<u>Specifications for the Printing Industry</u>

There are 4 specifications we learned in class about the printing industry. They are Specifications for Web Offset Publications (SWOP), Specifications for Newsprint Advertising Production (SNAP), Flexographic Technical Association (FIRST), and General Requirements for Applications in Commercial Offset Lithography (GRACoL). One thing they all have in common, is that they all must be viewed in 5000k (D50).

<u>Specifications for Web Offset Publications (SWOP)</u>

SWOP specifications are used for the preparations of material that going to be printed. One of the specifications is that all artwork, proofs, and final product must be views under 5000 Kelvin. For digital pages, everything must be 3/8" inside the final trim so that nothing of importance will be trimmed off. In 2005 SWOP merged with IDEAlliance. it is recommend to use PDF/X1a file format though you can use TIFF/IT-P1 also.

"For example, by the end of 2005, the vast majority of agencies were producing proofs on non-SWOP paper stocks. They were also beginning to explore proofing "to the numbers," demand tighter tolerances and wanted greater assurance of a close visual match from a proof to printed publication.

With this publication of the eleventh edition of SWOP, I am happy to report that SWOP is meeting the challenge!" (SWOP® SPECIFICATIONS 2007)(SWOP® 11th Edition)(page 2)

This is the proof that SWOP was expanding and growing to the requirements of printing in today's time. It has also adopted the new IDEAllicance G7 calibration. In terms of proofing,

SWOP now uses the new IDEAlliance color bar and according to the SWOP Application Data Sheet. The new system they used is called "Neutral Print Density Curves".

<u>Specifications for General Requirements for Applications in Commercial Offset Lithography</u>

<u>(GRACoL)</u>

GRACol's aim has been to accurately help meet the color standards of the customer. GRACOL warns us of using fonts smaller than 6 points, especially when using serif typefaces. The previous GRACol's had been based on measuring the dot gain for each of the printed colors. But the current GRaCOL 2007 is based on colorimetric data for gray balance and a standardized "Neutral Print Density Curve". It is recommended to use PDF/X1a,/X2a,/X3, or TIFF/IT-P1 for file exchange.

Just like SWOP, GRACoL had also changed to "setting printing aims based on colorimetric data for gray balance and a standardized "Neutral Print Density Curves", rather than on traditional TVI aims for each ink." (GRACoL 2007 Specifications)(Page 2).

<u>Specifications for Newsprint Advertising Production (SNAP)</u>

This was designed to help improve the reproduction quality in newsprint production. It was made for printing newsprint on webs of paper, offset lithography, direct lithography, letterpress, and flexography. SNAP uses a non-heatset reproduction method, also known as coldset. In coldset the ink dries by being absorbed into the underlying paper. SNAP also contains the most complete set of specifications available today. SNAP guidelines are for many professions. Some of them are designers, art directors, ad agencies, editors, print buyers, print production experts, pre-press professionals. They point out that when using sans serif type seven points or smaller and serif type 12 points or smaller you must reproduce them in only one color. For File format, it is recommended to use PDF/X1a instead of TIFF/IT-P1.

Specifications for Flexographic Image Reproduction Specifications and Tolerances (FIRST)

It was first published in 1997 and revised in 1997 and 2003. It mostly focuses on focuses on packing using flexography. It was claimed to provide "all participants in the flexographic reproduction process with a common set of guidelines, tutorials and data that can be used as communication and production tools" (What to Teach Graphic Design Students About Printing Industry Guidelines). (Page 2).

	SNAP	SWOP	GRACoL	FIRST
name of example	Fresh Ideas for Mom	MOM		BOUNTY
Picture				
industry specification printing technology(ies)	Uses a coldset process printing on webs of newsprint and groundwood paper using offset lithography, direct lithography, flexography, and letter press processes.	The specifications are meant a publication printer.		Uses a Flexible printing plate which can be used to print on almost any type of substrate.
ink colors by name	Magenta and Yellow	Magenta and Yellow		Cyan, Yellow, and Black
process and/or spot designation				
approximate formula				
varnish	No varnish	No varnish		
lamination	No lamination	No lamination		

ink and object traps (min. & max. = 5 each)	A choke and Spread occurs between the images	An overprint of the tip of flower and M caused the colors to combine and form red		The black is an overprint above the yellow and cyan

UCR	Used to reduce yellow, cyan, magenta dot values where black is present. Ideally used to reduces 400% ink film to 260% ink film.			
GCR	Used to remove one of the smallest dot value of the color and replace it with black. It is used to less ink.			
Density// range (lowest to D-Max)	<u>D-min</u>: 0.10 or less (UV); 0.5 or less (ortho) <u>D-max</u>: Typically 3.8 or higher			
TVI/dot gain	50% Cyan: 26% Magenta: 26% Yellow: 26% Black: 26%	Uses "Neutral Print Density Curves" at 50% gray it uses 50% cyan, 40% magenta, and 40% yellow	Uses a standardized "Netural Print Density Curve"	
gray balance	Tone scale calling for larger dot sizes for cyan and for smaller dot sizes, magenta and yellow	The nominal gray balance for a #3 sheet for paper La*b* is @50c,40m,40y = a*0.0(+/- 1.0), b*0.0 (+/- 2.0) The nominal gray balance for a #5 sheet for paper La*b* is @50c,40m,40y = a*0.0(+/- 1.0), b*2.0 (+/- 2.0)	Uses aims based on colorimetric data	

EFFICIENCY:				
- time				
- cost				

EFFECTIVENESS:				
- quality that you can see	The quality of newsprint and uncoated groudwood paper influence printed hues and overprints.	#5 grade paper SWOP proofing stock is 60# basis weight paper of 72# TAPPI brightness. The Brightness will vary with age. #3 grade paper is a brighter coated stock	Uses #1 grade coated paper. It is a very bright stock of paper.	
- quality that you can feel				

SUSTAINABILITY:				
- **profits**				
- **people's professional development**				
-- life-long learning				
-- critical thinking				
-- meeting client's expectations within realistic specifications		With SWOP adopting the G7 printing and proffing process control methods, ideologically it should develop give a closer visual match from proof to press.	With the latest version of GRACoL, the philosophy is meant to allow a user to achieve a closer visual math from device to device while maintainting the same overall appearance of traditional printing.	
- **planetary (global) responsibilities**				
-- waste reduction				
-- recycling materials	In 2000 claimed to use 7% to 40% of recycled newspaper			
-- support local suppliers				

1) "GRACoL 2007 Specification with errata." *Guidelines & Specifications 2007*. N.p., n.d. Web. 18 May 2011. <https://bbhosted.cuny.edu/courses/1/NYCTC_GRA_2301_7354_201102/content/_6029 901_1/GRACoLSpec2007.pdf?bsession=52664102&bsession_str=session_id=52664102, user_id_pk1=575073,user_id_sos_id_pk2=1,one_time_token=>.

2) Mays, Randy . "Snap Shot." Snap Shot. N.p., n.d. Web. 18 May 2011. <https://bbhosted.cuny.edu/courses/1/NYCTC_GRA_2301_7354_201102/content/_6029 825_1/SNAP_SHOT.pdf?bsession=64095724&bsession_str=session_id=64095724,user_ id_pk1=575073,user_id_sos_id_pk2=1,one_time_token

3) =>."SNAP." *SNAP*. N.p., n.d. Web. 18 May 2011. <https://bbhosted.cuny.edu/courses/1/NYCTC_GRA_2301_7354_201102/content/_6029 828_1/SNAP_2009.pdf?bsession=52664102&bsession_str=session_id=52664102,user_id _pk1=575073,user_id_sos_id_pk2=1,one_time_token=>.

4) "SWOP 2007 Specs ." *Guidelines & Specifications*. N.p., n.d. Web. 18 May 2011. <https://bbhosted.cuny.edu/courses/1/NYCTC_GRA_2301_7354_201102/content/_6029 822_1/SWOP2007Specs.pdf?bsession=52664102&bsession_str=session_id=52664102,us er_id_pk1=575073,user_id_sos_id_pk2=1,one_time_token=>.

5) Waite, Jerry J.. "What to Teach Graphic Design Students About." *What to Teach Graphic Design Students About*. N.p., n.d. Web. 18 May 2011. <https://bbhosted.cuny.edu/courses/1/NYCTC_GRA_2301_7354_201102/content/_6029 808_1/Printing_Guidelines_for_Designers.pdf?bsession=52664102&bsession_str=sessio n_id=52664102,user_id_pk1=575073,user_id_sos_id_pk2=1,one_time_token=>.