

An ANSI Technical Report

Prepared by

Committee for Graphic Arts Technologies Standards (CGATS)

**Graphic technology —
Package development workflow —
Design concept through approved
production file**

**SECRETARIAT
NPES THE ASSOCIATION FOR SUPPLIERS OF PRINTING,
PUBLISHING AND CONVERTING TECHNOLOGIES**

**APPROVED JANUARY 28, 2002
AMERICAN NATIONAL STANDARDS INSTITUTE, INC.**

CGATS



ANSI CGATS TR 011-2002

ANSI TECHNICAL REPORT

This ANSI Technical Report was developed and published through the process and guidelines established by the American National Standards Institute, and in accordance with the CGATS Procedure for Development of an ANSI Technical Report. This Technical Report is not a standard, and all material contained herein is informative in nature.

Any questions regarding this Technical Report should be addressed to the CGATS Secretariat, NPES The Association for Suppliers of Printing, Publishing and Converting Technologies, 1899 Preston White Drive, Reston, Virginia 20191-4367.

**Copyright ©2002 – NPES The Association for Suppliers of Printing, Publishing and Converting Technologies
All rights reserved.**

No part of this publication may be reproduced in any form, in an electronic retrieval system or otherwise, without the prior written permission from NPES.

Contents

Foreword	iv
Introduction	vi
1 Scope	1
2 References/Bibliography	1
3 Terms and Definitions	3
4 Guidelines and principles	5
5 Package Development Process Phase	8
6 Package Prepress Process Phase	16
7 Post Production Process Phase	21

Annexes

A Guidelines for design, mechanical, and production file production.....	22
B Checklist of information and materials required for the design and production of product packaging	25
C Checklist of information for printing specifications.....	27
D Reference information re file formats for data exchange	28

ANSI CGATS TR 011-2002

Foreword

Publication of this ANSI Technical Report has been approved by the ANSI Accredited Standards Committee for Graphic Arts Technologies Standards (CGATS). This document is registered as a Technical Report according to the *Procedures for the Registration of ANSI Technical Reports*. This document is not an American National Standard and the material contained herein is not normative in nature. Comments on the contents of this document should be sent to the Committee for Graphic Arts Technologies Standards, NPES The Association for Suppliers of Printing, Publishing and Converting Technologies, 1899 Preston White Drive, Reston, VA 22091-4367.

This report was prepared by the members of CGATS Special Task Force 1 (STF1), Electronic Design Workflow for Packaging. At the time of its approval by CGATS, the following were the Participating Members:

Chairman: Eric Wolferman

Vice Chairman: Lawrence Steele

Secretary: Mary Abbott

<u>Organization</u>	<u>Representative</u>	<u>Organization</u>	<u>Representative</u>
Adobe Systems Incorporated	Steve Zilles	International Association of Diecutting & Diemaking	Cynthia Crouse
Agfa Corporation	Macduff Hughes (Alt.)	IRIS Graphics, Inc.	Andrew Masia
ALCAN Packaging Services	Michael Jahn	Kodak Polychrome Graphics	Alan Wilkes
Barco Graphics	Fabian Boensch	Kraft Foods	Bradley Vaughan
California Polytechnic State University	Karolina Rosenberger (Alt.)	Kubota Research Associates, Inc.	John Long
Citation Software, Inc.	Rene Delbar	Lotsadots, Inc.	Patrice Dunn
CreoScitex America	Hans De Stecker (Alt.)	Minolta Corporation	Ellen Carter
Dainippon Screen Engineering of America	Gary Field	Mitsubishi Imaging (MPM), Inc.	Jeff Troll
Datacolor International	Cynthia Leslie	National Association for Printing Leadership	Gregg Van Wert
Denver Newspaper Agency	David Kauffman	National Association of Printing Ink Manufacturers	Walter Zawacki
DuPont Experimental Station	Udi Naeh (Alt.)	National Association of Litho Clubs	James Coleman (Alt.)
Eastman Kodak Company	Toshio Kasamatsu	New York City Technical College	Richard Worthington
Electronics for Imaging, Inc.	Kenny Thomas	Newspaper Association of America	James DeLuca
Flexographic Technical Association	Eric Wolferman	Oceana	John Iobst
Flint Ink	Jim Schmittle	Polaroid Graphics Imaging	Mark Rand
Fuji Photo Film U.S.A., Inc.	Chris Goldsmith	Quebecor World, Inc.	David McCarthy
Global Graphics Software, Inc.	Margaret Motamed	R. R. Donnelley & Sons Company	Johnny Sutton
Graphic Arts Technical Foundation	Cindy Semans	Research & Engineering Council	Michael Rodriguez
Graphics Microsystems Inc.	Walter Zawacki	RGB Metrology	Ronald Mihills
Gravure Association of America	Lawrence Warter	Shira Computers Ltd.	Lawrence Warter (Alt.)
GretagMacbeth	Martin Bailey	Society for Imaging Science & Technology	Lawrence Steele
GTI Graphic Technology Inc.	Frank Scott	SWOP Inc.	Yacov Pluda
Heidelberg U.S.A.	Steve Headley	NPES The Association for Suppliers of Printing, Publishing and Converting Technologies	Yossi Givati (Alt.)
Hewlett Packard Company.	Mark O'Connell (Alt.)	The DDAP Association	David McDowell
Horan Imaging Solutions	Richard Dunnington	Titian Enterprises	Michael A Rodriguez
Imation Enterprises Corporation	Cathy Hofknecht	Tobias Associates, Incorporated	David Albrecht
International Prepress Association	Frederic McCurdy	Total Integration, Inc.	David Crowley
	Danny Kita	Web Offset Association	Michael Skurski
	Charles Koehler (Alt.)	X-Rite, Inc.	Thomas Basore
	Mary Nielsen		Iain Pike
	Kevin Currans (Alt.)		
	Frank Maguire		
	Patrick Pecoraro (Alt.)		
	Richard Fisch		
	Roger Siljander (Alt.)		
	Lee Webster		
	Scott Tully (Alt.)		
	Steven Bonoff (Alt.)		

At the time of its approval, the following were the Participating Members and Observers of CGATS Special Task Force 1:

Chairman: Cindy Semans

Secretary: Mary Abbott

<u>Participating Member</u>	<u>Representative</u>	<u>Observing Member</u>	<u>Representative</u>
Art Director's Service	Evan Williamson	Agfa Corporation	Michael Mierjeski
BARCO Graphics	Ray Fennelly	Amgraph Packaging Inc.	Kenneth Fontaine
Cassata & Associates	Carl Cassata	Exxon Mobile Chemical Company	Robert Eller
	Kevin Hamilton	Hewlett Packard	Mary Nielsen
	Jim Wolfe	Kimberly-Clark Corporation	Ray Pitsch
CCL Label	Don Knapp	Kraft Foods	Gary Vogt
Color Communications Inc.	Jerry Dimas	Piranha, Inc.	Roy Zucca
ColorMark	Joey Taglianetti	Westvaco Corporation – CPD Division	George Collier
CreoScitex America	Katherine Sharp	William Fox Munroe, Inc.	Bill Munroe
Deluxe Engraving	John Steinman		
Flexographic Technical Association	Cindy Semans		
Graphic Packaging Corporation	Jeff Kobin		
Gravure Association of America	Richard Dunnington		
	Rudy Wiesemann		
Heidelberg U.S.A.	Charles Koehler		
	Achim Schmidt		
	Bruce Wyckoff		
Hershey Foods Corporation	Christopher Kemble		
Imation Enterprises Corporation	Roger Siljander		
	Richard S. Fisch		
Kraft Foods	Ted Namur		
	Bradley Vaughan		
Lipson Alport Glass & Associates	John McDonald		
Nestle USA	Pam Clark		
NPES The Association for Suppliers of Printing, Publishing and Converting Technologies	David McDowell		
Printpack	Tony Street		
Rave Design	Karyn Dillon		
RIT/T & E Center	Bill Pope		
Schawk Cincinnati	Robb Frimming		
	Rhett Warner		
Schawkgraphics	John Flood		
	David Rohe		
Southern Graphics	Gary Bernier		
Specialized Packaging Group, Inc	Robert Gariepy		
The LTC Group	Kevin Kohler		
William Fox Munroe, Inc.	Thomas Newmaster		
	Steven Smith		

ANSI CGATS TR 011-2002

Introduction

Packaging and packaging graphics have a significant influence on the consumer buying decision. Successfully executed graphics can mean many dollars in extra sales to a company. Equally important is the time-to-market for new products and/or new packaging, since getting to market more quickly can also represent large volumes of additional sales.

The primary goal of the Package Development Process is to quickly, efficiently, and cost effectively provide packages that are attractive to consumers and that provide differentiation in the marketplace. To consistently attain this goal, a Consumer Products Company must establish a manageable, predictable flow of information and material among the partner firms participating in the package development and manufacturing process.

While each organization (and product that is printed) follows a unique workflow based on individual needs, there are many common elements, and there are certain fundamentals of information transfer that are common to all. It was the realization that everyone would benefit if these common elements could be somehow defined or codified that drew a group of industry participants together in 1999 as Special Task Force 1 (STF1) under the CGATS umbrella.

The participants knew that without cooperation along the supply chain, delays and cost overruns are common. The participants in STF1 quickly realized that the variables in package development are far too diverse for a standard to make sense. However, the Task Force felt that an ANSI Technical Report would provide a model or "best practice" workflow for moving the process from concept through prepress. Such a model could be used as the basis for development of individual workflows and would provide a checklist of the issues that must be addressed in such individual workflows.

This Technical Report is intended to facilitate communication among all participants in the packaging development process from concept to preparation of an approved production file. It establishes a reference workflow, recommends roles and responsibilities of participants, provides default specifications for the information/materials exchanged at each step of the workflow, and identifies guidelines and standards that can be used to further define required parameters.

For the purposes of the workflow outlined in this Technical Report, the division between preparation and printing has been chosen to be an approved production file. Other technical reports will pick up the additional steps in the process through final print production and finishing.

All of the participants in STF1 that developed this Technical Report can point to successes and benefits where this type of model has been followed. The benefits not only include increased sales from getting the product into the market more quickly, they also include:

- fewer errors that increase cost and time to market;
- more consistent printed results reducing production costs;
- more creative participation from participants because of timely introduction to the project;
- reduced management effort because roles, responsibilities, and specifications are clearly established.

This reference workflow provides Consumer Product Companies a tool to lead their supplier teams to new levels of success. The Task Force members wholeheartedly endorse this Technical Report as a means to make everyone's work life less stressful.

Graphic technology — Package development workflow — Design concept through approved production file

1 Scope

This Technical Report describes a model, or reference, workflow for the packaging development process from the identification of a project through preparation of an approved production file.

It defines the total set of information that needs to be addressed in a workflow, yet allows for variations based on individual needs. It is intended for use as a reference in the creation of workflow procedures for specific organizations or products.

2 References/Bibliography

The following documents, many of which are referenced in the text, supplement this Technical Report and are recommended guides in the preparation of specific workflow procedures. CGATS maintains a registry of currently valid ANSI and International Standards that impact the graphic technology industry, as well as referenced documents.

ANSI CGATS.4, *Graphic technology — Graphic arts reflection densitometry measurements — Terms, equations, image elements and procedures*

ANSI CGATS.5, *Graphic technology — Spectral measurement and colorimetric computation for graphic arts images*

ANSI CGATS.6, *Graphic technology — Specifications for graphic arts printing — Type 1*

ANSI CGATS.9, *Graphic technology — Graphic arts transmission densitometry measurements — Terms, equations, image elements and procedures*

ANSI CGATS.11/PIMA IT2.11, *Graphic technology and photography — Reflection and transmission metrology — Certified reference materials — Documentation and procedures for use, including determination of combined standard uncertainty*

ANSI CGATS TR 001, *Graphic technology — Color Characterization Data for Type 1 Printing*

ANSI CGATS TR 012, *Graphic technology — Color reproduction and process control for packaging printing (under development)*

ANSI IT8.6, *Graphic technology — Prepress digital data exchange — Diecutting data*

ANSI IT8.7/1, *Graphic technology — Color transmission target for input scanner calibration*

ANSI IT8.7/2, *Graphic technology — Color reflection target for input scanner calibration*

ANSI IT8.7/3, *Graphic technology — Input data for characterization of 4-color process printing*