

Products and Processes for Profit

SEPTEMBER 2021

GRAPHICS | PRO

AWARDS & ENGRAVING | PRINTWEAR
SIGN & DIGITAL GRAPHICS

GRAPHICS-PRO.COM



**ABRASIVE
ETCHING
EFFICIENCY**

RAMP UP PRODUCTION

**BONUS
COVERAGE:**

**Direct-to-Substrate
Report** Page 33

**EXPAND WITH
HIGH-VOLUME
EQUIPMENT**

**WRAP LAYOUT
DESIGN TIPS**

**This Issue of GRAPHICS PRO
is Brought to You By:**





PA



PRODUCTION
STANDARD

SIG

Built by Artis

'S
CK

APER

NS 365
ts for Artists

OvernightAnywhere™

\$10 Overnight Shipping To Anywhere Within The USA

BE YOUR OWN

 Champion[®]

T425 SHORT SLEEVE T-SHIRT

BRANDWEARUNITED.COM/CHAMPION

MUTOH

XpertJet 1682SR Eco-Solvent Printer

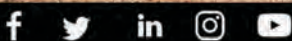


The XpertJet 1682SR Features:

- 64" Staggered Dual-Head
- 4 or 7 Color Configuration
- Automatic Bi-Directional Alignments
- Internal LED Lighting
- MS41 GREENGUARD Certified Ink
- Intelligent Interweave
- DropMaster2 Dot Placement Technology
- FlexiSIGN & Print MUTOH Edition



Image provided by WrapseshAZ



REQUEST A FREE PRINT SAMPLE

www.MUTOH.com | 1.800.99.MUTOH

GRAPHICS|PRO

» CONTENT

VOLUME 35

SEPTEMBER 2021

NUMBER 13

FEATURES

12 THE IMPORTANCE OF SOFTWARE FOR GRAPHICS PROFESSIONALS

Software is a crucial tool for any graphics professional. Find out why.

16 WRAP DESIGN: CREATING CUSTOM TEMPLATES FOR ACCURACY AND EFFICIENCY

Charity Jackson, Visual Horizons Custom Signs, takes a closer look at an important consideration of wrap design — designing a two-dimensional graphic to accurately fit a three-dimensional vehicle.

20 PROJECT PROFILE: BLOOMBOX/CASSEL

Follow along with this vehicle wrap project designed to create a signature look.

This month, GRAPHICS PRO features the **Direct-to-Substrate Report**.

In it, you'll find coverage on why DTG is exploding in the decorated apparel market, how to avoid adhesion challenges with UV-LED printing, plus a comprehensive product lineup to get you going in this segment of the industry. **Turn to page 33!**



SIGNAGE & PRINTING

AWARDS & CUSTOMIZATION

APPAREL DECORATING

“Everything about DTG has matured into a vibrant, growing, and vital part of many decorating businesses. If you have not looked into direct-to-garment as an addition to your business, you might want to reconsider.”

BRIAN WALKER, RTP APPAREL
from *The DTG Explosion*,
Direct-to-Substrate Report, page 38

©2021 National Business Media, Inc., all rights reserved. GRAPHICS PRO (ISSN 2158-1533) is published monthly plus an extra issue in May and November by National Business Media, Inc., 2800 W. Midway Blvd., Broomfield, CO 80020; (303) 469-0424. Fax (303) 469-5730. Periodicals Postage Paid at Broomfield, CO 80020 and additional mailing offices. USPS/National Business Media Automatable Poly. POSTMASTER: Please send address changes to GRAPHICS PRO, PO Box 460794, Escondido, CA 92046-0794. All items submitted to GRAPHICS PRO become the sole property of GRAPHICS PRO and National Business Media, Inc. and cannot be reproduced without the written consent of the publisher. Advertisers and/or their agencies, jointly and severally, assume all liabilities for printed advertisements in GRAPHICS PRO. Opinions expressed in GRAPHICS PRO may not necessarily reflect the opinion of the magazine, its management or its advertisers. Letters, pictures and manuscripts welcome.





POLAR CAMEL

DOUBLE WALL VACUUM INSULATED
HIGH ENDURANCE DRINKWARE



17
COLORS!

*Order Your
Sample Set Today!*

32 oz Water Bottles

Also Available

**Sublimatable 30 oz
Fits a Standard Mug Press**



14
Warehouses
Over 1.2 Million Sq Ft
Nationwide

**\$99 FREE
FREIGHT**

Same Day Shipping
on Orders Placed by 4 PM!

Your Recognition, Personalization & Sign Supply Partner



jdsindustries.com

| sales@jdsindustries.com

| 800.843.8853

GRAPHICS|PRO » CONTENT

VOLUME 35

SEPTEMBER 2021

NUMBER 13

FEATURES (CONTINUED)



46

46 EXPAND YOUR OFFERINGS WITH HIGH-VOLUME EQUIPMENT

Determine whether high-volume equipment is right for your shop and how it can elevate your offerings.

56 SHOP FLOOR LAYOUT CONSIDERATIONS FOR ABRASIVE ETCHING GLASS OR CRYSTAL

Familiarize yourself with each of the steps required before and after the actual etching process to ensure success.

70 PRODUCT SPOTLIGHT: SHOP TOOLS

From software to rotary attachments, ancillary tools play an important role in a graphics shop. Stock up now using this product spotlight.

74 LAYING OUT A DECORATION FACILITY FOR SUCCESS

It's time to lay out a new decoration facility floor plan — these key concepts will elevate your business to the next level.

78



20



ON OUR COVER

Putting the spotlight on production and shop layout, this month's cover art was provided courtesy of GPX (photographer: Regan Dickinson) shot on location at **Impress Designs** in Carrollton, TX. Inset image courtesy the **St. Regis Group**.

COLUMNS

08 VITAL SIGNS

Be Prepared
By Matt Dixon

10 IN THE TRENCHES

Life and Continued Education
By Rick Williams

SIGNAGE & PRINTING

24 THE DIGITAL EYE

Presets
By Stephen Romaniello

30 RAMBLINGS FROM THE ATELIER

The Matrix Ministry
By Matt Touchard

AWARDS & CUSTOMIZATION

52 THE RISING TIDE OF BUSINESS

Why Workflow and Processes are Important
By Aaron Montgomery

60 MAKING SUBLIMATION MOVES

Making Sublimation Moves with Software
By Howard Potter

64 YOUR LASER AT WORK

Setting Up Your Graphic Program for Lasering with CorelDRAW
By Bob Hagel

APPAREL DECORATING

78 SOFTWARE TO SUBSTRATE

Lord of All Things
By Lon Winters

82 STITCH SOLUTIONS

Shop Profile: Margaret Swauger of Creative Impressions Embroidery
By Jennifer Cox

DEPARTMENTS

92 MARKETPLACE

95 AD INDEX

96 WEB EXCLUSIVES: GRAPHICS PRO NEWSLETTER

Sign up for the daily eNewsletter for more information



Financing as essential as ink

Solutions to power your business for what's next

- Purchase your equipment when you need it
- Choose from flexible repayment options
- Keep your cash reserves on hand

Visit us in booth #109 at the **GRAPHICS PRO EXPO Pittsburgh!**

877-786-5327 | cit.com/GraphicsPro | print@cit.com

    @CITgroup



**MAX
TECHNOLOGY**



Kornit
Digital
bonding
matters



Kornit
Digital
bonding
matters

ELEVATE YOUR FASHION AND APPAREL FULFILLMENT BUSINESS WITH THE KORNIT ATLAS MAX

**THE NEW STANDARD FOR HIGH-VOLUME,
ON-DEMAND DIRECT-TO-GARMENT PRODUCTION**

Meet Kornit's
MAX
TECHNOLOGY

Demand for retail quality, enabling just-in-time production for e-commerce fulfilment, and supply chain dynamics all compel the highest industry standards and the necessary technology to achieve it. Immerse yourself in the new era of eco-friendly, limitless fashion with Kornit MAX technology:

- Meet rigorous quality and consistency standards
- Boost your productivity
- Gain new capabilities, including Kornit's groundbreaking XDi decoration effects

Learn more at: kornit.com/lp/hq/max-technology/



Positive list
of GOTS

OEKO-TEX®
CONFIDENCE IN TEXTILES
ECO PASSPORT



Please contact us for product-specific certification information.





BE PREPARED

We're hearing from shops across the country that things are busier than ever. Despite threats of the Delta variant and some renewed masking regulations, events are persisting, schools are preparing to open (at the time of writing), and in-person trade shows are in full swing.

On the flip side, we're still feeling some bumps from the initial pandemic wave. While orders are flowing in at the speed of light, many shops continue to experience supply chain and employment challenges. For graphics businesses, this means that now is more important than ever to have production and workflow processes dialed in.

It's not enough to have your equipment set up and running — the placement of each piece of machinery is crucial to efficiency. Even something as small as software that helps with accounting and finances plays an important role in your shop running at peak performance.

From screen printing equipment to shop software, to wrap design hacks, this month's issue helps you hone every production process. From point A to point Z, use this information to tighten your practices and overcome the challenges your shop faces.

We can't see into the future, so the best thing we can do is be prepared. Have everything in place, run at maximum efficiency, and keep pushing the boundaries.



IN THIS ISSUE:

RAMP UP PRODUCTION WITH HIGH-VOLUME EQUIPMENT

FLOOR PLANS: LAYING OUT YOUR DECORATION FACILITY

SPECIAL SECTION: DIRECT-TO-SUBSTRATE REPORT

(Image courtesy Front Signs)

2800 West Midway Boulevard, Broomfield, Colorado, 80020
(800) 669-0424 | (303) 469-0424 | FAX (303) 469-5730

WWW.GRAPHICS-PRO.COM



PUBLISHER

DAN PECKHAM dpeckham@nbm.com

EXECUTIVE EDITOR

MATT DIXON mdixon@nbm.com

MANAGING EDITOR

ALEXANDRIA BRUCE abruce@nbm.com

ART DIRECTOR

ERIK WOGEN ewogen@nbm.com

GRAPHIC DESIGNER

IVETH GOMEZ igomez@nbm.com

MEDIA CONSULTANT

EAST TERRITORY
RYAN APPLEBAUM rapplebaum@nbm.com

MEDIA CONSULTANT

WEST TERRITORY
DESIREE DELFRARI delfrari@nbm.com

SALES SUPPORT

SYDNEY BATCH sbatch@nbm.com

CONTRIBUTING WRITERS

NATHAN BELZ, JENNIFER COX, BOB HAGEL, CARLY HOLLMAN, CHARITY JACKSON, AARON MONTGOMERY, MICHAEL PERRELLI, HOWARD POTTER, STEPHEN ROMANILO, JULIA SCHROEDER, BARRY SLEE, NATHAN STROMBERG, MATT TOUCHARD, RICK WILLIAMS, BRAIN WALKER, LON WINTERS

EDITORIAL ADVISORY BOARD

DAN BAREFOOT, ERICH CAMPBELL, MATT CHARBONEAU, DANE CLEMENT, BOB HAGEL, KERRIE MALLORY-THOMPSON, BRADEN TODD, LON WINTERS

EDITORIAL INTERN

NATHAN STROMBERG nstromberg@nbm.com

GPX EXPO

DIRECTOR OF SALES

JAMES "RUGGS" KOICHEVAR jkoichevar@nbm.com

EXECUTIVE EXPO SALES MANAGER

BRANDY JAMISON-NETH brandy@nbm.com

EXPO SALES MANAGER

SIGN & DIGITAL GRAPHICS MARKET
SARA SIAUW ssiauw@nbm.com

EVENT SERVICES MANAGER

JACKIE RAMSIER jramsier@nbm.com

EVENT SERVICES COORDINATOR

JOIE MARTIN jmartin@nbm.com



PRESIDENT

DAVE POMEROY

VICE PRESIDENT / AUDIENCE & EVENTS

LORI FARSTAD

VICE PRESIDENT / FINANCE

KORI GONZALES, CPA

VICE PRESIDENT / CONTENT

REGAN DICKINSON

DIRECTOR OF TECHNICAL SERVICES

WOLF BUTLER

MULTIMEDIA CONTENT MANAGER

DREW COOPER

CEO & OWNER

ROBERT H. WIEBER, JR.



WANT TO KNOW MORE? Feel free to give me a call directly at 720-566-7286 or email me at mdixon@nbm.com.

trotec

Ruby® 
Laser Software
Redefined.



Upgrade for Free on
ruby.troteclaser.com
through 31st of October

Makes working with your laser simpler and faster. Digital to the core.

Manage, design, prepare all your laser jobs in one seamless workflow from idea to product. Import graphics or photos, create text or graphics, prepare the job remote or locally and run the laser from the network. Ruby® – the most intelligent laser software and Speedy 400 – the world's fastest laser engraver – become one.

To redefine working with the laser and offer all laser users unprecedented added value.

ruby.troteclaser.com

| SETTING NEW STANDARDS



LIFE AND CONTINUED EDUCATION

The woman from Overton, Texas, population 1,200, came in the shop two or three weeks before Christmas several years ago. The petite 20-year-old blonde was polite and spoke with a soft Texas drawl as she ordered a sign for the gate of their family farm as a present for her dad.

I had done a few jobs for him and the company he ran previously, but could hardly picture who he was at the time. I asked my young client about herself and her family, and in the process found out that she was a student at Stephen F. Austin University down in Nacogdoches, which was also where my son, Slade, was getting his business degree at the time. I inquired if she had by chance met Slade Williams during her time on the campus down there.

Beth Ann Wedgeworth replied, “I’m not sure that I have, but then there are thousands of young men who go to school at SFA.”

“Well, when you get back to college after the holidays, you might look him up,” I responded, then finished by saying, “And, you won’t have a hard time finding him, because he’s the smartest, best-looking young man there.” She smiled, almost giggled, but my expression was a bit more serious as I pretty much meant what I said.

She would come to believe it later. In fact, her dad Steve is still a customer and told me just the other day that Beth Ann describes Slade, who she knows quite well today, as probably the smartest person she’s ever met. And I imagine she finds him pretty attractive too, after seven years of marriage and two beautiful kiddos ... who are also mighty smart and beautiful if you ask either one of their granddads.

Slade and his older brother, Sloan, grew up around the sign shop, and worked there on and off until they left for college. Sloan was gone for only a year or so, then worked at several different jobs before coming to

work full-time at the sign shop. He never determined what he should study at college, and I had only done a bit better having finished a local two-year college. Barely 20 years old and already buried with sign work, I decided to stay home, get married, rent a tiny shop building, and go full-time in the sign and graphics business.

I have experienced a lot of things in the commercial sign business, both good and bad, but I have never been bored. Not



Left to right: Rick, Sloan, and Slade Williams.

so for Sloan, the older brother. He knew soon after being full-time at the sign shop that there were other things he wanted to do. And, without the business degree his brother earned, talked me into going into another business, attracted his brother into the fray as well, and Sloan’s idea of a new venture will soon be 10 times bigger than the sign shop.

So, my growing family has changed my life, changed everything, and I definitely can’t be bored now. Not that things are easy, or ever have been, except maybe steering my daughter-in-law in the right direction. I have to admit, that was fairly easy.

Running a family business is never easy, as even two good boys, two brothers with talent, are not going to get along every day, and might, just might not get along any day if dad was not also involved. These two boys are so different it is amazing.

For example, the last business trip we took

together just before COVID was to an industrial trade show in Atlanta. We drove to Dallas together to catch the plane and had time to eat a pleasant lunch before the flight. Sloan’s lunch involved three spiked iced teas, maybe four, just to get him relaxed enough to get on the plane. He rarely even drinks but hates to fly, and that’s what it took to get him in the air.

By contrast, his little brother Slade is a pilot himself. And so is his old geezer dad, and we barely kept from laughing at Sloan’s obvious discomfort, but all was fine after Sloan fell asleep on the plane. The trade show, like others, was our continued education, better than college for the guys without degrees, and also for the one who has one. The equipment we decided to buy at the Atlanta show would put me further in debt than ever before. But the two guys I flew with that trip have made every payment and will continue to do so.

Thankful. That’s what I am, and that’s what I should be.

Life’s an adventure, and to experience it with the most important people in the world who are making more most important people (Sloan and Amy have four kiddos, solidly ahead of Slade and Beth’s two) would be at the top of just about anyone’s list, and certainly is at the top of mine.

I hope your shop, your business, and your story are interesting and rewarding ones, and you are having a great month. If my story was over tomorrow, I’d have no room to complain.

—Rick

Rick Williams owns Rick’s Sign Company, a commercial sign shop in Longview, Texas. He has been in the sign industry since 1973 and has been a contributing editor to *Sign Business* and *Sign & Digital Graphics* since 1986. Contact Rick via email at ricksignco@aol.com.

GTXpro

B

Next generation technology.
A history of reliability.



The Leading Distributor of Apparel Decorating Equipment Since 1968



CARE@HSI.US



WWW.HSI.US



800.394.4426

 **HIRSCH**
SOLUTIONS





Software for All Wares



THE IMPORTANCE OF SOFTWARE FOR GRAPHICS PROFESSIONALS

BY CARLY HOLLMAN



For people who need a more personalized training solution, there is Adendo.com. Combining crowd-sourcing with the latest video conferencing and eCommerce technologies, Adendo.com offers both one-on-one and small-group training classes for a fee. (Image courtesy SAI)

Once upon a time, not that long ago, graphic professionals made their art by hand and managed their bookkeeping on paper. What a time, right? However, if you're reading this and thinking, "What do you mean? I'm still doing that," it may be time to reevaluate your relationship with software and all the benefits you're missing out on.

FINDING THE ONE


Software is a broad term that encompasses a wide range of topics and uses. Even in the graphics industry, there are a lot of different ways businesses utilize it. "Shops use software in many different facets of their businesses, which directly relate to shop management, sales, design, production,

scheduling, communication, and accounting, among others," says Lila Carsten, shopVOX.

It also helps shops be more efficient and organized, adds Michelle Johnson, SAI. In short, software is a vital tool for any business.

Finding the right software can be a challenging but important part of setting up, upgrading, or enhancing your business. According to John Falsetto, CorelDRAW, when deciding on which graphics program is best for you, it's important to choose a professional, full-featured graphics software that supports a wide range of outputs and workflows and offers the flexibility to handle any project. And while this can be one program, it is important to assess your needs and consider multiple software platforms that can meet them.

One of the biggest aspects of this is finding a software that is industry-specific. While generic business software can accommodate many graphics businesses, one that can be configured to handle the different production types, say, what an apparel decora-



Opposite: Using artificial intelligence, CorelDRAW's PowerTRACE can process a low-resolution bitmap image and turn it into a vector file, which can then be scaled up to a much larger size without losing quality. (Image courtesy CorelDRAW)

tion shop does, even if they also offer products such as awards or signage, is best from an efficiency standpoint, says Jay Malanga of ShopWorks. Additionally, he adds, for those doing large-format jobs, pricing is commonly done by square feet or linear feet rather than or in addition to quantity, so having software that can also work in this way is crucial.

In integrated software, look for things such as the ability to preview jobs before printing, to RIP one job while another is printing to reduce wait times between jobs, and finishing tools that allow you to easily add hems or grommets, says Johnson. It should also have the ability to manage orders and sales, and offer shipping and follow-up capabilities once a job is done.

If choosing one software that focuses only

on the design aspect and another that focuses on the business management, integration is the key word, emphasizes Carsten. Ensure the programs you are using or considering can speak to each other. Without this capability, it's far easier to lose or confuse details of a job and minimize the efficiency that the programs aim to provide.

Beyond finding a software platform that can handle the specific needs of graphics businesses, the reputation of the program should also be considered. "When seeking out software solutions, be exhaustive in the selection process," says JP Hunt, InkSoft. He suggests doing virtual demonstrations of all the options you're considering to get a real look at capabilities, features, and operation style.

You should also ask how many compa-

nies use it, how large are those companies, and what do the majority of those companies offer, explains Malanga.

From the get-go, training should be offered for free as well. This can be in-person, virtual, or through online educational portals that offer step-by-step tutorials, says Falsetto. Everyone learns differently, so having a variety of options is helpful throughout the learning process.

Further, when you do hit a wall or encounter a new challenge, ask yourself what the program's support system looks like. "When you have a problem, you should be able to talk directly with a live person who can answer your questions in a timely manner," stresses Johnson. Whether this is through video, call or virtual chat, not having access to support is a red flag.



INTRODUCING

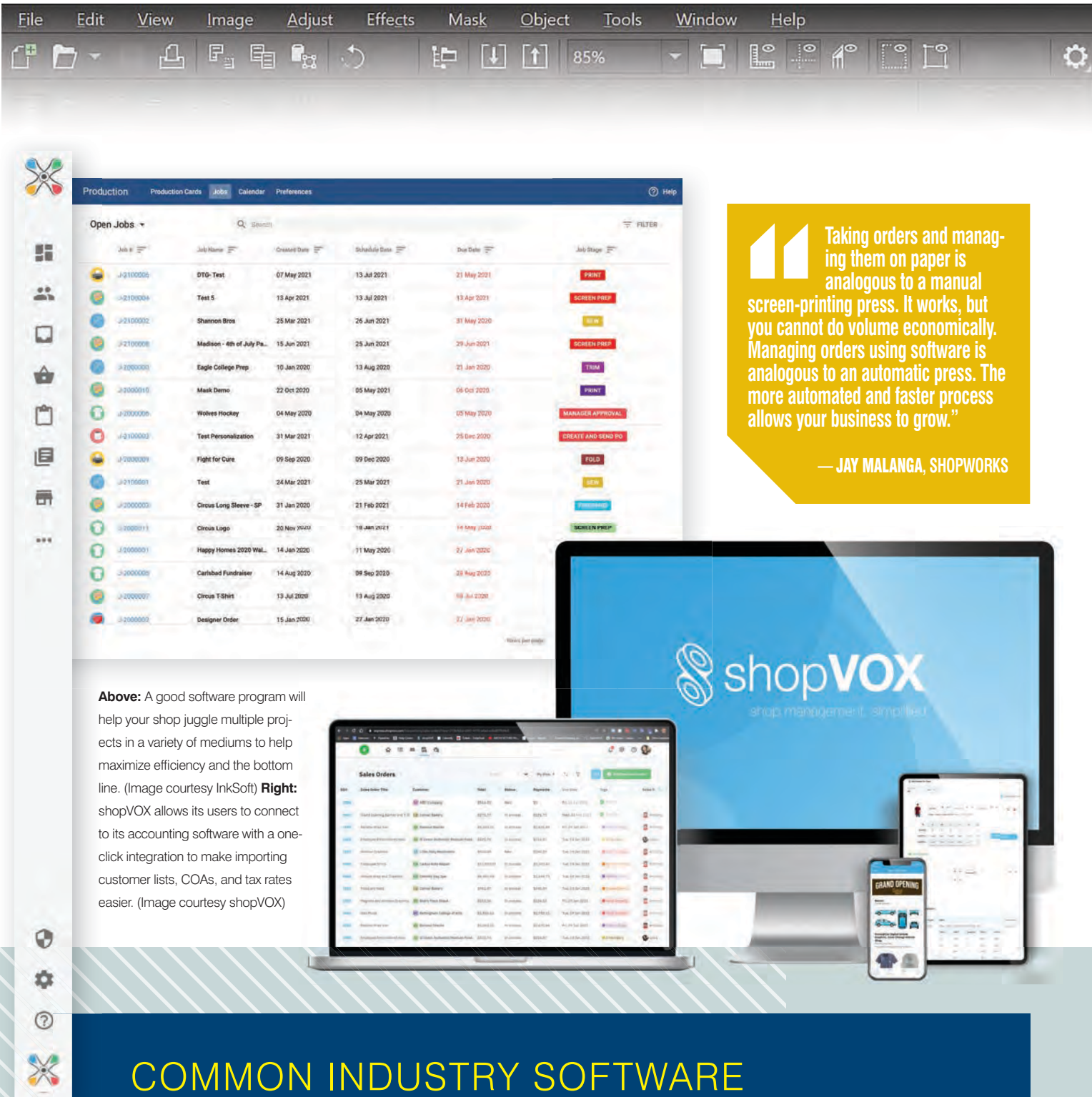
Flexi.21




SUBSCRIBE TODAY TO GET

- 64 bit engine
- All-in-one design to production
- Layered printing
- White & varnish ink support
- Variable data printing
- JIG templates
- G7 Certified
- Custom inkset capable
- Free e-mail & phone support

 **FIRST CLASS CUSTOMER SUPPORT**
With **8 locations** around the world, SAI support is happening everywhere. www.ThinkSAI.com




 Taking orders and managing them on paper is analogous to a manual screen-printing press. It works, but you cannot do volume economically. Managing orders using software is analogous to an automatic press. The more automated and faster process allows your business to grow.”

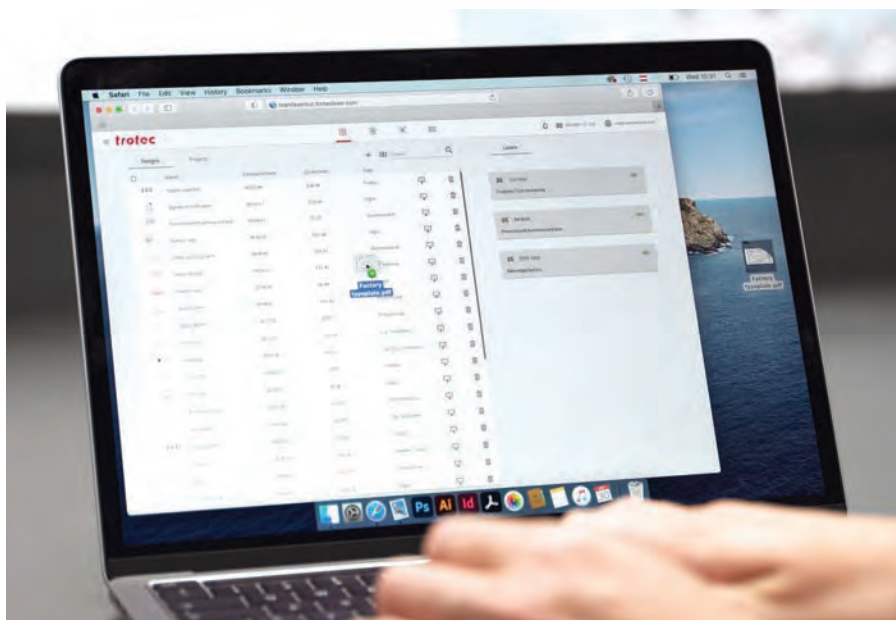
— JAY MALANGA, SHOPWORKS

Above: A good software program will help your shop juggle multiple projects in a variety of mediums to help maximize efficiency and the bottom line. (Image courtesy InkSoft) **Right:** shopVOX allows its users to connect to its accounting software with a one-click integration to make importing customer lists, COAs, and tax rates easier. (Image courtesy shopVOX)

COMMON INDUSTRY SOFTWARE

Having industry-specific software is crucial as different graphic formats have different requirements. Some common types are:

- RIP (RASTER IMAGE PROCESSING)** – This software generates print instructions for print hardware, explains JP Hunt, InkSoft.
- DIGITIZING** – Similar to RIP, this software allows for the creation and editing of embroidery files. These files provide special instructions for embroidery machines to operate and stitch files. For more on digitizing, visit <http://gpro.link/digitizing>.
- VECTOR** – This software helps automate raster-based bitmap images and turn them into vector-based editable files. According to John Falsetto, CorelDRAW, this is critical for those doing large-format work as the vector file can be scaled up substantially without losing clarity and quality.



Finding the right software can be a challenging but important part of setting up, upgrading, or enhancing your business. (Image courtesy Trotec)

In addition, when doing your research, look at how often updates are made. With all technology, things are constantly evolving. Especially in our new world where more tasks are done remotely, the ability to share files via the cloud is increasingly important, explains Falsetto. “In a world where the client can’t always pop over to review designs and managing an email inbox overflowing with messy, marked-up PDF attachments is too time consuming, (cloud sharing) ... is a game changer,” he says.

So, whether the shop and its clients are on a tablet, computer, or phone, the increasingly popular cloud feature helps to streamline the approval and design process from start to finish, adds Carsten.

LEARNING CURVE

In terms of learning, it all depends on the dedication of those studying it. But with dedication, according to Malanga, a shop with eight users can expect to have a good grasp of the operations within 60 to 90 days.

During this period, Hunt suggests nominating specific team members to become the subject matter expert of the new technology that you are adopting. These team members will learn and implement software and train others. After these members

have a solid grasp on their specific skills, knowledge silos can be avoided by ensuring cross-training for all team members, and that all are fully capable of using software solutions.

That being said, be sure to set realistic expectations, says Carsten. “Set your expectations for learning and setting up the software at a slow pace so you don’t become overwhelmed. It’s easy to get frustrated and give up when you get stuck and want to complete too much all at once,” she says. This all comes back to the importance of access to educational resources throughout the time you work with your software company.

Software is a crucial tool for any graphics business. It not only allows you to better organize and create your work, but it also helps make your shop more efficient. This makes you more professional to clients, as well as allows you to spend your time writing your own business story. **GP**

CARLY HOLLMAN is the former editor of *Printwear* magazine with over nine years of experience covering the decorated apparel industry. She currently works as a freelance writer and artist based in Denver, Colorado. She can be reached at carly.hollman@gmail.com.

KEY TAKEAWAYS

- **DO RESEARCH.** How reputable is the software? What is the average size and offerings of the shops currently using it?
- **INDUSTRY-SPECIFIC.** Can the software program accommodate art type, order options for large- and small-scale formats, and multiple types of orders as well?
- **EDUCATION.** Training should always be free and readily accessible. Beyond initial training support, what resources are available to keep up with updates? Can you continue learning the program at your own pace?
- **SUPPORT.** Can you talk to a live person when issues arise? Does the person you’re talking to have industry-specific experience?

IMAGINE a more organized shop

Your industry leading cloud-based shop management solution!



FREE TRIAL

Try it FREE for 14 days!

shopVOX
shop management, simplified

Wrap Design



BY CHARITY JACKSON

CREATING CUSTOM TEMPLATES FOR ACCURACY AND EFFICIENCY

While working with a customer on the design for their vehicle wrap, there are two main thoughts as we gather artwork and review ideas. One is the customer's current branding and how we can maintain consistency with their colors, design elements, and overall message.

The second consideration is the overall effectiveness of the design. Advertising a product or service is the main goal for most commercial wrap customers. Since vehicle wraps are an investment, the customer expects a return on the money spent, and a well-designed vehicle wrap will provide just that.

In this article, I want to take a closer look at a third, and equally important, consideration of wrap design — designing a two-dimensional graphic to accurately fit a three-dimensional vehicle. As both a wrap designer and installer, I can attest to how important it is to the efficiency of the installation to have graphics that are properly fit to the vehicle. Graphics that fit correctly also reinforce the first two considerations by carrying over the company's brand professionally and effectively.

TEMPLATES

Vehicle templates are an excellent design tool, and we use them often. Art Station Vehicle Templates are our go-to templates for noting measurements, sketching out design ideas, noting problem areas on a vehicle, and proofing partial wraps and spot graphics.

When working on larger partial to full wraps, or designs with intricate pieces, I prefer to work on custom-made templates based on photos of the customer's vehicle. To rely on these custom templates, you must take good pictures and accurate measurements.

MEASUREMENTS

You can roughly sketch out the customer's vehicle and draw measurements, but it's easy to lose track of the points you measured. We keep a binder of common templates pre-printed out. It doesn't



This trailer has a lot of straight lines, so we straightened the photo in Photoshop and then scaled it to actual size in FlexiSign. Two copies of the scaled photo are used — the bottom photo is untouched, while on the top photo we mask areas we aren't wrapping. In between these photos we can do all our designing; only areas that will be wrapped are visible, and we can get a really good idea of placement. On this job, we used a raster background and vector lettering and logos. Despite tight placement, the lettering all fit within the obstacles. This mask and layer process makes it easy to proof the job, and the final wrap looks very close to the proof. (Images courtesy Charity Jackson)



A vibrant full-vehicle wrap made of opaque vinyl. Vehicle wraps are an investment, and the customer expects a well-designed outcome. (Image courtesy Front Signs - www.frontsigns.com)



A full wrap made of opaque vinyl material for race cars. (Image courtesy Front Signs - www.frontsigns.com)

have to be 100% accurate to the vehicle, but it will help you note where you measured.

For more accurate notetaking, take a moment to print out the template for the customer's vehicle and write your measurements on it — this allows you to draw between two specific points. For consistency, I try to measure along body lines and between obvious parts that have minimal distortion.

Horizontal measurements will be more accurate in scaling the photo because there is less distortion. Be sure to take plenty of reference measurements, including windows, if they're being wrapped.

Most vehicles have a natural curve that, on a flat photo, may appear shorter than it is. Make sure you measure vertical spaces for reference so when you're setting up your final print files, you can be sure you're giving yourself plenty of overlap.

PHOTO TAKING

Sometimes people don't want to take the time to come in with their vehicle — instead, they want to send photos and measurements to save a trip. Inevitably, these photos will be at an angle, taken too high or too low, shot directly into the sun, or with some other distortion that affects the accuracy of how we scale the photo. All of these make it difficult to use the photo for proofing.

Wrap Design continued on page 19

Case Study

SIGN HUB: PRODUCTION THAT FILLS THE QUALITY GAP

BY GINNY MUMM,
FREELANCE CONSULTANT
FOR ROLAND DGA



(Images courtesy Sign Hub)

Nick Ouzts has an eye for opportunity. After working at a sign shop in Florida for a few years, he and his wife Jessica moved back home to Russellville, Arkansas. Nick noticed a gap in his hometown's marketplace for a sign shop focused on quality production and outstanding customer service.

In 2014, they launched Sign Hub and, Ouzts says, "We've been busy from day one." Today, they are in their third expanded location with two employees, and the future looks bright. We caught up with Nick to talk about his decision to start a business from scratch, how they attracted and grew their long list of clients, and what lies ahead for Sign Hub.

Q: TELL US ABOUT HOW YOU STARTED SIGN HUB.

Ouzts: Just out of high school I was looking for a job, and my dad suggested I talk to my grandpa, who owned a tax business and had started franchising. I put together a little sign package for his franchisees with banners, coroplast signs, and decals. I worked there for many years while I completed my college education. I had wanted to be a fine artist, but wasn't sure that would pay the bills, so I pursued graphic design instead. When I graduated at 29, my wife and I moved to Florida, and I worked for a small sign shop in an office products store. I learned a lot there.

When our son was born, we decided to move home to be near our families. We had identified that Russellville needed a sign shop that focused on the basics: quality production and outstanding customer service.

In 2014, we started Sign Hub with our savings and hit the ground running. It's been a lot of hard work, but we've been busy from day one and outgrown our two previous locations.



Ouzts continued on page 18

Ouzts continued from page 17



Q: WHAT'S YOUR SHOP LIKE TODAY?

Ouzts: Our new shop is a 4,000-square-foot freestanding facility just off a main street. It's a big open space with the printer and laminator visible in the back. My wife, Jessica, is the first person clients see, along with our dog Kahlo.

In the beginning I did just about everything myself. I still have my hand in every job, but we have hired another designer and an installer.

Q: WHO ARE YOUR CUSTOMERS?

Ouzts: We serve clients in the retail, industrial, restaurant, and health-care sectors, as well as large and small service industry customers. We do a lot of work for Tyson and other plants around here. We've worked with the hospital, the fire department, and city hall's planning division. We also work with nonprofits like Friendship Community Care.

A lot is happening right now in Russellville. The whole downtown area is being revamped, and new companies are coming in, some of them because of the world-class mountain biking trails at Mount Nebo State Park. I'm working on a complete signage package right now for a new bike shop in town. We also have orders for window graphics and interior signage as part of the downtown renovations.

It happens weekly that a client wants something done that they should have gotten on a month ago. The speed of the Roland VG2 really helps us out. We can leave the printer to run overnight — we just load up the inks and let it go. In addition, the new quick dry feature is a real time saver.

Q: WHAT WOULD YOU CONSIDER TO BE YOUR SHOP'S SPECIALTIES?

Ouzts: We do a lot of vinyl graphics — for windows, walls, floors, and vehicles. In addition to full vehicle wraps, we do a ton of partial wraps, or "door slaps," along with lettering and logos for trucks, cars, and vans. We also produce decals, yard signs for construction and solar businesses, banners, you name it.

A lot of clients come to us for a full branding package. My favorite thing to work on is dimensional standoff backlit interior signage. We also do custom exterior signage.



Q: HOW HAS COVID-19 AFFECTED YOUR BUSINESS? ARE YOU STARTING TO SEE A RETURN TO NORMAL?

Ouzts: We were fortunate to be able to remain open as an essential business. Our employees worked from home, and my wife and I were in the shop. There were still a lot of businesses in this area that were open. Within just a few weeks we were back to being busy. Tyson Foods and other clients needed safety signage. We produced a lot of floor graphics and directional signage, as well as signs that described new ways of operating, like "Drive-through only," etc. Now things are starting to come back to almost normal.

Q: WHAT LIES AHEAD FOR SIGN HUB?

Ouzts: When we first started, we were selling everything from paper posters to outdoor signage. As we've grown, we've been able to narrow down the list to what we want to do. We'll always provide high-quality vinyl graphics for our clients. There's so much versatility with vinyl, and having the VG2 makes it easy to produce vibrant designs quickly and accurately. We love being able to provide wraps and custom signage solutions for our customers. There's probably a router in our future as well. **GP**



Wrap Design continued from page 17

We insist that customers bring their vehicle by for us to take photos ourselves before we start the actual design process. If they're serious about the investment, they should want to start the process on the right foot. Not only do we take photos when the vehicle comes in, but we also assess the condition of the paint and take a closer look at obstacles and potential problems not easily established by an emailed photo.

So how do you take a good photo for wrap design? Shoot the picture standing at the mid-point of the vehicle to avoid taking the photo at an angle. If the vehicle is small, crouch down so you're not shooting down at it. If it's a larger vehicle, step back so that you're not shooting up at it.

Box trucks, utility box trucks, trailers, and other vehicles with clear straight lines are more obvious when the image becomes distorted. By taking these photos into Photoshop, the distortion can be corrected by using the guidelines and edit tools found under Edit>Transform>Skew or Warp.

CROPPING

Since we're designing on photos of the vehicle, we want the color and sharpness of the image to look good for the proofing process. Once the image has been straightened, we also crop it down a bit so the focus of the image will be on the vehicle and design, not on background noise.

If we are designing in FlexiSign Pro as a vector-based design, we don't need the size of the photo to be overly large — a high enough resolution for a crisp image, but not so high that it takes up unnecessary time to save.

Suppose we're designing the wrap in Photoshop because we'll incorporate images or raster artwork. In that case, we need to start with a high enough resolution photo to maintain crisp images once the wrap is printed. Cropping the image to the vehicle, leaving a bit of space for the overprinting, allows you to work with a large file that isn't wasted on background space that will be cropped out when you set up your print files.

For example, if you're working with a 150 MB art file and you've left a lot of space around the vehicle itself, when you get final approval and crop down to just the vehicle, your actual artwork may be too low resolution for printing.



Consider how important it is to the efficiency of the installation to have graphics that are properly fit to the vehicle. (Image courtesy Front Signs - www.frontsigns.com)

SCALING

Accuracy of the template you work with is crucial to the final wrap fitting the vehicle correctly. Whether I'm creating a template in FlexiSign or Photoshop, I like to save a copy of the photo, cropped and sharpened, at about 4 MB.

Take this image into FlexiSign, and using the vehicle's measurements, the photo is scaled to actual size. I check my scale with

multiple measurements on different areas of the vehicle to be sure my scale is accurate.

If you did any adjusting to a photo using the skew or warp tools in Photoshop to fix distortion and straighten lines, you could adjust the scale in FlexiSign to be sure your "actual size" is accurate. This means that when you distorted the image in Photoshop

continued on page 94

FC9000 is DURABLE

GRAPHTEC
graphtecamerica.com

Project Profile: BloomBox/Cassel

Making Business Bloom

HOW A VEHICLE WRAP PROJECT HELPED CULTIVATE A GROWING BUSINESS

BY NATHAN STROMBERG



A BloomBox worker is excited to be getting plants out of a newly designed van. (All images courtesy BloomBox)

Every company needs to find its signature look — a strong, unique impression to cement itself in the minds of its customers from the get-go. BloomBox is no different. Founded in July 2016, the company's goal was and still is “to give people access to high-quality, locally grown plants that are affordable,” says John Courian, former marketing manager of the company.

Since its founding, BloomBox has worked toward its vision of getting a garden to every household in the nation. But as the business has grown, they've needed to expand and update their look. That's where their recent branding project came in: a newly designed fleet of vans, with the help of Cassel, a Pennsylvania-based fleet graphics company.

MAKING THE DESIGN

Coming into this project, BloomBox had a pretty good idea of what it wanted its fleet of vans to look like. The gardening-focused company has 52 employees, two locations, and services over 20 counties in various states. Having this much ground to cover for its customers, BloomBox wanted



One of BloomBox's vans with its new design applied and wrapped by Cassel.

to make sure that the brand stood out.

BloomBox initially worked with Infan-tree, a design agency in Lancaster, Penn-sylvania, to get their custom design locked down. "We picked Infan-tree as they ... have a very good reputation for doing top-quality work. They were able to take our ideas of what we wanted the vans to look like and brought them to life. They listened to us and brought in some of their own ideas, too," Courian says.

BloomBox's work with Infan-tree is what connected them to Cassel. "Infan-tree has worked with Cassel on other projects and suggested them as they have had great experiences with their work," Courian continues. From that moment, a partnership was born.

PROJECT PARTNERS

Andrew Mobarak, vice president of Cassel, says that the company's mission statement is to "Make Vehicle Graphics Easy." This was no different when they took on the project of putting designs on BloomBox's fleet of vans.

Opened in 1945, Cassel has had a long time to master the craft of vehicle graph-

ics design and installation. The company initially started as a one-man shop that specialized in hand truck lettering, but as the industry evolved, so has Cassel.

Cassel now has 25 employees, multiple sites, and is driven by technology. The business has grown by being focused on commercial fleet graphics, according to Mobarak. These factors made Cassel the perfect partner for BloomBox to help grow its business and solidify its brand image on a larger scale.

BloomBox's inquiry to Cassel was also special in another way. Mobarak recalls, "The exciting vision and growth they are experiencing, as well as the awesome design they brought, made this an exciting project to work on. We rarely do full van wraps with the roof covered, and with a message on top." Cassel didn't just get to work on what they specialize in, but they got to do something a little more unique for their trade that helped keep the company's horizons growing.

"There was lots of collaboration with Infan-tree and BloomBox throughout the project. Infan-tree was doing the design and brand management work for BloomBox,

and we worked with them to make sure the company's design was displayed on the vans in a way that aligned with their brand objectives," says Cassel's Mobarak.

That was one of the key elements in making sure that everyone involved got what they needed out of this. Cassel carefully followed the designs supplied by Infan-tree to ensure that what they were doing was up to BloomBox's standards.

"We trusted Cassel with making this come to life and in particular choosing which products to use and the application of it onto our vans," says Courian. The collaboration effort was in full swing, and the project was ready to get started.

THE PROCESS

With the ideas from BloomBox and the design from Infan-tree, Cassel was ready to get started on BloomBox's van fleet. Cassel had to decide what materials and products to use so that the designs on the vans would be durable and long-lasting, necessary elements for BloomBox's needs.

On the technical side, BloomBox has had to constantly improve its website's functionality to account for more user



BloomBox was looking for a way to make their company's experience more visible and accessible to more people, and a unique identity for its brand. BloomBox sources and grows its plants from local and family-owned greenhouses, hand-picks plants based on customer requests, and delivers them directly to the customers' doorsteps.



traffic on it. On the physical side, the company has had to work on maximizing efficiency in its organizing processes to be able to work faster and fulfill its higher volume of orders. Courian explains, "Going from a busy day two years ago being 50-100 orders to a busy day now being over 500 orders has been a challenge to adjust our systems and accommodate that much growth."

Cassel used Avery Dennison's MPI 1105 series vinyl wrapping film. "We use (MPI 1105) on 80% of our work. The versatility of the material and ease of use for our installers is the primary reason we continue to go with it as our material of choice," says Mobarak. The product is acrylic-based, pressure-activated, and 2 mils thick. Along with the MPI 1105, Cassel used the 1.3-mil DOL 1360Z gloss overlaminate to make sure the vinyl was protected.

In about three months, they got the finished product back to BloomBox. Mobarak elaborates, "This was a pretty straightforward wrap. It was a full wrap that covered the roof as well. The material was printed, prepped, and installed."

THE RESULT

BloomBox couldn't have been happier with the result. "We were over the moon with how our vans turned out. The excitement that our staff showed seeing the vans for the first time and then our customers confirmed to us that this was something that stood out and grabbed their attention. The vans have been a great way of bringing our brand to life and having a presence in the neighborhoods we service," says Courian.

This is exactly what BloomBox was hoping to get out of this project: a way to make their company's experience more visible and accessible to more people, and a unique identity for its brand. None of this would have been possible without Cassel



and its attention to detail. Courian explains, "We trusted Cassel in this process, and they exceeded our expectations. We couldn't speak more highly of the quality of the material and how the project turned out."

One of the goals that Cassel has as a company is to use its business to help grow people. Mobarak explains, "We believe if we focus on the individual development of the people at Cassel, we will in turn provide excellent service and performance that will lead to growth." With this proj-

ect, Cassel achieved exactly that. They helped cultivate BloomBox as a business. Now, BloomBox can continue to blossom like never before. **GP**

NATHAN STROMBERG is an editorial/content intern at National Business Media. He will be a junior at the University of Northern Colorado in fall 2021, working toward a double major in Communication Studies and Journalism, with an emphasis in Public Relations. You can reach him at nstromberg@nbm.com.

PRESTOTEX
PRINT MEDIA

Digitally printable
polyester canvas
wall media for
wide-format
printers



removable &
repositionable



artwork by @marketing
photo by Eileen Tognini Design

PRESTOTEX.COM



PRESETS

CREATE AND SAVE CUSTOM TOOLS AND COLORS

It sometimes amazes me how many tools are required to complete a digital image. It's like working on an old car. Specific wrenches, screwdrivers, pliers, gauges, etc., need to be within reach when working under the bonnet or it means several trips to the hardware store to purchase the perfect implement every time a unique situation presents itself. These tools collect in your toolbox, hence over time, fewer trips to the hardware store.

While digital graphics software offers a huge array of virtual implements, like a mechanic's toolbox, the perfect tool is not always within reach.

PRESETS

I should say here that at least 50% of the pixel-based software workflow is about creating custom tools that work to perform functions specific to the image that is being manipulated. Many tools that are created on the fly can be saved and stored to panels that can later be reused on the current image or even down the line on other images. These new features that you as the operator create are called Presets, and they eventually accumulate into an arsenal of custom features that can be accessed at any time and applied to any image.

In this article, I describe the working procedures for creating and storing pre-

sets in Adobe Photoshop CC. Similar systems for creating and saving custom tools are also available in other graphics packages.

When you create presets by adding unique document specs, custom brushes, individual colors, vibrant gradients, and a multitude of other options, you are customizing your copy of the software and making it more compatible to your workflow. In other words, you're filling your toolbox with items that you regularly or intermittently use, thereby saving time and labor each time you use the software.

BEGIN AT THE BEGINNING

Typically, an existing image is opened at the beginning of a workflow to be manipulated in any of a thousand ways. The image is a specific size, resolution, and color mode, so it has its own set of characteristics that can be edited.

But what about a new image? By default, it's just a grid of white pixels on a background layer. In the process of generating a new image, it's easy to specify characteristics in the New Document dialog box (Figure 1).

In fact, the top of the dialog box presents eight general categories of document characteristics including presets for Print, Web, and Film & Video among others. When any one of these categories is selected, several size and resolution options are presented in a neat list, including those for most types of documents.

On the right side of the dialog box (the Control panel) is where modifications can be made to the specifications of any new document. Clicking on the arrow to the right of the

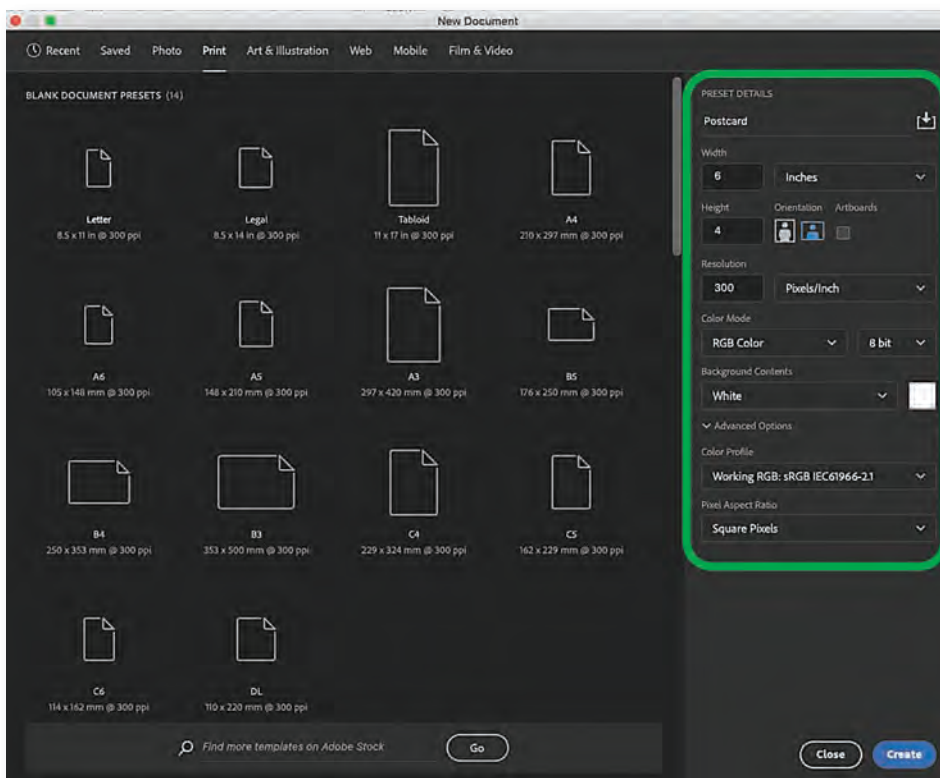


Figure 1. The New Document dialog box can save document specifications for later use. (All images courtesy Stephen Romaniello)

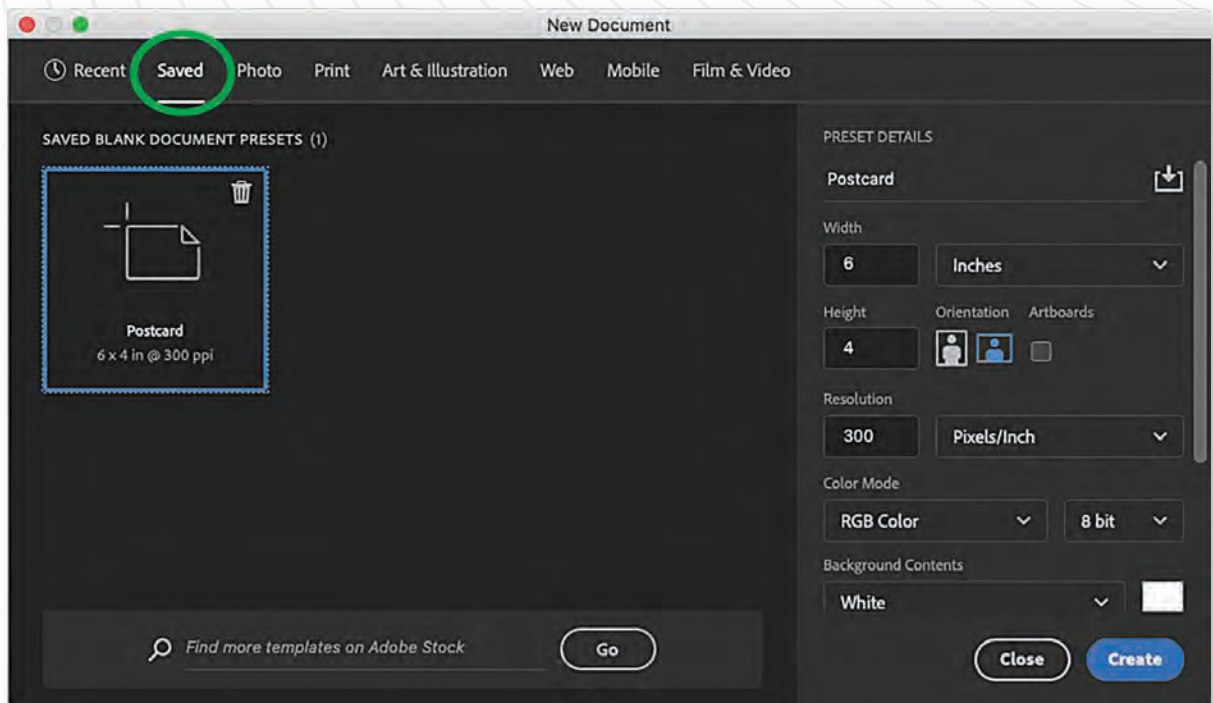


Figure 2.

To access the new preset and create an identical new document, click on the Saved category label then click the Create button.

Preset Details field generates a new preset with the assigned characteristics. Click the Save Preset button and the new document characteristics are saved to another dialog box. To access the new preset and create an identical new document, click on the Saved category label (Figure 2), then click the Create button, and voilà! There you have it.

BRUSH PRESETS

Now that the new, white canvas is displayed on your monitor, you may want to apply color with a special brush. Start by selecting an open image with any of the selection tools. The area must be a part of an image or filled with a color (Figure 3).

From the Edit menu, choose Define Brush. Once the brush is defined, it shows up in the Brushes panel. It's really that simple.

Even if you close Photoshop and discard the settings, when you reopen it, the brush will be available in the panel. It resides in a Presets folder labeled Brushes inside the Adobe


Come See Us at FabTech! Booth A3168



Faster Cutting
Speeds

Greater
Material
Thicknesses

Increased Versatility



NEW
650W CO2
Laser System

kernlasers.com | 888-660-2755 | Made in the USA

THE DIGITAL EYE

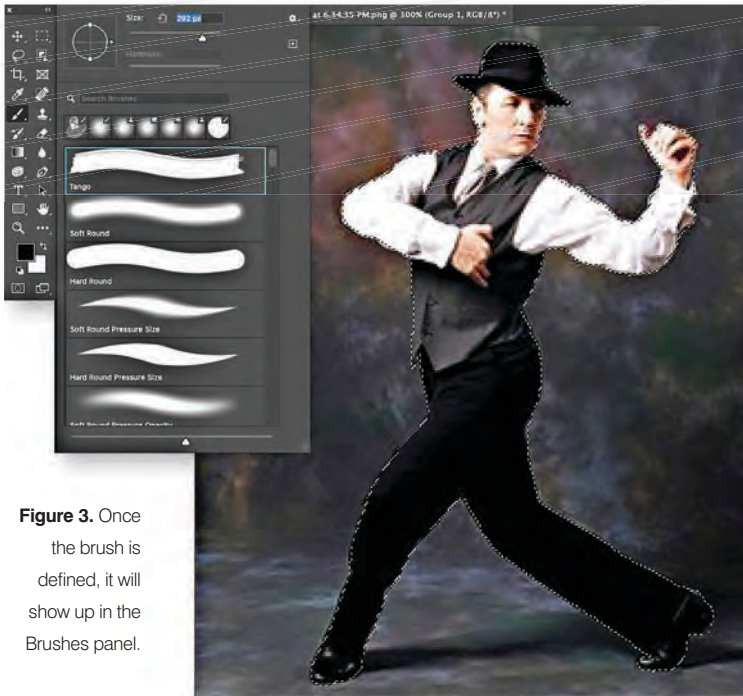


Figure 3. Once the brush is defined, it will show up in the Brushes panel.



Figure 4. Modify the characteristics of your new brush in the Brush Settings panel and apply it with new size, spacing, and color alterations.

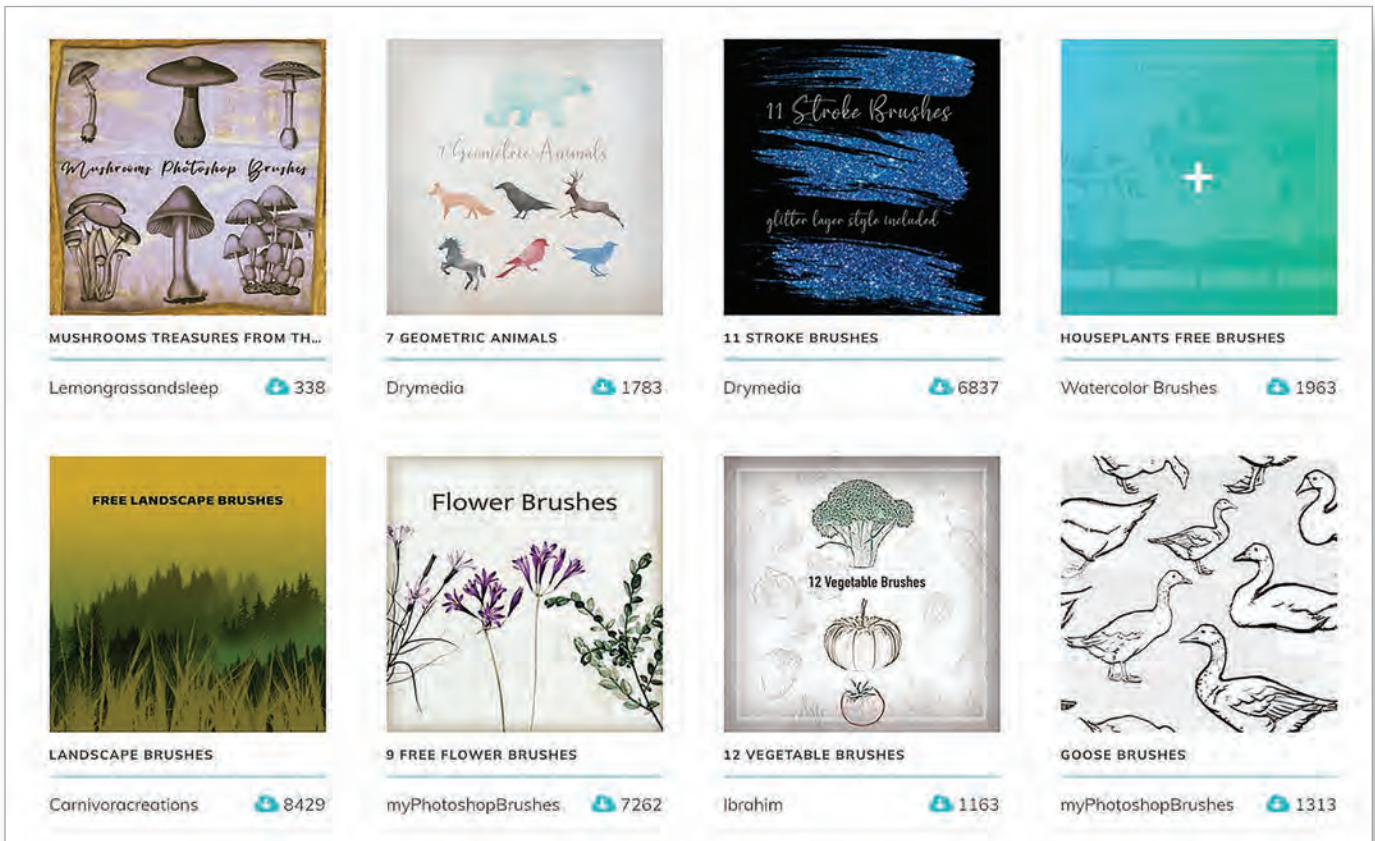


Figure 5. Thousands of brush presets are available online.

Photoshop applications folder. It doesn't, however, reside as a single brush but as part of the Brushes panel where it was made. Additional brush panels with multiple brushes can be made and saved as presets.

You can then choose the Brush tool and modify the characteristics of your new brush in the Brush Settings panel and apply it, as in **Figure 4** where the size, spacing, and color have been altered.

Thousands of premade brush presets are available online. Downloaded and installed, they will be available in the Brushes panel to be used at any time on any document (**Figure 5**). Not only that, but any alteration to an existing brush can easily be saved as a new preset.

COLOR PRESETS

The consistency of color from one document to another is important, especially if working commercially for a client whose graphic identity relies on specific color treatments. Of course, most graphics software packages provide the ability to create and store custom colors and access them while working on any document.

Stored colors reside in the Swatches panel. As with brushes, new colors are saved to a panel that stores solid colors in rows of little squares. Individual colors can be saved as presets as well as entire panels. The Swatches panel displays individual colors and a list of default colors that have been saved as Groups.

There are several ways to add a color to the Swatches panel. Perhaps the easiest is to click on the Foreground or Background color swatch in the tools panel to display the Color Picker. Specify the color that you want, then click Add to Swatches (**Figure 6**).

To create a group of colors, select multiple colors in the Swatches panel by pressing the Shift key and clicking on the first and last color in the desired range of colors, or to select non-consecutive colors press the Command (Mac) or Control (Win) key and click the desired individual colors to highlight them. From the Swatches Options menu (the four little lines on the upper right of the panel) choose New Swatch

You already get **GRAPHICS PRO** magazine. But are you missing out on more?

Get more and sign up for **The Daily eNewsletter** for valuable content that will help your business thrive, including:

- Technique-focused tips and tricks
- Design and software guidance
- Business management know-how
- Current news on continuing education and trends in the industry
- *The GRAPHICS PRO Files* podcast
- **And so much more!**



Sign up for **FREE** by scanning
 ← this QR code!

You can also call us at **1-800-775-0424**
 to verify your email address, or go to
www.graphics-pro.com/eNews



GRAPHICS|PRO

Group. Name the group in the dialog box that appears and click OK. The new group now appears in the Swatches panel (Figure 7). The group is automatically saved as a preset for use at any time on any document.

PATTERN PRESETS

Much like brushes and colors, custom patterns can be created and stored as presets. To create a pattern, select an area on any image with the default Rectangular Marquee tool. The rectangular marquee should not be feathered.

Then, in the Edit menu, choose Define Pattern. Name the Pattern and click OK (Figure 8). The pattern will be saved in the pattern list as a preset and nothing further needs to be done.

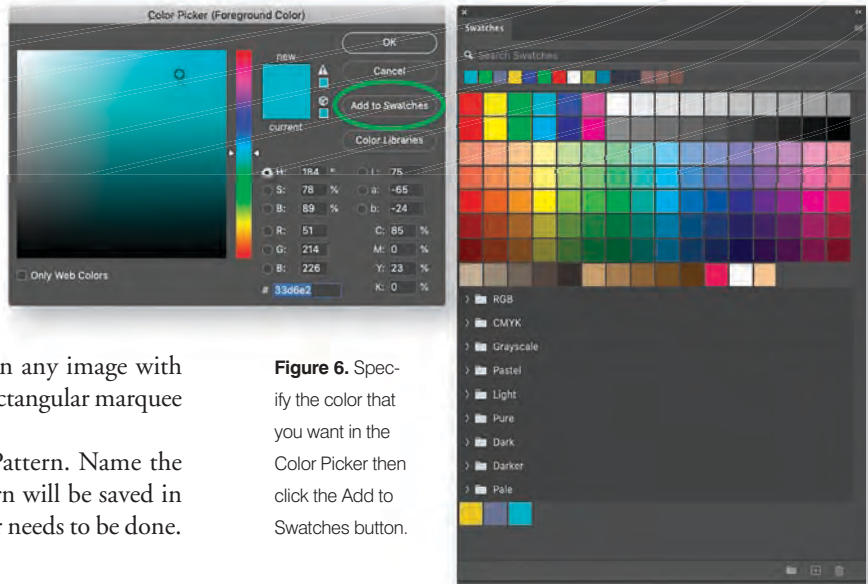


Figure 6. Specify the color that you want in the Color Picker then click the Add to Swatches button.

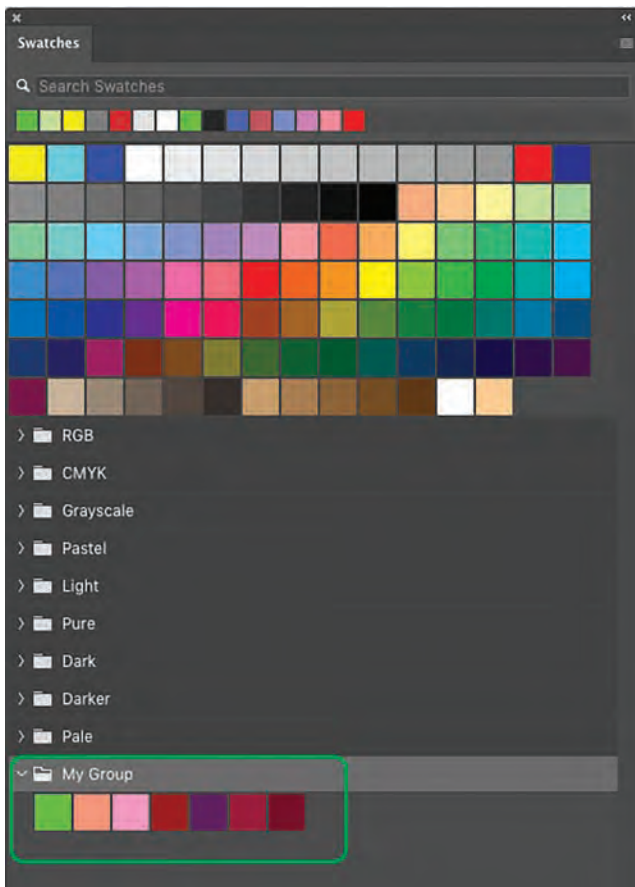


Figure 7. From the Swatches Options menu (the four little lines on the upper right of the panel) choose New Swatch Group. Name the group in the dialog box that appears and click OK.

To apply the pattern, use the Pattern Stamp or select it from the pattern list when making a Pattern Fill layer (Figure 9).

Here's an interesting little discovery I stumbled on when writing this article. If you select pixels with the Rectangular Marquee that are surrounded by transparency and save the area as a pattern, the pattern preset will contain transparent areas (Figure 10). You learn something new every day!

GRADIENT PRESETS

Saving a custom gradient as a preset is a little different and requires a few extra steps. First, go to the Window menu and choose Gradients from the list. From the Gradient Options menu, choose New Gradient Preset. The Gradient Editor is displayed. Choose one of the gradients in the list and modify it by adding, subtracting, or changing colors and moving the house-shaped color and transparency sliders to produce the exact color combinations that you want.

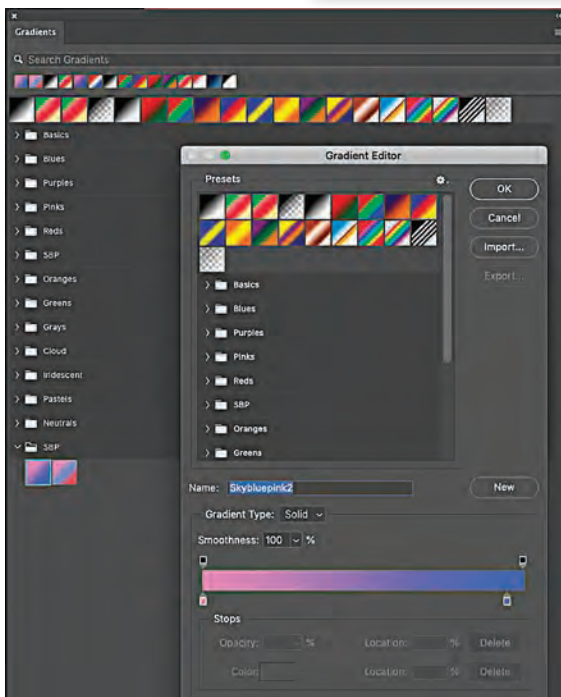
Name the gradient and click on the New button to save it to the list at the top of the dialog box. Then close the Gradient editor.

To place the new Gradient in a folder, go to the Gradient Options menu and choose New Gradient Group. Name the group and drag the gradient(s) you made from the list into the group (Figure 11).

PROGRAM THE PROGRAM

Creating presets is a way of customizing your software so that you have all of the tools you need at your fingertips. Essentially, with Presets, you are reprogramming your software to increase its potential. Presets streamline your workflow so that at any given time you can grab a custom brush, color, pattern, or gradient and apply it to an image.

Clockwise from top left:
Figure 8. Name the pattern and it will be saved in the pattern list. **Figure 9.** To apply the pattern, use the Pattern Stamp tool or select it from the pattern list when making a Pattern Fill layer. **Figure 10.** Pixels that are surrounded by transparency, selected with the Rectangular Marquee, and saved as a pattern contain the transparent areas as part of the pattern. **Figure 11.** Name the group and drag the gradient(s) you made from the list into the group.



There are many other features for which presets can be made. Actions, Layer Styles, Tool configurations, Character (type) Styles, and Shapes can all be saved as presets. Also, all of the specific adjustments that you apply to an image such as Levels, Curves, Hue/Saturation, Photo Filter, etc., can be recorded, saved as presets, and reapplied with identical specifications to additional documents.

It is to your advantage to explore this powerful feature. Ultimately if you use presets, you will save hours of time and labor and increase the capacity of your digital toolbox. **GP**

STEPHEN ROMANIELLO is an artist and educator, teaching digital art at Pima Community College in Tucson, Arizona, for over 29 years. He is a certified instructor in Adobe Photoshop and the author of several books on the creative use of digital graphics software. Steve is the founder of GlobalEye Systems, a company that offers training and consulting in digital graphics software and creative imaging, and the CEO of Fireboy Productions, a publishing company.



THE MATRIX MINISTRY

FINDING AND EMBRACING EQUILIBRIUM IN YOUR DESIGNS

You look at your layout, then review again. It just doesn't feel right. Something is off-kilter.

And at that moment, you have a decision to make: let it go out the door or start the revision process.

What you've just experienced is something that often besieges both the green apprentice and the seasoned professional with unbiased impunity. It's the loss of equilibrium, and with it goes the strength of one's design. Referenced in hundreds of online articles and printed in university textbooks from Basel to Boulder, artists have been searching and striving for balance since our first symbolic doodlings during the prehistory Paleolithic age.

So why all the chatter about balance? Simply stated, balance directs the eye. All those lengthy articles about the virtues of good balance frequently do nothing more than fill up page real estate (which I'll try to avoid with this column). Universally speaking, the four most identifiable and widely used forms of balance are: symmetry, asymmetry, radial (or rotational), and pattern (sometimes written as mosaic or crystallographic). You can do an online search and read about balance in art.

For every yin, there is a yang, but not every design layout will require pure balance — especially if design tension is the goal.

However, without question, finding and embracing equilibrium in your design will instantly elevate your art higher than the Flying Wallendas or famous tightrope-walker-without-a-net, Philippe Petit.

WELCOME TO THE BALANCE DOME

Here, residing underneath the protective roof of all-things art are a number of steadfast rules of design layout. Employing even a few of these rules will result in a more cohesive and focused final product.

The first thing I use when approaching any piece is the **matrix**. It's how I establish zones or item relationships (primary, secondary, and tertiary) in my work. From a few quick hand sketches, one can find the best solution for the content (art, typography, logo, mandatories) before a laborious effort is executed on the computer.

Bring out your inner neanderthal with some fast geometric doodles. The framework and your composition will greatly benefit as you create a design **hierarchy**. The arrangement of your known design elements, the hierarchy will establish organizational flow. From top to bottom (or left to right), the spatial relationship that forms will guide the viewer's eye precisely where you want them to go first.

Within the domain of hierarchy, one can use a number of variables, such as scaling, contrast, hues, diametrical objects,



Sometimes the best way to establish spatial relationships in the matrix is to sketch it out. From a two-minute pencil sketch to a tight, design marker comp, this die-cut store display unit retained all of the loose, hand-drawn style the client preferred in the final 5'-tall standee. (Image courtesy Matt Touchard)



With several action photos to select from, this CD package design (and large-format, tour support digital assets) used multiple images with repetitive, staggered placement. Folded panels revealed symmetrical photos for counterpoint and continuity. (Image courtesy Matt Touchard; photographer: Astor Morgan)

If you're wondering what these two things are, I implore you to, a) proceed with caution or, b) forget about it. What I will tell you about these two very heady and mathematically intense design calculations is this: both have been studied, investigated, and recreated in all sorts of media, while users have been celebrated or castigated. Some theories promote the magnitude and quantity of how these codes seem to be everywhere in the natural world (nautilus seashell as one example) and used by all the great masters in their oeuvre (insert all the names of the greatest painters in history here).

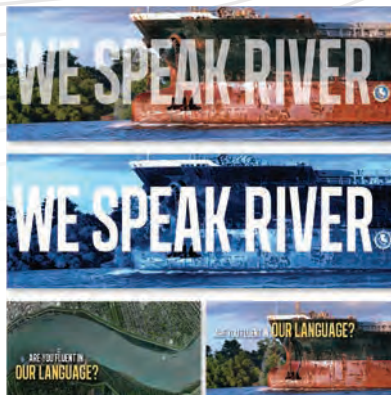
In brief, the Fibonacci Sequence (one of the most famous mathematical formulas) has been said to bring unity and balance into anything by using spatial relationships (as defined by the numerical sequence and used predominantly in rectangles, squares, and spirals) for the structure of one's two- or three-dimensional work. The Golden Ratio (also known as the Golden Number) has been quantitatively analyzed by those in the fields of applied mathematics, science, astronomy, architecture, biology, and botany — and of course, the design and art world.

Many designers that have created famous logos have used one or the other of these methods (or the art was reverse-engineered by a math-fanboy to prove the Fibonacci or Golden Ratio was used) in the execution of the art. Is it happenstance, serendipity, or just a contrived myth? It all looks pretty cool and convincing if you are a fan of geometry, math, and have a lot of time on your hands.

For the less-than-gifted in math crowd or if you're slightly interested, there are online templates to the most basic of these sequences you can download and try for your design layouts. As for me, I'll probably have more luck guessing Saturday night's lotto number sequence.

THE QUEUE STARTS HERE

Of all the uniquely strange things I've learned that pertain to graphic design, there is one tactic that I actually think about week after week. Every one of us that has dined at a restaurant has witnessed it in action. From the backlit menu board at McDonald's in Times Square to the embossed and foil-stamped menus of the Michelin-starred temples of utopian gastronomy, it's right there in front of your face, and it's colloquially called the sweet spot.



A brief window to get new marketing pieces in place meant no time for new photography. In this case, photography took the backseat to the new positioning statement — with typography deftly placed over the support images — delivering the prominent message. (Image courtesy Matt Touchard)



This attractive logo employs directives of both the Fibonacci Sequence and the Golden Ratio together, in vertical and horizontal composition ... quite the balancing act. (Image courtesy Matt Touchard)

I've had many conversations with other artists and gourmands alike about this psychologically brilliant (or is it dubious?) design placement of what the restaurant wants you to select (and buy). This area — the sweet spot — is said to inhabit the upper right of a menu. It's been said that our eyes travel to that two o'clock position on anything we're reading or reviewing.

This seems to be the result of a lot of research, dialogue, and good old-fashioned gossip. Nevertheless, I've designed countless menu boards for food and beverage franchises, menus for bistros and bars, and service lists for random industries that all insisted on one thing: to place the item that they would make the most profit on in the upper right quadrant — the sweet spot.

Factually speaking, we tested this out with a few clients by printing two different menus for an Italian food franchise. In each case, the menu was identical, but the upper right item was different. The result? No matter what the item in that quadrant, sales for that specific item surged by 28% on average. Who knows? I know you'll never look at a menu the same way again.

At the end of the day, all the math in the world probably won't save you (or make you as popular as Sir Isaac Newton), but studying the balance and assembly of your

layout will give you a better idea of how others in the world see your design. Find your footing with any project by employing some of the tactics, as briefly discussed. Go online and read about how math and spatial relationships can enhance your workflow. Download templates and try a few.

Ideally you, too, will find a sense of symmetry and equilibrium in everything you do. Once I discovered the aforementioned, I elected to try nearly all strategies and now keep a few as my go-to selections.

Just don't ask me to define the Pythagorean theorem or that bane of my existence: the Touchard polynomial. Look that one up. **GP**

MATT TOUCHARD won his first art contest at age 8. Since 1984, his design work has collected accolades across nine countries. Splitting time between New Orleans and Switzerland, Matt's in final production of a massive guitar book for the most important client of his career: himself. To talk guitars or vegan recipes, email matt.touchard@gmail.com.

GRAPHICS PRO
PRESENTS

The DIRECT-TO-SUBSTRATE REPORT

34

A PRINT THAT STICKS

Avoid adhesion issues in UV printing with these helpful tips and techniques.

38

THE DTG EXPLOSION

Direct-to-garment printing is exploding in the apparel decorating segment; the question is, are you taking advantage?

42

PRODUCT SPOTLIGHT: DIRECT-TO-SUBSTRATE EQUIPMENT AND SUPPLIES

From DTG to UV-LED printing, these products and substrates will elevate your printing business.

2021



BY MICHAEL PERRELLI

A PRINT THAT STICKS

AVOIDING ADHESION CHALLENGES IN UV PRINTING

You have this awesome UV printer and want to print on anything and everything, right? Or maybe you have a new product for your UV equipment that can boost profits? Either way, you'll need a print that sticks well to the product and more than likely, one that stands up to some wear and tear.

It's true that UV printing offers a range of products and materials that set it apart from other decoration methods. However, you must keep in mind that the material you print to may require different processing steps or print settings to achieve a long-lasting print.

WHY CAN ADHESION BE A CHALLENGE?

I was at a trade show many years ago and overheard this during a networking event: "We can definitely print on that product. That's easy. It is the adhesion I'd be worried about." As I listened to that, I shook my head in disbelief. While the statement is factually correct, the UV print veteran in me says that the statement is false. A high-quality print *with* proper adhesion is what it really means to "print on that product."

So why can it be a challenge? I don't want the readers of this article to think every product is a challenge. It is actually the opposite. There are many products and materials that are simply load and go: You load the printer, set your art file with standard



Above: A view of the dual flame and Pyrosil treatment by the PYROBOND 4 GL System. **Left:** An example of an adhesion promoter that would be hand-applied prior to printing. (Images courtesy Michael Perrelli)

settings, hit print, and you are left with a beautiful and long-lasting print.

Then there are the other materials or coatings that can be a challenge for printers in general. Common tough-to-print materials include glass, stainless steel, brass, and polypropylene.

Remember, UV prints don't penetrate the surface of the material like a solvent ink does as it sits on the surface. The aforementioned materials (among others) could have surfaces that don't have what some refer to as a lot of "tooth or bite," or they could have special coatings and release agents on them for the purpose of not having things stick to them.

It isn't rocket science to overcome these challenges by dialing in the printing steps. There are simple, manual solutions to try for low volumes, and then there are treatment systems that can help you consistently maximize production.

I want to keep this piece fun, light, and informative; however, I must put on my lab coat and include this highly educational statement: Many of the options discussed going forward change the surface tension or dyne level of the treated product. That change is what produces a better surface for UV ink to adhere to. It's all about surface prep and it can be simple to achieve.

But enough of the scientific terms. I want you to get back to printing, so let's look at some solutions to your challenges.

MAKE IT STICK

It should go without saying, but get in the habit of quickly testing new products or materials before going into full production. It will only take a few minutes and could save you some time and rework in the future.

Run a simple set of colored squares with and without a white underbase in your standard print mode. Once completed, you can scratch or use the ASTM tape test to verify your print. Repeat as needed when testing any of the options discussed during the rest of this piece.

Start simple and go from there if your test print doesn't give you the results you're looking for. As you build your own library of experience, you will quickly reach for the results that provided the best adhesion in the past.

Clean material and avoid overhandling

Dirty material(s) full of greasy fingerprints can hurt adhesion. I've seen many customers solve the simplest adhesion challenges by simply wiping the product with an alcohol wipe prior to printing. Plus, this wipe can help those that work in high-static areas or environments.

Clear ink (or varnish) can be your friend

Depending on your printer brand or model, you may refer to it as clear ink or varnish. It doesn't matter what you call it, just know that it can help with adhesion and durability.

These inks tend to adhere well to a wider range of materials than their white ink counterparts, so you can always start this test by simply printing a clear pass under your colored graphic. Oftentimes, this pass can be done in a faster print mode than your full-color graphics.



AWARD WINNING UV DIGITAL INKJET PRINTERS

We Make Product Customization a Breeze

Many businesses are limited because they can't customize products in-house. At LogoJET, we make printers that print on almost any item, from golf balls to laptops, so you can print in-house to control your products and profits.



LOGOJET

Contact us today to request your personalized live demo and sample kit.
Sales@LogoJET.com | 337.330.8471 | LogoJET.com

DIRECT-TO-SUBSTRATE REPORT



Above: Get in the habit of quickly testing new products or materials before going into full production. Seen here is the cross-hatch/scoring test. (Image courtesy Applied Surface Technologies LLC) **Right:** One challenge you can face with UV printing adhesion is failure of print when subjected to water. Using a dual treatment of both flame and Pyrosil (outlined in the article) can help avoid this issue. (Image courtesy Applied Surface Technologies LLC)

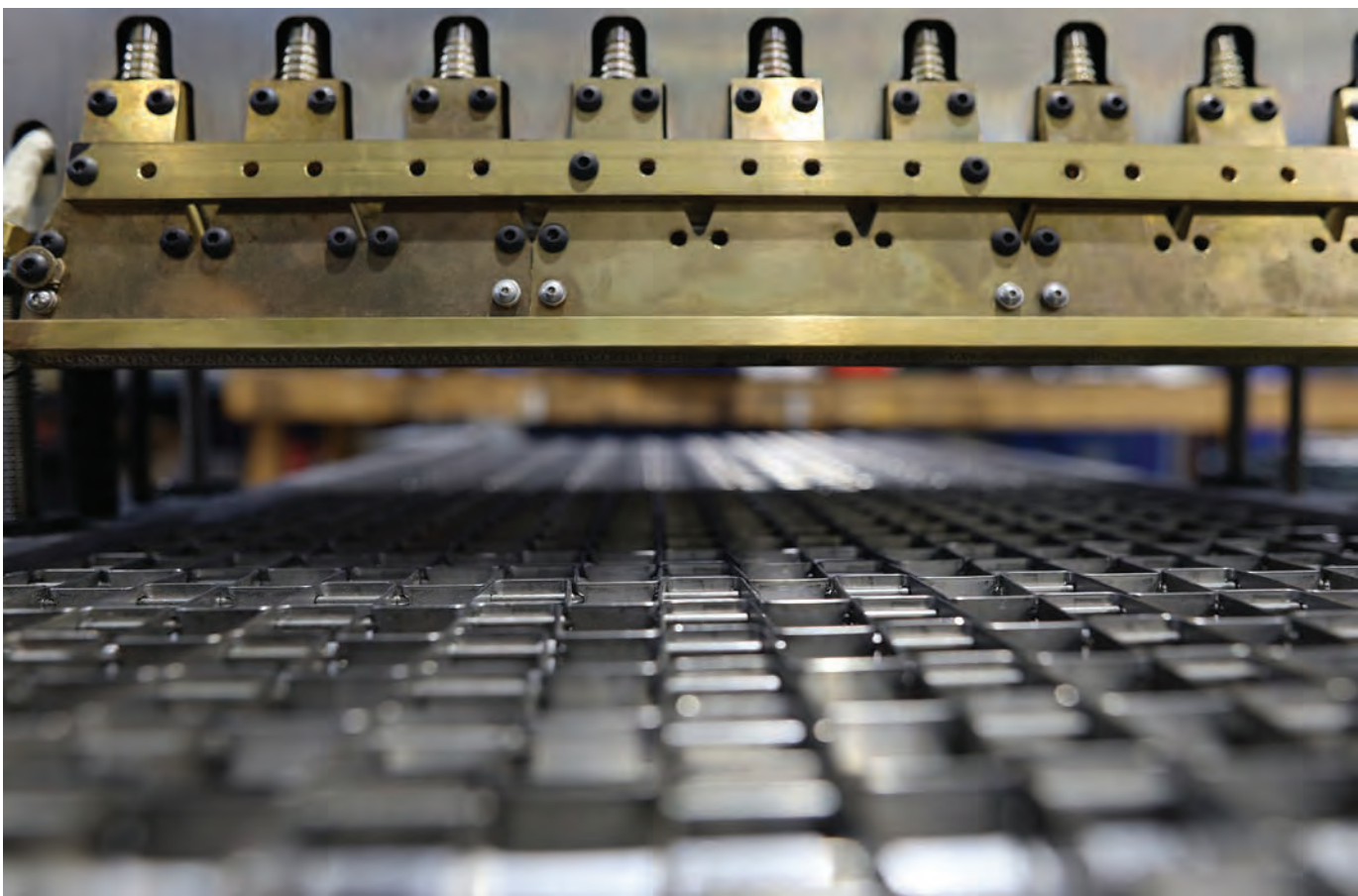
Plus, this same ink can be used as a top-coat for operators that need ultimate durability and scratch resistance. Using this feature is where you'll see the best level of protection for your print.

Wipe-on adhesion promoters

There is no shortage of adhesion promoters or primers in today's market. These chemicals are manually applied to the surface of the material prior to printing.

New printer owners often ask which primer or promoter is best. I tell them that there isn't a single product that can be viewed as the solution for every material. However, there are primers that are widely versatile and those are the ones you'll see in many print shops. Like any manual process, mistakes and/or slow down can occur, so keep that in mind when implementing this method into your production process.





A close view of the nine-burner system of the PYROTRACK. This flatbed flame treater has the ability to utilize flame and/or Pyrosil. (Image courtesy Michael Perrelli)

Jettable adhesion promoters

Some UV printers have the ability to use jettable primers. Instead of being hand-applied, these primers are applied to the material through the print head, thus saving the extra manual step of wiping the products.

In most cases, jettable primers occupy a print head slot that is normally occupied by ink or clear/varnish. Because of that, this may not be an option for some operators. For others, this may fit nicely into their printing process.

Standalone treatment units

This is where it starts to get fun as the market brings continual innovation. Offline units like flame or plasma treatment systems provide the ability to treat large quantities of products quickly and consistently. In many cases, one of these systems can treat enough products for multiple printers.

These types of solutions, specifically flame treatment systems, have units specifically designed for cylindrical items like cups and drinkware as well as units that can treat flat items ranging from signs to coolers.

Flame treaters are a common selection for their variety of applicable materials. Plus, some units have the ability to produce flame and/or Pyrosil treatments. Some materials may only require a flame treatment to optimize adhesion, while a product like a pint

glass requires both the flame and Pyrosil. This dual treatment is what can give those challenging pint glasses the dish-washability you may covet.

KNOWLEDGE SHARING: IT HELPS EVERYONE

Don't be afraid to ask questions. Whether you ask the application experts at your printer manufacturer or join an active social media group, chances are you aren't the first person to encounter an adhesion challenge or two.

The answer may already be out there, and many of the printer owners I have worked with are open to sharing their experiences. It is something that helps everyone. Don't be scared by adhesion challenges. Be sure to test, adjust, and repeat as needed.

Print smart. Print well. Print fast. **DSR**

MICHAEL PERRELLI serves as the Marketing Director at CPS Resources, Innovative Digital Systems, and DigitalPrintSupplies.com. Focusing on all things product decoration over the past decade, Michael continues to be a contributor of content for industry publications. You can contact him at michaelp@ids-digital.com to discuss UV printers, flame treatment technology, or any of your decoration challenges in further detail.



BY BRIAN
WALKER



THE DTG EXPLOSION

DIRECT-TO-GARMENT
IS THRIVING; HAS YOUR
SHOP CONSIDERED IT?

Direct-to-garment (DTG) ... It used to be a fringe edge of the decorating industry. One of the new fads that would never replace screen printing because it was too slow, the inks too expensive, and wash durability just wasn't there, said some. That is definitely not the case today.

Everything about DTG has matured into a vibrant, growing, and vital part of many decorating businesses. If you have not looked into direct-to-garment as an addition to your business, you might want to reconsider.

DTG PAST TO PRESENT

In the early days, direct-to-garment printing was limited, and the printers were notoriously slow. Printing with only CMYK inks on white or light shirts was normal.

White ink printing was non-existent or just coming onto the scene. Inks, wash durability, and cost per print weren't that great, and machine maintenance was a real pain.

However, since the early 2000's, the DTG industry has come a long way. It used to be that if you didn't print every day with your DTG printer, it would turn into an expensive paperweight. Today, the machines are much more reliable.

Machine manufacturers have continually developed and improved how the printers function, handle white ink, maintenance cycles, and increased the print speeds to where production capabilities of some of the higher-

Above: From a single printer in a bedroom to full production shops with hundreds of DTG printers printing tens of thousands of shirts per day, direct-to-garment has found its place in the apparel decorating industry. (Image courtesy OmniPrint International)

end DTG printers are approaching that of screen printing equipment. Throw in the improvements in pretreating, new ink formulations, and ease of use, and DTG has become a powerhouse in garment decorating.

Screen printing has its origins in China around the year 221 A.D., has been around for thousands of years, and today is well-known for production capabilities and wash durability. However, screen printing can be a lengthy, cumbersome, and expensive process for jobs that require a lot of colors, multiple imprint locations, and smaller quantities.

There is a break-even point where it is just not economically feasible to screen

print a certain job. It might be a multi-color print on a medium- or large-sized order of shirts (this has and always will be debated as to the break-even point where DTG or screen printing is better). The time it takes to print film positives, coat screens, expose the screens, washout, dry, block-out, tape out, line up on press, ink up, print, and then reclaim the screens makes it a time- and labor-intensive process.

Introduce direct-to-garment, and that six-color job of 18 shirts can be done in an hour or two start to finish. Who in screen printing hasn't experienced the customer that comes back to your shop and claims you shorted them a shirt or two (or they forgot to order it) — all after you've torn down the job from the printing press? Solution solved with DTG — just pull up the artwork, grab your shirt, pretreat, and print. Another satisfied customer — and all that can be done while they wait.

What makes DTG more alluring is the versatility. Direct-to-garment allows for more colors in the print (unlimited, but no special effects or special colors like neon or a specific spot color); the ability to print on demand (you can have 10,000-plus different designs and hold no inventory except blank shirts and print what you need, when you need it); you can resize the printed design on the fly (print a 4X adult shirt, then immediately a baby onesie with the same design); and generally it is cleaner than screen printing.

In other words, DTG is like having the ability to get immediate gratification and see what the print will look like without having to worry if you will need to reburn multiple screens because of a mistake in the artwork. DTG also makes customization like names and numbers on shirts super easy. Just change, click print, and go.

LEARNING CURVE

As with any printing technology, there is a learning curve and much of it comes down to experience. Many times, people new to the decorating business are wowed by the




Direct-to-garment allows people to customize their own shirts, and you to print them with ease. (Image courtesy Brian Walker)

WHETHER YOU CHOOSE

**TO PRETREAT
YOUR OWN WITH**


**IMAGE
ARMOR**

SOLUTIONS FOR THE DTG INDUSTRY



**OR TO SIMPLY
PICK. PRINT.
CURE.**

USING **RTP**[®]
APPAREL •



**I-GROUP
TECHNOLOGIES**

HAS YOU COVERED.

DIRECT-TO-SUBSTRATE REPORT



With the ability to print single, one-off designs, DTG has opened entirely new segments of the apparel printing market for on-demand type printing. (Image courtesy Brian Walker)

ease and simplicity of direct-to-garment printing presented to them at a trade show. However, after they put their money down and get the printer in, they realize that it may not seem as easy as originally presented.

Don't get me wrong: DTG printing is relatively easy, but you need to do the basics and build upon your experience as you grow with the business. It is not as easy as "load a shirt and hit the print button."

One of the biggest hurdles most people

getting into DTG face is learning how to do the pretreating correctly. Pretreating is the process of applying a solution to the printed side of the shirt to give the inks a base to print upon, similar to primer-ing drywall before you actually paint the wall.



A hand-controlled pretreatment machine spraying a shirt; pretreating correctly is a big issue to overcome. (Image courtesy Brian Walker)

Pretreatment is the “primer” for DTG printing — especially white ink printing. Pretreating is also beneficial to enhance CMYK-only prints for better vibrancy, image clarity, and wash durability.

Learning to pretreat correctly is paramount to being successful in DTG and where roughly 80% of all DTG printing issues derive from. Inconsistent pretreating results in poor wash durability, varying degrees of how the white ink appears on the shirt, and other issues.

Some people learn to pretreat by hand but that is often messy, and you don't have a good idea if you have applied the correct amount of pretreatment, nor can it be replicated exactly for each subsequent shirt. Utilizing a pretreatment machine will help you consistently apply the correct amount of pretreatment to every shirt so that every print will look the same. But even with a pretreatment machine, one needs to learn the correct amount of pretreatment to apply for a particular color, brand of shirt, and for the job at hand.

Learning how your DTG printer performs will only come by experience. Keep a record of jobs printed, the brand of shirt, the amount of pretreatment applied, etc., so you can refer back to that when you are printing future jobs.

Over time, you will learn how your printer prints, how the pretreatment affects the look and wash durability of the shirts, and you will be able to instantly make a good judgement call on the fly as you print.

But this only comes by experience. There is no shortcut to becoming proficient in DTG printing. You can get some good advice to get started, but every shirt is different just as every piece of artwork and job is different.

HOW DTG HAS GROWN AND IMPROVED

Direct-to-garment is currently one of the fastest growing segments of the apparel



If the past growth in innovation, speed, ink improvements, and other advancements are any indicator, we will see direct-to-garment become even more prevalent within the decorating industry. (Image courtesy Brother)



WANT TO SEE THE PRETREATING PROCESS IN ACTION? BRIAN WALKER DIVES INTO THE SCIENCE OF IT WITH THIS T-SHIRT EXPERIMENT:
<http://gpro.link/dtgpretreat>

decorating industry. With the ability to print single, one-off designs, DTG has opened entirely new segments of the apparel printing market for on-demand type printing, from small shops operating out of a bedroom to print shops like Custom Ink. A single shirt — or dozens of shirts — printed and delivered within days; single color or full-

color photographic reproductions ... this is the beauty of DTG.

With improvements in inks, ready-to-print shirts that require no pretreating, printing machine speeds increasing, automated software for making it easy to setup an online store to full production management of artwork and shop streamlining — DTG has grown from being the new kid on the block to a serious player in the decorating industry. From a single printer in a bedroom to full production shops with hundreds of DTG printers printing tens of thousands of shirts per day, direct-to-garment has found its place.

That place is in many screen printing and embroidery shops looking to expand their capabilities as well as brand new, all-DTG-printing shops catering to the masses or individual niche markets. DTG is here to stay and continue its growth trend as it continues to open new markets in the decorating industry.

Where will DTG be in a couple of years? If the past growth in innovation, speed, ink improvements, and other advancements are any indicator, we will see direct-to-garment become even more prevalent within the decorating industry. The question is, will your shop be a part of it? **DSR**

BRIAN WALKER got started in the garment decorating industry in the mid-1980's when he learned screen printing while in high school. Over the years, he has started several direct-to-garment-related businesses, including I-Group Technologies that makes the Viper pretreatment machines, Image Armor (pretreatments and inks), as well as RTP Apparel, which produces Ready To Print garments that require no pretreatment to be printed.

PRODUCT SPOTLIGHT:

DIRECT-TO-SUBSTRATE EQUIPMENT AND SUPPLIES



ORANGE AND RED UV INKS

Roland DGA announces the addition of new orange and red inks to its ECO-UV 5 (EUV5) inks available for the company's VersaUV LEC2 series roll-to-roll UV printer/cutters. These additions enable LEC2-640 and LEC2-330 users to use previously unavailable colors. EUV5 inks are also available in CMYK, gloss, white, and primer.

www.rolanddga.com



LONG-SLEEVE T-SHIRT

Augusta Sportswear Brands introduces the women's Momentum long-sleeve T-shirt, a V-neck made from moisture-wicking, odor-resisting fabric. The garment protects against the sun with 30+ UPF and uses color secure technology to help prevent dye migration.

800-237-6695

www.augustasportswear.com



DTG PRINTER

Coldesi announces it carries the **Epson** SureColor F2100 DTG printer. It has five-color ink technology with cyan, magenta, yellow, black, and white, and can print onto light and dark-colored shirts. The product can print onto garments ranging from 100% cotton to 100% polyester.

www.coldesi.com



WHITE TONER TRANSFER PRINTER

Garment Printer Ink introduces the Uninet iColor 650 white toner transfer printer. The product has an 11" X 17" printer area with the ability to swap toner cartridges for under printing, over printing, sublimation, fluorescent printing, and more. The printer also works with dark and light shirts from cotton to 100% polyester, as well as hard surfaces including glass, wood, plastic, metal, and ceramic.

631-858-0114

www.garmentprinterink.com

HIGH-VOLUME DIRECT PRINTING TECHNOLOGY

Marco Awards Group introduces the **Direct Color Systems 7200** high-volume printing technology, which includes CMYK and white. The product prints on flat surfaces as well as round surfaces such as golf balls. Its conveyor is built to accept continuous jigs to feed products through the printer.

800-229-6592

www.marcoawardsgroup.com



COLLEGE HOODIE

Citadel Brands/AWDIs introduces the JHA001 college hoodie by Just Hoods. The product is 100% cotton faced, made with 80% ring-spun cotton and 20% polyester. It is fully stocked in black and offered in over 40 colors in both hoodies and crews in select colors up to 5X.

800-229-1240

www.citadelbrands.com



ADA ALTERNATIVE

Rowmark offers the ADA Alternative matte product line, allowing users to create all types of Braille signs using both the Raster Braille Method or printing with a UV-LED printer. The ADA Alternative matte product line was specially designed by Rowmark to comply with the Americans with Disabilities Act (ADA) federal regulations.

www.rowmark.com



PRETREAT MACHINE

Brother DTG introduces its Schulze PretreatMAKER Basic, which is designed to fit with most digital direct-to-garment businesses. This product is a fully enclosed unit that contains the spray mist. The spray can be adjusted in 2"-long increments and has a three-tank system composed of two pretreat and one water.

866-750-2543

www.brotherdtg.com



DIRECT-TO-SUBSTRATE REPORT



PVC SIGNBOARD SOLUTIONS

Vycom offers its Celtec PVC signboard line, which offers UV performance in a variety of colors. Its materials can be cut, formed, varnished, stained, or laminated for a variety of applications, and is recommended for direct-to-substrate inkjet printing.

800-235-8320

www.vycomplastics.com



TRAINING KIT

MUTOH America announces the release of its new training tool, the StartRight Kit. This kit features Project Application Guides for the XpertJet 661UF UV-LED printer, including lessons, video instruction, sample output, blanks, and a sample JIG with inserts. Instructions on using FlexiSIGN and Print MUTOH Edition 19 and its presets are also included in the kit.

www.mutoh.com



PRETREATING SOLUTION

Equipment Zone offers its SpeedTreater-TX, meant for pretreating garments prior to DTG printing. It has an adjustable 17" X 22" maximum pretreat area. The product comes with a one-year limited warranty and lifetime technical support.

800-408-0040

www.equipmentzone.com

DSR

Products & Processes for Profit

GRAPHICS | PRO

AWARDS & ENGRAVING | PRINTWEAR | SIGN & DIGITAL GRAPHICS



Don't miss out on that one business idea!

Turn to **GRAPHICS PRO** to provide you with:

- » Full market coverage
- » Best business practices
- » Knowledge-building features
- » Q&As, podcasts, and more!

Subscribe at:
graphics-pro.com/subscribe or call 800-870-0904

Expand Your Offerings with High-Volume Equipment

BY JULIA SCHROEDER



Enjoy sound in all its perfection!

A high-production wide-format printer is beneficial for a print provider to produce everything for a large order in a timely fashion. (Image courtesy FUJIFILM)

When a shop installs high-volume equipment, it creates the capacity to take business up a notch. Large-quantity T-shirt orders, interior signage for retail stores, exterior graphics applied to windows — these are just a few of the options with high-volume capabilities.

A high-production wide-format printer, for instance, is beneficial for a print provider to produce everything for a large order in a timely fashion. High-volume equipment could make the difference for a restaurant receiving updated signage with proper pricing when they need it, poses Becky McConnell, FUJIFILM.

Save-the-date magnets for a wedding or powder-coated tumblers with a company logo and name for a corporate event are more likely to be ordered in bulk, as well, according to James Stanaway, Epilog.

However, before deciding on which products to offer, you must determine if high-volume is right for your business. When does it make sense to invest in high-volume equipment? Depending on client demand, shop capacity, and future growth, it's critical to consider every aspect when determining if a shop needs it, McConnell states.

GARMENT PRINTING

When screen printing T-shirts and other garments, it makes sense to invest in high-speed and high-volume equipment when your shop prints over 300-piece runs, according to Taylor Landesman, Lawson Screen & Digital Products. However, for



A wide-format printer can give a PSP the opportunity to expand its current offerings or bring work in-house that had been outsourced. (Image courtesy FUJIFILM)



Digital cutting at an
Industrial level.

ZUND
swiss cutting systems



Schedule a demo anytime,
visit us at Printing United 2021.

www.zund.com infous@zund.com T: 414-433-0700

direct-to-garment (DTG) printing, he says you can either look at it from a pieces-per-run or pieces-per-day/week perspective.

“DTG is able to print variable data, so production is total quantity,” Landesman explains. “From a piece-per-run perspective, anything over 24 shirts would be high-volume. With total garments printed, 40-plus pieces per day would be high-volume. Once you reach these numbers, investing in a production DTG machine can lend



When screen printing garments, it makes sense to invest in high-speed and high-volume equipment when your shop prints over 300-piece runs. (Image courtesy Lawson Screen & Digital Products)



There are several areas in the screen prep area that can be automated to make the process more efficient overall, such as emulsion coating. (Image courtesy Lawson Screen & Digital Products)

to saving money on consumables, which lowers your production costs.”

Landesman recommends looking at equipment designed specifically for high-volume. “Certain desktop printers, or other items not designed for high-capacity printing, not only slow down your printing speed, but can raise your costs of goods,” he explains. Along with increasing your printing speed, there are several areas in the screen prep area that can be automated to make the process more efficient overall. For example, emulsion coating, screen reclaiming, screen developing, and printing film positives are all steps that can be automated.

LASER MACHINES

With high-volume laser equipment, you can set up an entire table full of products to be engraved in one run. This reduces the time to engrave each item, as compared to when the operator sets up new artwork and only runs one product at a time.

“Due to the nature of the high-volume orders, the larger the engraving bed of the laser you use, the more throughput you can complete per run of the job,” explains Stanaway. If the number of your high-volume orders warrants it, you may find the need to add another laser to your shop to keep up with demand.

Other than the laser itself, not a whole lot is necessary to produce high-volume orders in this fashion. Additional tools needed depends on the high-volume order being fulfilled. A rotary attachment accessory may be needed to engrave drinkware, or if you need a jig to hold multiples of the same product — such as a keychain or bottle opener — a scrap piece of wood, acrylic, or cardboard can come in handy. *(A note on jigs: Jigs are a great way to maximize your engraving area and keep all your items secure when customizing*



With high-volume laser equipment, you can set up an entire table full of products to be engraved in one run. (Image courtesy Epilog Laser)



RAMP UP YOUR LASER ENGRAVING PRODUCTION WITH THESE 7 TIPS:
<http://gpro.link/7lasertips>.

a large batch of products. They can also be made from nearly any substrate you may have lying around your shop.)

But you can also think past hard substrates. If you're engraving and cutting 500 leather hat patches, you might invest in a heat press so you can be a one-stop-shop for customizing that type of apparel.

DIGITAL PRINTING

"If a print service provider (PSP) can respond to jobs that require high volumes or fast turnaround, a high-volume printer can change the game," says McConnell. "Some print service providers refer to this as 'burst capacity.'" When a large job is needed, a high-volume printer allows a shop to accept jobs that they may have passed up otherwise.

Given the possibilities with a wide-format inkjet UV printer, for example, it

Providing you with the Right Products, Right Away® for over 70 years!

GSG
 GOGSG.COM 800-366-1776

METHODS TO MARKET YOUR HIGH-VOLUME SERVICES

JAMES STANAWAY, **EPILOG**; AND
BECKY MCCONNELL, **FUJIFILM**

- **WEBSITE:** As with any product or service you sell, having a visual and easy-to-navigate website is crucial. Make it as easy as possible for customers to find you and understand the services you offer, including high-volume orders. Offer price breaks for increasing quantities and offer features that allow the consumer to see a mockup of what their product will look like after decoration.
- **GIVEAWAYS:** Market to your current customer base with ideas for giveaways for their businesses. When you have a product that you've already tested and found great success engraving (for example), engrave it with the logo of the company you've been selling awards to over the years and send it to your contact. It could spark an idea for them to send one to each of their customers.
- **NETWORK WITH EVENT PLANNERS:** Company events and weddings are always in need of new gift ideas, and a few sample pieces in their hands may send lucrative jobs your way.
- **CASE STUDIES:** Examples of previous work are always a great way to approach prospects when it comes to building trust to serve new clients. Being able to show a prospect work you've completed, and the scenario around that work, demonstrates to them what you're capable of as a service provider. Another method is to find local conferences or groups where you could network with prospects, like a local architecture group if you're aiming to target custom interior elements. **GP**

Opposite: Items like magnets, coasters, and plastic tags (seen here) are often ordered in bulk. (Image courtesy Epilog Laser)

can give a PSP the opportunity to expand its current offerings or bring work in-house that had been outsourced. For shops that produce work by means other than UV printing, it can serve as a place for short runs to be produced, McConnell explains. This can free up other equipment to produce what's needed, and in turn, increase the productivity of the entire graphics shop.

"Ensuring that you've evaluated every aspect of operations with the introduction of a high-volume printer is critical to minimizing challenges," says McConnell. "Thinking about what finishing needs may develop with a greater capacity for



(Image courtesy
Durst Image Technology)



print is important.” Other factors to pay attention to include substrate stocking and ordering, as well as determining how adding this equipment will affect kitting, packaging, and shipping — every aspect

from order taking, to pre-press, and to finishing can be considered.

HIGH-VOLUME SUCCESS

Ultimately, finding success with any order is all about maximizing your equipment, managing your time, and managing your customer’s expectations, says Stanaway. No matter the niche markets you service, whether it be retail or corporate locations and so on, high-volume equipment can expand your shop’s current abilities.

High-volume equipment can be the difference in bidding for a job or not. The opportunities available for shops with high-volume equipment only continue to grow. **GP**

JULIA SCHROEDER is a freelance writer based in Chicago, Illinois. Previously, she held the position of digital content editor for *A&E* magazine. She can be reached at hello@juliawritesforyou.com.

HOW NECESSARY IS ADDITIONAL STAFF FOR HIGH-VOLUME PRODUCTION?

Depending on how you have structured your organization, additional staff may be needed to help fulfill orders. However, you may be able to shift responsibilities or cross-train to help with larger volumes. James Stanaway, Epilog, adds, “With a more generous lead time, it’s entirely possible to complete high-volume orders during normal hours.”

New EVO Series

HIX CORPORATION
HIXCORP.COM

EVO PRO MODULAR

Available Widths:
48", 60", 72"

EVO PRO MODULAR

HIX EVO Series, What a modular dryer should be!



WHY WORKFLOW AND PROCESSES ARE IMPORTANT

Get to work with a lot of businesses through Our Success Group. A large portion of those businesses are starting up or turning a hobby into a business. Those are fun and exciting times, and when people first get going, they have a lot of enthusiasm and passion for the work. But they soon find out that hard work alone will not be enough to carry them through to success.

One of the most critical transformations a new business can go through is getting systems and processes set up as quickly as possible to repeat and let them grow the company efficiently. It's the old adage: "Work smarter, not harder." But for the creative minds in our industry, this regimented process-driven approach is not always natural to them.

If that's the case for you, or even if you don't have that natural aversion to process, taking the time to build, implement, then review and update your business's processes is key. Though it may feel like you are wasting time by working *on* the business, instead of grinding away all the time, carve out at least 15% of your time to work on things like processes and workflow. Let's talk about what goes into that.

TOUCHPOINTS TO STREAMLINE

You as a business would consider your production workflow as the many steps that happen from the time you take the order until a finished product is delivered. Each company





has a unique workflow and process. A workflow is all of the touchpoints the order goes through until it is delivered to the customer. You want to reduce these touchpoints and make them more streamlined to maximize your efficiency. The main categories of most garment and personalized product businesses are:

- **Order Entry** – Getting all the specifics you need from the customer and passing them clearly to the production team.
- **Pre-Press** – Any artwork manipulation like color separations, digitizing, or other work to ready the job for the production floor.
- **Purchasing** – Having the correct blanks for the job and purchasing them in the most efficient way to maximize cash flow and profit, plus having the right products on hand at the right time.
- **Receiving** – Bringing in items from outside sources, staging them for production, and dealing with any incoming blanks that arrive damaged, wrong, or missing.
- **Production** – The money-making area. When you convert a blank product into something more valuable that the customer will love in exchange for the money.
- **Quality Control/Packaging** – Ensure the products leaving production are up to your company standards and get them ready to wow your customers.
- **Shipping/Delivery** – The logistic side of getting the items into your customer's hands and working with shipping companies or mapping out delivery routes and schedules.

OVAL NAMEPLATES

**ARE JUST A FEW OF THE MANY STYLES
OF NAMEPLATES WE OFFER**

*Available in various materials - .020", .032", .050", .0625" Gold Satin/Bright
Engraver's Brass and .025", .050" Nickel Silver Satin/Bright*



*Check out our Ornamental Nameplates, Circles, Plaque
Plates, Saddle & Stall Plates - Rectangular and Ornate
Many Sizes - Available with or without holes to your Specs
Fusion Welded Name Badges - Military Clutches & Pins
Identification Tags - Medical, Pet & Inventory*



**ENGRAVING
SPECIALTIES**

630 S. Nine Mound Rd.
Verona, WI 53593

Call 1-800-343-5750

For Your Free Catalog

engspec@tds.net
www.engravingspecialties.net



Regardless of how many people you have at your company, or even if it is just you, clearly defining each of these areas and looking for ways to automate, delegate, or improve will pay dividends for your company's overall profitability. The cost of payroll for many companies can be 30% or more of gross revenue. And even if it is only you, you don't want to work for free. Otherwise, you have a hobby, and this is not the right article for you.

3 TIPS FOR SUCCESS

If you are interested in improving your workflow and processes, you have some work to do, but it is not overwhelming. Just the act of reviewing and documenting your processes will make substantial improvements in your efficiency. The bigger picture requires some focused time; set aside that 15% to exhaustively document, make improvements, and implement systems. Following, I share a couple of tips. Should you want more, I'm always happy to help — just reach out.

Tip No. 1: Observe and document. The first step is to gather all the information and data. It doesn't have to be pretty, clean,

or organized. I like to use sticky notes and a big blank wall to get started. This is also a great time to include others who might be involved with any of the processes.

Tip No. 2: Get organized. Creativity and organization don't always go hand in hand, so make it a point to get organized and have a way to stay organized. If you are not organized, it will become more challenging to keep up as your business grows. Your business will become a jail that you are locked up in trying to get the job done, all while searching for that "thing" you need. I suggest organizing your production facility at least annually. The little things do matter. Can you move the scissors to a different place, buy an extra pair, and tie them to your workbench?

Tip No. 3: Think about your digital organization, not just your physical space. Are you constantly recreating things? Do you have a system for creating mock-ups? Are you storing too many big files on your computer, slowing it down? Do you have trouble finding things when going from one workstation to another? Do you miss emails or have to scroll and scroll to find emails?



As your business grows, the processes will change, so keep up with this routine. You will find the more documented systems you have in your business, regardless of your size, the more growth opportunities will come your way.

By letting the business system “decide” the menial tasks that need doing, you will be freed up to tackle the more challenging areas your business needs your focus on. If you desire to be a profitable business, with either one employee or hundreds, you *must* have efficient processes and systems in place to keep the daily operations running smoothly. **GP**

AARON MONTGOMERY is certified by New York Times best-selling author Jack Canfield as a Success Principles Trainer and is the Co-Founder of OurSuccessGroup.com. Aaron has over 25 years of experience with personalized products and small business development and is the Co-Creator of the “5 Keys of Business Success.” You can also find Aaron co-hosting the decorator’s industry podcast 2 Regular Guys Podcast (www.2regularguys.com). Check him out on his own podcast channel called Small Business Saturdays (smallbusinessaturdayspodcast.com).

I always start with a file folder and naming system — it makes a world of difference. Then look at a cloud-based file syncing system like Google Drive, Dropbox, OneDrive, or any others that might work for you. Lastly, email is the best tool a business owner can use to find opportunities, coordinate communication, and focus on work, not be a slave to some messenger system. Too many people have thousands of unread emails from too much junk or not managing their inbox. I could write an entire column or two about inbox zero, but until then, *clean it up!*



ON YOUR WAY

With those starting points, you are on your way. From there, it’s time to implement your system. Do the work to document it, test it, break it, improve it, and do it again.

trotec

Invest in Something Better

The fastest and most productive laser engraving machines on the market

 Trotec Laser USA
 Trotec Laser USA

troteclaser.com
engraving-supplies.com

/ SETTING NEW STANDARDS



Seen here is a nice combo of high-quality abrasive etching and gold color-fill. (Image courtesy CrystalEdge)



Shop Floor Layout Considerations for Abrasive Etching Glass or Crystal



BY BARRY SLEE

Abrasive etching — more commonly known as sandblasting or sand-carving — is a process that requires some careful thought when planning your shop floor layout. Before you can do this, it's important to understand the basics of the actual process, and be familiar with each of the steps required before and after the actual etching process.

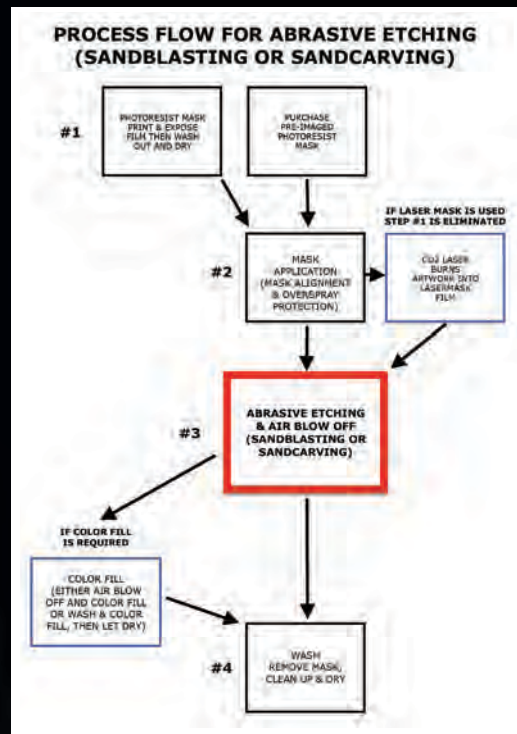
SOME BASICS

The abrasive etching process uses either an aluminum oxide or silicone carbide grit that is sprayed under pressure to physically remove a layer(s) of (usually) glass or crystal from its surface. For the trophy and award market, a photoresist mask or laser mask is applied to the surface of the substrate prior to abrasive

etching, and it is then removed after the etching has been done.

Photoresist masks are used for flat, curved, convex, or concave surfaces. This type of mask provides excellent detail with crisp lines. Laser masks are normally used for flat surfaces, with the mask artwork being burned by the laser after the mask has been applied. Laser masks do not have

Figure 1.
(Chart courtesy
Barry Slee)



quite as crisp lines as a photoresist mask does, but they eliminate the develop and washout steps. Over the past few years, laser masks have become popular due to many shops already using CO₂ lasers.

In simple terms, the abrasive etching process involves four basic steps. If color-fill is required after etching, one more step is needed. When a laser mask is used, it requires another step, but eliminates the step of having to produce a photoresist mask. Overall, we have either four or five processes to plan for. These steps are shown in Figure 1.

BEFORE YOU BEGIN ...

We will address each of these processes in more detail later in this article, but first we need to bring into play the single most important question in the planning process. How many awards are you planning to etch and ship on average, each day? 10 pieces a day? 100? 1,000?

During my 30 years in the glass and crystal award industry, I visited and toured hundreds of facilities that utilize abrasive etching. These visits have included small mom-and-pop shops, medium-sized shops, and several large-scale facilities capable of etching and shipping well over 1,000 pieces every day.

A thousand pieces during an eight-hour day is one piece every 2.1 minutes, or 125 pieces every hour. Experience has shown that up to approximately 100 pieces a day can be handled in batches and moved through the production steps manually, but when you start to exceed this, a well-thought-out production line with a continuous or cellular flow should be considered.

At 1,000 or more pieces a day, the process steps need to be interconnected with conveyers and baskets so that material flow is smooth, consistent, and not interrupted. It also requires premium-level industrial equipment that is reliable and

can be automated as much as possible. These large abrasive etching operations cannot afford downtime due to equipment failures.

The majority of smaller and medium-sized trophy and award shops I have visited process on average between 10 and 50 pieces a day. These shops make up about 80% of trophy and awards businesses. The other 20% are the larger operations, which process about 80% of the overall abrasive etched industry volume. The largest of these operations have well-thought-out process flows with excellent material handling.

I am not focusing on these large producers. This article targets the smaller trophy and award shops that make up the 80% of businesses in our industry, and for any shop planning to add abrasive etching for the first time, these tips will help.

WHAT YOU NEED

It is important to understand some of the advantages (and disadvantages) of the abrasive etching process itself and the equipment that is available. The equipment on the market today has come a long way from when I entered the industry back in the early 1990's.

Equipment is now considerably quieter, more efficient, and significantly cleaner, as the units are much better sealed and self-contained. Having said this, glass dust particulate created by the abrasive

RAYZIST
Photomask, Inc. ©

3 Easy Steps



SR3000™ Self Stick
Photoresist Film



Automatic Washout
Systems



Sandcarving Systems

800-729-9478
www.Rayzist.com



Laser masks are normally used for flat surfaces. Laser masks do not have quite as crisp lines as a photoresist mask does, but they eliminate the develop and washout steps. They've become popular due to many shops already using CO₂ lasers. (Image courtesy Trotec Laser)



Photoresist masks are used for flat, curved, convex, or concave surfaces. (Image courtesy IKONICS Imaging)

etching process is extremely fine, and it is difficult to always contain it totally within the etching chamber. Abrasive grit is easier to contain as this particulate is larger and is recycled, but it still has a habit of occasionally escaping.

The problem is that any minor amount of glass dust or abrasive grit that settles on any work surfaces is the enemy and will easily scratch glass and crystal. I recommend that whenever possible, keep abrasive etching away from other processes. My suggestion is to purchase the best equipment (and definitely the best sealed) that you can afford. As we all know, you get what you pay for, so compare equipment carefully and invest wisely.

When compared to the cost of purchasing a new laser or UV printer, abrasive etching equipment is still a relatively low-cost capital equipment purchase, with small benchtop versions starting around \$3,000 to top-of-the-line units at \$10,000-plus. Do your homework and buy the best and cleanest equipment you can afford.

If possible, I recommend that abrasive etching equipment be installed in a separate room to contain any glass dust particulate and abrasive grit within the room. I have seen some messy abrasive etching rooms with glass dust and abrasive grit everywhere, but at least it's contained.

Ideally the room should also have some external ventilation and filtration. Any surface glass dust or residue on etched pieces can also be blown off with compressed air inside the room before they are taken outside the room to be unmasked and cleaned up. This helps prevent glass dust or abrasive grit getting into the rest of your shop.

Some of the top abrasive etching units have compressed air blow-off nozzles that are located inside the blasting chamber, which is a plus. If a separate room is not possible, try to locate abrasive etching equipment in a remote corner away from your main assembly activities.



The mask application process is dry and only requires a clean work bench. It is essential to have good lighting as this helps with accurate mask alignment, especially on curved or convex surfaces. (Images courtesy St. Regis Group)

OTHER PROCESSES

Having addressed some of the concerns and recommendations relative to the abrasive etching process, we now turn to the other processes involved. With the exception of mask application and laser mask creation, these processes can be combined into a single area as they are all wet processes requiring water.

Photoresist masks require a warm water spray washout. The removal of the photoresist mask and clean up after abrasive etching also requires a spray wash. If color-fill is required, some people prefer to remove the mask and wash and dry, then color-fill; others prefer to leave the photoresist mask on and color-fill after an air blow off, then wash and remove the mask and clean up any color-fill overspill as the final operation.

All of these steps require warm water and wash/spray equipment. In smaller shops, these stages can all be performed in a combination wash/spray station, but for larger shops, it's advisable to install dedicated stations and specialized washout and drying equipment.

The mask application process is dry and only requires a clean work bench. It is essential to have good lighting as this helps with accurate mask alignment, especially on curved or convex surfaces.

Abrasive etching using photoresist masks is a process that is capable of producing exquisite detail on glass and crystal that other processes cannot achieve. It is a process that has been around for many decades and has been refined and continually improved. To-

day's equipment choices are the best they've ever been.

The introduction and expanded use of laser masks has added another excellent dimension to abrasive etching. For those of you that already have a CO₂ laser, the use of laser masks on flat glass eliminates several steps and overall is a much faster process. **GP**

BARRY SLEE has spent almost 30 years in the award and recognition industry. As the founder of the Slee Corporation and its CrystalEdge brand, his innovative award-winning product designs have led the industry. Barry is an expert in glass and crystal design and manufacturing, and he is a regular contributor of articles and educational content to the industry.

Premium Awards & Gifts

Visit our website
www.prismcrystal.com

Or contact us at
(800) 528-8388 • info@prismcrystal.com

PRISM[®]
crystal





MAKING SUBLIMATION MOVES WITH SOFTWARE

REAL-LIFE EXAMPLES OF WHY SOFTWARE IS CRUCIAL TO EFFICIENT BUSINESS PRACTICES

Many people over the past 15-plus years have discovered the sublimation process and started a business focused on it. I personally started 18 years ago — the first process we offered in-house was sublimation when most had no clue what it was. As you learn the process of sublimation, you also learn the process of running and growing a business. This is where having software can really be a game changer for any size business.

FROM THE BEGINNING

Back when we first started our company from our home, we had no clue what the plan was or the true potential for growth in our line of work. It was a hobby that quickly turned into a legitimate business being taken seriously within two years as word caught on in our area to what we produced.

It all started from a 14' X 14' spare room in our home, which is not much space. Between my wife Amanda and I, along with my father-in-law Clayton helping, we all worked full-time jobs and kept the sublimation orders going. Back then the only software I used was Adobe Photoshop, Illustrator, and QuickBooks. I did all of the artwork in my graphic design software along with writing up how-to packets. We used QuickBooks to pay bills, invoice customers, and it allowed me to track our sales and overall numbers for our business.

After the first three years, we purchased more equipment and took on a 12' X 12' office space we had out back of our house. We realized we were running out of room, but the equipment was not the main reason we knew this. It was using the QuickBooks software that allowed us to track our monthly and yearly sales trends, and allowed us to create our projection of what next year's sales could be. Thanks to the software and our customers, we knew it was time to get our company out of our home, and that is just what we did.

THE CHECKLIST

We went from our home to an actual business plaza with 700 square feet with potential to expand. We kept the same format using our graphics software and QuickBooks. The only thing I did differently was make production lineups by hand for the next three years, which wasn't bad until the seventh year in business and we had five to six staff members, product coming in daily, as well as rush orders.

By the time my wife left her full-time job to come on board, I was going in at 3 a.m. to handle lineups and quoting customers before the crew came in. My wife was not happy with that and did some

ORDER FORM REQUEST SHEET-1.pdf Open with Preview

AP & MASTER IMAGES ORDER FORM REQUEST

ONLINE FORM PAPER FORM BOTH

Form Completion Date: _____ Contact Person (if any): _____
 Customer/Group Name: _____ Contact Phone: _____
 Payments Payable: _____ Contact Address: _____
 Turn In Date (if any): _____ Tax (if any): _____

Description	Item #	Color(s)	Imprint Type	Location	Cost	Price
			SP/EMB/VIN RHINE/SUB			
			SP/EMB/VIN RHINE/SUB			
			SP/EMB/VIN RHINE/SUB			
			SP/EMB/VIN RHINE/SUB			
			SP/EMB/VIN RHINE/SUB			
			SP/EMB/VIN RHINE/SUB			
			SP/EMB/VIN RHINE/SUB			
			SP/EMB/VIN RHINE/SUB			
			SP/EMB/VIN RHINE/SUB			

CUSTOMIZATION OPTIONS

Item	Type of Customization	Color(s)	Location	Price (if any)

Our old paper form we filled out to set up orders for bulk school jobs, etc. (All images courtesy Howard Potter)

research. She found a scheduling software online called Keep and Share, which allowed us to scan our orders in and upload them to the calendar daily. Later that night or the next morning, I could move the jobs digitally for each employee, so they knew what order to run first.

Then she had me create the math formula I used to quote customers; she used Microsoft Excel to create pricing grids and created digital order forms with the same program that allowed us to stop handwriting orders. We could save the orders and look them up, so she could start helping me quote and write up orders faster. You punch in the cost of the item, quantity, and amount of locations, and the cost per unit is generated in seconds. This was a massive help and gave me more time at home with my family.

By year 10, we were creating a ton of paper order forms for customers, which was a huge pain since we had to design and print the copies, then when they came back, we had to tally them all. My wife researched an online software for us to create online stores for our customers, which cost around \$200 per month.

That was a small monthly investment to make since it made ordering easier, and customers could pay with a credit card right away along with not wasting the time or money to print every order form. They could share the store link on social media, which gave us free advertising and more orders faster since online stores can be shared quickly.

We also purchased our 5,500-square-foot building in year 10 that we are in still today. Before we made the purchase, though, I had to make sure the building was the right fit for our equipment and workflow, so I got a copy of the floor plans, measured our equipment, and created a rough drawing in Illustrator to build a roadmap as to how everything would work in our building beforehand.

From there, I went to the actual building and used masking tape to mark everything out to doublecheck my math. Just using my

24 Oriskany Blvd.
Yorkville, N.Y. 13495
Phone: (315) 793-1934
Fax: (315) 736-3170

A&P MASTER IMAGES

Sub Total: _____
2X, 3X, 4X, 5X, 6X Charges: _____
Clothing Sales Tax (4.75%) _____
Non Clothing Sales Tax (8.75%) _____
Total: _____
Pre Paid Amount: _____
Amount Left Due: _____

PO#: _____
Name: _____ Completion Date: _____
Date: _____ Email: _____
Phone: _____

Qty	Item #	Description	Color	XS	S	M	L	XL	2X	3X	4X	5X	6X	Per Piece Price

Type Of Imprinting: _____
Location of Text / Artwork: _____
Layout: _____

Number Of Imprint Locations: _____
Imprint PMS Color(s): _____

Sales Rep
 Howard
 Amanda
 Sean
 Vinny
 Brenda

Designer
 Sean
 Vinny
 Ariel
 Brenda

Comments: _____

By signing this contract you are attesting to have read, understood, and approved all art work; that you are required to pay half down of the total amount due unless otherwise stated below and if you are late in paying your account there will be a twenty-five dollar fee assessed for every five business days your account is not paid in full. Any supplied apparel given to A&P Master Images is not warranted and A&P Master Images cannot be held legally responsible in any way for incorrect information on this form and reserves all rights to any and all artwork it produces.

Signature: _____

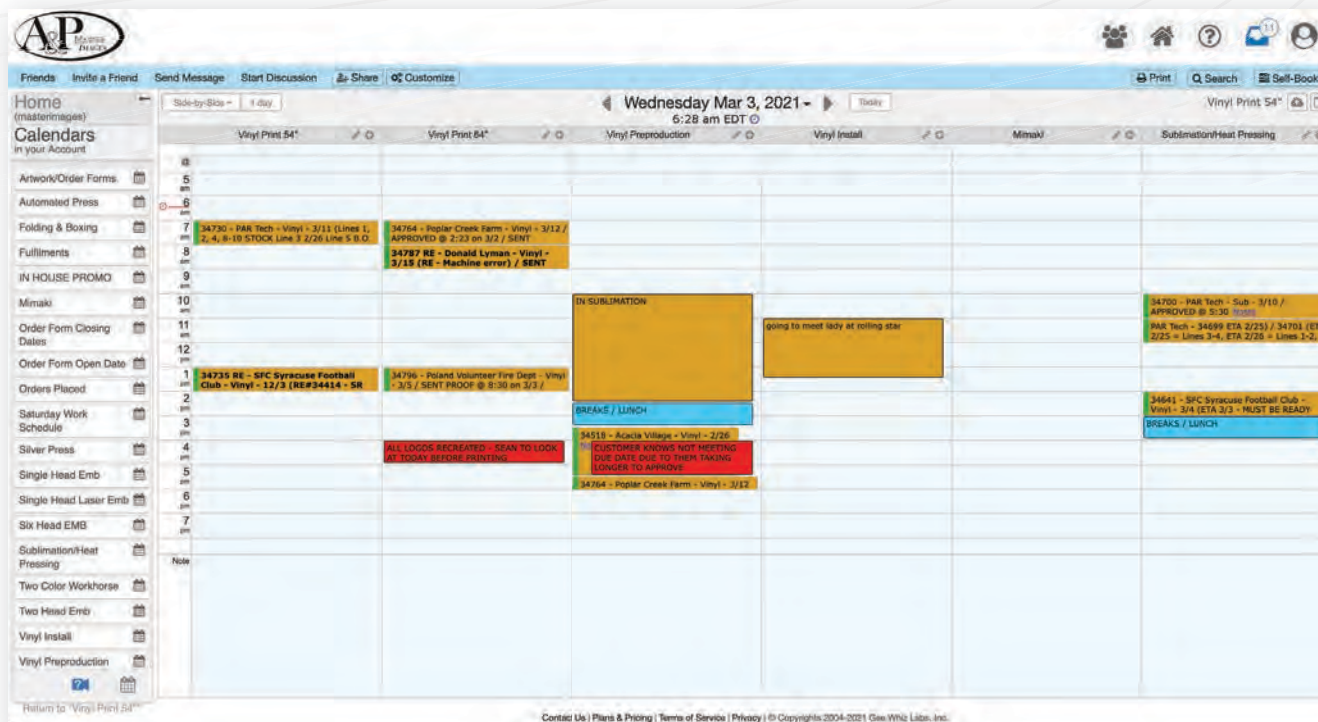
The old Excel form we used to type up orders.

graphic design software helped me problem solve and know ahead of time that within a year or so we could outgrow the building, but we still had an acre of land to keep expanding on.

By the time we moved in on Feb. 1, 2014, we were up to 13 staff and more production, customer service, boxing orders, deliveries, and more. We kept using the same software for the first four years. During that time, we added an app to our phones called Slack, which allowed all of the staff to communicate about work. We had one that would tell us our replacement or add-on orders right away and another to let us know when the calendar was all loaded, so I could start booking the jobs that came in that day.

Around our 14th year in business, we started to realize with all of the moving parts and all the software programs, we were losing time bouncing screen to screen to do simple tasks, costing us valuable time. My wife and I researched business production software for our line of work, but most did not handle everything we needed it to or all of the processes we offered. So, we decided

MAKING SUBLIMATION MOVES



This is what Keep and Share looks like. We used this to scan our orders in and upload them to the calendar daily.

to have our own software created. We are now in year four of our software and it is amazing!

These things I am about to tell you seem small, but when in action, speed you up. We can:

- Write up a quote or an order
- Tell our team where to order the product from
- Look up old orders or products sold
- Follow our sales stats
- Watch our error rate
- Know how much work is in process with and without half down payments
- Write up add-on or replacement orders faster as needed
- Track orders for where they stand
- Pack out orders and print labels
- Have a built-in production schedule with it, so all staff are only using one software

It also allows us to order product with it by hitting a button. It logs in to order the product, and our shipping/receiving team checks all orders in with it to create more live up-to-date info per order.

IMPROVEMENTS

I know I just gave you the basic run-down of our company's software history, but no one taught us or told us to look for these programs.

Each one made our lives easier and more profitable every step of the way.

You need to learn sooner rather than later to do as much as possible with the least amount of people to control your profits much better than before to stay competitive in the sublimation market. Software is there to reduce error and maximize output, but it only works if you invest in it and use it to its fullest. It's no different than learning how to use your printer or heat press when producing sublimation.

Never be afraid of change when you use your software to improve your sublimation production, which only helps you improve your profit margins!

HOWARD POTTER has been working in the promotional industry for 17 years, from designing to building brands and a family-owned business. He is the co-owner and CEO of A&P Master Images LLC with his wife Amanda. Their company offers graphic design, screen printing, embroidery, sublimation, vinyl graphics, and promotional items. Howard, his family, and the business reside in Utica, New York. For more information, please visit masteryourimage.com.

Dashboard

On-Page Help

Overview

OPEN ORDERS

\$40,683.54

732 open orders

[View Orders >](#)

OPEN PROPOSALS

\$0.00

0 open proposals

[View Proposals >](#)

SCHEDULED JOBS

0

0 due within 7 days

[View Job Calendar >](#)

- Sales & Marketing Tips
- Release Updates
- Submit Feature Request
- System Messages
- Design Resources

New Proposal

New Contact

New PO

View Reports

Web Stores

Active
Select options

Create New Store

STATUS	STORE NAME	TYPE	ACTIVE PRODUCT COUNT	GOAL PROGRESS	END DATE	EDIT
ACTIVE	S:11 Blank Apparel - 33368	Store	3			
ACTIVE	A&P - Custom Tackle Twill Hoodies	Store	15			
ACTIVE	A&P Master Images - STOCK / INVENTORY	Store	36			
ACTIVE	A&P PPE Gear	Store	25			
ACTIVE	A&PMasterImages ▲ 1	Web Store	1309			

Senior Yard Signs - 3...
Dashboard Store Admin Style Editor

Home Products My Account 0

Welcome to our online store for Senior Yard Signs!

Click on a product below to start ordering for your senior! You will be able to upload a picture of your choice and then add your child's name to the notes of your order once you are in checkout.

If you have any questions, please contact us at 315-793-1934.

Mention code 33262.

Add Your Senior's Name!

In checkout, you will be asked for special instructions, please add your child's name there

Proctor Senior Yard Sign
A&P Master Images - In Stock! PROCTOR SENIOR SIGN
\$25.00

Notre Dame Senior Yard Sign
A&P Master Images - In Stock! ND SENIOR SIGN
\$25.00

Whitesboro Senior Yard Sign
A&P Master Images - In Stock! WHITESBORO SENIOR SIGN
\$25.00

We now use InkSoft. Software is there to reduce error and maximize output, but it only works if you invest in it and use it to its fullest.

GP



SETTING UP YOUR GRAPHIC PROGRAM FOR LASERING WITH CORELDRAW

Many lasers are designed to be used with almost any software application that allows you to print text or graphics to it. Most professional laser operators use a vector graphics program as you can lay out and edit text, bitmap art (row of pixels), and vector art (object oriented). Vector art software makes it fast and easy to lay out your text and graphics, as well as draw new artwork in color or black and white.

They typically contain tools to turn bitmap art into vector art objects, which allows for quicker, more precise editing. I highly recommend purchasing and learning a vector art program for your lasering projects.

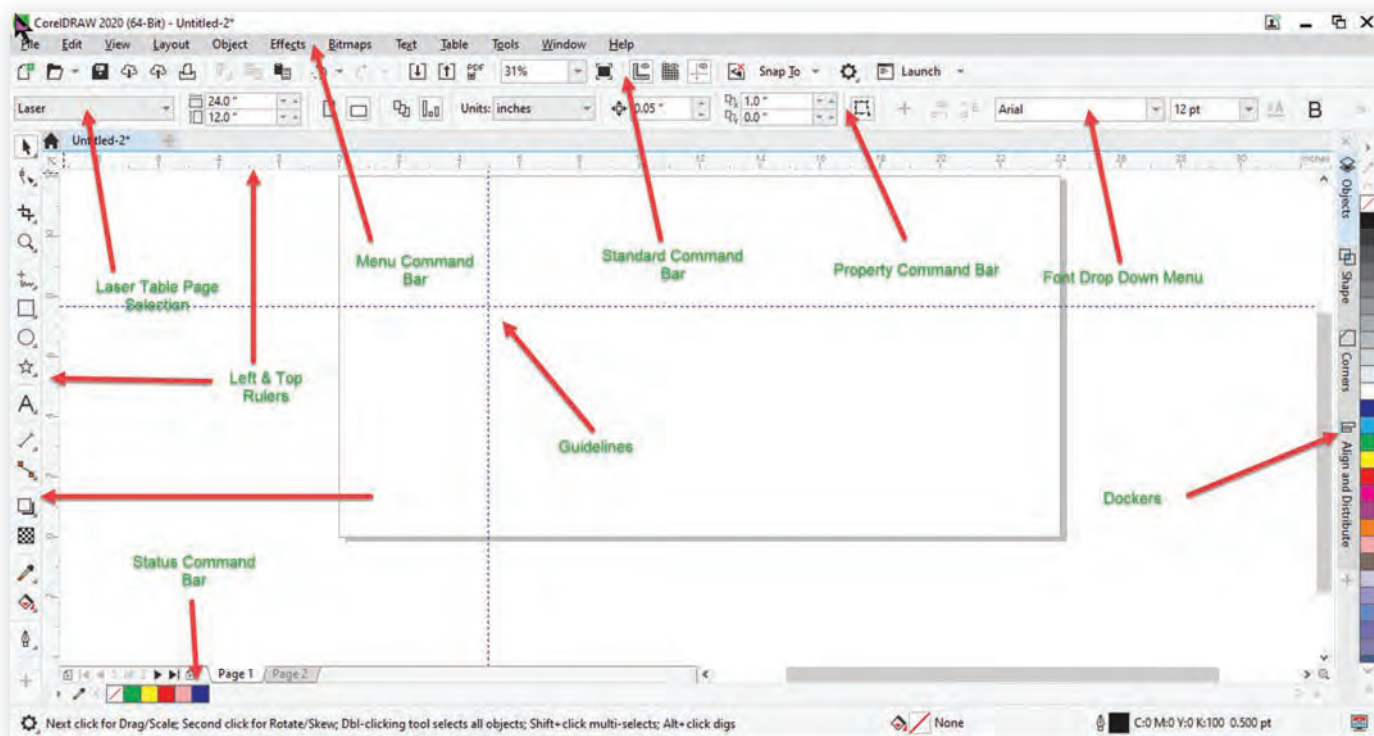
If you are new to engraving or setting up a vector graphics program for the first time for laser engraving, here is some insight into a few key items you will want to consider. Many laser engravers use CorelDRAW; however, much of this advice applies if you use Adobe Illustrator, Affinity Designer, or another program. I use CorelDRAW 2020 for this article.

THE BASICS

The page size you set up for your laser job should match the size of the product you are lasering. In your software, you may want to have presets for the most common items you will engrave.

To begin with, set up a page size of your laser table. If you are engraving multiple items at the same time, lay them out on your table so your page size represents the entire table available to you. Sheet goods such as metal, wood, or plastic sheet may come in your table size or can be cut to fit your laser table.

In CorelDRAW, on your top menu, go to Layout>Document Options and select Page Size. In the dropdown menu, select Custom and put in the page size you want to save. Press the SAVE icon and you will be asked to name the page size. You may want to save all of the most common object sizes you engrave. This page size will now be available on the



My typical page layout with a page size equal to my table size. To the left, I had a very small Command Bar with the two distribute commands I used most often. (All images courtesy Bob Hagel)



QUALITY FROM START TO FINISH

When you buy Rowmark products you never have to worry about quality. As the only engravable sheet manufacturer that makes ALL of the components of our products, you'll get consistent sheets from job to job and year to year.

Visit rowmark.com to locate your Authorized Rowmark Distributor.



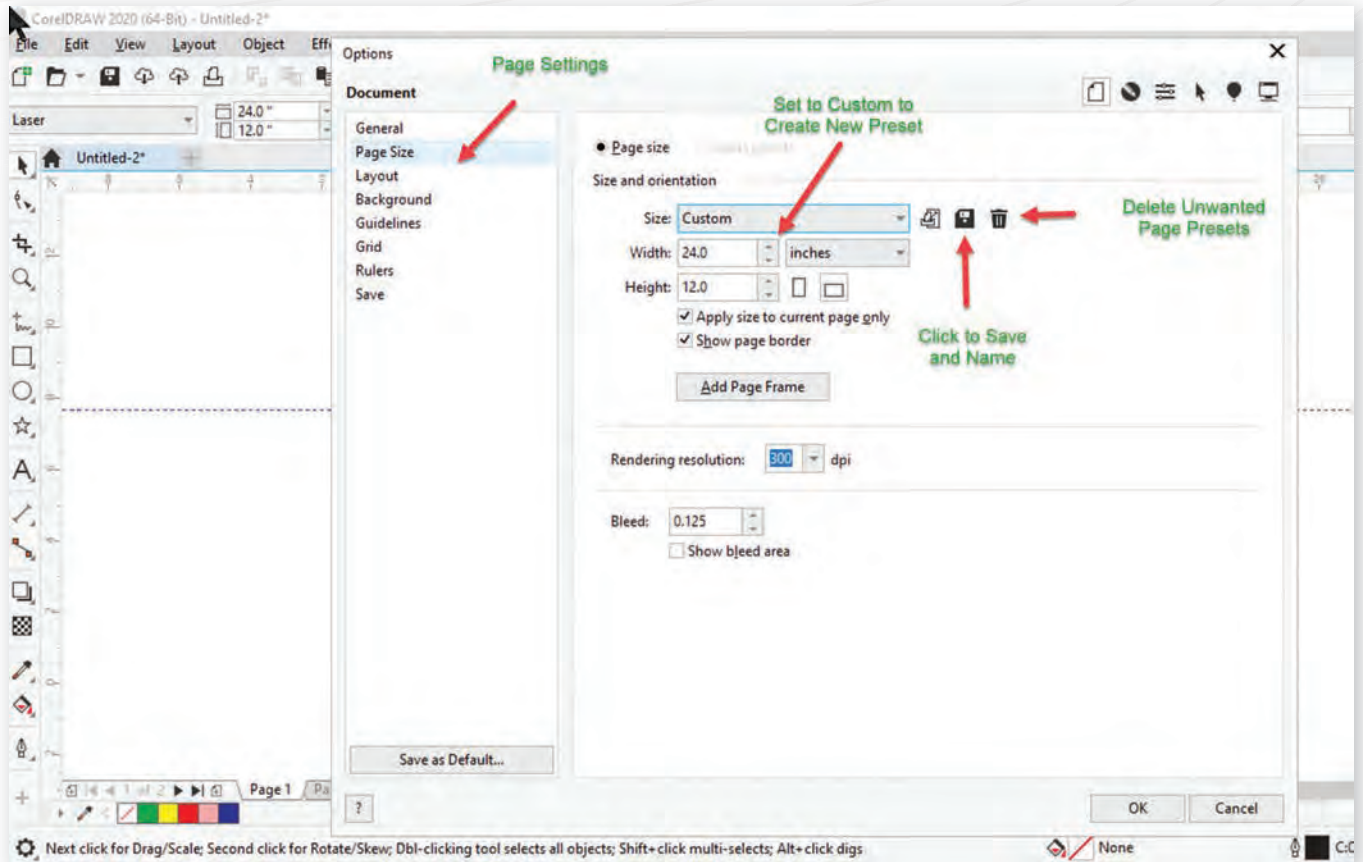
321-204 ADA
Bright White

RW1224-125MAH
Hardwood Collection
Mahogany

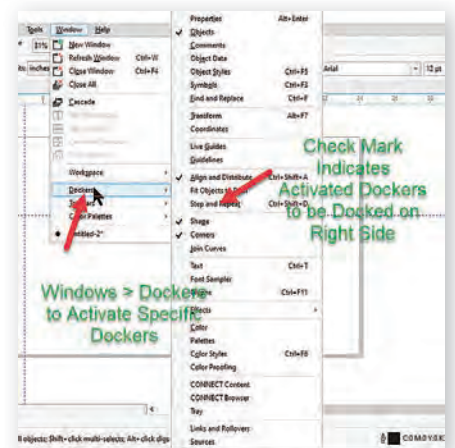
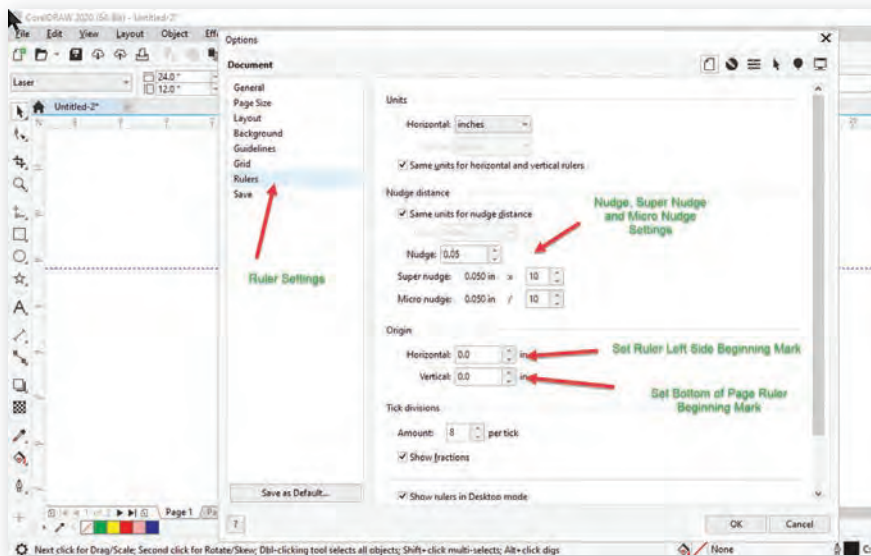
341-502 ADA
Marine Blue

Featuring ADA Alternative: Available in 48 popular colors and a variety of thicknesses, including our exclusive 1/4" thick material. This line was designed specifically to comply with Americans with Disabilities Act signage regulations.

YOUR LASER AT WORK



Above: Add custom pages and delete unneeded page sizes. **Right:** See which dockers are open and activated. **Below:** Set up your rulers and arrow key nudging. Note that rulers sometimes seem to reorient themselves on their own and need to be reset.



pull-down menu on your Page menu bar in the upper left of your screen.

You will notice a large number of preset page sizes, many of which you will never use. You may delete them on the same Document Options page where you created a new page size. You have full control over what you see in the pull-down menu.

Next, set up your software program to work with your laser. There may be settings that your manufacturer wants you to use for a better lasering experience. This information may come in written form with your laser, or call the technical support line to ask a tech. I had changes I had to make to my color management settings for proper lasering. If your laser won't fire from the onset or some things don't laser, this may be the culprit.

The basic layout of the CorelDRAW page is your Toolbars on the left, Command Bars (menus) on the top, Dockers on the right, and Status Bar is on the bottom. You may have more than one Menu Bar open on the top. Go to Tools>Options>Customization and select Command Bars. There are many to select from. If they have a check next to them, they are open on your page.

You can create new ones and place a customized group of commands on each new bar. They can be turned on and off quicker from Window>Toolbars by selecting one without a check mark to turn it on and the opposite to turn it off. Don't turn off your Menu Bar as it will be difficult to get to these functions again.

The second menu down is your Standard Bar followed by the Property Bar. I leave these three on. The Status Bar is at the bottom of the page — I leave this on as well. You can add to or delete commands from any Command Bar to customize it. Command Bars can also float and be taken out of their prone position on the page.

RULERS AND GUIDELINES

I like to have rulers both along the X-axis (along the top) and Y-axis (on the left side). Rulers help with object and text placement and creating space between objects. To set up your rulers, go to Layout>Page Layout and select Rulers.

You will notice settings for Origin, Vertical, and Horizontal. This sets the "0" position for each ruler. I set them both to "0" so the ruler begins on the upper left for horizontal (X) and lower left for vertical (Y). Regardless of the page size you select, the ruler orientation will stay the same.

You can turn your rulers off and on quicker by going to View and clicking on Rulers. If it is checked, they are on.

Also from this menu, you can turn your Guidelines on and off. Guidelines can be added to any place on your page you want them by left clicking on a ruler and holding and dragging the guideline to where

you want it. Guidelines help with precise alignment of text paragraphs and graphics. Guidelines can be rotated by selecting the guideline and adding degrees in the box that appears above. Note that there are also two other guidelines that can be turned on and off from the View Menu.

Alignment guides are temporary guidelines that appear when you create, resize, or move objects in relation to other nearby objects. You can display dynamic guides to help you precisely move, align, and draw objects in relation to other objects. Dynamic guides are temporary guidelines that you can pull from the following snap points in objects — center, node, quadrant, and text baseline.

I do not use a grid, which can be turned on from the View Menu. I find a grid far too busy to focus on my layout. If really needed, you can turn it on to align an object then turn it off again.



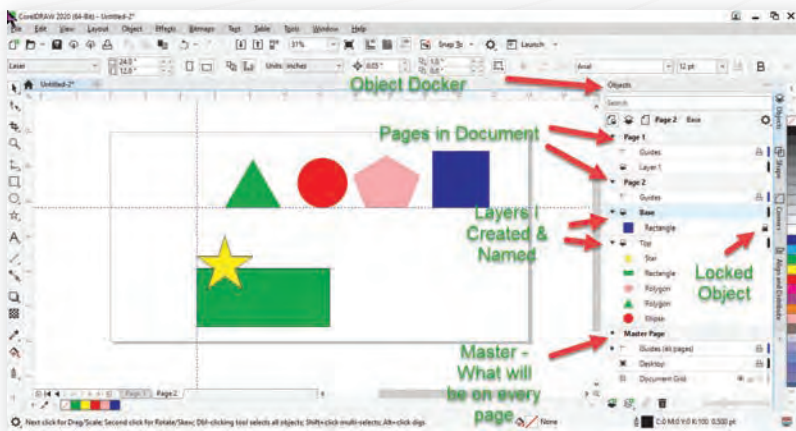
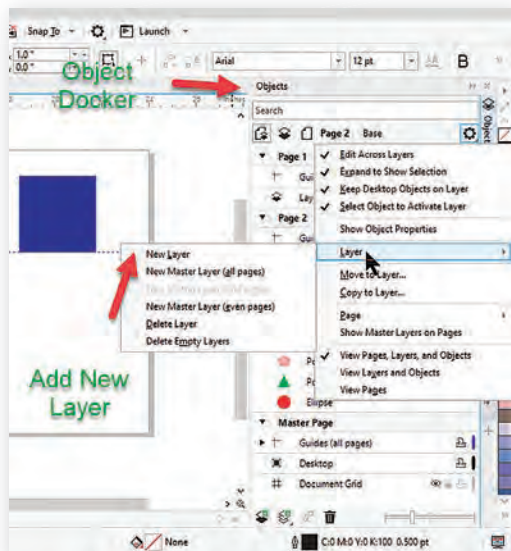
RADIAN™
LASER SYSTEMS

**THE FUTURE OF
LASER ENGRAVING**

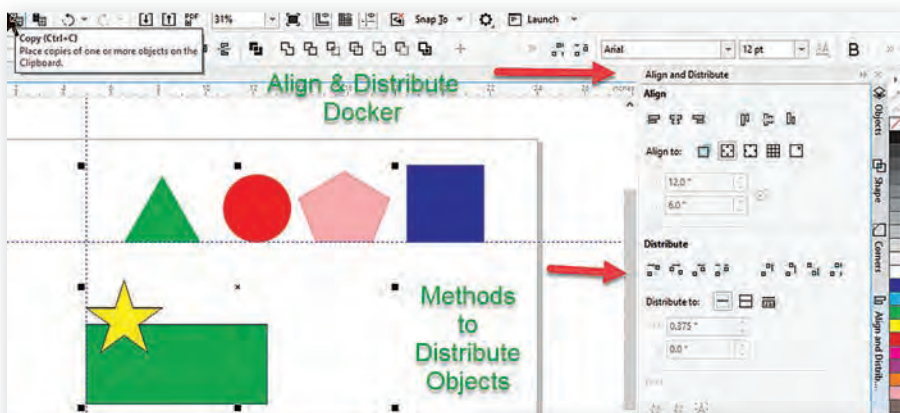
FAST & PRECISE 3D FEATURES
CO2 / FIBER GALVO AND FLATBED SYSTEMS
SPECIALIZING IN PERFORMANCE ENHANCING ACCESSORIES

www.radianlaser.com | sales@radianlaser.com

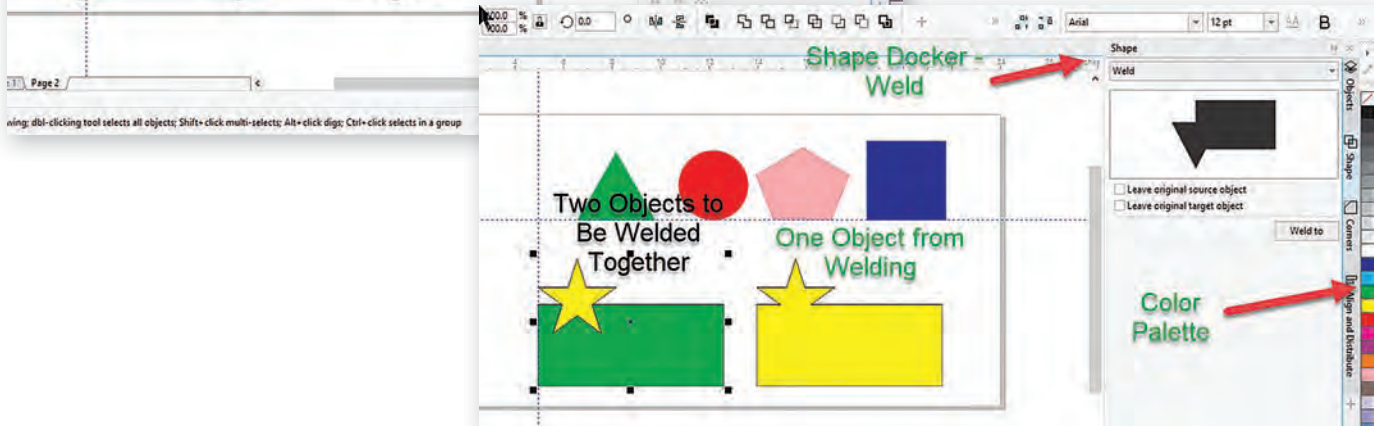
YOUR LASER AT WORK



Left: The Object docker helps you organize everything in your document. This shows you how to add a new layer on a page, a great way to isolate objects in a complex drawing. **Above:** You can name pages and layers, and lock objects so they cannot be moved or edited. Your Master Page can contain anything you want to display on every page in the document such as specific guidelines. Drag and drop anything from one page to another including your Master Page. Objects can also be moved between layers.



Left: The Align and Distribute docker gives you all the commands you need to align and distribute objects, paragraphs, and individual text elements anywhere on the page you want. It's quick and easy.



Below: The Shapes docker is essential if you work with vector objects, such as vector logos, or even draw your own graphics. Vector art is powerful, providing crisp and high-resolution graphics.

NUDGING AND SNAP TO

Nudging is precisely moving an object or text paragraph with your arrow keys. They can be set up on the same page as the rulers as described above. There is Nudge, which I set to 0.1; Super Nudge I set as times 10, and Micro Nudge I set as divided by 5. These two settings are in relationship to your Nudge setting.

With my settings, Super Nudge (Shift Arrow keys) would be 1" and Micro Nudge (Control Arrow keys) would be 1/100". I use these keys a lot when laying out a project.

Snap To allows you to easily place objects in precise places. You can Snap To other objects, guidelines, a grid, or a place on the page. To turn this function on and off, go to View>Snap To and select how you want Snap To to work.

FONTS

CorelDRAW comes with a great font manager in my opinion. You can use hundreds or thousands of fonts without loading them into Windows and bogging down your PC. Just place the fonts in any folder on your PC and organize them any way that suits you.

CorelDRAW will locate them, and you can manage them from the Corel Font Manager. However, you can quickly access all your fonts from the Font Menu at the top of your screen. Click on the down arrow for the drop-down next to the font name that is listed as "in use." To the right it says, "Clear filter" and below it, check three boxes: Installed (you installed with Corel Font Manager), Not Installed (just in a folder on your PC), and Protected System Fonts (installed in your Windows folder).

By selecting all three boxes, you will see every font displayed on your PC and be able to use them all by just se-

lecting one of them. CorelDRAW lists them in alphabetic order and shows the font name in each of the font's styles.

DOCKERS

I dock the following set of functions in tabs on the right side of my page: Shape, Corners, Text, Objects, Align and Distribute, and occasionally Transform.

Shape allows you to modify vector objects from the shape of another object. For instance, you can weld two or more objects together. You can use one object to cut its shape into another object. This set of tools requires much testing and playing with to learn; however, they are powerful if you are working with a lot of vector art.

Corners simply allows you to quickly cut a variety of corner shapes and sizes into objects. I used this tool to make name badges and plastic or wood engraving plates I laser cut.

Text provides complete control over your paragraphs, sentences, words, and characters. You can set kerning, distance between sentences in paragraphs, and many more characteristics of your text.

Objects lists everything in your document by page. You can create layers for very complex layouts, lock objects so they won't be accidentally moved, and much more.

Align and Distribute gives you complete control over groups of objects and text. You can align them quickly or distribute a group of objects vertically or horizontally, providing equal spacing.

Transform allows you to move objects to specific places on your page.

There are many ways and tools to accomplish the same result. This may be confusing at first; however, you will end up selecting the methods that work best for you. The best attitude to begin your learning is to want to continue it even after 20 years. Even a few minutes of spare

time can be put to good use playing with unfamiliar features of CorelDRAW, Corel Font Manager, or PhotoPAINT. I said many times after playing and learning, "I wish I knew that years ago." **GP**

BOB HAGEL recently retired after owning Eagle's Mark Awards & Signs for 18 years in Southern California. While owning the business, he offered a full line of personalized products using laser engraving, sandcarving, and full-color UV direct print on products. Today, he consults on starting and expanding personalized businesses, and on improving production efficiency and quality. He can be reached at rjhagel@verizon.net.

BIG SKY WOODCRAFTERS
of Montana

Your Source for Custom Wood Work

Boot pullers, spur holders, and other unique gifts

Contact us to see what we can do for you!
1.406.628.7914 | Bigskywoodcrafters.com
Sales@Bigskywoodcrafters.com
Fax: 406.628.7915

PRODUCT SPOTLIGHT: SHOP TOOLS

APPAREL DECORATING

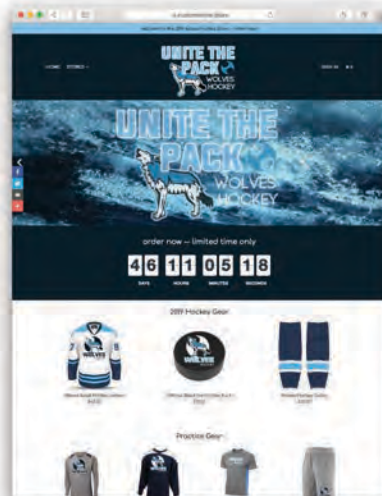


AUTOMATIC SCREEN RECLAIMER

Lawson Screen & Digital Products introduces its Ajax automatic screen reclaimer. The spring-loaded pinch roller drive system automatically adjusts to various frame profiles and sizes. The clear front viewing panel allows easy viewing and access, the company says.

314-382-9300

www.golawson.com



ONLINE PLATFORM

InkSoft offers its Online Stores Platform, which gives users the ability to

create eCommerce solutions for their businesses or for that of a customer. Features include the ability to edit the design with a few clicks using the visual editor and a mobile-friendly checkout.

800-410-3048

www.inksoft.com



GRAPHICS PRODUCTIVITY TOOL

GraphicsFlow is a cloud-based graphics productivity tool that helps graphics shops manage artwork and art approvals while storing graphics, logos, and art files. It comes with a library of 25,000 keyword searchable and categorized vector-based designs, clip art, and fonts.

800-959-7627

www.graphicsflow.com

Teesom

PRODUCT SOLUTIONS PACKAGES

Teesom announces three new packages for release: a new XXS-Single User option, the XS-2 User option, and the Free Version, enabling business owners in the decorated apparel industry to have product solutions more geared to their current business model.

www.teesom.com

AWARDS & CUSTOMIZATION



COLOR CHARTS

Rowmark introduces new laser and rotary versions of its color charts. These separate charts are designed to allow for larger product samples and item codes. They include brief marketing descriptions for each product as well as ADA alternative/single-ply options on each chart.

www.rowmark.com



ROTARY CHUCK

GCC America offers its Laser-Pro rotary chuck, which is capable of providing various material diameter choices for objects to be engraved. Its

loading weight is up to 4 kg, and it can hold objects tightly and tilt materials up to 45 degrees.

909-718-0248

www.gccworld.com



Bouncing Off The Walls
Cochrane, AB • Canada

Tool: ShopBot PRSalpha 4' x 4'

ShopBot. Your path to profitability.

ShopBot manufactures CNC tools that inspire people to turn their ideas into something tangible. When we see our tools put to work



in constructive ways, it reaffirms our commitment to the mission of making digital fabrication technology readily accessible and usable for everyone.

ShopBot®

888-680-4466 • ShopBotTools.com

We make the tools for making the future.



PRODUCT SPOTLIGHT: SHOP TOOLS

AWARDS & CUSTOMIZATION



SIMPLE TO MAKE AND
HIGHLY PROFITABLE TOO!

STAMP MAKING MATERIALS

Jackson Marking Products offers its Brother Stampcreator Pro system. Users can use their lasers to engrave rubber or plastic stamp dies for mounting on self-inker or wood handle mounts.

800-782-6722

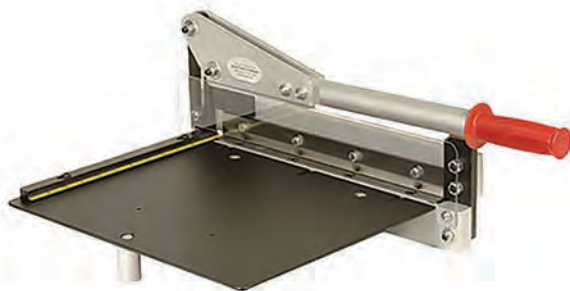
www.rubberstampmaterials.com

SHEAR CUTTERS

Johnson Plastics Plus

offers shear cutters, which allows shops to create unique sizes for aluminum and plastic sheet stock. Shear cutters are capable of processing sublimatable or engravable name badges or trophy plates.

www.jpplus.com



LASER SOFTWARE

Trotec introduces its Ruby software, which offers the ability to create text, photo, and graphic elements. Users can also import a variety of file types without a third-party design software.

866-226-8505

www.troteclaser.com

SIGNAGE & PRINTING



VINYL CUTTING SOFTWARE

Easy Cut Studio announces the availability of drivers for APD, Dika, AM.CO.ZA, Polaris, and EnduraCut Cutters. Key features include supported file formats SVG, PDF, AI, PNG, GSD, WPC, and EPS; drawing tools for creating your own design, plotting layouts, and cut lines; a vectorization tool that generates cut lines from any JPG, PNG, GIF, or bitmap image; and more.

www.easycutstudio.com

SIGNAGE & PRINTING



INDUSTRIAL CLEANING SOLUTION

The Mosaica Group introduces its PowerHouse industrial cleaning solution, which

dissolves grease and ink on contact and can remove old ink spills off flatbed printers with UV lights overhead. It contains no ammonia or bleach, emits no harsh odors, and is suitable for surfaces including vinyl, metal, porcelain, fiberglass, rubber, and some plastics.

800-658-9022

www.printmosaica.com



RIP SOFTWARE

Onyx Graphics introduces ONYX 21.1, the company's newest version of wide-format RIP and print workflow software. The software

builds upon ONYX 21 with a new PDF Soft Proof workflow and Print Label Cut Path functionality. The software also introduces new options for ambient light measurement, custom ICC build options, and a series of new device support options.

800-828-0723

www.onyxgfx.com

GP



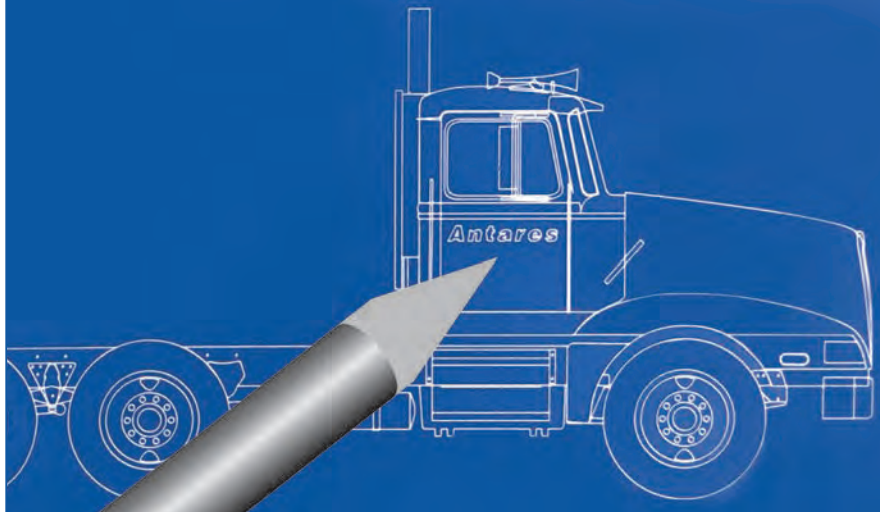
REWINDER/TRIMMER

Supply55 Inc. and NEPATA GmbH introduce the UA770 30" Coreless rewinder/trimmer. The product offers up to 140 5' rewinds per hour, support for coreless or 40mm core rewinds, precision cuts, rewinding and trimming up to 30" widths, automatic label printing, and it eliminates the cost of cores when rewinding media.

www.supply55.com

www.nepata.de

Fine Detail Engraving



Engraving Cutters, Vinyl Blades and Router Tools for all your sign making needs.

Antares, Inc.
Cutting tools for the Engraving and Sign Making Industries

1.800.355.5250

www.antesinc.net

A SUCCESSFUL ORGANIZATION

Laying out a decoration facility for success

BY NATHAN BELZ



It's time to lay out a new decoration facility floor plan — the following key concepts will elevate your business to the next level. These concepts apply to every decoration facility whether you work out of your garage or set up a large production shop. It is crucial that you diligently plan your space. Poor layout planning can be devastating to time, finances, and opportunities, but developing a quality layout can drastically improve many aspects of your business.

PROCESS PRODUCTION

Gathering information is the first step in the process. Before you can begin to physi-

cally set up your production space, identify your company's goals and expectations.

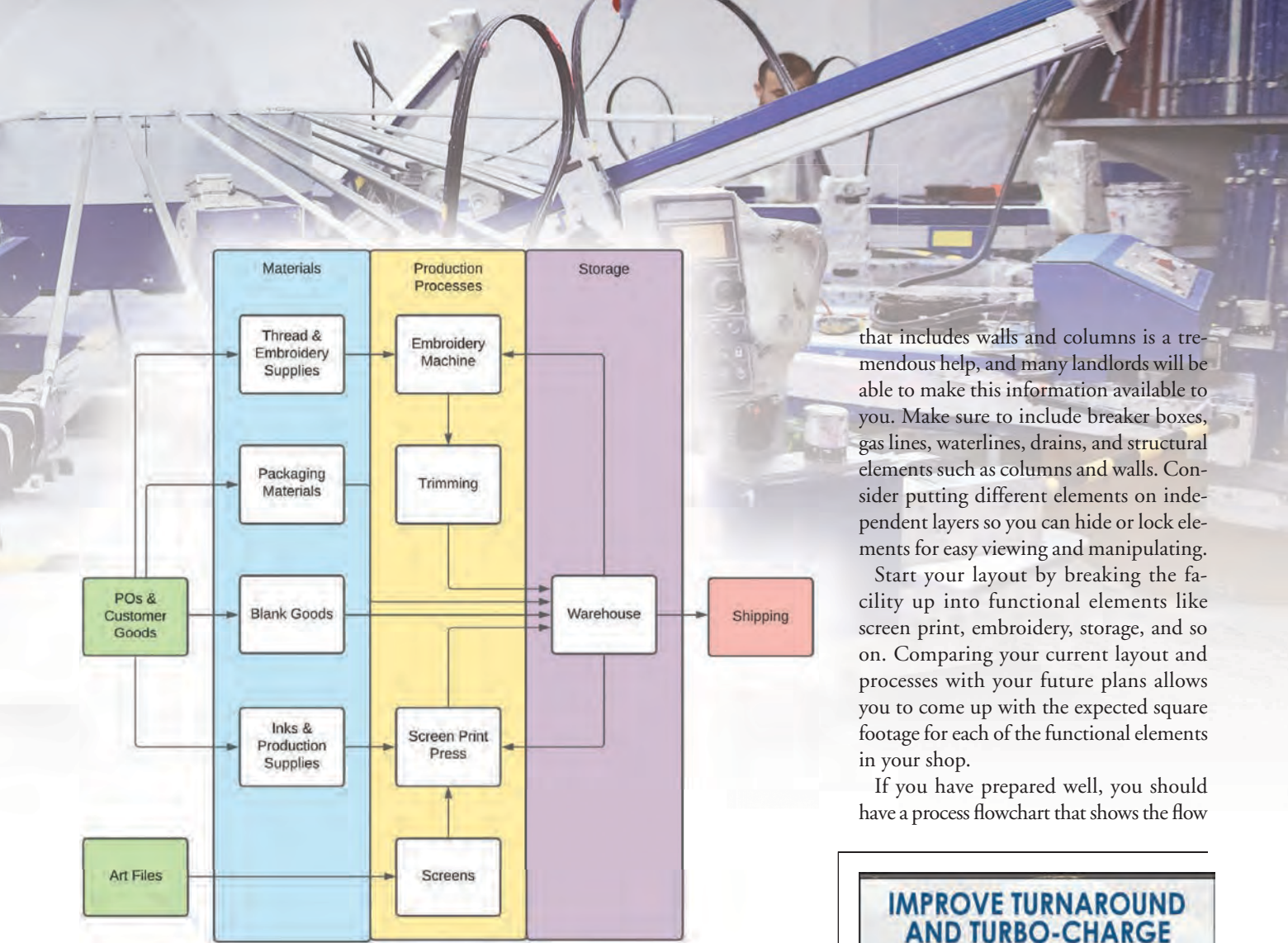
Knowing your future goals ensures you accommodate the necessary space and flexibility when laying out your shop. Your plans may involve adding more automatics with the intention of producing higher-volume runs or adding warehouse shelving to increase your material-handling capabilities. Talking to your vendors and your own team is the best approach to plan for future growth.

Vendors have a wealth of knowledge because they often visit so many decoration facilities and gain intricate knowledge of business processes commonly used in

the industry. We used to have very little organization of jobs that needed to be printed, until one day a vendor told me that some shops set up 10 shelves and organize orders first by the last number of the work order ID. It wasn't something we had considered before, but we implemented it the next day to great benefit. One good idea can make all the difference in your company's future.

Good ideas and ways to avoid layout pitfalls will come from inside your organization if you let them. Open up conversations to employees at all levels. Amazing innovation has been spawned by everyone, from frontline workers to executives.

Physical considerations such as plumbing and electric must be considered in designing your production floor layout. (Image courtesy GPX/Regan Dickinson)



Have a process flowchart that shows the flow of materials throughout your facility. The process flow chart can help you maintain a lean manufacturing linear flow. (Image courtesy Nathan Belz)

Including the employees directly impacted can provide nuggets of wisdom you may not have considered. Even employees that don't have any feedback will feel empowered. These employees will often take more ownership of your plans, smoothing the transition when the time comes.

SOFTWARE FOR THE WIN

Organize the information you gather to make the best use of it. Using the right software can greatly improve your experience and will make future planning that much easier.

Spreadsheets or asset management software are great for generating a list of current and future planned assets that you will need to lay out. You can easily include key considerations like department, dimensions, utility requirements, and key layout notes. Create ID numbers on your list for

each asset to easily cross reference details from the list and your visual floor layout.

Flow charts are a fantastic tool for creating layout and process flows. There are great software options specifically designed for laying out production floor plans, but a software like Adobe Illustrator or CorelDRAW are great options if you already know how to use them. When I layout a production facility, I always use Illustrator because of my familiarity with it, but an engineer will use my file to generate full plans when permitting or construction is required.

The most critical consideration when beginning a layout is ensuring that everything is accurately scaled. A properly planned layout can be easily converted into evacuation plans, training tools, and dozens of other helpful utilities in the future.

Getting a copy of the digital floor plan

that includes walls and columns is a tremendous help, and many landlords will be able to make this information available to you. Make sure to include breaker boxes, gas lines, waterlines, drains, and structural elements such as columns and walls. Consider putting different elements on independent layers so you can hide or lock elements for easy viewing and manipulating.

Start your layout by breaking the facility up into functional elements like screen print, embroidery, storage, and so on. Comparing your current layout and processes with your future plans allows you to come up with the expected square footage for each of the functional elements in your shop.

If you have prepared well, you should have a process flowchart that shows the flow

**IMPROVE TURNAROUND
AND TURBO-CHARGE
YOUR PROFITS**





ROTOTEX
SUPER-TURBO™

For decades, the Rototex™ Manual Textile Screen Printer has been known for the most accurate registration in the industry.

Combining AWT's award-winning American Rototex and the high-efficiency Super-Turbo™ Electric Textile Dryer is a smart move - you'll increase production and boost profits.

Durable, reliable, and American-made with the highest-quality components; pick up this peerless pair and watch your business turn around.



773.777.7100 | sales@awtworldtrade.com
www.awt-gpi.com

of materials throughout your facility. The process flow chart can help you maintain a lean manufacturing linear flow. Creating a more linear flow reduces the number of times that materials crossover each other and bottleneck through the plant.

Start your layout by identifying your shipping and receiving areas. In many buildings, you will be limited by the entry and exit points of goods. Shipping and receiving often accounts for 15% to 20% of your floor space, but that number can greatly depend on your business model and processes.

Some of your assets will have restricting factors that should be taken into consideration as you lay out your different business functional areas. It's critical to use your list of future plans and equipment when organizing your layout.

You may, for example, plan on adding warehouse racking, but some areas of your building may have lower ceilings. If you don't take this into consideration now, you could face a considerable expense to relocate equipment when the time comes to implement your future project.



Using rolling job carts, apparel carts, and screen carts can eliminate clutter areas and make your production space more organized, versatile, and safe. (Image courtesy GPX/Regan Dickinson)

PHYSICAL CONSIDERATIONS

The screen development and reclaim areas are some of the first elements placed on most layouts due to the physical plumbing restrictions of the building. Cutting up flooring to relocate floor drains or water lines can be expensive, and many landlords restrict this type of invasive plumbing. De-

velopment areas require a dark room with humidity and climate control to operate well, while reclaim areas require good ventilation along with safety considerations for solvent usage and wastewater disposal.

Automatic screen print presses and dryers will likely be the hardest things to relocate on your production floor. Put a lot of consideration into how you move forward with their placement. The electrical infrastructure in the screen print area is often critical, and careful planning can greatly reduce your layout cost. Something as simple as adding extra length to your electrical and air connections may eliminate the expense of electricians if you need to move things around to accommodate a larger press in the future.

When you plan your general layout, consider shortening electrical runs for higher amperage equipment that may save substantial amounts of cost when setting up a new layout. Electrical infrastructure is high on my list when shopping for a new building purchase. Make sure you have taken your building's electrical capacity into consideration in your plans as it is often overlooked and can potentially result in unsolvable problems in the future if not planned for accordingly.

After developing a general layout, continue working on one functional area at a



Some of your assets will have restricting factors that should be taken into consideration as you lay out your different business functional areas. It's critical to use your list of future plans and equipment when organizing your layout. (Image courtesy GPX/Regan Dickinson)



time in increasing levels of detail. When you start doing a detailed layout, remember you will have to make compromises as you design your facility to accommodate for the unique characteristics of your specific business and building.

A detailed layout should not only include production equipment, but also dive deeper into smaller things like walkways, job carts, and desks. Utilizing rolling job carts, apparel carts, and screen carts can eliminate clutter areas and make your production space more organized, versatile, and safe.

Safety should be at the top of the list when laying out a production facility. A large part of creating a safe facility starts in the floor layout. Creating an evacuation map while doing your layout is useful since it includes a lot of key safety elements that you need to account for. Among other things, a good evacuation map includes exit routes, fire extinguish-

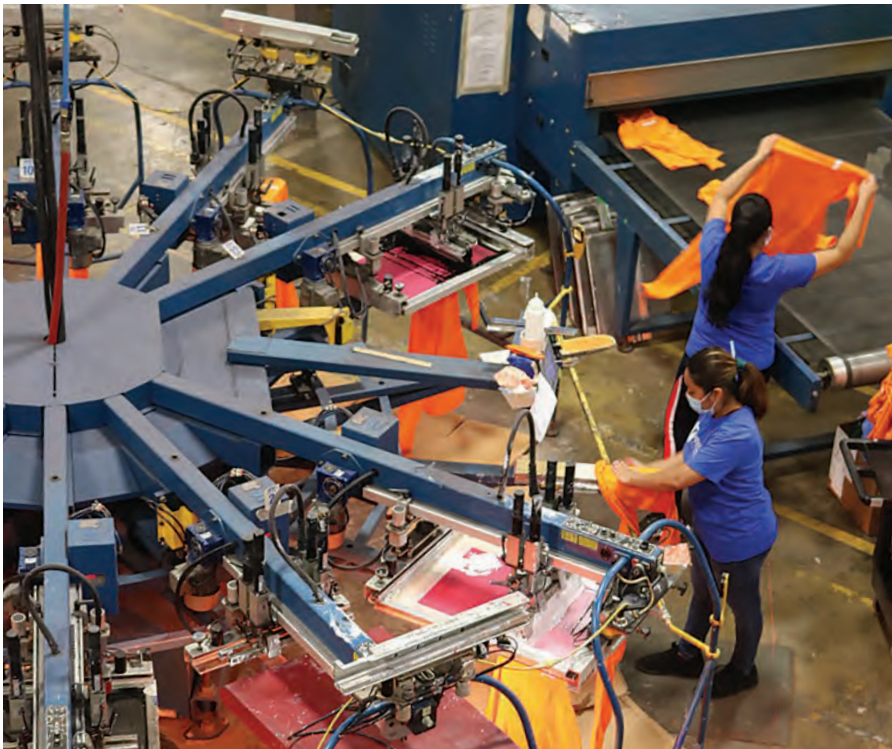
ers, pull boxes, exits, first-aid kits, SDS station, lock out tag out equipment, and bloodborne pathogen kits.

Safety elements will vary based on a lot of your specific business attributes and compliance requirements. These requirements should be thoroughly researched while generating your floor plan.

Production floor layouts are complex equations with multiple solutions that can be rewarding for everyone involved. At the end of the process, you and your team will have a clearer picture of the business and its direction than ever before, and you will be ready for the next level. **GP**



NATHAN BELZ is the COO of Impress Designs. He has over 20 years of leadership experience in the decoration industry with a focus on strategic planning and process development.



Automatic screen print presses and dryers are some of the hardest things to relocate on your production floor. Put a lot of consideration into how you move forward with their placement. (Image courtesy GPX/Regan Dickinson)

GRAPHICS|PRO EXPO

PITTSBURGH, PA

September 24-25

(Classes start September 23)

Attend a class to learn new skills, inspire ideas, and propel your business to the next level!

Learn from these industry experts at the expo:





















TRAINING IN THE HALL



To view the full class schedule, visit:
g-p-x.com/pa



LORD OF ALL THINGS

DESIGNING A SCREEN PRINT WITH A DISTINCT STYLE

When J.R.R. Tolkien wrote a meticulously detailed set of letters to his son about an imaginary land filled with magic and a fantastic journey, could he have known what impact it might have on our culture? It's hard to imagine anyone who hasn't read, watched, or heard of "The Lord of the Rings." It became the foundation for everything fantasy for decades. Even Dungeons & Dragons that began back in the '80s has renewed interest. Young adults are back to rolling the 20-sided die to land a striking blow to their opponents.

The movies themselves were made in the passion of the details so beautifully written to describe every landscape and harrowing battle over the land of Middle Earth. Whether the charm of the gentle wizard Gandalf, the Halfling people of the shire, or the awesome might of the dark lord Sauron, this tale has something for everyone. The inspiration from these books has initiated so many spinoffs, it's hard to keep track of them all.

Parodies that abound from this timeless tale were the inspiration for the Rocky Mountain Honors Camp this summer. They were looking for an interesting play on words that reflected the message of their faith. The Lord of All Things, return of the King of Kings. We also used the sword from the series as a symbol of the cross of Jesus Christ.

With our explicit directions, or a map if you will, we began our own journey. Not hardly as dangerous as traveling to Mordor to throw the one ring in the fires of Mount Doom but it had its challenges nonetheless.

DESIGN FOR STYLE

If you have seen the films, there was a specific style to the title lettering. Luckily in the digital age, all things font are easily accessible. We found a type style named Marion that was pretty close.

In Adobe Illustrator, we created our text layout and arranged the lettering in the familiar composition. By scaling

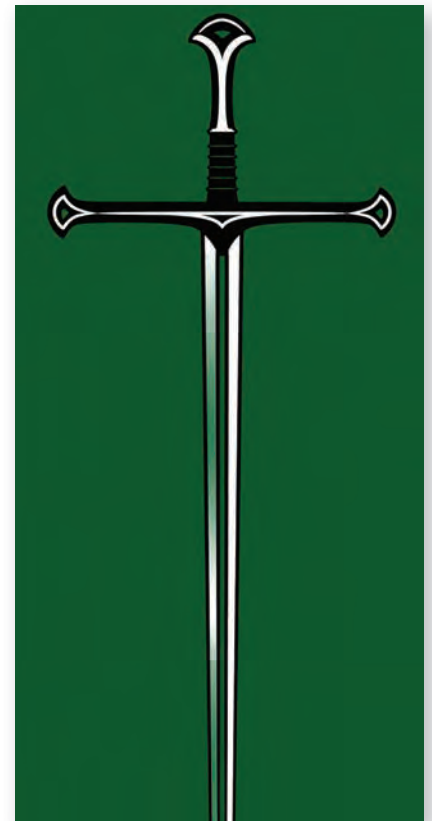
some letters to dominate over others, we added to the drama of the title. We needed a ring, though. We had to have at least one ring, right?

From the many references to the sword wielded by the kings of Gondor, we made a clean graphic to incorporate as the cross in the background. For some flair, we wrapped the text of the group's title into the ring just as the story references.

We moved to Adobe Photoshop to drop in the finer details. The old, weathered feel from another age that appears



The design just had to have a ring. For some flair, we wrapped the text of the group's title into the ring just as the story references. (All images courtesy Lon Winters)



From the many references to the sword wielded by the kings of Gondor, we made a clean graphic to incorporate as the cross in the background.

rough and chiseled in the letters is achieved in layer effects. Bevel and Emboss are a favorite with a multitude of variations to make and embellish our text. The Bevel effect has many options, and we chose the Inner Bevel to get the peak in the center of the type. We chose Chisel Hard for a rough look, the direction for the light, and the size to pinch from the edge to the center to get a raised look.

The shading was the real trick to give us a 3D look to all the text. We played with the angle and moved the point around inside to see the changes taking place.

The gloss contour gave the appearance of a polished surface — exactly the look we needed. Lastly, we considered the highlight and shadow. Bright white for the most shine and a shadow color that considered a darker tonal value.

With a simple black line drawing of a ring, we did some manual painting with some subtle shading with brown to not compete with the black in the type, and more highlight white along the edge to match the effect in the text.

Since the sword was meant to be in the background, we rendered it simple. There

were several garment colors this would be printed on, and we used a basic gradient on one edge to utilize the substrate in the shadow areas by eliminating this on the white printer, or base-plate, and then reducing the density in the highlight.

COLOR CREATIONS

For seps, we utilize the full color and gray-scale breakdown of the RGB channels. These act as composites and masks to create each of our color plates within channels. By manipulating the information on each channel, we achieve all of our solid fill areas



SOFTWARE TO SUBSTRATE



The old, weathered feel from another age that appears rough and chiseled in the letters is achieved in layer effects. Bevel and Emboss are a favorite.



No color changes were required for the four different color combinations.

and tonal ranges. We used the blue channel from the RGB to isolate an area for the dark brown shadow in the bevel of the type and eliminated the lighter gray where the yellow is in the text and solidified the information left over after it was removed.

Most of the brown would be a solid fill but for tonal variations from the original. Some of the brown would mix nicely with some of the tones from the yellow. Having the combination of the values from dark to light gave this a nice reproduction on press. Similarly, we used other channels to help us develop each of our colors.

Last but not least, we had to have our white printer, or base-plate, for the colors

to pop. Most of the image area required some base with exception to the black. The base-plate was reduced in the shadows to allow the substrate to darken the ink color. Yellow and white needed a solid fill so they were at their brightest.

Once seps were completed, we outputted on CTS with a frequency of 45 LPI at a 22.5-degree angle. We ran the white on a 156 TPI screen at 35 N/cm² using a 65/90/65 triple ply, dual durometer squeegee followed by a flash and smoothing heated iron in a Teflon screen.

Next, the colored inks and the highlight whites all ran wet on wet on 230's at the same tension using harder 75/90/75's. No

color changes were required for the four different color combinations — nice! Re-order followed within a week for the event. This is the new normal ... **GP**

At 21 years old, **LON WINTERS** was the production manager for Ocean Pacific and started his 30+ year career reclaiming screens. He's the president and founder of Colorado-based Graphic Elephants, an international consulting firm and apparel decoration studio specializing in screen printing technical advances, plant design, layout, troubleshooting, productivity, quality analysis, and complete apparel decorating solutions. Learn more at www.graphicelephants.com.

GET BUSY PRINTING, GET BUSY DRYING

WITH LAWSON ELECTRIC AND GAS DRYERS
FOR SCREEN PRINTING, DTG & WATER-BASED INKS



OMEGA GAS EXPRESS

Energy-efficient, 120-volt
gas dryer with a small footprint.



DIGI-STAR ELITE

Award-winning electric
dryer with a WiFi enabled
touchscreen.



LAWSON
SCREEN & DIGITAL PRODUCTS, INC.
314.382.9300 | golawson.com



Shop Profile: Margaret Swauger of Creative Impressions Embroidery

HOME IS WHERE THE BUSINESS IS

Margaret Swauger is the owner of Creative Impressions Embroidery, a home-based sewing and embroidery business that she's operated in north-east Ohio since 2005. She has a couple traditional sewing machines, a couple single-head embroidery machines, a Serger, and a hooping station in her basement.

Like the majority of the people in the embroidery industry, Swauger came into the business from the side. She explains, "I've sewn all of my life. I bought another sewing machine at the local sewing store in 1989, and it could do embroidery. Just lettering, and it was only 9 millimeters high. It was so tiny! When I saw the bigger multi-needle machine at the home and garden show, I said that's what I want to do."

"I CAN DO THAT."

"For years and years, a friend and I wanted to go into business and have a yarn shop," says Swauger. "She and I both did a lot of knitting and crochet." Once Swauger saw the possibilities with the embroidery machine, she went to the bank to see about how to start a business. "The man at the bank said, 'When you fail, what will the bank do with all the yarn?'" She left the bank empty-handed, but undeterred.

Her first order came from some guys on her husband's bowling team — they owned a local pizza shop. Swauger chuckles as she tells the story. "Don (my husband) went out there and told them what I did, I didn't. They said they needed some stuff. I think it was close to a \$200 order: sweatshirts, T-shirts, and visors."

From there blossomed a rewarding adventure. Swauger enjoys figuring out how to do unusual things. She also is more than willing and able to bring her considerable sewing experience into play to help a customer. "When I was singing with the Sweet Adelines, they asked me to make a pitch pipe pocket. I said, 'Yes, I think I can do that.' Then my friend looked at me and said, 'You're already designing it, aren't you?' as we were standing there. And I was!"

The process of product development is very visual for Swauger. She sees something in her mind before she begins to create it, no matter what it is. She values her imagination as one of her most essential skills in her business. She mentions that one of the pitch pipe pocket customers said her pocket was the best one she'd ever used. Swauger



Margaret Swauger likes to present a variety of products and ideas when she participates in the local events, such as embroidered greeting cards. (All images courtesy Margaret Swauger)



Swauger has a large pile of denim jeans that she uses to make all sorts of products to sell, including rugs, placemats, purses, and even uses the pockets and waistbands sometimes.



When asked what she does when a customer questions her on price, Swauger states, "Embroidery stays!"

was pleased to hear that, as she wasn't sure what she was doing to begin with. Clearly, she figured it out.

One of the jobs that she is the proudest of is one she did for a local non-profit, the



Swauger enjoys figuring out how to do unusual things.

Brimfield Community Cupboard. Swauger started with a stock design from Embroidery Library then created a custom design for them. She estimates that she has made 100 or more shirts for their volunteers so far.

Recently, she saw one of the Community Cupboard organizers walk past during a community showcase with something rolled up in their hands. When Swauger looked again, they had displayed a huge banner with her design. The banner was carried in the local parade that day, and then they hung it in the tent. She says that made her feel pretty good.

Swauger likes to present a variety of products and ideas when she participates in the local events. She often sells embroidered greeting cards, for example. "One time, somebody bought a greeting card and then the following year, she came back and said, "That card was a huge success!"

My customer said the lady was so pleased when she received it that she cried because it was so pretty."

Swauger did another card that had "Live Laugh Love" embroidered in shades of pink on it. A customer purchased it and said,

SUBLIMATED PRINTING

WITH ONLY A HEAT PRESS

CAD-PRINTZ®
Sublimation Transfers



▶ GET YOURS TODAY
bit.ly/stahls-sub-trans



GP0921

STITCH SOLUTIONS

“My friend will just love this!” She came back later and said that she didn’t send it to her friend and instead kept it on her dresser because it was so pretty. “Hearing those kinds of things makes you feel really good about what you do,” she says.

Because of her extensive sewing expertise, Swauger makes many of the things she embroiders from scratch. She has a large pile of denim jeans that she uses to make all sorts of products to sell. She turns the denim into rugs, placemats, purses, and even uses the pockets and waistbands at times.

If you have ever been to Kent, Ohio, home of Kent State University, you may have been to Ray’s Place, a well-known local bar and restaurant. The owner of Ray’s picked up Swauger’s business card at some point. When he placed his first order, he said that he’d carried that card in his wallet for about six months before calling. If you go to

Ray’s Place and see polo shirts with “Ray’s Place, Kent, Ohio,” Swauger did them, as she’s provided those shirts for the past five to six years for both locations.

One of her more unusual jobs was for a local landscaping company owned by a young man. He wanted the name of his company to be put on the seat of his work pants. But when you think about it, it makes sense. What part of a landscaper do you see when they are working? They are often head and hands down, working in the dirt, and bottoms up!

A BIT OF ADVICE

When asked what some things are you wish you knew then that you know now, Swauger replies, “I should have done more research about the multi-needle machines before I bought one. They have different size sewing fields and unique features. Make sure you get what you feel comfortable with, not just what’s available.” She encourages everyone to explore all their options, and to not settle on the first machine that you see.

Swauger also wants to share another piece of advice: “Invest in a hooping tool. I saw one being demonstrated at one of the early National Network of Embroidery Professionals (NNEP) shows. I called my husband and said, ‘Can I spend \$600?’ I brought it home and I told him as soon as I hooped the first shirt that it was worth every penny because the design was straight on the shirt!”

Her next bit of advice really struck a cord with me, as it is one of the main reasons



From local projects to creating custom items, Swauger finds joy in customer satisfaction.

continued on page 94

Welcome to the

PRODUCT HIGHLIGHTS

section where each month we offer you

resources to enrich and expand your business with great services and products from our advertisers.





PRISM®

The #1 SUPPLIER for all your high quality recognition needs

High-quality blank product with economical pricing
Most orders ship same day for in stock items
All items are sandcarvable, rotary, or laser engravable

(800) 528-8388 • sales@prismcrystal.com
www.prismcrystal.com



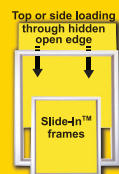
GILDAN®
Softstyle™

64EZO
Pitch
Black

EZ Print T-Shirt
mygildan.com

Fast Change Frames

Sell More Graphics!



- Signage changes are **FAST & EASY** - sell more graphics and signs
- ANY size frame, **LOW** prices
- Made in Chicago for **QUICK** turnaround
- **NO MINIMUMS:** 1 or 10,000
- Many color and profile choices
- **FREE** shipping on orders over \$75 to US States.



1-800-915-2828

sales@fastchangeframes.com

fastchangeframes.com

DOUBLE THE PRINTING CAPABILITIES

New STAHL'S Tag Along™ HP Platen

Apply tagless transfers and full T-shirt fronts at once with this double-duty platen.



GET YOURS TODAY
bit.ly/stahls-tagalong-hp



GP0921

RADIANT LASER SYSTEMS

THE FUTURE OF LASER ENGRAVING

ACCESSORIES FOR PRODUCTION EFFICIENCY

CO2 / FIBER GALVO AND FLATBED SYSTEMS AVAILABLE

714-278-4333
www.radiantlaser.com

#1 Best-Selling DTG Brand RICOH Ri 2000


- Print a light shirt in only 25 seconds, a dark shirt as fast as 60 seconds!
- Automated head cleaning and height adjustment
- Low monthly payments + 0% APR for qualified buyers

866.402.7450
RicohDTG.com/GraphicsPro

Call for a **FREE** Deluxe Sample Pack!

RICOH
imagine. change.

new **POLAR CAMEL** **SLIM BEVERAGE HOLDER**



JDS

www.jdsindustries.com

hp



Available at GoGSG.com

We carry the brands you love and the brands we know you need. By partnering with the highest quality suppliers in the industry we can bring you the *Right Products, Right Away.*®

GSG

GOGSG.COM ☎ 800-366-1776

Antares, Inc.

Engraving Cutters, Vinyl Blades & Router Tools for all your Sign Making needs



www.antaresinc.net
418-4 Caredean Dr.,
Horsham, PA USA
1.800.355.5250



ELEVATE YOUR FASHION AND APPAREL FULFILLMENT BUSINESS

Turn to pages 6 and 7 to find out more >

K Kornit Digital bonding matters

E
EpilogLaser



EpilogLaser.com



ENGRAVE | CUT | MARK
EPILOGLASER.COM/GP





FREE SHIPPING
on Supply Orders Over \$99

golawson.com 314.382.9300

Screen Printing Direct-to-Garment

Heat Transfer Embroidery

LAWSON
SCREEN & DIGITAL PRODUCTS, INC.

BETTER THAN VELLUM
Caseys' Translucency™

Caseys' Translucency™ is a vellum-like material designed especially for you – the screen printer – to make inexpensive positives direct from your laser printer or copier.

Trial
\$5
Pack

Why so ugly?
Our Translucency appears yellow, because we've taken out the brighteners that create the white color and also block ultra violet light from burning the screen.

It's uglier, but it's better.



www.caseyspm.com
800-544-5620

Marco
AWARDS GROUP

"EVERY AWARD COMPONENT UNDER THE STARS"
1-800-229-6592
3 Styles, 10 Colors



LITTLE RED

- DTG WHITE INKJET**
34 to 185 garment/h capacities
- WATER-BASED & DISCHARGE**
81 to 555 garment/h capacities
- PLASTISOL**
162 to 1080 garment/h capacities
- Expandable to multiply above capacities
 - Belt widths: 18, 30, 54 & 78 in. (46, 76, 137 & 198 cm)
 - 15-Year heater warranty



+1-610-625-2702 • VASTEX.COM
SALES@VASTEX.COM

print **n**
SELECT

**Printer, ink,
& warranty
packages**

Shop Now

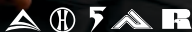
starting at
\$455
/MONTH



NEW
PRISM BOLD POLO
222576



AUGUSTA
SPORTSWEAR BRANDS



www.augustasportswear.com

stouse

**Not just printers.
Partners.**



Decals



Magnets



Roll Labels



Signs



Plastics



and More!

You rely on us because they rely on you.
Let's do this together. Contact us today.

Stouse.com
877-764-5757
orders@stouse.com

GRAPHICS|PRO EXPO

PITTSBURGH, PA

David L. Lawrence Convention Center
September 24-25, 2021

EXHIBITING COMPANIES

Exhibitor list and class schedule as of August 2021.
Please visit g-p-x.com/pa for the most up-to-date list.

★ Indicates Featured Exhibitors 🍎 Indicates Training in the Classroom ● Indicates Training in the Hall

- | | |
|---|---|
| <input type="checkbox"/> Action Illustrated | <input type="checkbox"/> InkSoft |
| <input type="checkbox"/> Advertising Specialty Inst/ASI | <input type="checkbox"/> iSIGNS Inc |
| <input type="checkbox"/> All American Print Supply Co | <input type="checkbox"/> JDS Industries Inc ★ 🍎 |
| <input type="checkbox"/> Apex Transfers | <input type="checkbox"/> Laser Tek Solutions |
| <input type="checkbox"/> Brown Mfg Group Inc | <input type="checkbox"/> McLaud Technology |
| <input type="checkbox"/> Budget Inks | <input type="checkbox"/> Mimaki USA ● |
| <input type="checkbox"/> CerMark (Ferro Corp) | <input type="checkbox"/> MultiCraft Inc |
| <input type="checkbox"/> CIT | <input type="checkbox"/> Peachtree City Foamcraft Inc |
| <input type="checkbox"/> Corel Trainer ★ 🍎 | <input type="checkbox"/> Pennant Sportswear |
| <input type="checkbox"/> Digital Technology Group Inc 🍎 | <input type="checkbox"/> SanMar |
| <input type="checkbox"/> Epilog Laser ★ 🍎 | <input type="checkbox"/> STAHL'S' 🍎 |
| <input type="checkbox"/> Geneva Capital LLC | <input type="checkbox"/> Sublimation101 |
| <input type="checkbox"/> Graphic Elephants | <input type="checkbox"/> Swagforce |
| <input type="checkbox"/> Graphics Flow 🍎 | <input type="checkbox"/> TheMagicTouch USA |
| <input type="checkbox"/> GRAPHICS PRO | <input type="checkbox"/> Transfer Express 🍎 |
| <input type="checkbox"/> Hanesbrands | <input type="checkbox"/> Trotec Laser Inc ★ 🍎 |
| <input type="checkbox"/> Hirsch Solutions Inc 🍎 | <input type="checkbox"/> Wensco Sign Supply |
| <input type="checkbox"/> Howard Industries | <input type="checkbox"/> XANTE Corp |
| <input type="checkbox"/> IKONICS Imaging 🍎 | <input type="checkbox"/> XpresScreen Inc |

CHILDREN UNDER THE AGE OF 12 ARE NOT ADMITTED IN THE EXHIBIT HALL OR CLASSROOMS.

TRAINING IN THE CLASSROOM Please visit g-p-x.com/pa for class descriptions.

THURSDAY, SEPTEMBER 23, 2021

10 a.m. — 4 p.m.

- Digital Technology Group - Print on Purpose - How to Start and Grow a Successful Print Business
- Hirsch Solutions Inc- Join the DTG Revolution!

FRIDAY, SEPTEMBER 24, 2021

8-9:30 a.m.

- Epilog Laser - Get the Most from your Laser Investment: Tips & Techniques to Save Time & Increase Profits
- JDS Industries - Troubleshooting Sublimation

11 a.m. — 12:30 p.m.

- GraphicsFlow/InkSoft - Manage your Graphics, Boost your Profitability
- Trotec Laser - Skills, Strategies & Laser Hacks to Help you Succeed in a Changing Business Environment

FRIDAY, continued

1:30-3 p.m.

- Transfer Express – Screen Print with Just a Heat Press

4-5:30 p.m.

- Corel Trainer - CorelDRAW A to Z

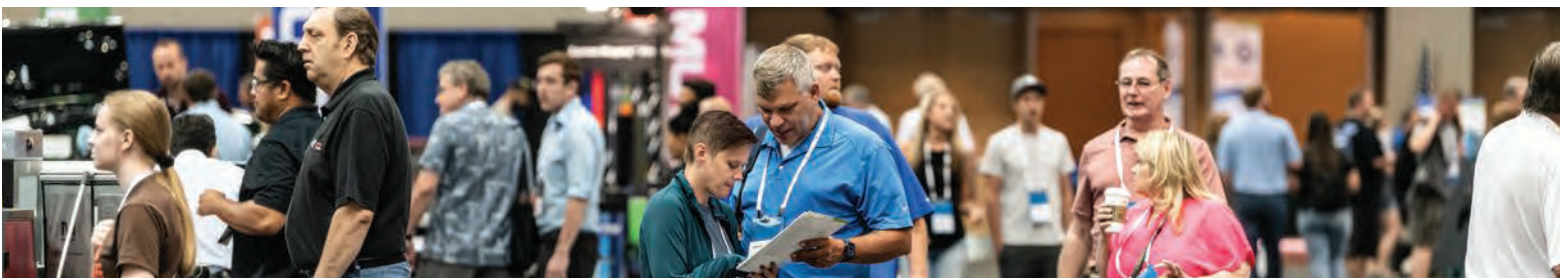
SATURDAY, SEPTEMBER 25, 2021

8-9:30 a.m.

- IKONICS Imaging - Profitable Sandcarving - Small Investment, Large Potential
- STAHL'S - Top Apparel Trends and How to Print Them

11 a.m. — 12:30 p.m.

- Transfer Express – Should you Print Licensed Logos?



TRAINING IN THE HALL



Visit Mimaki inside the exhibit hall for more training opportunities!

PITTSBURGH, PA

David L. Lawrence Convention Center

September 24-25, 2021

FEATURED EXHIBITORS



**Learn Corel
Inside Corel**
at GPX Pittsburgh!
Booth# 214

CorelTrainer.com

COREL TRAINER

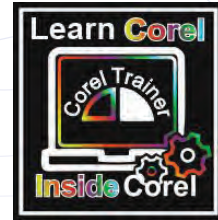
602-319-3503

www.CorelTrainer.com/promo

Easy to Learn CorelDRAW

Don't let your art department be your slowest point in production. Have everyone in your company learn Corel with real support and this simple A

to Z training program from right inside your CorelDRAW! Maximize your business potential with quality design skills and the new Corel Trainer 2.0 plug-in© software!



EPILOG LASER

303-277-1188

www.epiloglaser.com

Discover the Fusion Edge Laser Series from Epilog

Epilog's new Fusion Edge Laser Series features 120 inches per second (3.05 m/s) engraving speeds, along with the popular IRIS™ Camera System, which gives operators a real-time image of the laser bed so they can precisely position their artwork and graphics quickly and accurately. These powerful systems also include touch-screen controls, job trace capabilities, SAFEGUARD™ Features, and much more. Stop by booth #201 and see the Fusion Edge Series in action!



PITTSBURGH

BOOTH #201



 **EpilogLaser**

WWW.EPILOGLASER.COM/NBM-PREVIEW



REGISTER NOW!

Promo code: **PREVIEW**
g-p-x.com/pa or call 800.560.9941

JDS INDUSTRIES INC

800-843-8853

www.jdsindustries.com

Come See What's New from JDS!

Stop by our booth and check out some of our exciting new products for 2021! We have added water bottles in 3 sizes, 20 oz. travel mugs, and slim beverage holders to our Polar Camel line of High Endurance Drinkware. Our Laserable Leatherette line now includes a gorgeous red that lasers to black, and we've added a line of Sublimatable Burlap in many of the same styles as our Laserable Leatherette. These items and many more will be on display at GPX Pittsburgh! You can also check them out on our website www.jdsindustries.com or give us a call at 800.843.8853 for more information!



TROTEC LASER

866-226-8505

www.troteclaser.com

Trotec Ruby®: Laser Software Redefined

Trotec Ruby® makes working with your laser simpler and faster by eliminating the need for a third-party graphics program. Import your files directly into the software or create your own text, graphic, and photo elements to send directly to the laser for easy processing. Ruby® is PC and Mac compatible and connects all your lasers to a single network, making file sharing and accessibility even easier. Come see Ruby® in action with the fastest lasers on the market at GPX Pittsburgh in booth #101.



FEATURED EXHIBITORS

JDS SUBLIMATION SPECIALISTS
INDUSTRY-LEADING FREE TECH SUPPORT

STACY

VISIT US AT BOOTH #100
jdsindustries.com

trotec / SETTING NEW STANDARDS

Visit us at
GPX Pittsburgh
Booth #101

troteclaser.com / engraving-supplies.com

THE MARKETPLACE

SIGNAGE & PRINTING



BANNER STRETCHING FRAME

Beautifully display any size banner! Patented

bannergrip.com

1-800-915-2828 sales@bannergrip.com

NEW LED edge lit frames
Any Size
Any Color
1 Minimum

- Easy installation & fast graphic changes
- Dimmer & flashing module for brightness control
- Super bright, even white light
- Thin profile, .96" thick
- 50,000 hours & 2 yr. warranty
- 25 various colors and frame choices
- FAST Delivery nationwide

Acrylic Standoff Frames, any size, any shape

Desk Sneez Shield
Protect your students and employees with Alpina's Desktop Shields. Designed for standard 18" x 24" desks, allows students to bring their shields to and from class.

Cubicle Sneez Guard Dividers

- Made to any length or height
- 1/4" super clear, almost invisible Acrylic
- Easy do it yourself install, no tools required
- Protects employees in adjacent cubicles when standing up

ALPINA Manufacturing
American Made Chicago, IL

1-800-915-2828
sales@fastchangeframes.com
fastchangeframes.com

-Trade Only-

Large Format
Dye-Sublimation

► **\$1.50 ft²**



Custom Event Tent

► **\$399**
10' x 10'



B2SIGN.COM
1-888-739-8501

NEW LED edge lit frames
Any Size
Any Color
1 Minimum

- Easy installation & fast graphic changes
- Dimmer & flashing module for brightness control
- Super bright, even white light
- Thin profile, .96" thick
- 50,000 hours & 2 yr. warranty
- 25 various colors and frame choices
- Made in Chicago, IL USA For FAST Delivery nationwide

Acrylic Standoff Frames, any size, any shape

ALPINA Manufacturing
1-800-915-2828
sales@fastchangeframes.com
fastchangeframes.com

Duxbury Braille Translator
SOFTWARE FOR BRAILLE SIGNAGE

Easy to use

New Version 12.5 for Windows and for Mac!

Translate into over 150 languages

Includes fonts for ADA, California, EU Pharma and more signage requirements

Free Demo!

info@duxsys.com • 1-978-692-3000
www.DuxburySystems.com



Contact us today to advertise in the **GRAPHICS PRO Marketplace**

1-800-669-0424 • graphics-pro.com/advertise

HIGH QUALITY PRINTING

YARD SIGNS

Ships Next Day

\$1.65 ea
SCREEN PRINTED
100 pos 24 X 18 W/1C1S

STAKES \$.69 each

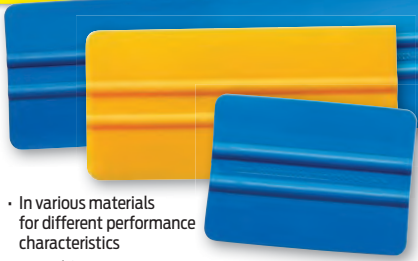
Master SCREEN PRINTING

1-877-231-2235
www.masterscreenprinting.com

THE MARKETPLACE

SIGNAGE & PRINTING

The World's Leading SQUEEGEE & Application Tools



- In various materials for different performance characteristics
- Round & square corner variations
- 4" industry standard length
- Large format 6" & 12" lengths

Contact your local sign & equipment supplier



The manufacturer of squeegees and applicators for over 30 years

RESERVE YOUR SPOT TODAY!
graphics-pro.com/advertise

The World's Leading SQUEEGEE & Application Tools



- Teflon & Nylon Squeegees provide stiff, smooth applications
- Round & square corner variations
- 4" industry standard length
- Large format 6" & 12" lengths

Contact your local sign & equipment supplier



The manufacturer of squeegees and applicators for over 30 years

You'll love our Balls!

For ADA compliant braille signage
1-888-444-5131
www.brailleballs.com

APPAREL DECORATING

NEOPRENE/WETSUIT MATERIAL

BLANK SCREENPRINTER PRICING • 17 COLORS AVAILABLE



100'S OF THOUSANDS IN STOCK in St. Petersburg, FL
CUSTOM PRINTING/asi 72242
www.MoreSales.com 1.800.226.3903

HEAVY-DUTY DRYING & STORAGE RACKS

- Shelf sizes up to 52 x 80"
- Individual spring tension adjustment
- Permanent steel spacers
- Rust & solvent resistant



AWT Saturn Rack www.dryingandstorageracks.com
sales@ dryingandstorageracks.com

www digitizingfactory.com

Quality, Price, Delivery and Passion!

www.digitalgraphixfactory.com

RUBBER BLANKETS

for Screen Printing

- Non-porous, flexible rubber extends life
- Use on any type of exposing unit
- Will customize to fit your specific application



sales@gpiparts.com www.gpiparts.com GRAPHIC PARTS www.gpiparts.com



LAWSON

SCREEN & DIGITAL PRODUCTS, INC.

Get a replacement dryer belt in any width and length for any make/model conveyor dryer. Fast, quick shipment.

314.382.9300 | golawson.com | info@golawson.com

World's Most Comfortable Mask!



- Washable/Reusable
- Soft and comfortable
- Anti-fog nose cover
- 500 minimum

800 872-8778 SOFMASK.COM quotes@solfmask.com

Mesh Teflon DRYER BELTS

Manufactured in house and shipped FAST!

All styles and sizes... most in 24 hrs!

(800) 428-1162

W.F. Lake Corp., Glens Falls, NY
www.wflake.com



CUSTOM TRANSFERS MAKE SCHOOL ORDERS FAST



ONE COLOR EASY PRINTS®
SHIP OUT NEXT DAY

DESIGN AND ORDER ONLINE TODAY!



ADVERTISE WITH US!

Got big news?

Have a new product?

Don't know where to start?

We can help!

Visit: graphics-pro.com/
advertise

WRAP DESIGN

continued from page 19

to ensure your horizontal and vertical lines were straight, it changed the overall sizing of the image. To correct that in FlexiSign, turn off the Proportional setting when transforming the image so that you can adjust height and width separately until the measurements you took align.

When you have the photo properly scaled to actual size, it's ready to go in FlexiSign Pro. If you are creating your wrap layout in Photoshop, write down the overall photo height and width at actual size after scaling in FlexiSign, and change the height and width of the image in Photoshop to match. Lower the resolution of the image until the overall MB is a manageable size. For most cars, trucks, box trucks, etc., an overall image size of 150-200 MB should be plenty big to maintain crisp images.

LAYERS

Once the photo has been sharpened, cropped, straightened, and scaled, you can start the design process. The first step is creating layers that you'll design between. The top layer is the photo with any areas of the vehicle that will be wrapped cropped out. The bottom layer is the photo without any masked areas.

In FlexiSign Pro, we crop out the wrapped areas using the masking tool. It's a relatively quick process of drawing boxes and circles around any areas of the vehicle that we won't wrap. Once all these areas have been drawn out, group the shapes, bring them to the front, and click on the top copy of the photo while holding the shift key to select the shapes and the photo together. Then click on the Mask tool under Effects>Mask.

The top image will have blank spaces where the wrapped areas will show through. The bottom image is the original photo.

I like to design in FlexiSign when working with vector-based artwork because the artwork maintains crisp lines and sharp details at any size since it's all lines, no pixels. You can still incorporate raster images in FlexiSign while keeping your text and other vector objects as line art. Just import the raster files, with any modifications in Photoshop if needed, into FlexiSign and add the art between the layers.

In Photoshop, it's a similar process. The photos are scaled actual size, and the background image of the vehicle is untouched, while any wrapped areas in the top image are deleted, so the wrap designing you do on the layers between are visible.

There are masking and grouping tools in Photoshop that offer up different approaches to the same concept. Many of them are ways to organize your layers, and since Photoshop is a complex program with many features you may not use, I suggest doing whatever you're used to that gets the job done most efficiently.

For me, it's a top layer, bottom layer, and design layers in between that I carefully label to keep organized. The nice thing about working in Photoshop is the ease of blending and fading images and objects, working with raster files, and adding drop shadows and effects.

PROOFING

Once you've designed the wrap to meet the customer's requests, you can create a proof to show the customer. By designing on the photo of the vehicle, the customer will have an excellent idea of what the final wrap will look like.

Working on the vehicle photo means that any after-market parts, door handles, rubber seals, and other obstacles are accurately represented, and you're able to move important design elements around them. This means that you've made necessary adjustments before the customer sees the proof, and there will be no surprises on the final wrap.

When you set up your print files, one final tip is to be sure that any tight text is printed and contour cut separately, or you've already planned them away from obstacles as much as possible. Keep these areas in mind throughout the process. **GP**

CHARITY JACKSON is co-owner of Visual Horizons Custom Signs based in Modesto, California. She has been in business since 1995 and has worked in the sign industry for over 25 years. You can visit her website at www.vhsigns.com.

STITCH SOLUTIONS

continued from page 84

why we launched the NNEP. Swauger recommends that you find someone else that knows machine embroidery. "I have a friend who does embroidery. I can talk to her when I run into something new or have an issue. We can compare ideas sometimes. It is so nice to talk to somebody that knows what you're talking about. We speak the same language."

Another piece of excellent advice Swauger shares is to just step away from the machine when things are not going well. She has learned that when she gets in a hurry, things can become frustrating. "I want to get it done, and it's just not going right. That's when I have to stop, walk around a bit, and regroup. Sometimes I just turn everything off and go upstairs." She leaves it alone for the rest of the day. She swears by the adage, "Sleep on it," because it works. That's where she gets ideas about what happened and figures out what to try differently in the morning.

When people do not seem to relate with what Swauger does or question her prices, she says, "Embroidery stays. That's my mantra, just those two words. When they look at me questioning, I'll say, 'Well, you have screen printing, which is very nice, but it doesn't always stay. Over time, it can peel or flake off. Embroidery stays. Then I share a story about a red T-shirt that I embroidered for myself using matching red thread. The T-shirt has been washed many, many times and has faded. But the embroidery has stayed red. It has not faded.'"

I asked her what lights her up about her work doing custom embroidery. Swauger says, "It just makes me happy when people are satisfied. And if they come back and say, 'I really like this,' or 'Can you do some more?' that is just great!" **GP**

JENNIFER COX is one of the founders and serves as president of the National Network of Embroidery Professionals (NNEP), an organization that supports embroidery and apparel decoration professionals with programs and services designed to increase profitability and production. You can contact her at jennifer@nnepp.com.

ADVERTISER INDEX

The **Advertiser Index** is intended solely as a convenience for our readers and is not a written or implied part of any advertising commitment. As such, *GRAPHICS PRO* assumes no liabilities for unintentional errors or omissions.

ADVERTISER	PAGE	URL
A.W.T. World Trade Inc	75, 93	www.awt-gpi.com
Alpina Mfg LLC	92, 92, 92	www.fastchangeframes.com
Antares Inc	73	www.antaresinc.net
B2Sign Inc	92	www.b2sign.com
Big Sky Woodcrafters	69	www.bigskywoodcrafters.com
Champion	IFC	www.brandwearunited.com/champion
CIT	5	www.cit.com
Citadel Brands	79	www.citadelbrands.com
Comfort Colors	CVTP	www.comfortcolors.com
Digital Graphix Factory	93	www.digitalgraphixfactory.com
Duxbury Systems	92	www.duxburysystems.com
Engraving Specialties	53	www.engravingspecialties.net
Epilog Laser	BC	www.epiloglaser.com
Graphic Parts Intl	93	www.gpiparts.com
GRAPHICS PRO	45	graphics-pro.com/subscribe
GRAPHICS PRO Daily	27	www.graphics-pro.com/eNews
GRAPHICS PRO EXPO	RA	graphics-pro-expo.com
GPX Pittsburgh, PA	77, 88-91	graphics-pro-expo.com/event/pittsburgh-pa
Graphtec America Inc	19	www.graphtecamerica.com
GSG	49	www.gogsg.com
Hirsch Solutions Inc	11	www.hsi.us
HIX Corp	51	www.hixcorp.com
JDS Industries Inc	3	www.jdsindustries.com
Kern Laser Systems	25	www.kernlasers.com
Kornit Digital North America	6-7	www.kornit.com
Lawson Screen & Digital Products	81, 93	www.lawsonsp.com
Lidco Products	93, 93	www.lidcoproducts.com
LogoJET	35	www.logojet.com
Marco Awards Group	IBC	www.marcoawardsgroup.com
Master Screen Printing	92	www.masterscreenprinting.com
More Sales Inc	93	www.moresales.com
Mutoh America Inc	1	www.mutoh.com
Pacific Sportswear & Emblem Co	93	www.pacificemblem.com
PrestoTex	23	www.prestotex.com
Radian Laser Systems LLC	67	www.radianlaser.com

ADVERTISER	PAGE	URL
Rayzist Photomask Inc	57	www.rayzist.com
Rowmark LLC	65	www.rowmark.com
RTP Apparel	39	www.rtpapparel.com
SA Intl Inc	13	www.thinksai.com
ShopBot Tools Inc	71	www.shopbottools.com
shopVOX	15	www.shopvox.com
Signs365.com	FGC	www.signs365.com
Small Balls Inc	93	www.brailleballs.com
STAHL'S	83	www.stahls.com
Topmost PRISM Crystal	59	www.prismcystal.com
Transfer Express	93	www.transferexpress.com
Trotec Laser Inc	9, 55	www.troteclaser.com
W.F. Lake Corp	93	www.wflake.com
Zund America Inc	47	www.zund.com

PRODUCT HIGHLIGHTS	PAGE	URL
Alpina Mfg LLC	85	www.fastchangeframes.com
Antares Inc	86	www.antaresinc.net
Augusta Sportswear Brands	87	www.augustasportswear.com
Caseys Page Mill Ltd	87	www.caseyspm.com
Epilog Laser	86	www.epiloglaser.com
Gildan Activewear SRL	85	www.mygildan.com
GSG	86	www.gogsg.com
JDS Industries Inc	86	www.jdsindustries.com
Kornit Digital North America	86	www.kornit.com
Lawson Screen & Digital Products	86	www.lawsonsp.com
Marco Awards Group	87	www.marcoawardsgroup.com
Mimaki USA	87	www.mimakiusa.com
Radian Laser Systems LLC	85	www.radianlaser.com
Ricoh DTG	85	www.ricohdtg.com
STAHL'S	85	www.stahls.com
Stouse LLC	87	www.stouse.com
Topmost PRISM Crystal	85	www.prismcystal.com
Vastex Intl Inc	87	www.vastex.com



(Image courtesy Drytac)

HOW TO APPLY MEDIA TO BRICKS FOR WALL AND FLOOR GRAPHICS

VISIT <http://gpro.link/brickfloor>



(Image courtesy Direct Color Systems)

HOW TO PROPERLY STORE UV-LED INKS

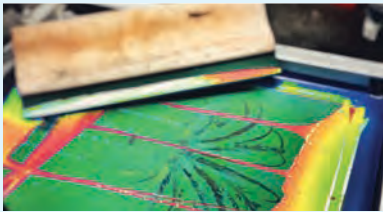
VISIT <http://gpro.link/inkstorage>



(Image courtesy Sublimation101)

WHY SUBLIMATION MAKES SENSE FOR ANY PRINT AND CUSTOMIZATION BUSINESS

VISIT <http://gpro.link/customsublimation>



(Image courtesy Lawson Screen & Digital Products)

ADD TEXTURE TO YOUR SCREEN PRINTS WITH THE RIGHT BASE

VISIT <http://gpro.link/texturescreen>



(Image courtesy Next Level Apparel)

TOP APPAREL PICKS FOR COLLEGIATE AND SCHOOL SPIRITWEAR ORDERS

VISIT <http://gpro.link/spiritwear>



HOW TO EASILY SET UP YOUR SIGN SHOP FOR COLOR MATCHING

VISIT <http://gpro.link/colormatch>



4 WAYS DIGITAL SIGNAGE CAN IMPROVE RETAIL SALES

VISIT <http://gpro.link/digitalsignagesales>



HOW FOCUSING MORE ON DEI CAN HELP YOUR BUSINESS GROW

VISIT <http://gpro.link/businessgrowth>



WANT ACCESS TO MORE EXCLUSIVE ONLINE CONTENT?

Head over to graphics-pro.com and subscribe to the GRAPHICS PRO newsletter. **GP**

Marco

AWARDS GROUP

"EVERY AWARD COMPONENT UNDER THE STARS"

The #1 Leader in Award Products

1-800-229-6592

NEW

**ENDLESS
POSSIBILITIES**

APPAREL - PLAQUES - MUGS
ACRYLICS - CRYSTAL
and MUCH, MUCH MORE!



**ON-DEMAND COLOR + WHITE
DIGITAL PRINTING FOR IN HOUSE PRODUCTION**

STANDARD FEATURES

- ProRip Operating Software
- Transfer Paper 8-1/2" x 11", 8-1/2" x 14"
- C,M,Y,K,FW
- USB Cable
- Power Cable

NEW FEATURES

- Smart Cut Operating Software
- Wi-Fi
- Twice the res. - 2400 X 2400 dpi



Part # ICP560W120S



**CHECK OUT
OUR APP!**

Available on the
App Store

ANDROID APP ON
Google play

**FREEMAN PRODUCTS
WORLDWIDE**

A Division of Marco Awards Group

FREE FREIGHT in the 48



FUSION EDGE

- 24" x 12" & 24" x 24" & 36" x 24" Work Areas
- CO₂ or Fiber Laser Configurations
- Quick Onscreen Camera Layout
- Engraving Simplified