CGATS TR 011-2002 (Reaffirmed 2010) (Reaffirmed 2018)

# A Technical Report

Prepared by

**Committee for Graphic Arts Technologies Standards (CGATS)** 

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

SECRETARIAT THE ASSOCIATION FOR PRINT TECHNOLOGIES (APTech)

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





This is a preview of "CGATS TR 011:2002(R2...". Click here to purchase the full version from the ANSI store.

**CGATS TR 011-2002** 

#### TECHNICAL REPORT

This 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 a 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, APTech The Association for Print Technologies, 1899 Preston White Drive, Reston, Virginia 20191-4367.

Copyright ©2018 – APTech The Association for Print 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 APTech.

# Contents

Fo	reword	iv
Int	troduction	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
Ar	nnexes	
A	Guidelines for design, mechanical, and production file production	22
В	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

#### Foreword

Publication of this 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, APTech The Association for Print 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

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

Dantiain atina Manakan	D	Observing Member	D
Participating Member	<b>Representative</b>	Observing Member	Representative
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	David McDowell		
of Printing, Publishing and			
Converting Technologies			
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		

#### 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 a 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

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