peach Ferry Rd.
Atlanta, Ga. 30326

TELEPHONE #: 365-7300

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Vice President - Director Print Prod

YEARS AT PRESENT COMPANY: 19

YEARS IN INDUSTRY: 35

OTHER JOBS HELD: Assistant Production Manager
Traffic Manager

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
 5000K Viewing Overhead Light ✓
 Florescent Lighting _____
 Daylight _____
 Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
 Press/Scanner Room _____
 Conference Room _____
 Office ✓
 Reception Area _____
 Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. Gray, Cream Colored
Walls

Did the SWOP concept need to be explained? Y N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 5

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 10

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches Ⓢ

"Master" Comparator ✓ Color/Screen Guide ✓
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____
Ink Densities _____ Highlight Tints _____ Middletone Tints _____
2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____
Pictorial Element ✓ Other _____

COMMENTS: _____

.....

DATE: 12/21/88

TIME: 10:00

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION

ADVERTISING

NAME: Ed Young
COMPANY: Young, Martin & Massey
ADDRESS: 550 Pharr Rd.
TELEPHONE #: 237-4957

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: V.P.
YEARS AT PRESENT COMPANY: 7
YEARS IN INDUSTRY: 14
OTHER JOBS HELD: Art Director, Creative Director

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light _____
Florescent Lighting ☒ _____
Daylight _____
Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room _____
Office ☒ _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? ☒ Y ☐ N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 4

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 6

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ✓ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____

Ink Densities _____ Highlight Tints _____ Middletone Tints _____

2 Color Tints ✓ 3 Color Tints _____ Gray Balance Bar _____

Pictorial Element ✓ Other _____

COMMENTS: _____

.....

DATE: 12/27/88

TIME: 11:00

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Bernie Schmidt

COMPANY: Beck Atlanta

ADDRESS: 525 MacArthur Blvd. N.W.

TELEPHONE #: 351-4340

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Vice President Manufacturing

YEARS AT PRESENT COMPANY: 5

YEARS IN INDUSTRY: 31

OTHER JOBS HELD: Camera man, Photography Plant Manager

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light _____
Florescent Lighting ✓ _____
Daylight _____
Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room _____
Office ✓ _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 5

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 6

Method or Device used for evaluation:

Lupe ✓ Densitometer SWOP Reference Swatches

"Master" Comparator ✓ Color/Screen Guide
(Visual)

Other

.....

Basis for choosing above specific sample:

Dot Gain Bar ✓ Slur Gauge ✓ Star Target ✓
Ink Densities ✓ Highlight Tints ✓ Middletone Tints ✓
2 Color Tints ✓ 3 Color Tints ✓ Gray Balance Bar ✓
Pictorial Element Other

COMMENTS:

.....

DATE: 12/27/88

TIME: 10:00

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Scottie Hooper

COMPANY: Color Solutions

ADDRESS: 33 Executive Park Drive Atlanta, Ga. 30329

TELEPHONE #: 320-7363

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Sales

YEARS AT PRESENT COMPANY: 2 Months

YEARS IN INDUSTRY: Color - 7 22 - General Industry

OTHER JOBS HELD: General Manager, Art Director

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth ☒
5000K Viewing Overhead Light ☐
Fluorescent Lighting ☐
Daylight ☐
Other ☐

AREA: Viewing Area ☒ Neutral Gray ☒ Y/N
Press/Scanner Room ☐
Conference Room ☐
Office ☒
Reception Area ☐
Other ☐

OTHER COMMENTS: Wall/Ceiling Color, etc. Dark Blue - Carpet was
light blue in color. The viewing booth was
in the office area.

Did the SWOP concept need to be explained? ☒ Y/N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 5

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 10

Method or Device used for evaluation:

Lupe ✓ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ✓ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____
Ink Densities _____ Highlight Tints _____ Middletone Tints _____
2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____
Pictorial Element _____ Other Color Match

COMMENTS: _____

.....

DATE: 12/15/88

TIME: 2:15

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Jack Bolong

COMPANY: Colon U.S.

ADDRESS: 4420 - A Commerce Circle Atlanta, Ga.
30336

TELEPHONE #: 691-3201

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Sales

YEARS AT PRESENT COMPANY: 1

YEARS IN INDUSTRY: 38

OTHER JOBS HELD: National Sales

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light _____
Florescent Lighting ✓ _____
Daylight _____
Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room ✓ _____
Office _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 1

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 6

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ☒ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____

Ink Densities _____ Highlight Tints _____ Middletone Tints _____

2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____

Pictorial Element ☒ Other Color Hue

COMMENTS: _____

.....

DATE: 12/28/88

TIME: 10:00

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: James Parker

COMPANY: Delison Pitha

ADDRESS: 689 11th Street, N.W. Atlanta, Ga. 30318

TELEPHONE #: 885-1202

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: General Manager

YEARS AT PRESENT COMPANY: 14 years

YEARS IN INDUSTRY: 14 years

OTHER JOBS HELD: N/A

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth ☒
5000K Viewing Overhead Light _____
Florescent Lighting _____
Daylight _____
Other _____

AREA: Viewing Area ☒ Neutral Gray ☒ Y/N
Press/Scanner Room _____
Conference Room _____
Office _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y/N ☒

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 5

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 6

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches ☒

"Master" Comparator ☒ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____
Ink Densities ☒ (eye) Highlight Tints _____ Middletone Tints _____
2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____
Pictorial Element ☒ Other _____

COMMENTS: _____

.....

DATE: 12/15/88

TIME: 2:45

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Ed Schrage
COMPANY: Graphic Prep
ADDRESS: 3288 Majan Dr.
TELEPHONE #: 457-5411

.....

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Plant Manager
YEARS AT PRESENT COMPANY: 1
YEARS IN INDUSTRY: 38
OTHER JOBS HELD: Stupper

.....

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth ✓
5000K Viewing Overhead Light _____
Florescent Lighting _____
Daylight _____
Other _____

AREA: Viewing Area ✓ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room _____
Office _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y (N)

.....

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications U/A

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 10

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ☒ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____

Ink Densities _____ Highlight Tints _____ Middletone Tints _____

2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____

Pictorial Element ☒ Other _____

COMMENTS: With the GATF Bar the results
can not be determined because I feel all the
samples would fall into the SWOP range.

.....

DATE: 12/16/88

TIME: 9.00 AM

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Charlie Regan

COMPANY: Hbi Tech Color Service, Inc.

ADDRESS: 4451 W. Log Cabin Drive Suite 114 Smyrna, Ga. 30080

TELEPHONE #: 432-7377

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: President

YEARS AT PRESENT COMPANY: 1 1/2

YEARS IN INDUSTRY: 13

OTHER JOBS HELD: Scanner Instructor - for Graphics

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth ✓
5000K Viewing Overhead Light _____
Florescent Lighting _____
Daylight _____
Other _____

AREA: Viewing Area ✓ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room _____
Office _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y/N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 5

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 6

Method or Device used for evaluation:

Lupe _____ Densitometer ☒ SWOP Reference Swatches _____

"Master" Comparator ☒ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar ☒ Slur Gauge _____ Star Target _____

Ink Densities ☒ Highlight Tints _____ Middleton Tints _____

2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____

Pictorial Element ☒ Other Trap in line

COMMENTS: _____

.....

DATE: 12/20/88

TIME: 11:00

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Robert E. Eason

COMPANY: Dechtron

ADDRESS: 500 Bishop St.

TELEPHONE #: 351-9474

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Color Supervisor

YEARS AT PRESENT COMPANY: 1

YEARS IN INDUSTRY: 6

OTHER JOBS HELD: Scanner

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth ✓
5000K Viewing Overhead Light _____
Florescent Lighting _____
Daylight _____
Other _____

AREA: Viewing Area ✓ Neutral Gray YN
Press/Scanner Room _____
Conference Room _____
Office _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? YN

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 5

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 6

Method or Device used for evaluation:

Lupe ☒ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ☒ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar ☒ Slur Gauge _____ Star Target _____
Ink Densities _____ Highlight Tints _____ Middletone Tints _____
2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____
Pictorial Element ☒ Other _____

COMMENTS: _____

.....

DATE: 12/15/88

TIME: 1.15

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: J. C. Sharpton

COMPANY: Total Prep

ADDRESS: 3550 Lawrenceville Suwanee Rd.
Suwanee, Ga. 30174

TELEPHONE #: 945-4803

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Vice President

YEARS AT PRESENT COMPANY: 2 years

YEARS IN INDUSTRY: 25 years

OTHER JOBS HELD: Everything (Pressman, Scanner Operator)

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth ☒
5000K Viewing Overhead Light _____
Florescent Lighting _____
Daylight _____
Other _____

AREA: Viewing Area ☒ Neutral Gray ☒ N
Press/Scanner Room _____
Conference Room _____
Office _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y/N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 5

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 6

Method or Device used for evaluation:

Lupe ☒ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ☒ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar ☒ Slur Gauge _____ Star Target _____
Ink Densities _____ Highlight Tints _____ Middletone Tints _____
2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____
Pictorial Element ☒ Other _____

COMMENTS: _____

.....

DATE: 12/15/88

TIME: 1.15

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Jeff Finley

COMPANY: Viking Color

ADDRESS: 742 Ponce De Leon ^{Place, N.E.} Atlanta, Ga.

TELEPHONE #: 875-7821

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Customer Service Rep

YEARS AT PRESENT COMPANY: 4 months

YEARS IN INDUSTRY: 3 1/2 years

OTHER JOBS HELD: Sales, CSR

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth ✓
5000K Viewing Overhead Light _____
Florescent Lighting _____
Daylight _____
Other _____

AREA: Viewing Area ✓ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room _____
Office _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. Panel Walls, Dark
Floors

Did the SWOP concept need to be explained? Y/N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 1

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 10

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ✓ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar ✓ ^(GATF) Slur Gauge _____ Star Target _____
Ink Densities _____ Highlight Tints _____ Middletone Tints _____
2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____
Pictorial Element ✓ ^(GCA/GATF) Other _____

COMMENTS: _____

.....

DATE: 12/15/88

TIME: 10:00

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Ray Seufert
COMPANY: Vintage Graphics
ADDRESS: 4208 N.E. Expressway Atlanta, Ga. 30340
TELEPHONE #: 455-8820

.....

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Supervisor Dot Etching
YEARS AT PRESENT COMPANY: 2
YEARS IN INDUSTRY: 22
OTHER JOBS HELD: Press Platemaker, Stripping

.....

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth ✓
5000K Viewing Overhead Light _____
Florescent Lighting _____
Daylight _____
Other _____

AREA: Viewing Area ✓ Neutral Gray (Y)N
Press/Scanner Room _____
Conference Room _____
Office _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y (N)

.....

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications U/A

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 9

Method or Device used for evaluation:

Lupe _____ Densitometer ✓ SWOP Reference Swatches _____

"Master" Comparator _____ Color/Screen Guide _____
(Visual)

Other _____

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____
Ink Densities ✓ Highlight Tints _____ Middletone Tints _____
2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____
Pictorial Element _____ Other _____

COMMENTS: Could not pick a sample for the
GATF bar because he felt they would all
fall within the SWOP range.

DATE: 12/16/88

TIME: 9:30

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Randy Ladwig

COMPANY: American Graphics

ADDRESS: 2300 DeForest Hills Rd.

TELEPHONE #: 355-7220

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: General

YEARS AT PRESENT COMPANY: 2 months

YEARS IN INDUSTRY: 6

OTHER JOBS HELD: Worked with DeForest

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light ✓
Florescent Lighting _____
Daylight _____
Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room _____
Office ✓
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y/N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 1

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 1

Method or Device used for evaluation:

Lupe _____ Densitometer ☒ SWOP Reference Swatches _____

"Master" Comparator ☒ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar ☒ Slur Gauge ☒ Star Target ☒
Ink Densities ☒ Highlight Tints ☒ Middletone Tints ☒
2 Color Tints ☒ 3 Color Tints ☒ Gray Balance Bar ☒
Pictorial Element _____ Other _____

COMMENTS: _____

.....

DATE: 12/27/88

TIME: 2:30

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Ken Raymond

COMPANY: Breakstone Cain Sutho.

ADDRESS: 2670 Peachtree Industrial Ct.
Atlanta, Ga. 30341

TELEPHONE #: 458-9217

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Pressman Sup.

YEARS AT PRESENT COMPANY: 1

YEARS IN INDUSTRY: 31

OTHER JOBS HELD: Everything

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light ✓
Florescent Lighting _____
Daylight _____
Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
Press/Scanner Room ✓
Conference Room _____
Office _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 5

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 6

Method or Device used for evaluation:

Lupe _____ Densitometer ☒ SWOP Reference Swatches _____

"Master" Comparator ☒ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____

Ink Densities ☒ Highlight Tints _____ Middletone Tints _____

2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____

Pictorial Element ☒ Other _____

COMMENTS: _____

.....

DATE: 12/16/88

TIME: 1.00

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Earl Southerland

COMPANY: Bryant Litho

ADDRESS: 510 Van Housen Blvd.

TELEPHONE #: 355-3980

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: V.P. Manufacturing

YEARS AT PRESENT COMPANY: 5

YEARS IN INDUSTRY: 32

OTHER JOBS HELD: Shipping, Carvers

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light ✓
Florescent Lighting _____
Daylight _____
Other _____

AREA: Viewing Area ✓ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room _____
Office _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y/N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 1

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 6

Method or Device used for evaluation:

Lupe _____ Densitometer ☒ SWOP Reference Swatches _____

"Master" Comparator _____ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____

Ink Densities _____ Highlight Tints _____ Middletone Tints _____

2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____

Pictorial Element ☒ Other Slide

COMMENTS: _____

.....

DATE: 12/29/88

TIME: 11:30

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Dave Miller

COMPANY: SPD

ADDRESS: P.O. Box 81000 Atlanta, Ga. 30366

TELEPHONE #: 458-6351

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Press Manager

YEARS AT PRESENT COMPANY: 5 months

YEARS IN INDUSTRY: 30

OTHER JOBS HELD: Stripper, Platemaker

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light _____
Florescent Lighting ✓
Daylight _____
Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
Press/Scanner Room ✓
Conference Room _____
Office _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 1

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 10

Method or Device used for evaluation:

Lupe _____ Densitometer ☒ SWOP Reference Swatches _____

"Master" Comparator ☒ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____
Ink Densities ☒ Highlight Tints _____ Middletone Tints _____
2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar ☒
Pictorial Element ☒ Other _____

COMMENTS: _____

.....

DATE: 12/20/88

TIME: 11:00

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: John Waller
COMPANY: National Graphics, Inc.
ADDRESS: 725 Dekalb Industrial Way
Decatur, Ga. 30033
TELEPHONE #: 558-5717

.....

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Sales
YEARS AT PRESENT COMPANY: 5
YEARS IN INDUSTRY: 7
OTHER JOBS HELD: Sales

.....

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light _____
Florescent Lighting ✓
Daylight _____
Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room _____
Office _____
Reception Area ✓
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y N

.....

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 5

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 10

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ☒ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____

Ink Densities ☒ Highlight Tints _____ Middleton Tints _____

2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____

Pictorial Element ☒ Other _____

COMMENTS: _____

.....

DATE: 12/20

TIME: 12:55

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: James Poole
COMPANY: Oak Tree Printing
ADDRESS: 2080 Peachtree Industrial Ct.
TELEPHONE #: 451-2879

.....

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Vice President
YEARS AT PRESENT COMPANY: 7
YEARS IN INDUSTRY: 29
OTHER JOBS HELD: Everything - Pressman, Plant Manager etc.

.....

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light _____
Florescent Lighting ✓
Daylight _____
Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room _____
Office ✓
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. Cream Colored Walls

Did the SWOP concept need to be explained? Y N

.....

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 1

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 6

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ✓ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____

Ink Densities _____ Highlight Tints _____ Middletone Tints _____

2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____

Pictorial Element ✓ Other Screen Page

COMMENTS: The master has some variance
in ^{it} when ^{it} ~~they~~ ^{is} compared to
the samples.

.....

DATE: 12/19/88

TIME: 12:00

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Lloyd Bryant
COMPANY: Perfect Image
ADDRESS: 503 Commerce Park Dr. SE.
TELEPHONE #: 422-4221

.....

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Vice President
YEARS AT PRESENT COMPANY: 3
YEARS IN INDUSTRY: 30
OTHER JOBS HELD: Production Manager

.....

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light _____
Florescent Lighting ✓
Daylight _____
Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room _____
Office ✓
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. Cream Colored Walls

Did the SWOP concept need to be explained? Y/N

.....

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 4

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 4

Method or Device used for evaluation:

Lupe ✓ Densitometer ✓ SWOP Reference Swatches _____

"Master" Comparator _____ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____
Ink Densities ✓ Highlight Tints _____ Middletone Tints _____
2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____
Pictorial Element ✓ Other _____

COMMENTS: _____

.....

DATE: 12/20/88

TIME: 8:00

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Kris Royal

COMPANY: ACVB

ADDRESS: 233 Peachtree St. N.E. Atlanta, Ga. 30303

TELEPHONE #: 521-6656

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Publishing Services Manager

YEARS AT PRESENT COMPANY: 9 months

YEARS IN INDUSTRY: 9

OTHER JOBS HELD: Customer Service, Production

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light _____
Florescent Lighting ✓
Daylight _____
Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room _____
Office ✓
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications Sample 5

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications Sample 8

Method or Device used for evaluation:

Lupe ☒ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator _____ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____
Ink Densities _____ Highlight Tints _____ Middletone Tints _____
2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____
Pictorial Element ☒ Other Black Color in Graph

COMMENTS: _____

.....

DATE: 12/28/88

TIME: 3:30

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: SUZY GOODIN

COMPANY: GOLF WORLD BILLIARD PUBLISHING

ADDRESS: _____

TELEPHONE #: 955-5656

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: PRODUCTION MANAGER

YEARS AT PRESENT COMPANY: 2 yrs

YEARS IN INDUSTRY: 16 yrs.

OTHER JOBS HELD: LAYOUT ARTIST, ADVERTISING MANAGER
Direct

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light _____
Florescent Lighting ✓ _____
Daylight _____
Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room _____
Office ✓ _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. OFF COLOR

Did the SWOP concept need to be explained? Y/N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications

5

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications

6

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ☒ Color/Screen Guide _____
(Visual)

Other _____

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target ☒
Ink Densities ☒ Highlight Tints ☒ Middletone Tints ☒
2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar ☒
Pictorial Element ☒ Other _____

COMMENTS:

FINDS Comparator to be HELPFUL

Will HELP ON color corrections ON

overly enlarged separations

DATE: 3:00 pm

TIME: 2/15/89

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: SUE MATIER

COMPANY: Bryant Publishing

ADDRESS: P.O. Box 20151 ATL. GA 30325

TELEPHONE #: 352-6100

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Production Manager

YEARS AT PRESENT COMPANY: 2 years

YEARS IN INDUSTRY: 2 years

OTHER JOBS HELD: media buying, multi image production

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light _____
Florescent Lighting ☒ _____
Daylight _____
Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room _____
Office ☒ _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y/N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications 5

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications 10

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ✓ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____
Ink Densities ✓ Highlight Tints _____ Middletone Tints _____
2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____
Pictorial Element ✓ Other _____

COMMENTS: _____

.....

DATE: April 28, 1989

TIME: 2:30

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Janice Van Meekland
COMPANY: Atlanta Magazine
ADDRESS: 2 Midtown Place
1360 Peachtree St.
TELEPHONE #: 872-3100

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Art Director
YEARS AT PRESENT COMPANY: 2
YEARS IN INDUSTRY: 2
OTHER JOBS HELD: _____

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light _____
Florescent Lighting ✓ _____
Daylight _____
Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room _____
Office ✓ _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y/N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications 5

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications 10

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ✓ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____

Ink Densities ✓ Highlight Tints _____ Middletone Tints _____

2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____

Pictorial Element ✓ Other _____

COMMENTS: _____

.....

DATE: April 28, 1989

TIME: 2:30

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Brian W. Burton

COMPANY: COMMUNICADIA CHANNELS, INC.

ADDRESS: 6255 BARFIELD RD ALBANY GA.

TELEPHONE #: 404 256-9800

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: ART DIRECTOR

YEARS AT PRESENT COMPANY: 11

YEARS IN INDUSTRY: 18

OTHER JOBS HELD: STAFF ARTIST

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth ☒
5000K Viewing Overhead Light ☐
Florescent Lighting ☐
Daylight ☐
Other ☐

AREA: Viewing Area ☒ Neutral Gray ☒ Y/N
Press/Scanner Room ☐
Conference Room ☐
Office ☐
Reception Area ☐
Other ☐

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? ☒ Y/N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications

5

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications

17

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ☒ Color/Screen Guide _____
(Visual)

Other _____

Basis for choosing above specific sample:

Dot Gain Bar ☒ Slur Gauge _____ Star Target _____
Ink Densities _____ Highlight Tints _____ Middleton Tints _____
2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____
Pictorial Element ☒ Other _____

COMMENTS:

He said they had misual aid
to check color now. He thought that
was best. Also said there was
no real standard for there mags
30 different publications.

DATE:

Jan 27, 1989

TIME:

9:00

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Jerry Jones
COMPANY: LA Trend Magazine
ADDRESS: 133 Peachtree St NE Suite 4740
TELEPHONE #: 522-7200

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GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Art Director
YEARS AT PRESENT COMPANY: 2
YEARS IN INDUSTRY: 8
OTHER JOBS HELD: _____

.....

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
 5000K Viewing Overhead Light _____
 Florescent Lighting ✓ _____
 Daylight _____
 Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
 Press/Scanner Room _____
 Conference Room _____
 Office ✓ _____
 Reception Area _____
 Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. Dark Room

Did the SWOP concept need to be explained? (Y)/N

.....

TEST RESULTS

GATF Standard Offset Color Control Bar: 5
Sample which best represents SWOP Specifications _____

GCA/GATF Off-Press Proof Comparator: 8
Sample which best represents SWOP Specifications _____

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ✓ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____
Ink Densities _____ Highlight Tints _____ Middletone Tints _____
2 Color Tints ✓ 3 Color Tints _____ Gray Balance Bar _____
Pictorial Element _____ Other _____

COMMENTS: _____

.....

DATE: March 8, 1989

TIME: 3:00

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: CASEY CLAVIN
COMPANY: FRANKING HORSE MAGAZINE
ADDRESS: 1470 PARKVIEW ST. LAWRENCE, GA 30040
TELEPHONE #: 435-8005

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: ART DIRECTOR
YEARS AT PRESENT COMPANY: 2
YEARS IN INDUSTRY: 5
OTHER JOBS HELD: 30 MONTHS

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light _____
Florescent Lighting _____
Daylight ✓
Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room _____
Office ✓
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y/N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications 1

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications 10

Method or Device used for evaluation:

Lupe ☒ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ☒ Color/Screen Guide _____
(Visual)

Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____
Ink Densities ☒ Highlight Tints _____ Middleton Tints _____
2 Color Tints _____ 3 Color Tints ☒ Gray Balance Bar ☒
Pictorial Element ☒ Other _____

COMMENTS: _____

.....

DATE: 2/6/89

TIME: 2:15

SIGNATURE:

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Sarah Green
COMPANY: Printing Industry Assoc. of Ma
ADDRESS: 2 Northside 75. Suite 260
TELEPHONE #: 352-0429

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: Communications Director
YEARS AT PRESENT COMPANY: 6 mo.
YEARS IN INDUSTRY: 3 yrs.
OTHER JOBS HELD: ran a quick print shop; p.r., publications

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light _____
Florescent Lighting ☒ _____
Daylight _____
Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room _____
Office ☒ _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? (Y/N)

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications 1

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications 7

Method or Device used for evaluation:

Lupe 1 Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator 1 Color/Screen Guide _____
(Visual)

Other _____

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Basis for choosing above specific sample:

Dot Gain Bar 1 Slur Gauge 1 Star Target _____
Ink Densities 1 Highlight Tints _____ Middletone Tints _____
2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____
Pictorial Element _____ Other _____

COMMENTS: _____

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DATE: 1/31/89

TIME: 12:00

SIGNATURE: Norah Green

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: Randy Brunner
COMPANY: Southern Homes Mag.
ADDRESS: 3136 Reps Miller Rd.
TELEPHONE #: 446-6585

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: PRODUCTION MANAGER
YEARS AT PRESENT COMPANY: 8
YEARS IN INDUSTRY: 25
OTHER JOBS HELD: _____

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light _____
Florescent Lighting X _____
Daylight _____
Other _____

AREA: Viewing Area _____ Neutral Gray Y/N
Press/Scanner Room _____
Conference Room _____
Office X _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y N

TEST RESULTS

GATF Standard Offset Color Control Bar:
Sample which best represents SWOP Specifications 2

GCA/GATF Off-Press Proof Comparator:
Sample which best represents SWOP Specifications 10

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches _____
"Master" Comparator X Color/Screen Guide _____
(Visual)
Other _____

.....

Basis for choosing above specific sample:

Dot Gain Bar _____ Slur Gauge _____ Star Target _____
Ink Densities _____ Highlight Tints X Middletone Tints _____
2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____
Pictorial Element _____ Other _____

COMMENTS: _____

.....

DATE: Feb 6, 1989
TIME: 3:30
SIGNATURE: _____

SURVEY INFORMATION SHEET

CIRCLE SAMPLE GROUP: PHOTO PRINT PUBLICATION ADVERTISING

NAME: MARTY BARNES
COMPANY: WHERE MAGAZINE
ADDRESS: 359 WHITEHALL ST ATLANTA
TELEPHONE #: 521-3430

GENERAL INFORMATION

JOB TITLE OF PARTICIPANT: MANAGING EDITOR
YEARS AT PRESENT COMPANY: WITH WHERE LOOKS MAN. EDITOR 2 YRS
YEARS IN INDUSTRY: 10
OTHER JOBS HELD: FEATURE WRITER, EDITOR

LIGHTING & VIEWING CONDITIONS

LIGHTING: 5000K Viewing Booth _____
5000K Viewing Overhead Light _____
Florescent Lighting ✓ _____
Daylight _____
Other _____

AREA: Viewing Area _____ Neutral Gray Y N
Press/Scanner Room _____
Conference Room _____
Office ✓ _____
Reception Area _____
Other _____

OTHER COMMENTS: Wall/Ceiling Color, etc. _____

Did the SWOP concept need to be explained? Y N

TEST RESULTS

GATF Standard Offset Color Control Bar:

Sample which best represents SWOP Specifications 5

GCA/GATF Off-Press Proof Comparator:

Sample which best represents SWOP Specifications 6

Method or Device used for evaluation:

Lupe _____ Densitometer _____ SWOP Reference Swatches _____

"Master" Comparator ✓ Color/Screen Guide _____
(Visual)

Other _____

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Basis for choosing above specific sample:

Dot Gain Bar ✓ Slur Gauge ✓ Star Target _____

Ink Densities _____ Highlight Tints _____ Middletone Tints _____

2 Color Tints _____ 3 Color Tints _____ Gray Balance Bar _____

Pictorial Element ✓ Other _____

COMMENTS: FLESH TONE IN PICTORIAL ELEMENT
GCA BAR EASIER TO WORK

.....

DATE: _____

TIME: 2 AM

SIGNATURE: