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» CONTENT «

VOLUME 37

JANUARY 2023

NUMBER 5

FEATURES

SIGNAGE & PRINTING

8 TURNING YOUR TALENTS INWARD

Wrapping interior environmental spaces

By Shelley Widhalm

16 SIGN DESIGN

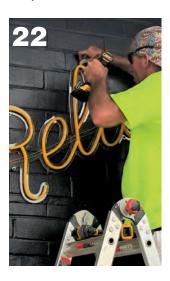
Busy vs. productive By Matt Charboneau

THE RISING TIDE OF BUSINESS

From frantic to strategic By Aaron Montgomery

22 THE BREWING DEAD

Creating vintage-looking signs with new technology By James Dean Hamilton



GP+ SCREEN PRINTING



33 TIME FOR TRAINING, PART 2

Tips on training staple employees (and yourself) to foster employee retention By Josh Kice

> **36** Egrate D

INTEGRATE DTG INTO YOUR SCREEN-PRINTING BUSINESS

Courtesy of Hirsch Solutions Inc

38 THRIVING IN THE DECORATIVE APPAREL BUSINESS

Tips for getting to the top and staying there By Shane Wilson

42 DON'T HATE ON HALFTONES

Courtesy of Xpresscreen Inc

43
SCREEN PRINTING
IS ALL ABOUT THE
SCREEN

Having the right screen means likely success By Terry Combs

47 EXPOSURE CALCULATOR STEPS

How long do I need to expose my emulsion? Courtesy of Vastex International, Inc

48 STAYING ON GOOD TERMS WITH YOUR CUSTOMERS

Terms & Conditions, and why they matter

By Nathan Belz

52 SOFTWARE TO SUBSTRATE

We're headed to State!

By Lon Winters



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GRAPHICS PRO

» CONTENT «

VOLUME 37

JANUARY 2023

NUMBER 5

FEATURES

APPAREL DECORATING

58 THE RIGHT PROCESS FOR THE JOB

Best options for T-shirt printing By Paula Aven Gladych

66 INTERIOR DECOR

Create products that people want in their homes

By Kristine Shreve

68 STITCH SOLUTIONS

Skip the chitchat By Jennifer Cox

AWARDS & CUSTOMIZATION

THE OPPORTUNITY OF PRINT ON DEMAND

Instant fulfillment can attract customers By Travis Ross



72 78

MAKING SHOP MOVES

BUSINESS

STRATEGIES

Where do you want to be in 2023?

By Howard Potter

82

LIFE LESSONS LEARNED FROM BEING AN OWNER

By Paul Ingle

86

THE DIGITAL EYE

See through it By Stephen Romaniello

90 SOFTWARE TIPS & TRICKS

CorelDRAW basics
By Doug Zender

COLUMNS

6 Vital signs

An intro to GP+ By Matt Dixon

DEPARTMENTS

30 PRODUCT HIGHLIGHTS

32 PRODUCTS

93 AD INDEX

94MARKETPLACE

96WEB EXCLUSIVES



ON THE COVER: Graphics companies are turning corporate workspaces, health and wellness rooms, and office lobbies into something that mirrors work-from-home environments, page 8. Image courtesy Pace GFX. Bottom right – this month's GP+ section is all about succeeding in screen printing, page 32.

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Diving in Deep With GP+



IN THIS ISSUE:

Interior Decor Page 8

Brewery Signage Page 22

GP+ Screen Printing Page 33

Promotional Products Page 72

t's the time of year for resolutions, goal setting, and so many other commitments to change that come with a new circle around the sun.

Changes here at GRAPHICS PRO are nothing new. But this year we have some fun items that we hope will help us all be just a little bit better than we were before.

First of all, we have a new coat of paint. I've been working with our art director, Linda Cranston, for 15 years and it's about time I namedrop her in a column because she continuously strives for a better product every year that both jumps off the page and makes reading our magazine as easy and intuitive as possible. Her design for this year gives me that feeling that our readers get when they nail that new logo for their client, perfectly hit that registration on a seamless wrap, or nail the perfect color for a T-shirt you just know is going to fly off the rack.

Secondly, we are introducing our new GP+ section to take a deeper dive into a single topic every month. This month we will be focusing on screen printing, with columns to help you train your staff, fine tune your technique, and run a more productive shop. The section can be found after page 32.

Our GP+ section will be a must-read segment for both those in the industry and those looking to see if that's the next place they want to take their business.

Our GP+ sections for the upcoming year are:

- February Team Sports
- March Wide-Format Printing
- April Sublimation
- May Heat-Applied Graphics
- June Start Here: Your Guide to Getting Started in a New Graphics Venture
- July Custom Gift Annual
- August Wraps
- September LookBook: A Guide to the Hottest Decorative Apparel Styles
- October Direct-to-Substrate Printing
- November Laser Engraving

We hope you'll enjoy these special sections, and we invite you to share your experiences in these industry segments by sending us photos of your projects.





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

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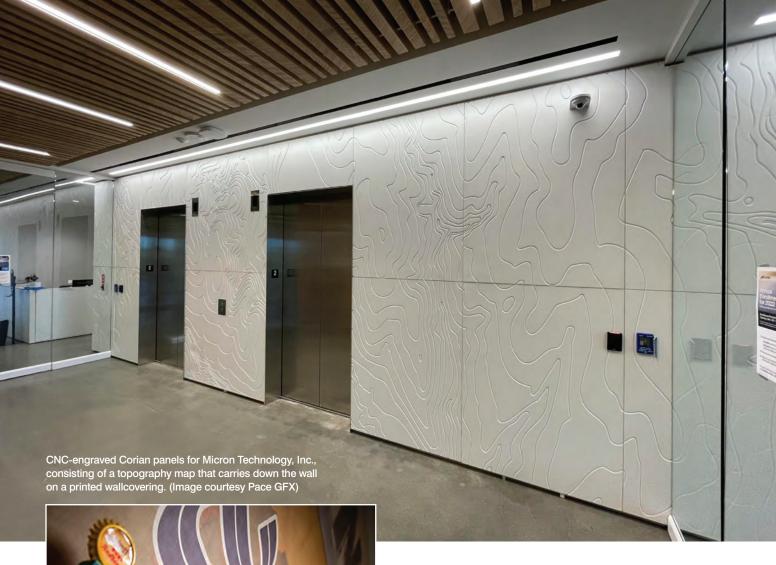
Turning Your Talents Inward

Wrapping interior environmental spaces

BY SHELLEY WIDHALM



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Wraps that have traditionally been used on vehicles now appear on walls, windows, stairwells, etc. (Image courtesy Pace GFX)

A s companies think beyond the COVID-19 pandemic, they are wanting to attract employees back to the workplace.

Companies are turning corporate workspaces, health and wellness rooms, and office lobbies into something that mirrors workfrom-home environments, a trend that began in the latter part of 2021 as businesses started asking their staff to return to work, either full-time or as part of a hybrid model.

"What we have seen is companies making those environments less corporate-like and more living space-like," says Alex Fong, franchise owner of Signarama Redmond, in Redmond, Washington.

Signarama designs, builds, and installs signs and already has the wraps equipment in place for environmental graphics, such as heat guns, squeegees, and cutting and measuring tools. Wraps that have traditionally been used on vehicles now appear on walls, windows, stairwells, elevators, architectural features, equipment, and furniture to turn plain spaces into something with color, pattern, and texture.

Companies are recreating their workplaces from individual enclosed offices to large, open spaces that encourage productivity and allow for collaboration, and they are placing less emphasis on their company logos and icons to retain that homelike atmosphere, Fong says. They're looking to wraps to provide a more subtle level of branding and marketing, as well as communicate messages, like advice for staying healthy on the break room refrigerator.



"If you walk through someone's office space and that logo is repeated time and time again, it's overpowering; it's overbearing," says Paul Pace, founder and chief executive officer of Pace GFX, a boutique sign company in Plano, Texas, that designs, builds and installs branded environments for corporate and educational facilities. "The big approach is to convey your message in a not so overbearing way to clients and employees as to what you do and what makes you unique."

Using wraps for subtle branding

Pace GFX incorporates subtle aspects of a brand, logo, or icon and ties it with the overall interior design of an office or room. To do this, the company matches textures, patterns, colors, and custom display pieces to the floors, walls, and furniture, while also referencing the company's brand and mission. Options can include signage, engravings on various substrates, and printed patterns on window coverings and wall wraps.

Pace decorated a music office, for example, with cassette tapes in the break area employing a color pattern that matches the company's brand. He created an artistic piece incorporating gift cards outside a board room for a company that sells them for major corporations. He's even put branded graphics in parking garages to bring color and light into the spaces, he says.



Gundam-themed wall murals for BANDAI NAMCO's headquarters in Irvine, California. (Image courtesy Gamut Media)



"It's more the experience that we focus on that ties into the employees and also the clients coming into a space. We create an environment for a corporate office that tells who they are — the clients and employees — in a fun and exciting way," Pace says. "Keeping it simpler with more of an artistic touch can probably be incorporated in the brand a little more subtly rather than posting the corporate values and mission statement."

Wall wraps in lobbies, for example, introduce visitors to the company's brand, create a history or mission wall, or highlight imagery from the company, such as historical photos of its founding or photos of the current space. Even something like a conference table might have a wrap, like at Signarama.

"Meeting with us, they get our branding right in front of them in their face as they sit across the conference table," Fong says.

Making wraps seamless

Gamut Media, an Anaheim, Californiabased large-format printer known for employees as to what you do and what makes you unique."

Paul Pace. Pace GFX



Travel-related pieces for Expedia Travel's call center in Irving, Texas. (Image courtesy Pace GFX)



Pace GFX worked with CDW, an information technology company that's also a large PGA sponsor, to create something fun with the logo tied to golf. So, what better way to do it than with golf balls? (Image courtesy Pace GFX)

interior wall murals, provides wall wraps using their customers' designs or creating their own to help businesses with decoration and branding. The wraps are printed in sections on rolls of wrap using a large-format printer, and the graphics in each section overlap for a seamless image. They're used for walls, appliances, computers, entire buildings, and floors, as long as the surface can take the adhesive.

"You have to seam them in panels like wallpaper — pixel-topixel seaming. You can't tell it's two different pieces," says Phillip Yu, chief creative officer for Gamut Media. "The installer has to make sure the graphics line up. It's definitely a skill and takes a lot of practice."

Also important is a high-resolution file and well-calibrated and maintained printing equipment, Yu says, adding that the wraps can be done as one-offs since printing is done digitally.

"A mural changes the whole feel and atmosphere of the room," Yu says. "Some people want really simple lines and colors. Others want super loud colors and graphics. As long as you use a good material, you can remove it."

Materials, colors used in wraps

Wraps used indoors are different in a few subtle ways from traditional vehicle wraps. The materials are slightly thicker but don't



PepsiCo's logistic center wanted to do something fun related to the delivery side of the business, so Pace GFX used a large open-road shot for the wall covering, then printed white ink on clear window film of a grid map of downtown Dallas, Texas. (Image courtesy Pace GFX)



Pac-Man-themed wall murals for BANDAI NAMCO's headquarters in Irvine, California. (Image courtesy Gamut Media)



need to protect from sun and weather, as would materials used in the outdoors.

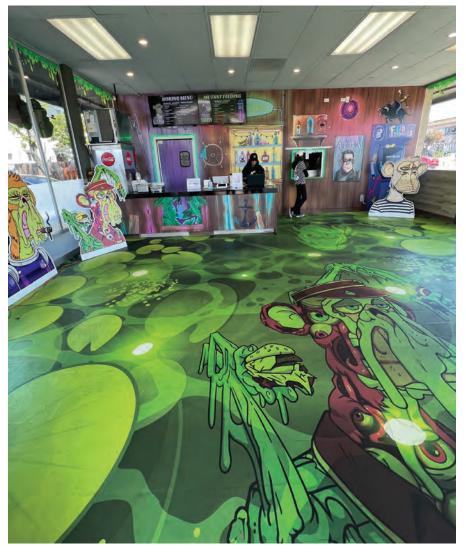
The interior materials can range from printed acrylics to different colors, textures, and finishes, such as brick or wood. The vinyl also can be slightly stiff or have a softer, fabric-like feel to create a soft, warm atmosphere.

The techniques for wrapping vehicles versus walls or furniture are similar, though there will be variation in application and choice of material, such as a wood finish vinyl that likely wouldn't be used on a vehicle, Fong says.

"A lot of skillsets wrapping vehicles can be applied to wrapping walls," Fong explains.







A wall mural for Bored & Hungry, the first non-fungible token (NFT) restaurant in Long Beach, California. (Image courtesy Gamut Media)





Wall wrap for Skill Samurai. (Image courtesy Gamut Media)



14 GRAPHICS PRO • JANUARY 2023 GRAPHICS-PRO.COM

Vehicles require wrapping around more curves than a wall, though wraps on appliances or furniture requires working with tight angles and corners. With wall wraps, the environment is more important, requiring more planning up front with the client, designers, or architects to identify the desired outcomes and how colors, materials, and lighting will be brought together to create a certain feeling and atmosphere.

"You always want to think about the finish of a wall in relation to the decor around the wall," Fong says. "The choice of materials and colors is so integrated into the surroundings. It could be architecture, light fixtures, color choices, and furniture choices — all that comes together in an integrated fashion.

Layering wraps

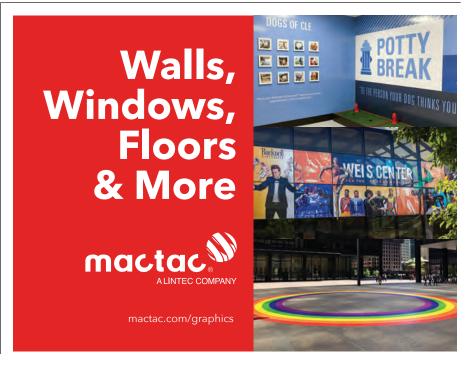
Layering with wraps is becoming popular to create murals and logos to create a more three-dimensional look, using laser routing and computer numerical control (CNC) to make the cuts.

"The dimensional aspect of the working space makes the brand or logo pop very well," Fong says. "The 3D mural layers form 3D pieces on the wall. Those are very, very memorable. They evoke emotion for people who work in that workspace."

To sell alternative uses for wraps, Signarama works with companies wanting to make the workplace more inviting and that are willing to make the investment. Signarama typically doesn't work directly with the company but with commercial property managers and commercial architects and designers who are designing workspaces for their clients.

"It's hard to say what the pricing might be for a job. It's very custom and unique," Fong says. "As sign companies try to venture into this space, it is important to think about nontraditional routes to marketing. Like all other companies venturing into a new space, it's (important) to learn quickly and to be courageous enough to experiment with materials and colors." GP





Busy vs. Productive

Staying busy with design work is different than creating busy design work



Matt Charboneau started his career in the sign industry in 1985 as Charboneau Signs, later changing it to Storm Mountain Signs. In 2017, he published the "Pre-Sale Sign Survey Field Guide," and he also provides sign design training at his site: Learn-SignDesign.com. Contact him at matt@stormmountainsigns. com; LearnSignDesign.com; or 970-481-4151.

We have all heard the expression, "I wouldn't add any more graphics; it's already too busy." But what does "too busy" really mean? Some signs need every square inch of space to tell their story, and yet other signs seem to leave too much empty space on the table. Is "too busy" a subjective term that depends upon the situation, or is it a hard and fast rule that needs to be adhered to? Well, it's a little of both, and in some cases it's the only viable option.

Let's review some conditions and assets you may need to manipulate while you are designing your clients' signs:

Balance, white space, fonts, kerning, graphics, contrast, and color — these are the seven primary factors that we must be keenly in tune with as we design.

Balancing these in accordance with their importance for the sign's job is key. Making one asset too visually dominant will absolutely take away the message that the sign is trying to convey.

Let's look at these conditions and assets for

what each of them represents, and how they can affect the visual clutter of the sign.

- **1. Balance (a condition)** How well does the information "puzzle-fit" onto the sign area? Does a graphic with heavy contrast make the image feel heavy or crowded on that side? Are the lines of copy hard to read at the intended reading distances? Balance is very important and must be recognized and adhered to.
- **2.** White Space (a condition) Referred to as negative space or blank areas where nothing is placed. It can be said that effective white space is what balance aims to achieve. White space helps the viewer's eyes know where to go on the sign and makes everything more readable.
- **3. Fonts (an asset)** Some fonts are easy to read at a distance. Some fonts encourage emotions, and some fonts are simply too ridiculous to even consider using. Always remember that using the wrong font can change the mood and emotions of the sign's message in the wrong direction.
- **4. Kerning (a condition)** Fine tuning the spaces between letters always improves readability. Most designers overlook this obvious feature (I have!). It's easy to miss. Take time to look for kerning opportunities.
- **5. Graphics (an asset)** It could be the main subject of the sign's message, or a supportive visual piece. It could be a watermark, or a full color, eye-attracting image that does the job in a three-second look, or an infographic that tells the entire story.
- **6. Contrast (a condition)** With proper contrast, the correct balance and relative visual importance of an asset are much easier to achieve. Contrast can also help visually adjust the layout and balance of the sign as a whole. Contrast makes letters stand out and become more readable. Use contrast as a tool



16 GRAPHICS PRO · JANUARY 2023

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for bringing the appropriate asset to the front and center of the sign.

7. Color (an asset and a condition) — A dark color can be used to create a standalone box or shape where lettering can be placed in a highly contrasting color (if it needs to be seen), or lettering can be placed on the dark area with a color that isn't as contrasting. This allows the eyes to see it, yet not fight to read it if it's a secondary asset that isn't meant to dominate the sign.

Yessiree, bad layout and balance most definitely affect the sign and its ability to convey its message. Too busy means it's not read, period. Detailed graphics and multi-shaded or colorful aspects in the background add to the visual confusion. Take a look at the example on page 16.

This is a sign that was designed and mass produced for distribution among the manufacturer's local paint stores. These were given out like candy at Halloween, and from my firsthand knowledge and personal experience in working with commercial painters, I can say that these light cardstock signs were rarely used. Why not, you may ask? They were/are free, so why not use them?

Here is why they don't work:

- The background is too busy for the value of the message! Black is not the best choice.
- The top of the sign is missing critical white space making the text harder to read quickly.
- The primary message is not centered, and the two words are placed on the sign incorrectly.
- The company's name and logo would stand out better if they were smaller and therefore less crowded.

1986, one year into being a self-taught sign painter. Yep, pretty scary. I was so proud of this State Farm Sign. I painted it by hand well before my abilities, experience, and skillsets had a chance to grow into what they are today. We all have had our moments when our work didn't shine like it should have. My only intention here is to research and analyze the effectiveness of proper sign design to create learning opportunities for everyone to benefit from. By the way, last I heard there is no crying in sign design.

To start off, my intention is not to pick on anyone or to bring attention to their work in a less than positive light. We all start somewhere. It takes time to learn this complex science of sign design, and learning from the examples around us is one of the best, most practical ways there is for understanding how it works. I have no doubt that some of my early work was used as an example of "what not to do," like this example of one of my very first

hand lettering jobs... before I realized that projectors existed.

Let's look at some of the things that could be improved upon for the wet paint sign:

WET PAINT — this message should stand out in the same way that STOP and DANGER do on traffic signs, but in this example it's hampered by crowded text, improper spacing, a too colorfully-busy background, and a lack of contrast between the multi-colored background





Redesign idea.

This sentence in yellow describes the task of reducing the number of words on a sign

Strive to reduce the overall word count on a sign or other visual message board

This is the core of the message

Reduce word count on signs

and the white font — of which the spacing and placement are way off. I have provided an alternate "armchair quarterback" design here that would be much more effective.

In all fairness to the designer who created this WET PAINT sign design, it's likely that they did not want this layout to be used for the final design. The designer may have been overruled by management, marketing, legal departments or branding. I would say it's a safe bet that this design was never officially field tested for effectiveness.

This is a great example of a sign that is too busy to be readable, and where the primary message is lost in a sea of busy logo paint swatch elements.

Is there a way to keep this from affecting your future sign designs? Why yes, and I am so glad you asked!

CONSIDERATIONS FOR AVOIDING A BUSY SIGN DESIGN:

Step 1: Knowledge of the need

Always remember — signs perform a function. They have a job to do, which is to communicate details, ideas, or warnings. Here are some steps to follow:

- First, find out why the need exists, and what message or sign had been tried in the past. What has or hasn't worked in the past, if anything. Why do they feel the past signs did not do their job? How well do the signs work that are on the property now? Have signs been stolen? Vandalized? What outside factors do you need to plan for?
- Identify the type of need and the sign type it will require, as well as potential code restrictions that may limit the size of the sign and where it's installed.
- Is this need legitimate, timely, and warranted? Who is saying the need exists, and is it a permanent or temporary need? Will the need evolve? How long will the need be present? Seasonal, parking, directional, and most temporary signs usually fall into this category.
- The list goes on, but most importantly, you need to understand what end result is expected by the viewers who are reading the sign.

18

Step 2: The sign's job

After you have identified the need, identify how the sign could address the need. How will it perform the job? If it's safety or regulatory in nature, your design services may be severely limited in scope as these are typically regulated by code.

In reality, the only sign types that get the luxury of creative design are informational, directional and identification, and ego-driven signs. We'll address that category later.

Remember, it's important to know what the customer expects the sign to say, even if their idea isn't the best.

Step 3: It's more than just a job

How about designing an informational sign that has a lot of details on what to do, how to do it, and when? It's easy to see how an informational sign, such as a pool rules sign, might be considered busy looking when compared to a sign designed for a three-second read. Not every sign is a three-second read, and not every sign carries the luxury of a 20-second read opportunity. Knowing the role of the sign and how long the viewer has to read it is critical to a proper design.

Step 4: Minimize, minimize, minimize

Yes, less says more and less usually wins in the three-second read category. So, ask yourself which details are not necessary for the sign to be effective. What can be eliminated or shortened without losing the meaning or the message?

Step 5: Pay closer attention to what your eyes are doing and how they are feeling

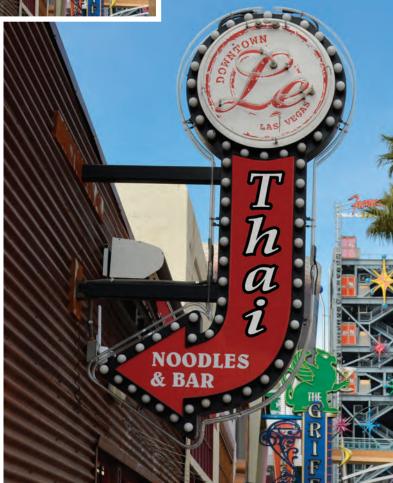
How comfortable or uncomfortable do your eyeballs feel when reading signs that are not properly designed?

Your eye should flow from the upper left corner of the sign to the lower right corner, like a half-grown pup looking at everything and stopping just long enough at each new graphic or image to get a good idea of what it is before wandering over to the next cluster of text. Of course, this all needs to happen within three seconds, or within the allotted viewing time for

NOODLES & BAR

Original design.

"Dang, what did that sign say — noodles or something — I could really go for some great Thai food." Why did the day view of this sign neglect the important detail of the type of noodles they sell? Remember, not all finished sign designs are 100% the final choice of the designer. Clients have ideas too, and sometimes a stubborn client has to have the sign their way. I have no idea if that is what happened here — all I know is that I can't really read it during the day to learn what type of noodles they sell.



Redesign idea.

each sign type. But for an informational sign, it's even more critical to create a well-paved path for the eyes to follow. Even with a 20-second read time, eye flow is important in order for the information to be conveyed — sometimes details must be conveyed in a specific order for instructions to be understood properly. Self-serve car washes have examples of this type of

informational sign. Step 1: Insert credit or debit card. Step 2: Remove wand and hold tightly. Step 3: Select wash type. Step-bystep signs are informational and require a longer read and an un-busy layout.

In closing, pay attention to how the sign flows, and how the assets you have chosen work to help or hurt the message that is trying to be conveyed. **GP**

From Frantic to Strategic

Regain control of your most precious resource



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 (2RegularGuys.com). Also, check him out on his podcast channel called Small Business Saturdays (SmallBusiness SaturdaysPodcast.com).

re you busy? Do you feel overwhelmed? Are you coming out of the busy holiday season and wondering how you will be able to go through that again? Maybe you are looking to grow, but you don't know how you are going to do that. In this month's column, I want to share my thoughts about going from frantic to strategic, so you can get your time and sanity back. I don't know anyone who is not "busy." In fact, it is the modern-day badge of honor. We all have many roles and responsibilities and running or working in our business is just one of those roles. We all feel very "busy." But we do not need "busy" to keep us in constant fight or flight mode.

Even as someone who is constantly busy, what I know to be the truth is that the frantic feeling comes from challenges with time management. I have polled the members of Our Success Group, and many of them indicate that their number one challenge is managing their time — the juggling act that we all do daily. If this sounds familiar to you, keep reading, because the secret I know is this: we don't have a time management problem but rather a priority management problem. My goal is to share with you three questions that will help you go from frantic to strategic. When we get clear on the priorities, we can better manage our time, say no to projects more quickly, and regain control over our most precious resource — time. Priority management is easier said than done, so these three questions give us a great framework to measure our priorities with. Before you plan your week, start your day, or tackle a mountainous task list, break out these three questions and strategically move forward.

Is this task important right now or for my future?

When we feel frantic and have tasks on our list, they all feel essential at some level. This question helps us measure the importance of the task beyond the current moment. When measuring the task's priority for

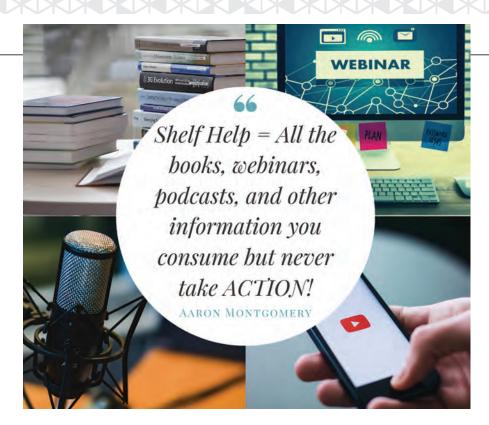
your future, you will also realize that most of your tasks are someone else's priority. Even if the task is your priority, could it be a good idea that needs to be filed away for a future time? Will doing that task right now make a considerable positive impact on your future? For this question to be something you can honestly answer, you must work from clear goals aligned with your larger purpose or reason. If you have not been able to get some clarity on that, reach out to me. I'm happy to help explore that with you over at CoachAaron.com.

If your gut tells you that the task or project is only important right now, it doesn't mean you have to scratch it off the list and try to forget about it. I would encourage you to have a system for managing your tasks where you can take these "right now" tasks and assign them. Complete them if they can be knocked out quickly and not interrupt your day. Or you can delegate them or dump them to a secondary list so you don't feel like you will forget about them. Finding a system that works for you and making sure you own and run your life by that system is crucial to getting from constantly frantic to strategic.

How much does it affect my future?

After determining if the task is essential for your future, it is time to ask yourself about its level of importance to your future. Again, clarity on your goals and a clear vision or reason will make this question possible to answer. The answer to this question allows you to assign the appropriate amount of time to the task. If it is imperative to your future, you should allocate more time. I assign a number between one and 10 based on how much it could

20



affect my future. The higher that number, the more time I schedule for that project or task.

The answer to this question helps you put the tasks on your list in perspective. You will notice that there are tasks that seem very important but really are not, and other tasks on your list you keep pushing off that are actually extremely important. Most of these tasks are the ones I call the working "on" your business tasks. Planning, clarifying your message, identifying your ideal customers, and setting clear policies are all examples of working "on" your business tasks.

Reviewing this question makes the working "on" your business tasks so important because it will reduce and guide the working "in" your business activities. Posting on social media is more effective and takes less time when you know who your ideal customer is. Answering customer emails regarding customer service issues takes less time and is less frequently required because you clearly state policies that make sense to your customers. You know what e-commerce platform to pick and the tone to set in your email marketing blasts because you took the time to create a business and marketing plan. All those working "on" your business tasks no longer get pushed aside. You are not focusing on the "what" of the project but on how much it affects your future.

Does the action "produce" or "consume?"

When thinking about everything you do throughout your day, this question allows us to pinpoint the highest priority actions. To create success in all areas of your life, the percentage of time spent

producing must be greater than the percentage of time spent consuming. And while we have to consume some to grow and learn, today's world is set up to focus on consuming. Social media is designed to keep your attention and entice you to consume more. How many times have you jumped on Facebook to quickly send out a post, and 20 minutes later, you've forgotten the whole reason you logged on? Our phones notify us constantly so we can consume more for others. We have screens everywhere that allow us to consume any time and any place. Reading this article is consuming. The reason for this question is to ensure that we take action more than we consume. Can you take the information from this article and produce a system to go from frantic to strategic? If you are constantly consuming, even if it is helpful, useful information, it all just becomes "shelf help." The information sits on the old dusty shelf in your brain, and nothing is done with it.

The great part about measuring tasks with this question is that it gives you the right not to spend time listening to the next training or signing up for the free webinar if you don't plan to schedule a time to implement the information. Producing, creating, or taking action has to outweigh consumption. And it is essential to understand what producing

means for you in the context of success. It could be the production of a physical thing for your customers, but it is also so much more. It is implementing new ideas, taking action on opportunities, and even creating your future success in your mind through business planning, masterminding, and more. Producing means growth, improvement, and moving forward. Consumption is just that — consuming resources with no apparent gain. It's living someone else's dream while your purpose and desires wait for you to take action.

Utilizing this question helps you reframe certain activities that seem like time wasters. Carving out 30 minutes to an hour for watching your latest guilty pleasure on Netflix becomes productive because it produces that rest and recharge you need to get on to the next task. Scheduling a 30-minute walk in the morning before starting your day becomes the action that creates the mindset to stay focused and get the right things done. Focusing on doing things that will help you produce allows for a strategic perspective.

When we control our priorities, those busy days feel like a success. You get in the flow, and you feel yourself moving forward. I'm excited to hear how you are going to make 2023 a year of being strategic as opposed to frantic. GP

Creating vintage-looking signs with new technology

BY JD HAMILTON



James Dean Hamilton has been writing for National Business Media since 1995. After a decade sabbatical from writing, he is back in the saddle. With over 30 years' experience, he has a vast knowledge of everything signage as well as marketing and workflow management.

Initially we wanted to go with "old school" neon. However, the detail could not be captured in glass. There was also some concern about having high-voltage neon too close to customers. Also, the LEDs conserve tons of power and are low voltage.

This was a great project for creativity and a chance to work and coordinate with a variety of different collaborators. First, a bit of history and background.

Burial Beer Company

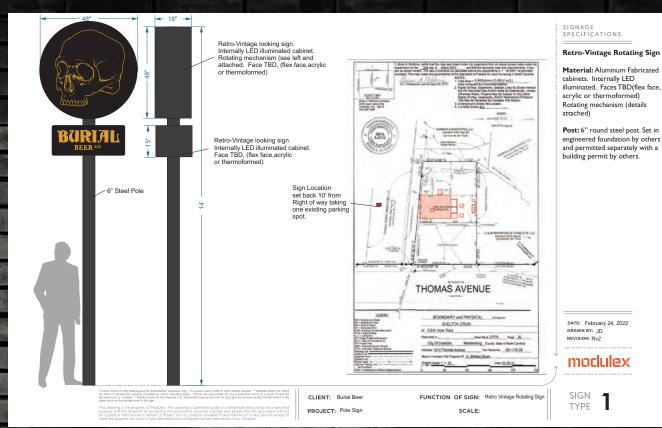
The story of Burial begins long before the inception of their original Asheville, North Carolina taproom.

The search for the perfect spot ended when they found Asheville, a town that offered a small, close-knit community with urban attractions such as bars, restaurants, music, and art.

In 2016, Burial expanded to a new production facility, Forestry Camp. Originally built in the 1930s by the U.S. government, Forestry Camp was a Civilian Conservation Corps (CCC) site housing men stationed to work on the Blue Ridge Parkway, among other environmental construction projects in the area. It sat almost completely dormant for years after the program's conclusion in 1942.

During the Forestry Camp build-out, the Exhibit Taproom and Bottle Shop in Raleigh, North Carolina came to fruition. The Raleigh space is a unique exploration of the Burial art world located in downtown Raleigh's Transfer Co.

Burial's newest wave of expansion includes a new taproom and bottle shop in Charlotte, North Carolina.



Charlotte taproom

Director of Brand Chris McClure and graphic artist Kortnie Emmons reached out from the brewery about some interesting projects for the interior and exterior. They contacted a couple of other sign companies and no one knew how to do all the projects. I worked with Zack Hilyer, the brewery's facility director, to dive into electrical and installation needs.

Always up for a challenge, I worked with the team at Modulex Carolinas and put some concept drawings and pricing together.

The pole sign

Burial wanted a vintage, vacuum-formed sign in keeping with a lot of the original '60s/'70s signs in neighborhood. I worked with Katie Waldrop at Diversified Signs in York, South Carolina, about tweaking some art to make this happen. Since they were doing the faces, we decided it best to have them do the job turnkey. Cabinets, LEDs and steel post could be test fitted before install.

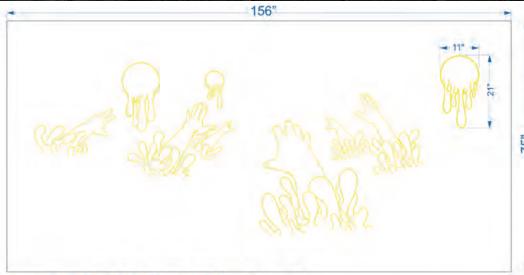
I also worked with Brace Sign Service out of Gastonia, North Carolina. Owners Brock Steel and Robert Flynn helped with the install. Since Charlotte required a licensed electrical contractor for anything involving electricity, it was a perfect fit.

Drawing file of vintage vacuum-formed sign with engineered stamp, permit information and landlord sign-off. (Images courtesy James Dean Hamilton)



Flynn sets and tightens mounting hardware while checking LEDs.

23



LED Graphics

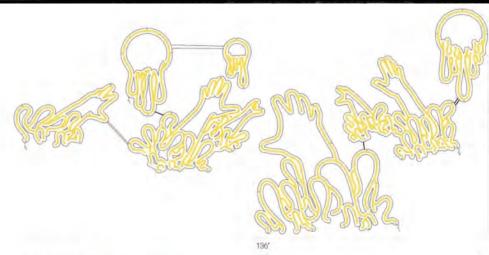
- -yellow/gold with clear acrylic mounting background
- -wired behind mural
- -wires to run to ceiling to transformers



Finished Piece:

-Background is 1/4" direct printed Aluminum Composite Material(ACM) "Light" print for muralist to finish paint "L" bracket of 1 1/2" to 2" aluminum for framing. Piece would have appropriate stand offfrom interior wall for wiring and power supplies.

Drawings used for concept and production of interior mural.



163 cm

LED Components with clear acrylic mounting outline. Wiring behind Mural.

LED NEON ON

00000000

LED Color Yellow/Gold







Example



The sign needed engineered drawing specifications and then the permit was approved. Steel and Flynn came out to work with the general contractor on the build-out that dug the footer to specs, then set the steel and brace plumb and level while the concrete set.

After all concrete was cured, we set the vacuum-formed faces and cabinets into place and wired them to the dedicated 120V/20AMP line for the sign.

It turned out great!

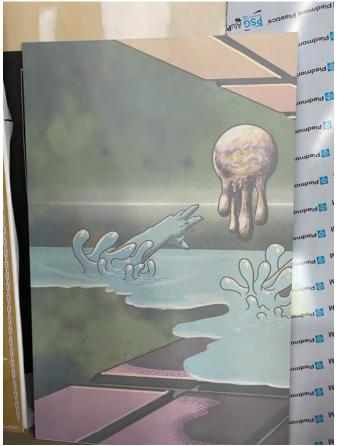
The mural feature wall

Now this was a challenge. It was a $14' \times 7'$ art mural, for which the client initially wanted to have vintage neon elements for the "reaching hands" and "globes." The initial concept was to paint the mural on the wall and mount the neon pieces.

After a bit of investigation and based on previous experience, we began to look at alternatives.

Our first concern was that if a mural was painted on the wall, there was no access behind the brick to run power. Secondly, after consulting with a couple neon craftspeople, we discovered that the bends needed for the art would be nearly impossible to create. Lastly, exposed neon in a bar near a seating area was inviting all kinds of potential trouble and vandalism.

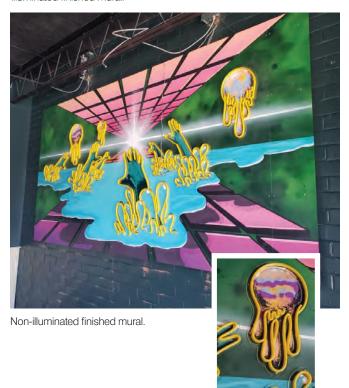
The alternative we came up with was to do aluminum composite material (ACM) mounted to a standoff frame so wiring could be run and not seen. Instead of actual neon, we worked with Henry Duckworth with Custom Neon out of California on some new LED technology that looked like neon, but could be shaped tighter, burn less electricity and be much safer.



"Soft" UV direct printing of mural art on 6mm ACM panels. The panels were then hand-painted by the brewery muralist. This helped us control the vector art and placement for the Custom Neon LED pieces.



Illuminated finished mural.



Burial Beer was very adamant they wanted a hand-painted piece. So, I worked with them on a concept to do a "soft print" on our Mimaki flatbed printer, then the pieces could be brought back to the muralist in Ashville to be painted.

This allowed a couple things: paint would stick to the soft UV printing, giving the opportunity for a hand-painted look from the muralist. From my perspective it allowed me to control the vector art to forward to Duckworth at Custom Neon.

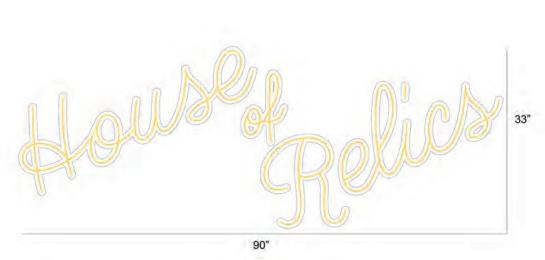
Everything was put into production. The ACM "soft print" panels went to Ashville and the Custom Neon elements were ordered off the artwork that matched the mural art. The new LED technology looks kind of like rope lighting, but much more vivid. It comes shaped to the artwork and mounted to a clear piece of acrylic with mounting holes.

The final, finished hand-painted mural and Custom Neon pieces arrived at the same time. They were test fitted and everything lined up perfectly. Modulex Carolinas fabricated and mounted the mural panels to the frame.

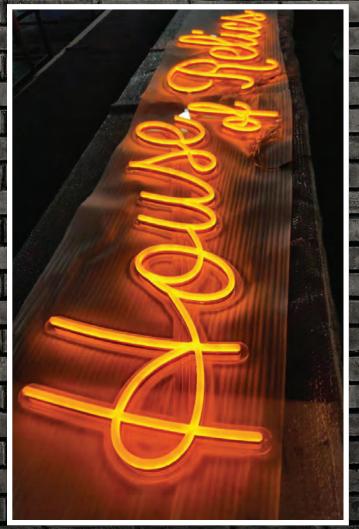
Brace Sign Service assisted with the install and ran the multiple low-voltage whips to a dedicated junction box.

The piece turned out awesome and kept the original graphic intent thanks to a little thinking outside the box. It is the predominant focal point of the taproom.

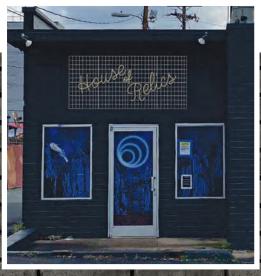
26 GRAPHICS PRO • JANUARY 2023 GRAPHICS-PRO.COM



Drawings used to pull permits for parapet wall sign featuring faux neon and a steel wire cage for an industrial look.



Laying out the faux Custom Neon pieces and doing a check on illumination.





Side View

LED Standoff

Clear Acrylic Outline







Finished piece.

The House of Relics

This was a sign over a separate entrance to the taproom's merchandise area (or "merch" room, as the younger generation calls it).

It was way less complicated than the mural piece. They wanted neon, but we had concerns about power usage, safety, and servicing. We talked about putting a cage over the sign to prevent the possibility of people throwing rocks or bottles at the exposed neon, and the client liked the industrial look. We once again reached out to Custom Neon. They had an exterior LED product, so we proceeded that way, still keeping the "caged," industrial-looking front. Brace Sign Service assisted with this installation as well.

That's a wrap (no pun intended on mummies and walking dead)

I am an old-school sign guy and absolutely love and admire the craftsmanship of neon. Sometimes you just need to research and see what new technology is available to fit the environment the project will go in. I believe we accomplished a vintage look while cutting down on power consumption, eliminating lots of potential servicing,

and making everything safer all around.

I think I'll blow the froth of a cold IPA from Burial Beer Company and thank them for their business and all the partners that made this project possible! GP



GRAPHICS-PRO.COM JANUARY 2023 • GRAPHICS PRO 29

PRODUCT HIGHLIGHTS













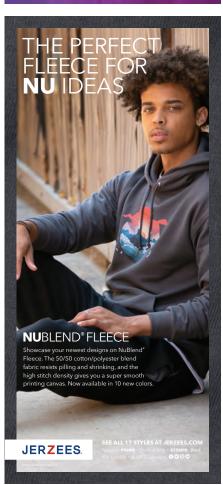
PRODUCT HIGHLIGHTS

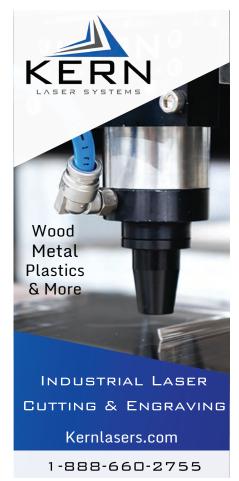






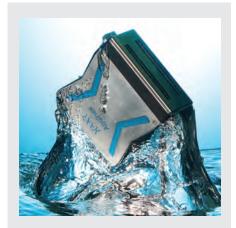






NEW PRODUCTS

For more on the suppliers featured in this section, please see website and phone information following each product.



AQUEOUS PRINTHEAD

Xaar announces the Aquinox print head, the company's latest development from its ImagineX platform. It has a redesigned internal architecture, new water-compatible materials, and a new drive system for better drop ejection, according to the company. It also has a native resolution of 720 DPI and can print at speeds of over 100m/minute.

xaar.com

FABRIC MEDIA

Fisher Textiles has added three new fabric media for SEG and soft signage to its Enviro-Tex fabric line for dye sublimation printing. The ET8050 Super Sonic for backlit SEG and banners is a sueded knit fabric that contains 48.7 recycled PET bottles per linear yard. The ET9410 Soft Knit for frontlit SEG, banners, and backdrops contains 32.9 recycled PET bottles per linear yard. The ET9708 Heavy Knit for frontlit SEG, banners, table throws, and backdrops contains 40.1 recycled PET bottles per linear yard.

800-554-8886 fishertextiles.com





REUSABLE NAME BADGES

Name Badges International offers reusable metallic name badges. The product has a clear window, a metallic front with black plastic back, a pin or magnetic backing, and comes in four different sizes. The company also says the badges include full-color printing on the metal part.

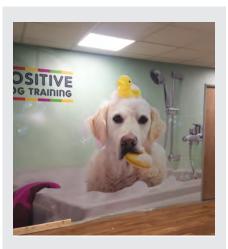
877-422-0624 namebadgesinternational.us



HOLOGRAPHIC PRISM GILM

Roland DGA announces the addition of a Holographic Prism Film (ESM-HOLO) to its family of media offerings. It is a 6-mil holographic prismatic film featuring a permanent adhesive, and it can be used for labels, stickers, decals, window displays, signage, and more. It is available in 15" x 75" and 30" x 75" roll sizes.

800-542-2307 rolanddga.com



WALL MURAL LINER

Mactac announces a new, heavier version of its wallNOODLE liner for permanent wall mural products. It is a 6-mil, matte white, semi-rigid vinyl with a permanent acrylic adhesive, and it has a new 90# stay flat polyethylene-coated kraft liner. Customers can order the product in 54" x 100' rolls or custom sheet sizes.

866-622-8223 mactac.com



JERSEY T-SHIRT

Royal Apparel offers a premium jersey T-shirt, made with fine jersey (100% combed ring-spun cotton). It is a relaxed fit, unisex design, and is available in four exclusive colorways.

866-769-2517 royalapparel.com

GF

SCREEN PRINTING

GP+ is a monthly section of GRAPHICS PRO dedicated to taking a deep dive into a specific graphics market. This month's section is all about the tried-and-true apparel decoration method of screen printing.

FEATURING:

33 Time for Training, Part 2

Tips on training staple employees (and yourself) to foster employee retention By Josh Kice

36 Integrate DTG Into Your Screen-Printing Business

Courtesy of Hirsch Solutions Inc

38 Thriving in the Decorative Apparel Business

Tips for getting to the top and staying there By Shane Wilson

42 Don't Hate on Halftones

Courtesy of Xpresscreen Inc.

43 Screen Printing is All About the Screen

Having the right screen means likely success By Terry Combs

47 Exposure Calculator Steps

How long do I need to expose my emulsion?

Courtesy of Vastex International, Inc

48 Staying on Good Terms With Your Customers

Terms & Conditions, and why they matter

By Nathan Belz

52 Software to Substrate

We're headed to State! By Lon Winters



TIME FOR



Tips on training staple employees (and yourself) to foster employee retention and establish quality in your production processes

n my previous article (https://gpro.link/kicetraining) we covered a few concepts in getting a new hire trained into our production process. It's time now to discuss training employees for an increase of production efficiency to foster their personal growth and your business growth.

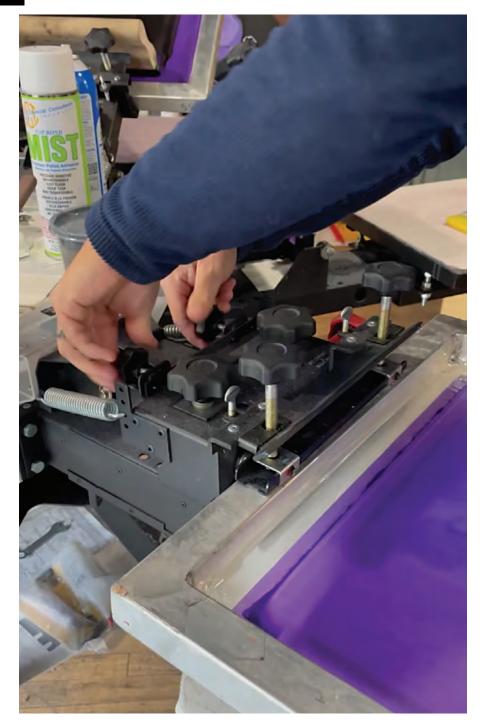
One of the more difficult changes to enact is development from a beginner or



Josh Kice is a 10-year screen-printing vet out of Denver, Colorado. He has worked in small to mid-sized shops throughout that time, learning most facets of the screen-printing industry. In his 10 years of printing and designing, Josh volunteered as a firefighter in Golden, Colorado, for a brief stint where he developed his business idea and model for Ink & Drink, a DIY screen-printing bar based in Denver's Santa Fe Art District.



GRAPHICS-PRO.COM JANUARY 2023 • GRAPHICS PRO 33



intermediate printer to being an expert and highly efficient printer. A lot of the adjustments, which must be made to achieve this goal, push a boundary of working methodically compared to hectically. We need to skirt that fine line, keeping ourselves (just) on the methodical side of the coin. We need to address the areas where speed in production matters more than attention to detail and vice versa. This is not to say we don't strive for both elements in everything we do but understanding our potential mistakes that are more catastrophic will help determine which procedures land in which category.

Addressing the procedures in which precision is paramount is how I recommend starting. I would categorize QC, registration, and anything that involves ink being opened, moved, or carried near garments as precision elements. Every shop will be different so use these suggestions according to your specific situation. If we move with our focus on speed, in precision areas, we risk our product quality consequently taking the fall. Naturally, the more we work on our craft and with our equipment, the more we pick up on the nuances and subtleties that are called for to work efficiently.

The less precise procedures are easier to implement increased production opportunities. Let's start with those. Finding ways to involve more people in our setup procedure can increase our efficiency. Two sets of hands setting screens, dropping ink, stacking garments, and prepping squeegees is a great way to utilize personnel to improve the transition time between print orders. It is beneficial to





Precision work takes concentration and can also be performed quickly. Just remember that precision work, such as registration, should never be done hectically.





No clean. Light clean. Full clean.

know which order is in the queue coming after the order currently being completed. We may not have to fully clean a squeegee between jobs. Our ink selection might go as follows from order No. 1 transitioned to order No. 2:

Underbase — Underbase (no clean) Yellow — Yellow Gold (light clean) Forest Green — Navy Blue (full clean) Sky Blue — Turquoise (light clean) Black - Not used (full clean used often enough that you could leave uncleaned for order No. 3 if needed)

Not everyone has additional personnel to dedicate to transition tasks. So, how can a single operator increase productivity in the transition time? The same options listed above play well for a single operator as well. Plan on cleaning squeegees as quickly as possible, whether with multiple persons or just one. There shouldn't be garments out near us while we are in transition, so we can focus on speed more than precision in this instance. We should be grabbing the next set of ink tubs at the same time we are putting our old tubs away. Less trips to and from our ink section cuts out time. Another speed aspect to employ is applying glue and prewarming our pallets at the same time as we prep for another order. Stacking shirts doesn't need to be the tidiest thing and is easy to meander through without intensity. If the pace is kept up during shirt stacking, it will cut out several unnecessary delays throughout the day.

As we get those shirts laid out, we

There are typically two or three tricks that we can cut out from our routine while racking shirts that can increase our production speed by 60-120 garments per hour.

should start working more methodically to ensure ink doesn't go flying. It is likely that our screens are being set into our press in print order around this same time as well. Alignment and registration are the most important precision elements we handle in prep work. Feel free to slow down at this stage, ensuring to not work frantically. Getting screens set in place should still have a system that doesn't lose time in production. Whether we are using a manual press or an auto, there is no need to lock the second (and beyond) screen in place until we have our first screen placed and printed. We need to do micro-adjustments one way or the other most of the time anyway. Locking and unlocking our secondary screens multiple times slows us down. Set the second screen after you have the first screen printed with the test garment flashed and ready for the second screen to be registered. This holds true for each subsequent screen in our print.

One last thing worth covering here that can help our production speed is shirt racking. Shirt racking is the most muscle-memory centric element of our entire print process. We don't consider this much as we typically are quick at this after having done it so much during our time as printers. There is a high chance that we have bad habits and tendencies that slow us down while we rack shirts onto our pallets. We should take the time to film ourselves racking shirts in our normal method. There are typically two or three tricks that we can cut out from our routine while racking shirts that can increase our production speed by 60-120 garments per hour on an auto press and 30-60 impressions per hour on a manual press

Printing is a trade that takes time to master and just when it's been mastered, a new material, method, or expectation creeps into the industry, making us all feel like novices once again. Creating and implementing a learning system will help every employee in times where new challenges present themselves to production staff. GP

INTEGRATE







INTO YOUR SCREEN PRINTING BUSINESS

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creen printers love large orders Decause they are cost-effective and relatively inexpensive to produce. One challenge many screen printers face is small runs of high-color designs or additions to larger orders. Incorporating a direct-to-garment printer as a complement to screen printing creates a win-win situation for the screen printer. A direct-togarment (DTG) printer can service orders of any size with speed, efficiency, and a wide color gamut. Screen printers once resisted the idea of DTG because the technology was new, and it was difficult to create a DTG product that closely matched a screen print of the same design.

Today, many screen-print shops do sample prints of certain designs with DTG and then run the large-scale production on the screen print equipment. Direct-to-garment printers can range in volume capabilities from a single piece to upward of 200 pieces per hour for mass-volume

solutions. When DTG was first introduced, there were rumblings that it was designed to replace screen printing; however, the opposite is true. DTG is designed to let the screen printer do the jobs that screen printing does best and then handle the DTG jobs that are best suited for DTG. Screen printing and DTG can live

together in perfect harmony. GP







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IN THE DECORATIVE APPAREL BUSINESS BY SHANE WILSON

Tips for getting to the top and staying there



Shane Wilson owns a screen printing and embroidery shop in Nebraska that is also a retail sporting goods store, selling everything you need for your favorite sport. He has been in this industry for 29 years.

'd like to talk about the challenges we are faced with in our industry today. I have seen many changes over the years, most of them very advantageous and profitable. Early on, when I first started the business, I remember pulling letters out of a zip-close bag one-by-one just to put a name on the back of a football jersey. I even screen printed on lycra wrestling singlets and nylon jackets back in the day, all of which we never do anymore thanks to the invention of sublimation.

We still have to pay some attention to dye sublimation, but not as much as we did 15 years ago. Everything was a struggle to print on back then. I always like to tell the story of my very first nylon jacket, which was printed as a Christmas gift. I set up the screen and printed a beautiful one-color print on the back. I put it on the dryer belt like we always did with shirts and hoodies, then I scraped the ink off the screen and grabbed the jacket out of the box at the end of the dryer. Much to my surprise, the dryer had melted the whole back of the jacket off!

I was shocked and devastated. I ordered another jacket and printed it again, this time making sure the dryer temperature was turned down. I watched very closely





If you can stay ahead of your competition, you will always have the advantage. (Images courtesy Shane Wilson)

as it went through the dryer. Thankfully, the jacket did not melt this time.

I let it fall in the box like we always did with shirts. Then I cleaned up the screen and went to get my first successful nylon jacket. I was shocked again the jacket had folded, and one side of the print had stuck to the other. Yet another ruined jacket. This was two days before Christmas, so I had to overnight another jacket. I printed it, watched it go through the dryer, and of course I stood right there to catch it. This was by far the most expensive lesson I learned very early on. I tell this story to let newer people in the industry know that you will make mistakes, and that you will also learn from them. Always know that there are people out there who can help.

Learning the ropes

One of the biggest challenges I had starting out was figuring out how to do all the different things needed to run a successful business. Screen printing, embroidery, stickers, banners, awards, etc. We didn't have the internet back then. Networking





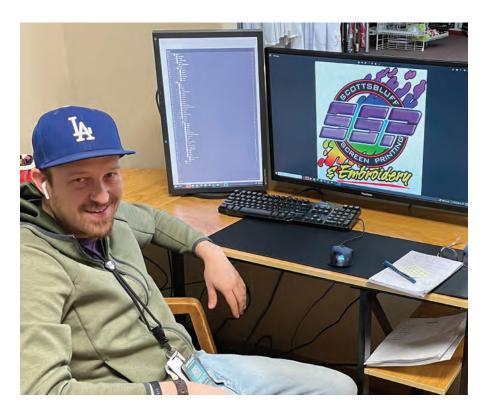
big challenge I face today is keeping up with the equipment.



Always strive for the best product possible. We take great pride in the quality of our work.



all know finding good help is a struggle these days. Invest in the ones that you have, and make sure they share the same passion that you do for quality.



was only done at trade shows. On that note, please take advantage of as many networking opportunities as you can. I have many friends in the industry that I can go to for help, and you, too, should reach out to others and let them assist you.

The equipment chase

One big challenge I face today is keeping up with the equipment. There are so many options out there to help grow and streamline your workflow, but the equipment is very expensive. Make sure you make sound decisions based on whether or not it will help your bottom line. We just recently purchased a new printer that makes heat transfers, stickers, banners, and more. We have always outsourced those things, but now we can be more profitable and have complete control of our product. We also bought a new machine to print our separations directly onto the screen. This eliminates all film positives and saves us a lot of time and money. No more spending 45 minutes looking through the "S" box for a separation we printed last year. Not to mention the cost of the printer and film is now eliminated. As you can imagine, I was very excited about this purchase.

Visit trade shows

I also recommend that you attend trade shows. You can find tons of valuable information and techniques. I have learned so much by attending these shows and learning about all the different machines. I would also suggest going out at night and meeting new people. This is a great way to network and share ideas with others. I have often said, "The trade shows are great for information, but the true value is meeting up with others in your industry to share ideas!"

Stay up to date

Next, keep up with the latest trends. Know what's in and what people are looking for. I am always browsing the internet to see what is hot and fashionable. Talk to your customers to get a feel for what their needs are. If you can stay ahead of your competition, you will always have the advantage. Also, never

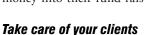
40

One of the biggest challenges I had starting out was figuring out how to do all the different things needed to run a successful business. Screen printing, embroidery, stickers, banners, awards, etc.

steal anyone's artwork! It is perfectly okay to find designs on the internet and use them for inspiration, but please do not steal other people's work, as it will end up hurting your reputation and business.

Be involved locally

Another recommendation I have is to work closely with local schools. In these uncertain times, businesses may cut back, but schools will always have sports seasons. We have grown our business exponentially by providing uniforms and fanwear. We build our own online stores and offer the products to all the fans. We even mark them up a little so we can give some of the profits to the team. Coaches love that, trust me! It also makes it easier to sell. We do all of the work, but the coaches get to put some of the money into their fund-raising accounts.



Lastly, I would like to talk about customer service. This is the most important part of my business. My staff and I take great pride in the service we provide. If you can out-service your competition, the rest is pretty easy. I get to charge a little more than my competitors because we work so hard for our customers. Here are some of my rules for good customer service:

- Never go home until you have returned all phone messages and emails, even if it's just to let someone know you received their message and will get back to them very soon. Quite often, I get a message back thanking me for the prompt reply. People really appreciate that!
- Never miss a deadline. We sometimes have to work all night to keep our word, but it makes a difference. Always underpromise and over-deliver. The other way around will ruin your business. With today's shipping situation, this is harder than ever. So, we are asking our customers for more time to complete jobs.
- Always make your customers feel important. Let them know you appreciate them. Always get the last "thank you" and never follow it with "you're welcome." I take great pride in the fact that my customers become my friends. It's just the



way I run my business. If you are in my store more than once, I will remember your name and make it a point to bring you into our world. We love the relationships we have made over the years. Loyalty is the key to success — it means more than money to me. With loyalty, you will always have a great customer base. So take care of your customers, and don't be afraid to befriend them!

• Always strive for the best product possible. We take great pride in the quality of our work. It doesn't take a lot of extra work to be perfect. For example, make

sure your registration is perfect. One of my pet peeves is pin holes. Every employee I have ever had over the last 28 years has come back to visit, and they all say the same thing: "You have ruined it for me; I cannot buy a T-shirt without checking it for pin holes. And if it has them, I will not buy it." It's funny, but it makes me proud that we have instilled quality control into our operation. We all know finding good help is a struggle these days. Invest in the ones that you have, and make sure they share the same passion that you do for quality. It will make you money. GP



DON'T HATE ON



COURTESY OF XPRESSCREEN INC



Every school that teaches screen printing will tell you to make your angle 22 degrees; it is a magic frequency that helps reduce moiré (unwanted patterning).



Make sure you have an exposure calculator and expect to waste a screen or two testing when you first start out.



The mesh is already coated with a PET coating and a thermal print head burns the screen wherever ink should go through.

A Riso Thermal Screen Maker eliminates water and emulsion



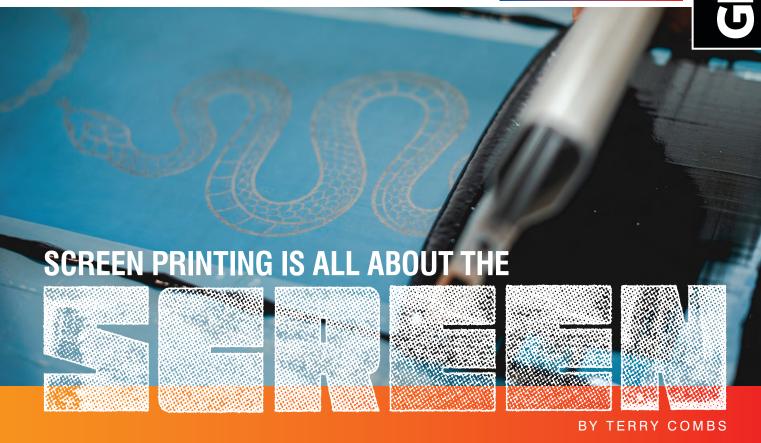
othing else in screen making can compare to the frustration of not being able to get all your halftones burned out properly. Exposure times coupled with different ink densities in your output printer only adds to the frustration. And for some, trying to decipher terms like RIP and LPI only adds to that confusion. So, let's try and wade through those muddy waters with the basics.

With conventional halftones you either need to use an art program to generate halftones or from some type of RIP software to either make a film positive of your artwork or use direct-to-screen (DTS). Then, you must expose your screen and wash your image out. Inside Corel, Adobe or your favorite separation/RIP software you will have the ability to set your halftone frequency (LPI) and your halftone angle (0-90). The LPI simply means how many dots can fit in an inch, so the bigger the number, the smaller the dot. How small a dot you can make is dictated by what screen mesh you have and what you are printing on. The math for mesh selection is your DPI x 4.5. So, if you wanted 50 LPI then you need to have a 225-mesh screen. Every school that teaches screen printing will tell you to make your angle 22 degrees, it is a magic frequency that helps reduce moiré (unwanted patterning).

On garment selection, large ring-spun cotton does not take halftones very well as it will try and print on the peaks, the valleys will miss, and you can lose a lot of detail. I suggest starting out at about 45 LPI until you get the hang of it. Then you can work your way up 75 LPI later on.

Screen prep is super important, and you will need fresh emulsion that is evenly coated on the screen, along with sharp film positives and dense black ink. Make sure you have an exposure calculator and expect to waste a screen or two testing when you first start out. Be patient in your rinsing and make sure to post-burn the screen.

Another option that is quickly gaining in popularity is to use a Riso Thermal Screen Maker from Xpresscreen. The mesh is already coated with a PET coating and a thermal printhead burns the screen wherever ink should go through. It eliminates water, emulsion — actually, every aspect of conventional screen making with perfect halftones every time. No film needed, and it has its own onboard RIP. GP



Having the right screens means likely success



Taping the inside of the screen will help avoid ink leaks and speed up the cleaning process after production.



Terry Combs is a 40+ year veteran of the garment printing industry, and has managed production shops large and small across the United States. He has written hundreds of management and technical articles for garment printing publications and spoken at industry events worldwide. He is currently in DTG sales and training with Equipment Zone.

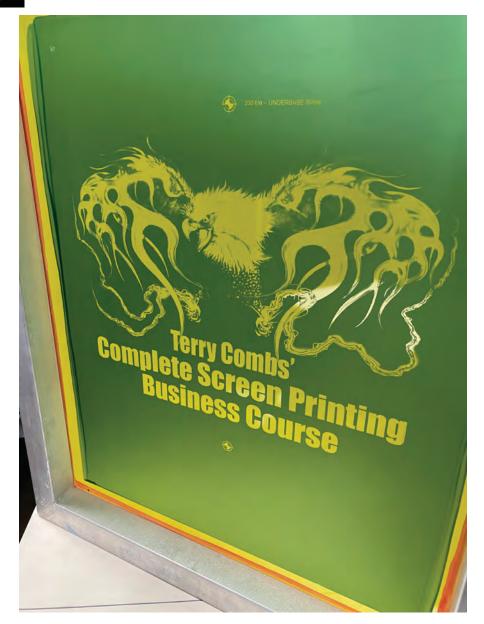
t may sound simplistic but screen printing is in fact all about the screens. If you get the screens right, you are 90% toward the goal of a perfectly decorated garment. So why do you see so many poor-quality prints out in the world? It's because most decorators get the screens wrong.

Screens are consumables

New decorators often categorize screens incorrectly, lumping them with equipment rather than consumables such as ink and emulsion. Frames stretched with mesh that are in use on your production floor will have a limited life expectancy, depending on the number of impressions. With every production run, a static (stretched and glued) frame will lose tension.

If your business is a side hustle right now, you might get a year's use from your frame inventory. If your business is full-time, a stretched frame might have a lifespan of a few months.

For frame inventory, it is recommended you have enough screens in stock for a week's production. This will be the most





To speed up setup on the press, place a registration mark center-top and center-bottom of your film positive.

efficient method to keep your production moving, without stopping to reclaim, recoat and reburn screens during the week.

Some suppliers will take your used static aluminum frames as a trade-in toward new stretched frames. While you can purchase a pneumatic stretcher to build your own screens, it is more practical in small to medium shops to buy frames factory-stretched and ready to use. Spend your time producing garments rather than stretching screens.

Proper mesh count

There has always been a misconception in the industry that lower mesh count screens are preferable to lay down more ink or to reduce the number of print passes. Also lower mesh count screens are used to try and avoid printing an underbase and flashing. The true result is a tooheavy laydown of ink on the fabric.

Mesh count translates to the number of threads per inch. A 160-mesh screen has 160 threads per inch of fabric. In simplest terms, the lower the mesh count, the fewer threads, the more ink will pass through the screen.

So instead of a 110-mesh screen, your go-to screen for general use should be in the 160-mesh range. This will give you a more crisp image, and less pickup of ink on subsequent screens when printing multi-color jobs.

While there are many mesh counts to choose from, you will likely have four or five different mesh count screens in your inventory. Specialty inks such a puff require a lower mesh such as an 86-mesh. Photographic images using a simulated process will require a 305-mesh for colors and a 230-mesh for the white underbase and highlight white. Your particular niche in the marketplace will determine you mesh count inventory.

Proper tension

Mesh tension is measured in newtons, and tells you how much deflection (give)



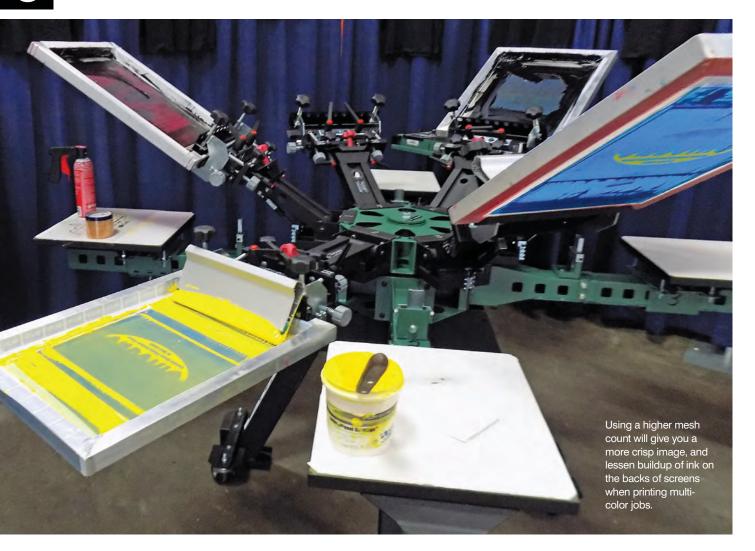
With a T-square and marker, create a center line on your platen. Then line up your two registration marks on that line for a perfectly aligned image.

the mesh allows under the weight of a tension meter. While not required for a start up screen print shop, a tension meter will be a handy item to check your screens periodically. While 25-35 newtons is ideal, 15-20 newtons can be acceptable for many jobs. Below that tension, and you will begin to experience issue such as smearing of ink or a rough ink surface on your finished garments.

When you print, your screens will be off-contact. In other words, the only place the screen mesh should touch the garment is along the sharp edge of the squeegee as you pull or push it across the screen. Mesh that is not tight enough will stick to the ink on the garment and result in a rough finished ink surface. If you left a screen and you hear a "pop" as the mesh releases from the garment, your screens are not at proper tension.



It's important to degrease your screen each time you begin the screen prep process. This will help you avoid pinholes during production.



Screen prep

To avoid pinholes (small dots of ink that appear on your garment through the print run) it is important to properly degrease your screens before coating with emulsion. This process is repeated each time you reclaim a screen and start the process of coating your screens and putting them back into the production cycle.

After exposing your screen, be sure to dry the image area completely after washout. Clear emulsion can block the image area if you do not properly dry the screen. You can pat it dry with newsprint or paper towels, or buy a squeegee attachment for a Shop-Vac and vacuum the image area dry as well.

Tape the inside of your screens to speed clean up after the print run. Avoid masking tape or cheap box tape. There are tapes made specifically for screens or you can use better quality clear box tape as well.

Clean up and save... or not to save

After printing, card out any remaining ink back into your ink container, then clean using a press wash or ink degrader. If you plan to save the screen to print the same image again, use press wash to clean before storage. If you plan to reclaim the screen (remove the emulsion and image) you can take the screen to your sink and use an ink degrader to clean the ink from the screen.

Do not use mineral spirits, paint thinners, etc. to clean ink from your screens. These products can harden the emulsion in your screen and cause ghost images of the print into the mesh as well.

There is always a debate about saving a screen to print the same image again in the future, or reclaim the screen and reburn it as needed. You need to set your own standard, but my rule of thumb is: I save the screen if I anticipate a reorder

within 30 days. I reclaim the screen if a reorder isn't expected till some point after 30 days. For me personally, I don't like to tie up my screen inventory on the shelf waiting for a possible reorder sometime in the future.

Quick setup

For a quick setup of even a one-color print, place a registration mark center-top and center-bottom on your film positive. You can set that up in your art program. Then on your platen, use a T-square and marker to make a center line down the middle. Line up the two registration marks on that line and your screen will be perfectly centered and square with the platen.

It's screen printing. Get the screens right, and you're 90% toward a perfectly decorated garment. **GP**

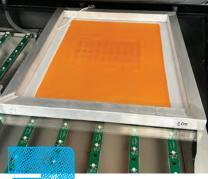
EXPOSURE CALCULATOR STEPS

COURTESY OF VASTEX INTERNATIONAL, INC

How long do I need to expose my emulsion?

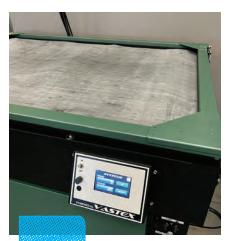


Remove dry, coated screen from drying cabinet.



Place 10 step exposure calculator on glass of exposure unit and position screen on top.

How long do I need to expose my emulsion? That is one of the most asked questions in screen printing. Due to variables such as light source, emulsion, coating method, mesh color, temperature, and humidity, there is no easy answer. An exposure calculator is the quickest and most accurate way to determine your proper exposure time.



Expose screen for twice the amount of time you think may be needed for proper exposure.



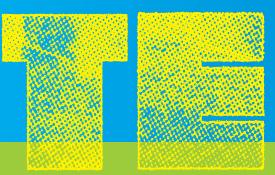
When time is up, take screen to washout booth and wet it to begin developing your screen.



Read calculator to determine proper exposure time.
Follow directions of your specific calculator to adjust your time.

GP

STAYING ON GOOD





BY NATHAN BELZ

WITH YOUR CUSTOMER

Terms & Conditions: Why they matter and how to get started



Nathan Belz is the COO of Impress Designs and has over 20 years of executive leadership experience in the decoration industry. He started decorating apparel before he was old enough to drive. His focus on strategic planning, business development, and technology has helped his team of more than 150 employees produce over 10 million prints and 100,000 shipments annually.

DESTANDANT CONTROL NAME AND ADDRESS STREET AND ADDR

thoughtful and fully developed Terms & Conditions will improve your business, your customer experience, and your bottom line. It is something you should implement right away and not having them in place can cost you.

Understanding what a Terms & Conditions agreement really is and how it can improve your business should be all the motivation you need to drive a desire to implement a terms agreement. Below are the steps required to get your terms agreements not only developed but implemented in day-to-day business as well.

Terms & Conditions defined

Terms & Conditions are agreements or disclosures that dictate how a product or service is sold. There are exceptions to the rule, but in general Terms & Conditions, Terms of Service, and Terms of Use are all legally the same document; the title you use is up to you.

These agreements should cover all major points of your customer dealings. From the moment you collect their information until well after the goods have been delivered, your terms agreement will be a key document outlining your customers and your legal requirements.

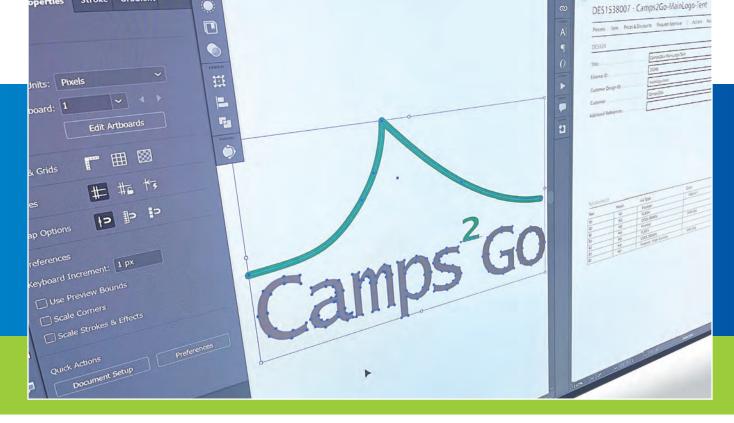
Terms & Conditions agreements should be thorough but easy to understand. Generalizing your agreement to fit every

Ownership and rights for the

gin designing them. (Images

courtesy Impress Designs)

files you design should be made clear before you be-



Customized products involve a lot of unique details and can be complicated, thus the need for Terms & Conditions.

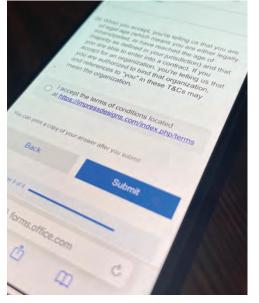
aspect of your business often isn't possible, and one agreement is often not enough for many businesses. An example of a business that would need more than one agreement might look like an apparel decorator that sells both to a wholesale B2B market as well as a direct-to-consumer e-commerce store.

Why you should care

Terms & Conditions agreements can be a terrific pre-sales tool as well as an essential tool in resolving disputes after the fact. Well thought-out agreements allow you and your team to address your customer's concerns in a more timely, consistent, and efficient manner.

You can reduce the number of times you and your team inadvertently contradict each other or previous decisions, improving your relationships with your customers. Dealing with customers means something will inevitably go wrong, and these agreements help ensure that both you and your customer know exactly what to expect when something does go wrong.

Being on the same page with your customer about expectations is a key component involved in salvaging your customer relationship when things go awry. If things do go awry your company may find itself facing a legal dispute, and if there isn't already a terms agreement in place, the cost to your company could be enormous.



Agreements should require a positive affirmation that is clear and easy for the client to understand.

It is a good idea to limit the number of places you physically post your terms as any changes are more difficult to keep organized and increase the risk of having conflicting agreements in the public domain.





If you screen print a customer's apparel, you should clearly state your liability.

How to get started

Creating a basic Terms & Conditions agreement is simple, but perfecting it requires a good deal of time and thinking. A quick online search will bring forth a good deal of sites that can generate the terms for using a guided question approach.

If you are only selling products without customization these services are the quickest and easiest way to get up and going, but they lack the critical component of developing terms more specific to the customization businesses.

You will need to come up with your own terms to add to the basic terms, but you don't need to start from scratch. Many of your competitors will publish their terms for the public, and while you don't want to copy verbatim your competitor's terms, you will become familiar with how other companies in your industry operate.

After analyzing your competitors' agreements and comparing them with your own experiences and expectations you will be able to better generate your own. The more you can include in

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your agreement the better, but a few major points to consider should include artwork royalties & ownership, returns, warranties, spoilage, and liabilities.

Implementation

If you have employees, be sure they understand your Terms & Conditions agreement before you publish it. These agreements dictate how your customer and you as the supplier or service provider operate.

Your customer and you should be on the same page well before the order is placed. Remember that you will likely end up with terms agreements for both your website (Terms of Use for your website) and your products and services (Terms & Conditions – Products and Services). The most common place to publish both is in your website footer. See our footer at www.impressdesigns.com and our full Terms & Conditions — Products and Services at www.impressdesigns.com/terms for examples.

It is a good idea to limit the number of places you physically



Embroidery often involves expensive apparel, and your customer should know if it is returnable.



A solid Terms & Conditions document is part of ensuring good customer relations, just like an inviting and comfortable customer lobby.



Identify the moment a customer takes ownership of product being shipped. If product is damaged or lost in transit, who is responsible?

post your terms as any changes are more difficult to keep organized and increase the risk of having conflicting agreements in the public domain. This allows for the amendment and editing process to be more straightforward.

As your business changes and goes through new experiences, you will likely need to make amendments to your Terms & Conditions. When making amendments it is critical you keep dated archives of each version. To be transparent, consider leaving a link in your updated term's agreement to an archive of previous versions. Having your terms agreement posted allows you to easily link to assorted documents and communications.

Most terms agreements require some level of documented assent to be both effective and valid, but what that means legally is complicated. To be an effective tool, your agreement should not only be easy to find, but also presented in a manner that highlights them early on in your customer's experience.

If you are gathering new customer information electronically, that is a perfect





time to collect your customer's assent stating to your Terms and Conditions. A customer should be presented with either your full Terms & Conditions agreement or a link to those terms and conditions with some type of button, check box, or click that requires a physical input to mark it or check it.

In most cases you can require a customer to assent to your terms to complete your form, clearly stating that they have read, understood, and consented to your terms and conditions. This is not the time to try to hide information or confuse your customers. Doing so can make for a bad customer experience as well as potentially cause your terms agreement to be void, so do not use automatically checked boxes, tricky words, light colored fonts, or try to confuse your customer into agreeing to your terms.

In addition to gaining assent through new customer forms, you can post a link to your term's agreement in plain text. To make your link even more user friendly consider adding a QR code link to specific customer documents, but you should include the plain text link as well if you do add a QR code for people that aren't familiar with this type of technology.

To help enforce your terms agreement use very clear wording that produces an assent. An example of this could be, "By submitting a purchase order to company X, you are agreeing that you have read, understood, and consented to our Terms & Conditions." When properly executed, this type of language is a form of assent.

Consider adding links back to your terms on key documents like quotes, order approvals, design requests, and pricelists. As was previously mentioned, the agreements are not one size fits all, and neither is the implementation of them, so evaluate your business and how to make them work for you and your business processes.

Wrap it up

It is easy to see a Terms & Conditions agreement as a long list of legalese to be clicked or checked away never to be seen again, but it is much more than that.

Making your Terms & Conditions an

active part of your business can improve the direction of your business while driving a better customer and employee experience. The process to get started is simple, and while a fully developed and well-executed agreement is ideal, getting out even the most basic terms is far better than not having an agreement at all.

In the spirit of transparency and clarity, I am stipulating that, for the most part, Terms & Conditions agreements are not legally required to operate a business in the United States; however, they are a legal contract, and it is recommended you consult an attorney to confirm all terms and the implementation of those terms is following all legal codes and best practices in your governing body. Both your customers and your business are important to you; protect them both before it is too late. **GP**



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Dynamic volleyball T-shirts to create lasting memories



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.

n many Software to Substrate monthly columns, we typically share somewhat complicated projects that sometimes take weeks to create, optimize, separate, take care of all the prepress, the set up and production involved with up to 15 or 16 screens. Sim process with multiple special effects on black is commonplace. In this month's S+S we bring it down a notch — or six. There is something to be said for keeping things simple. But simple doesn't have to be boring either. We'll share a little more straightforward and simple project that got complicated in its own right.

Finally, high school sports are beginning to look a whole lot more like they did in years past. Kids are resilient they say. With current coaches and former college players on staff here at GE, volleyball has become a favorite marketplace for us over the years. The very first match was played in 1896.

Originally called Mintonette the year before, basically badminton with a ball, the volleying nature quickly contributed to its name change. It has been part of the Olympics since 1964 and features qualifying champions from countries all around the globe. Likely, most of these athletes were involved in high school sports in their amateur years. With kids and coaches on our own teams for decades we do our fair share of athletic apparel. Not always the most exciting, but part of our business. At all levels, team identities, and spirit apparel may be as necessary as the ball itself. School name, sport, colors, and the mascot or logo brand the team, its history and represents the student athletes team pride. Not to mention the parents.

Guess what time of year it is? State volleyball qualifying time. The pinnacle of high school sports. So, by Monday we knew who qualified and would be





The proofs. (Images courtesy Lon Winters)

52

headed to the Colorado State Volleyball Tournament, which would start play on Thursday.

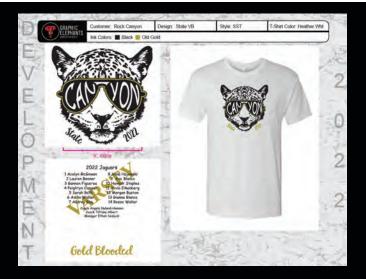
No problem, some basic art front and back on school colors. Easy, breezy for completion in a few days, right? Not so fast, friends! It became a little more complicated quite quickly when four of our "family" teams qualified at the same time with the same schedule. Congratulations to Rock Canyon, Grand View, Strasburg, and Cherokee Trail high schools. We play in this space, so we had to come through. It's just what we do.

We like simplicity for athletic apparel, particularly for four "hot rush" jobs. Each girls volleyball team was looking for something clean and sharp, but personal to represent the accomplishment and the players on the teams. We stayed basic, representing the school colors.

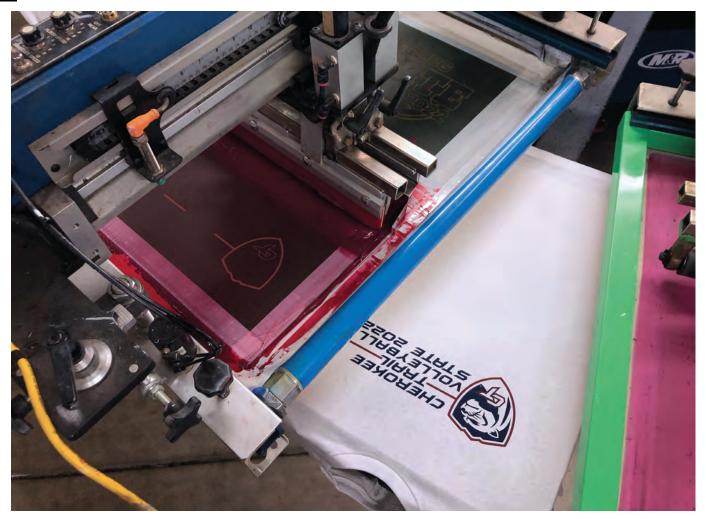
The color pallet for each school was different. We kept them in basic garments,



Graphic Elephants is about impact on the concepts we take to print, especially when it's close to home.







For some of the mid-tone colors we opted to use a 50% halftone not only to keep some pop to the color but also someplace for the ink to bite on.



because that's about all we could get in short order. We tried to set up each in a simple two to three color design.

Like anything, we began with layout and composition. We could have easily set up, type in the school names, and been done in mere minutes. That would be a somewhat personalized design, but exciting to wear and represent? Hardly. Graphic Elephants is about impact on the concepts we take to print, especially when it's close to home.

They would need a little elephant stank on 'em.

Construction began in Adobe Illustrator, as you would expect, for the vector components. Generally, we selected the type tool and entered the school names and created outlines. By ungrouping the objects, we could spread the letters out manually for a better kerning.

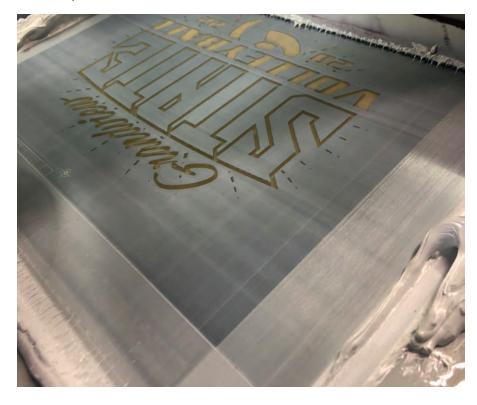


We like simplicity for athletic apparel, particularly for four "hot rush" jobs.

We copied and pasted in back to create clean, athletic type solutions. Copy and pasted multiple versions of each for some additional outlines and/or drop shadows. Each school's mascot and or logo was then added to an appropriate location when necessary. We also set up type for the backs with all the kids names and coaches for the personal touch. This would stay in a single color dictated by our CSR (customer sales rep), thankfully.

For the dark garments, we didn't forget about the white printers or baseplates needed. We needed the base to keep the whites and school colors bright. We added an overall half point choke to all of them, as well as quarter point gutters between the colors so to stay clean on press for wet on wet, but-to-but printing.

For some of the mid-tone colors we opted to use a 50% halftone not only to





State tournament T-shirts worthy of a championship.



keep some pop to the color but also someplace for the ink to bite on. These compensation methods minimize flashing as well. Once each team approved our digital mockup we proceeded to the rest of pre-press output from Illustrator on CTS (computer to screen). Each team's imagery would be set up separately of course. Let's face it, the numbers would be minimal so quick set ups were essential.

First, we printed the white printers at 156 tpi (threads per inch). After flashing and smoothing, making sure not to exceed the gel temp on press, the appropriate colors printed directly on the base using 230s wet on wet. After a final flash, we printed any highlight whites needed on another 230. All the screens were dyed mesh stretched on retensionable frames and stabilized at 30 Newtons/cm². Set ups were simple using our pre-registration system. After just a few small micro adjustments we were good to go with one right after the other. Squeegees were all sharpened triple ply dual durometer 65/90/65's at a medium pace and a 10-degree angle. The inks were all RFU (ready for use) primary and secondary colors as most school colors are. We had black and white of course, but also, royal blue, red, maroon, gold, and navy.

So, that's what we did! Sometimes simple becomes complicated. GP





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customizing T-shirts has never been easier or more popular, says Marcus Davis, product manager at HanesBrands. That's because there are many different printing methods that can be applied to T-shirts as well as a large selection of tees with different fabric contents to choose from.

The most widely chosen blends in tees today include 100% cotton, cotton and polyester blends, and 100% polyester. Each blend has its benefits and limitations when it comes to printing, he says.

Brian Walker, founder and CEO of RTP Apparel, says that "technically, the same shirt could be used for all processes. The base garment really is cross-platform compatible for the most part."

He added that there are garments that are better suited for specific jobs. For example, direct-to-garment printing works better with higher thread counts and 100% cotton, which create a smoother print surface, requiring less pretreatment and ink than a lower thread count shirt. Lower thread count shirts usually have bigger threads and a rougher surface, requiring additional pretreatment and inks.





There is a learning curve with any process. Don't expect to have a 1,000-shirt order before you get your equipment and then just be able to print that job. (Image courtesy JERZEES)

So how does a shop know which form of printing to use, and are some printing methods better than others?

"Use the process that's best for the garment and design being printed, most time productive, and most profitable," Walker says. "People often don't think this way. They become MAXIS (maximalists) based on a certain technology. You're in business to make money by providing the best product and service to your customers. It shouldn't matter how it is done as long as the customer is happy, the product looks great and washes well, and they keep coming back to you to purchase more."

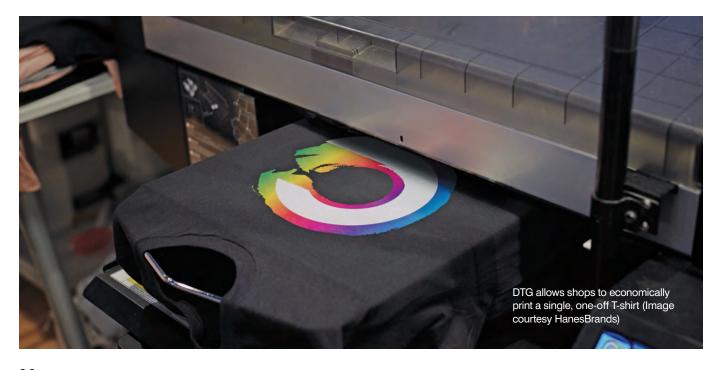
Most shops will do a combination of these different printing techniques. It is up to the individual shop owner to decide what their target market is for shirts and to find the best printing method to meet their goal.

Many in the industry thought screen printing would go away when direct-to-garment printing was introduced, Walker says, and others believe direct-to-film printing will replace direct-to-garment.

"I take a more tempered approach. I believe that each new innovation in decorating expands the available options in our industry and thus the money-making/decorating pie gets bigger," he says.

DTG allows shops to economically print one T-shirt or even 10 T-shirts in full color, whereas a screen printer would probably pass on that job because it would be too time-intensive and cost-prohibitive to produce such small runs.

Once a shop has determined which type of printing they want to produce, Davis recommends that shops sample different designs with a pre-production sample on different materials "to ensure the quality and performance of the garment and decorating material. This may include washing some samples after printing to check on durability, adherence and dye migration."



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Many printing challenges can be overcome with time and practice, including polyester heat sensitivity, dye migration and ghosting. (Image courtesy JERZEES)



Special care must be given when screen printing on cotton blends or 100% polyester tees because synthetic fibers are heat sensitive and can easily cause quality problems such as dye migration, where printing inks absorb loose dyes from the shirt fibers, leading to color changes in the ink. (Image courtesy HanesBrands)

He adds that "maintaining your dryer's temperature is important to ensure your oven is doing its job correctly. Proper temperature is critical for curing inks as well as avoiding damaged garments."

Screen printing

Screen printing has been the king of the T-shirt printing industry for decades. It is achieved by squeezing ink through mesh screens, allowing color to pass through open areas to create a design.

"Multi-colored designs are achieved using one screen for each color in the design," Davis says. "Different inks can create different effects and hand feel, and each ink has its own temperature requirements for curing, which means there is an option for all types of fabrics."

Tees made from 100% cotton are probably the most popular option to consider when screen printing because cotton can withstand higher curing temperatures, meaning less thought needs to be given to quality issues such as scorching or dye migration, he adds. Screen printing can also be used with cotton blended tees, which are soft to the touch, or 100% polyester shirts that offer performance characteristics such as moisture wicking, breathability, and stretch.

Special care must be given when screen printing on cotton blends or 100% polyester tees, he says, because synthetic fibers are heat sensitive and can easily cause quality problems such as dye migration, where printing inks absorb loose dyes from the shirt fibers, leading to color changes in the ink.

"There are printing inks designed for synthetic blends that cure at lower temperatures, as well as inks that help block the polyester dyes from migrating and bleeding into the printing ink," Davis says. "Some inks even have stretch and recovery characteristics that are perfect for those high-performance polyester garments."

Direct-to-garment printing

Direct-to-garment printing applies ink directly to a garment using a specialized inkjet printer.

"These printers use CMYK and opaque white inks, which allow for highly detailed graphics that can have millions of different color options," Davis says. "The artwork is digital, so it is sent directly to the printer from a computer program. This allows you to print single garments or small production runs quickly without having to clean up any inks or screens between jobs."

DTG was originally developed for natural fiber garments, such as 100% cotton shirts, and uses water-based inks, Walker says. "However, due to improvements in the inks, pretreatments, and now newer shirts designed for DTG, this has been expandable to other products such as blends and 100% polyesters."

Davis believes DTG works best with 100% cotton tees. DTG doesn't require a lengthy setup time and works great

62 GRAPHICS PRO • JANUARY 2023 GRAPHICS-PRO.COM

Screen printing has been the king of the T-shirt printing industry for decades.

for small runs and producing high details, says Titi Lin, senior designer for JERZEES, Fruit of the Loom and Russell Athletic. The downside of DTG is that shirts need to be pre-treated before they can be printed, "which may cause stains around the artwork," she says. With DTG, placement of design is limited and it isn't cost effective for high volumes. It also makes it hard to match pantone colors, she adds.

Heat press

Heat press is when a design is printed onto different materials such as vinyl, inkjet or laser transfer paper, plastisol transfers, or sublimation, and then transferred onto a T-shirt or other garment with a heat press.

Heat transfer vinyl printing is a decorating process that uses a specialty vinyl polymer with an adhesive backing that is applied to garments with a heat press machine.

"There are dozens of different novelty types and colors of vinyl transfers available in the market, with many of them working on all types of fabrics, including 100% cotton, cotton/poly blends and 100% polyester," Davis says.

The vinyl is available in small sheets or large rolls of material that is then cut into the shape of what will be applied to the garment.

"Different vinyl types require different heat settings for application, so low heat applications are ideal for polyester tees and higher heat applications will work best on 100% cotton tees," he adds.

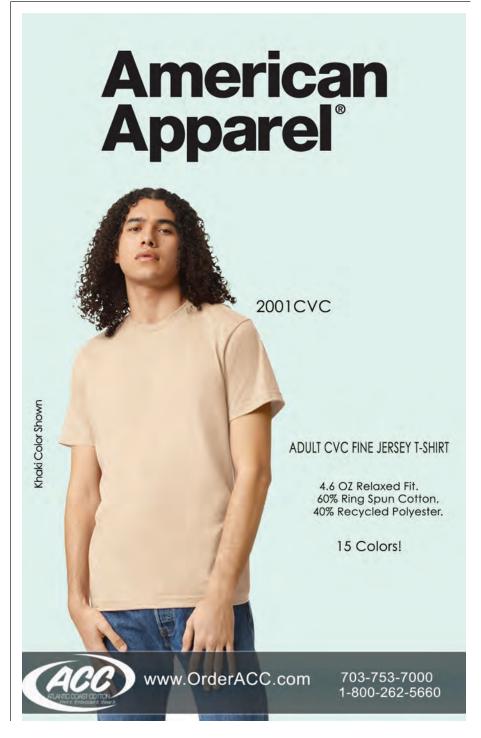
Heat press printing is easy to do and can be used on almost any material, Lin says. It is also great for small runs. The downside of heat press printing is that prints can be stiff and the heat can discolor the garment. Prints can also fade.

Sublimation is a dye transfer process where an image using dyes has been printed onto a specialty paper or plastic sheet that is then used to transfer the image to a garment through a heat press machine. As the heat press activates these dyes, it changes them from a solid to a gas, which then transfers and bonds with the polyester fibers of the shirt. These dyes

will only permanently bond with polyester, so this print process is best suited for 100% polyester tees, Davis says.

If sublimation printing is done on a cotton or cotton/poly shirt, the dyes will begin to wash away after home laundering, he adds.

"Like DTG printing, artwork can have millions of different colors and can produce high-resolution, photo realistic images," he says. "For best results, printing on a white polyester tee will give you the highest image quality."





Customizing T-shirts has never been easier or more popular, says Marcus Davis, product manager at HanesBrands. (Image courtesy HanesBrands)



Pretreating shirts is a standard practice for most decoration styles. (Image courtesy RTP Apparel)



Cleaning the capping station. (Image courtesy RTP Apparel)

Direct-to-film printing

DTF printing is a new printing method that combines features of DTG printing and heat transfers, Davis says. The image is printed on a clear polyester film by machines, much like a DTG inkjet printer. The image is then transferred to apparel by a heat press machine. Because of this combination of inks and application, DTF printing can be applied to all types of T-shirt fabrics.

The benefit of using DTF printing is that there is no need to pre-treat the shirt, so shops can stock up on designs in advance, Lin says. Film transfers can be used on many different substrates and there are no limits on placement, she adds.

Dye migration can still be a problem on synthetic blends or polyester shirts but adding a base coat of white ink and applying the graphic at lower temperatures can help prevent this, Davis says.

"DTF graphics produce sharp and vibrant colors and have strong colorfastness after home laundering," he adds. "Another benefit of this printing technique is that, since the graphic has been printed on a polyester film, it has a long shelf life and can quickly be applied to any tee when the need arises."

This comes in handy for repeat orders that need to be produced quickly on demand.

DTF also works well for items that are more difficult to print via DTG, Walker says. For example, a smaller neck imprint in place of a tag in a shirt. With DTG printing, it is possible, he says, but "I could print a gang sheet of smaller neck labels on a DTF and heat press those very quickly. DTG might require printing the tag and then the shirt front."

DTG, on the other hand, produces better results for images with a lot of fades that appear to fade into the shirt, such as light reflections or smoke, he says. "DTF is going to have a much harder time doing that in continuous tone unless it is printed with a solid white under base of white ink," Walker adds. "This results in a big sheet or an unbreathable area in a shirt and, depending on the artwork, may not look as smooth or as nice as the DTG print."



RTP Style 2000 Red polyester shirt with DTG printing. (Image courtesy RTP Apparel)

Challenges

Many printing challenges can be overcome with time and practice, including polyester heat sensitivity, dye migration and ghosting.

"Polyester fabrics are more sensitive to heat than cotton fabrics. Cotton products tend to shrink after being washed and dried, whereas polyester products are prone to shrink and become damaged when subjected to extreme heat," Davis says. "To properly screen print on polyester it is important to control and manage your heat during the curing process. Too much heat can damage a garment in several ways, including excessive shrinkage, dye migration, and scorching."

Many inks on the market have been formulated to cure at temperatures between 280-330 degrees Fahrenheit. Exposing polyester products to temperatures higher than this can cause problems.

"It's best to test and monitor the surface temperature of the garments being cured with a thermo-probe, as well as follow the print parameters set by the ink manufacturer," Davis adds.

Dye migration happens when the temperature needed to cure screen printing inks or apply heat transfers converts



some of the dyes in the polyester into a gas. If this happens, the polyester dyes could mingle with the ink or transfer and change their original color.

"To avoid this, it is highly recommended to use inks or transfers that are bleed resistant," Davis says. "Dye migration can be apparent almost instantly or could take several hours to manifest. It's advisable to wait 24 hours before shipping a finished product if you are unfamiliar with the garment, inks or transfers."

Ghosting occurs when shirts are stacked together while still warm. The image on one shirt can be transferred to the one stacked on top of it before it has had time to fully cure and cool down.

Ghosting can also occur when products are cured on a heat press without a cover sheet. Davis recommends applying a cover sheet between the printed image and the heat press before curing to protect the heat press platen from damage and keep the platen clean from ink that could accidently transfer from one garment to another during the curing process.

Walker recommends that new shops don't bite off more than they can chew.

"Be realistic. There is a learning curve with any process. Don't expect to have a 1,000-shirt order before you get your equipment and then just be able to print that job," he says. "Ease into it, because the learning curve can cause you heartburn when customers are expecting the product the next day and you have no experience in doing it. That is a recipe for disaster and disappointment." GP



Interior Decoration BY KRISTINE SHREVE

Create products that people want in their homes



Kristine Shreve is the founder and CEO of Kristine Shreve Consulting, which offers writing, marketing, and business development services. Kristine is also the creator and host of the Business + Women podcast and is also the director of marketing and outreach for Applique Getaway. Kristine was the director of marketing for Ensign Emblem and EnMart from 2006 to April 2020.

Then garment decorators think about markets V into which they might expand, their thoughts often center on markets that require garments. That's logical — the word garment is, after all, right there in the name of the industry. The problem with that thought, however, is that it is limiting. Focusing only on garments may cause a shop to ignore other lucrative markets that could potentially be very profitable, and which don't always require specialized equipment or know-how. One such market is that of home decor. It's a large and profitable decoration space, and one which can be relatively easy for a garment decora-

The first thing to do is define the scope of the market being discussed, which is often wider than people think. The home decor market "encompasses a wide range of tangible materials and artifacts such as furniture, art, accessories, and so on." When people think of home decor, they tend to think of large pieces like sofas or bedroom furniture. They often forget that home decor is also what goes on the walls or is used to decorate the tables or the floor, and even includes things like kitchen or bathroom towels. The home decor market offers an extensive range of opportunities for decorators, if they're willing to investigate the space and spend the time to create products that will appeal to people who want to decorate their homes.

One fertile area for embroiderers, screen printers, those who do sublimation, or those who work with vinyl to expand into is decorative items for walls or tables. Putting vinyl sayings on walls is a huge trend right now, and works for both the home decor and office or business decor markets. And yes, before someone says it, there are big box stores and other places offering vinyl sayings online. The edge that a garment decorator has over a big box store is the ability to offer installation and custom products. And, most likely, they can also offer a wider range of colors or vinyl options and possibly sizes as well. Just because a big box store has part of a market segment

doesn't mean they have to dominate that market. Remember to sell on your strengths.

Machine embroiderers and sublimators can also do well in this space. Kitchen and bathroom towels can be embroidered with cute sayings or monograms. There are sublimation products like photo cubes or slates, holiday ornaments, garden flags, accent pillows, address plaques, and other things that can be used to add decorative accents to a home. Embroiderers can also do wall hangings, table runners, mug rugs, and other embroidered items. Keep in mind that all of these items can be customized and sold for a premium price, as they will be unique to the individual buying them. It should also be noted that machine embroidery designers and those who design for sublimation have provided a substantial amount of designs to satisfy the home decor category.



Furniture is, obviously, an area where decorators can excel and charge premium prices. While this area can be lucrative, it is also an area where specialty knowledge or connections with upholsterers or furniture builders may be necessary. Machine embroiderers could work with an upholstery shop to create custom embroidered fabric for a chair or sofa. A shop that offers sublimation could create sublimated tiles for a custom table or backsplash in a kitchen. In these cases, it may also be useful to cultivate relationships with interior designers. They would know which clients are looking for custom fabrics or pieces and have the money to pay for them.

Another fertile area for decorators may be vehicles. While they don't fall under interior decoration, you might put vehicles under the home decor umbrella, or slot them into a personalization category. Some homeowners do extend their home decor to outside spaces or their vehicles. So, while this might be a bit of a stretch, it's not as big of a stretch as you might assume. In this category you might embroider a motorcycle seat or boat cushions. Or, if you work with vinyl, perhaps you could add boat names or decals to the seat cushions.

Don't neglect outdoor spaces when considering the home decor market. Garden or decorative flags to hang from the house could be a nice market for sublimators. Vinyl might be used to decorate a sun umbrella for a patio table or to create wall decorations for a gazebo or outdoor dining room. Embroidering deck or director's chairs could make for some lovely personalized or themed seating options. More and more homeowners are working to create comfortable and personalized outdoor spaces, so the decorators who can help them do that stand to profit handsomely from the work.

When looking to get into the home decor market, it also pays to look at trends. Here are six trends that experts in the field predict will be big in 2023, and some thoughts on how decoration shops can capitalize on them:

Meaningful objects — The world has been chaos for the last few years, so people are turning to decorating with objects that reflect their truest selves and which bring them peace and joy. It may be a customized quilt, a collection of sublimated photo slates

with favorite family photos on them, or a pil-

low embroidered or sublimated with a favorite saying or mantra. The idea is to ease anxiety by filling our homes with objects that bring us calm.

Eco-conscious homes — The trend towards being more ecologically aware has been around for a while now, and it will extend to home decor in 2023. Customers will be looking for more natural fibers and decorating methods that are ecologically friendly. Sustainable design will also be a theme. Homeowners will be looking for more renewable

materials when it comes to fabrics for upholstery or rugs. Now is the time for decorators to be sourcing eco-friendly decorating materials and fabrics. Make sure that the ecologically conscious nature of the products you offer is also mentioned in all your marketing materials and on your website.

Holistic design — This approach deals with how the design of your space makes you feel in both mind and body. Think about how color affects mood, and how certain textures of fabric can provide comfort. The goal of this type of design is to make people happier, healthier, and more comfortable in the spaces they occupy. For garment decorators venturing into the interior design space, this means considering color palettes and textures of fabric when creating items for home decor. Think embroidered fauxmink blankets, wall hangings that have lush colors and a mixture of fabric textures, or artwork with peaceful images done in soothing colors.

Nature-inspired spaces — This trend centers around the idea of bringing nature inside. It might be in the colors chosen for the walls, or in the use of textiles and furniture that are made of natural fibers or have a lot of plant images printed on them. Plants and planters will be big, and the planters can be pieces of unique decoration rather than just something in which a plant can sit. Bringing nature inside is, again, another trend that is about providing calm and feeding the soul. For decorators, this may mean creating furniture pieces that incorporate natural fibers; focusing on nature images in designs or color choices; or finding unique shapes made of stone or pottery that can be suitably decorated.

Upcycling — Everything old is becoming new again, or at least being refurbished so it can continue to be used. This is where repairing torn upholstery or reupholstering an old piece of furniture that looks a bit shabby is the alternative to simply replacing the piece. The idea is to make what's already in use look new so it can be used for years to come. This trend offers the opportunity for patches to make an impact. Embroidering or sublimating new fabric to be used to re-cover an older piece of furniture may be another chance for a sale. Creating a custom vinyl wrap for a chest of drawers or a trunk might also be an option. The goal here is to use the techniques you have available to make something old and worn look new.

Handcrafted sourcing — As the supply chain remains snarled and the pandemic and its aftermath have complicated shipping schedules, many people have turned to nearby suppliers. In the home decor market that means looking for local makers who can create items for quick pick-up or delivery. For decorators, this means making sure that local customers know what you do and where you are. It also means making sure your supply chains can deliver quickly and that you have enough stock on hand to cover orders when they arrive. It may also mean partnering with a local delivery service to do deliveries or making those deliveries yourself. The idea is to be a convenient and quick partner. This is also a trend that could be well served by partnering with a local interior decorator who could connect you with clients looking for services like the ones you offer. GP

Skip the Chitchat

Getting to the point will boost your chances during prospecting



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@nnep.com.



The Lakeside Alliance is the organization that built the Obama Presidential Library. (Image courtesy DC Caldwell, DC Mad Hatter)

We all have to make sales in order for our businesses to survive, much less thrive. Many apparel decoration professionals struggle to be effective at prospecting. So much so that many business owners never seem to get around to intentionally doing it at all.

Without doing any prospecting to bring in new business, you are leaving the success of your business up to chance or to fate. If another order comes to you, you will earn money. When you engage in prospecting, the odds tip in your favor. You have changed the chances from "if" an order comes in to "when" an order comes in. It is a numbers game, plain and simple. The more times you reach out and interact with people and businesses about your business, the more likely it is that you will connect with someone that has a current need for custom decorated products or apparel, which you can fulfill.

I define prospecting as any effort you make to reach out to your community and target customer bases to catch their attention and remind them that you are in business, ready to create custom goods and apparel specifically for their needs. This is a rather broad definition. It includes all the social media posts you create and share for your business. It includes any emails you send out to your lists. It includes any sales calls that you make on the phone or in person. It includes all the interactions you have in person with potential and existing customers.

Here is the secret that I want to share with you. Stop the "chitchat" and get right to the point, whenever you can. Let me explain. You know how you can always tell when it is a salesperson calling when you answer the phone? These calls

68 GRAPHICS PRO • JANUARY 2023 GRAPHICS-PRO.COM



Com Ed image is the local utility company in Chicago, Illinois. (Image courtesy DC Caldwell, DC Mad Hatter)

always sound the same. They say, "Hi Mrs. Smith, it's John Doe calling from ABC Company. How are you today?"

We know they mean well, but it is highly doubtful that they really care about how you are doing. Frankly, I usually do not have time to waste on social chitchat when I am working, particularly with someone that A) I do not know and B) is trying to sell me something.

When you are in sales mode, you do not need to start with meaningless chitchat. Instead, I propose that you need to get to the point. Let the other person know why you are calling, from their perspective. Tell them how they will benefit if they keep talking with you, continue reading your email, or scrolling down on your post.

It seems that many people are trying to do more in less time these days. This is even more true as we reach the end of the year. People are stretched thin, as there are gaps in the work force in nearly every single industry. I am not suggesting that you should be curt, abrupt, or rude. The goal is to respect the time of the person with whom you are communicating. Cut to the chase quickly and present the advantages or benefits you offer.

If you use the "Hi, how are you today?" approach, you may find that your results improve dramatically once you take a more direct approach. It may take a lot of practice in the beginning, but you will usually find that the executives and business owners you call on do not seem to mind or even notice.

Craft a statement that you can use to introduce yourself over the phone and in person that follows this format: [What you offer] so that [how they benefit].

If you are speaking with a retail business owner, your introduction might go like this: "I/we (some version of) create custom apparel and products so that (some version of) your customers can quickly identify a salesperson if they need assistance or are they ready to make a purchase."

Look through your client base and identify the different categories of customers that you serve or want to serve. Your categories will be unique to your business.

Tell them how they will benefit if they keep talking with you, continue reading your email, or scrolling down on your post.





(Images courtesy Troy Neu of Old Town Embroidery)



They could include retail businesses, service businesses, skilled trades businesses, restaurants, manufacturing, schools, clubs, non-profits, weddings, family gatherings, horse people, Volkswagen people, medical practices, hospitals, universities, sports teams, baby gifts, gun collectors, doll collectors — the list is endless as embroidery and apparel decoration professionals serve literally every single industry!

Evaluate which of these categories may be better served with a more direct, benefits-driven conversation instead of a more social, "Hi, how are you doing?" kind of conversation. Craft and then practice statements for your specific categories. I would use one introduction when meeting with a person that owns a HVAC business for the first time. I would use a different statement when I meet the office manager of a dental practice, as these two categories have unique and very different needs.

Meeting the HVAC owner:

Hi there! If you do not like your workers showing up on the job site wearing a Bud Light T-shirt, let me know. We make custom T-shirts, sweatshirt, and jackets with your logo, so that your business becomes more visible.

Meeting the dental practice manager:

Hi there. We help you select scrubs and labcoats in a wide variety of colors, patterns, and sizes so that your team always looks professional and pulled together to your patients.

If you sell to business owners, Directors, VPs, or any other senior executives, stop making chitchat and start being more direct. They will appreciate this and respect that you are respecting their time. You will achieve better results with this particular kind of target customer. GP

70 GRAPHICS PRO • JANUARY 2023 GRAPHICS-PRO.COM

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THE OPPORTUNITY OF

DEMAND:

Instant fulfillment can attract customers

BY TRAVIS ROSS





Travis Ross is the founder of Make Your Mark Design in Broomfield, Colorado. He is also co-host of the Print On Demand Cast.

rint on demand" is not a new concept. However, there are still many print shop owners who haven't spent much time looking into how they can implement it. Maybe it's the fact that the technology is new or expensive. Perhaps they're of the "If it ain't broke, don't fix it" mindset. These are valid reasons to skip over this opportunity, but if you choose to not get involved, you should at least have more information with which to finalize your position.

It's interesting to me that "on demand" has been with us since commerce began. Go to any restaurant and your hamburger or pasta dish is only made once you order (at least I hope so). Even your print shop is technically print on demand. You only print when you have a customer who's willing to pay your agreed-upon price for the products you offer. The "demand" is the only reason you fire up your equipment.

So, what do we mean when we say "print on demand?" (And please indulge me if you already know this information.) It's really just "fulfillment on demand," and it can be done in a variety of ways. Even screen printers can participate in this model if their clients are at a certain level of eCommerce sales. Simply choose the best sellers to keep on the shelves, fulfill orders as they come in, and replenish based on sales data. Easy, right? Hardly.

This situation is really where DTG (Direct to Garment) or DTF (Direct to Film) can shine. Since the process is digital, you don't have to worry about the sales data so much as the blanks you need to print on. This makes the process much easier to manage and mitigates the risk of printing 100 shirts that never end up selling. The products don't actually exist until a sale occurs. Then they are printed on a blank T-shirt, coffee mug, tumbler,



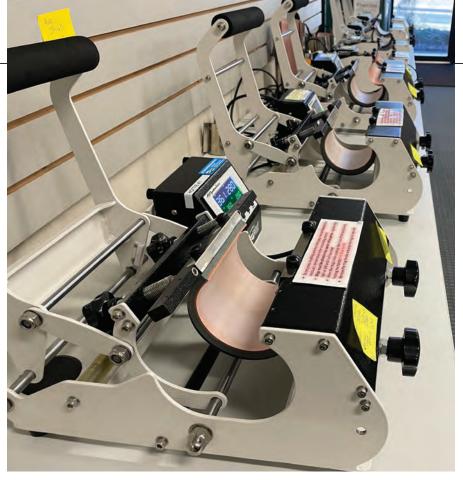


When it comes to T-shirts, printing on demand gives customers a great level of customization.



The number of products that can be offered "on demand" is increasing every year.

74 GRAPHICS PRO • JANUARY 2023 GRAPHICS-PRO.COM





Personalized mugs are a print-on-demand staple.

etc., and sent to the end customer. This is how we have scaled our business. We still take bulk orders locally and online, but our core business is print on demand.

In my opinion, once you've decided to move into print on demand, you'll likely need some new equipment. You may opt for a DTG machine, a DTF machine, or even just a coffee mug press and a sublimation printer. That being said, you can certainly jump into the game if you already have a laser engraver or a UV printer — the list of products you can sell with this model is growing every day.

Once you've decided which print method you want to use, there are (at least) two ways for a traditional print shop to enter the print-on-demand game. You can either use your own designs or you can solicit other creators to fulfill for. We actually do both. Let's talk about these two strategies.

Using your own designs

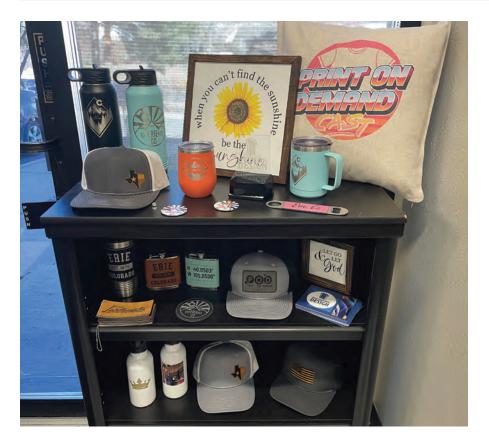
When I started printing, I had already been selling physical products on Amazon for several years. I knew how to create listings, and that's what I did. I began listing coffee mugs with my own designs that I

could sublimate in my basement. Since I already had hundreds of designs, I simply had to create the mockups and write the titles, descriptions, and bullet points to create as many listings as I could on Amazon. I have now expanded these offerings to Walmart, Etsy and several other eCommerce platforms. At this point, we have over 50k listings on Amazon alone, so you can imagine how many orders are coming in each day.

The beauty of these platforms is that they supply traffic to your listings. Think about how many millions of people go on Amazon each month to buy a gift for a loved one. Now think about how many different types of products your same designs could be printed on for different consumers — it's a match made in heaven.

Now, I'm not here to say it's easy. You need to pay about \$40/month for an Amazon professional seller plan, you have to deal with customer questions and returns, plus Amazon takes about 15% of your revenue right off the top. The other platforms also charge a percentage of the sale, but it varies by platform and category. However, if you can scale by adding more listings and you provide great customer

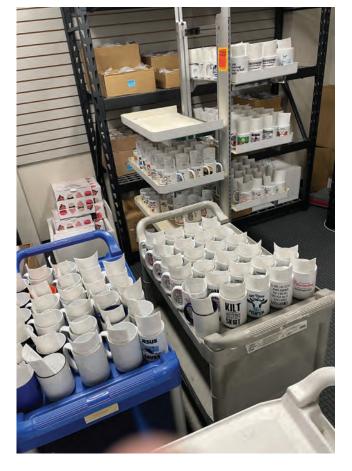




service and sell quality products, the sky is really the limit here. At the time of this writing, you are allowed to list 1.5 million ASINs (Amazon's internal SKU system) before being hit with a high listing fee. It seems like it would be a while before you'd have to worry about that.

Etsy has the lowest barrier to entry in my opinion. Their fees are typically lower and the process to list a product is much more user friendly. That being said, the Amazon FBA (Fulfilled by Amazon) program is also something that can help you make many more sales if you have a product that sells consistently. It's technically not "print on demand" when using FBA, though, because you pre-print your winning products, label them, and box them up to send to one of Amazon's fulfillment centers. Once your products are in their inventory, they will fulfill these products and handle the customer service





6 GRAPHICS PRO • JANUARY 2023 GRAPHICS-PRO.COM

The products don't actually exist until a sale occurs.

and returns. It's a great strategy, especially around December when the number of buyers increases 3-6x.

Soliciting creators to fulfill for

If you don't have access to many designs or don't want to take the time to learn the different eCommerce platforms, you could always print and fulfill for others. Many print shops already have a customer list that includes people who are selling online but haven't looked into print on demand as an option. They're still buying their products in bulk and storing them somewhere to send out when they get an order. This is where you come in.

Send an email out to your current client base or hire a teenager to start soliciting influencers on TikTok or Instagram and ask these people if they've ever considered selling products online. You'll be surprised by the number of them that haven't yet. And please don't worry about how many followers they have. We've seen influencers with as few as 1,000 followers outsell influencers with 100,000. What you are looking for in your solicitations is influencers who have a high level of engagement with their following. If you see this, it's worth a lot because they've actually taken the time to build trust with their followers, and trust sells.

Once you've gotten a few people interested, you'll need to create a way for their customers to purchase the goods. Many print shops already have this ability through tools like Deco Network, InkSoft or Printavo, to name a few. The "store" feature on these software platforms works great for putting designs on many products. They also (typically) have a way to add your own products to the catalog such as laser engraved tumblers, pillowcases, UV signs, etc.

Make your own path

These are just a few of the ways you can capitalize on the print-on-demand phenomenon that's happening in the print world. There are so many opportunities and directions you can take once you've taken the leap. The key is to get started. Read up on the subject some more. Listen to podcasts or attend trade shows and ask the vendors questions. Opportunity without implementation is like a boat without a body of water — it's simply not going to get you anywhere. That being said, perhaps print on demand is not for you and your shop. That's totally fine. At least now you've seen some of the possibilities in case you ever find yourself at a trade show and can't get a certain piece of equipment out of your head! GP



Where Do You Want to Be in 2023?

Changes you can make to get there



Howard Potter has worked in the promotional industry for 17 years, from designing to building brands and a familyowned business. He is the coowner 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.

et's talk about 2022 for a moment and plan on where we want 2023 to take us! How is everyone doing? Please take 10 minutes and really ask yourself these questions — Are you growing or are sales declining? Yes or no, and why? What changes have you made to your company and why?

As business owners in our line of work, it is not easy to do what we do since we have to learn everything as we go and carry all of the weight on our shoulders for our team and community. So, as each year goes on, it is important for us all to take a step back at least once every quarter and look at how everything is going and determine if we are headed on the path we set out for. I am guilty of being one of those people who puts their head down and works hard until

I hit my next goal. But that is not always a good plan if you are not checking in with yourself along the way.

How are you doing? That is a serious question to ask yourself. Mentally are you doing well? Are you on the path you expected to be on? Are you able to make time for yourself and loved ones while hitting your company goals? As a business owner of almost 20 years, it is not always easy to make time since our customers are like family and we never want to let them down. It is not easy being a business owner in general and trying to balance out work and personal life when you know it all rides on your shoulders. Back in March, my wife and I really sat down and talked about where our company was going and what we wanted. The first thing we



needed to work on was company morale. With our company growing at a steady growth of 15% to 20% at minimum each year, it is not always fun for staff to keep up with the constant changes we make. On top of that, we worked on training four managers to work under our general manager, which takes a ton of extra time and hands-on training as each situation occurs. By doing this major structuring, work is getting done better, faster, and the team has someone in each department to go to who will have their backs. Our GM can focus on helping to train and back the managers up when they need help in any area. In the end, that takes pressure off my wife and I and allows us a little more time

improving our company with new ideas. Are your sales climbing or declining? Which is it and why? This is the time to be brutely honest with yourself, no matter if it is great news or not-so-great news. If your sales are declining. Why is that? Let's work on fixing that now and not tomorrow. You need to work on this before and after work to turn it around. Below is a list of things I would do right away:

outside of work or time to help focus on

- Look at your books and check your numbers on buying, selling, payroll, overall bills, and see where you are losing or can cut some fat to improve profit margins.
- Look at your quality and production times to see if they are on par.
- Customer service is a key issue. How do you treat your customers overall?
- Speak with your staff one-on-one. Ask them how they feel about the direction of the company and ask for their brutal honesty of you as an employer of what they feel needs to be improved.



We worked on training four managers to work under our general manager, which takes a ton of extra time and hands-on training as each situation occurs.

Are your sales climbing or declining? Which is it and why? This is the time to be brutely honest with yourself no matter if it is great news or not so great news.









We have also invested in our 2,200-square-foot building expansion that will allow us to move three processes into the new space to give our vinyl graphics, 2D/3D laser, sublimation for drinkware, and our new DTF machine more room.







- Call up some customers that you know will be honest with you about your company and ask them what they feel can and should be improved.
- Look at the products and services you offer and ask yourself if they are the right fit for you and see how you can streamline things more.
- Look at how you can obtain more sales by improving customer service, making it easier to shop with you by website or simply by email.
- Make it easier for customers to get their orders by being open longer hours, six days a week, shipping orders, and delivering orders if you can.

Now, in our company's case, we have grown by 40% this year, which equals over \$700,000 in growth. Sounds great, right? Growth does not always equal success. Sometimes growing too fast can hurt your company. For us, it has been a balancing act, but we have managed to do much better with the growth than we expected.

The growth this year was a great learning experience. It helped expose our weak

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80 GRAPHICS PRO · JANUARY 2023

points early on in the year so we could work on fixing them right away. Such as training managers and giving them more time in the day to be effective at their positions. We created more training time for staff since not all learn at the same pace. Improving communication by using our software with notes, etc., and having staff improve communication with one another. Communication is always one of the top three issues, no matter what. Over the years, I have noticed that as we grow, we need to adapt our communication to the changes in our company. By growing the way we have, it really allowed us to see where the growth is coming from and what lines of work and processes we need to invest in more.

We ended up investing \$60,000 into more equipment. We invested in our first DTF printer from Coldesi, a new laptop for it, four new MacBook Pros for our shipping/receiving team along with some of our customer service team, another air fusion heat press, and four new mug presses from Johnson Plastics Plus. We also have invested in our 2,200-square-foot building expansion that will allow us to move three processes into the new space to give our vinyl graphics, 2D/3D laser, sublimation for drinkware, and our new DTF machine more room.

The massive growth we have had this year was painful at the beginning and extremely stressful at times, but it was necessary to expose what we needed to improve on as a company. Yes, it does help to control growth. I will never deny that, but I do not think we would have exposed some of our pain points fast enough and would have invested money into different equipment than what we really needed next. By us investing the funds the way we just did, it helped out almost every department in our company — which is very hard to do in most cases.

Never be afraid of change because it is important to change as needed. Make sure that even if you spot a negative change that you help turn it back into a positive one! Keep making moves! GP



We ended up investing \$60,000 into more equipment.







Life Lessons Learned from Being an Owner

BY PAUL INGLE



Paul Ingle started selling signs in 1985 and has worked with regional, national, and international accounts with custom, architectural, and production manufacturing firms. He has held various positions in sales, sales management, and marketing since 1973. From 2006 to 2017, he and his wife Nita owned Design Center Signs in Tyler, Texas (now a Comet Signs Company). DCS provided a diverse offering of branding solutions. Paul is a past president of the Texas Sign Association and its regional chapter, the Greater DFW Sign Association. Contact him at paul.ingle@cometsigns.com.

ary Louise Bennett, my maternal grandmother, taught me how to sew and knit (yes, knit) and was an amazing cook in the small West Texas town of Marfa. She met my grandfather, Jack Edwards, in nearby Alpine, Texas, the gateway to Big Bend National Park. Jack and his brother Cas came to West Texas to get into the car business, and by the 1960s they had dealerships in El Paso, Alpine, and Marfa, Texas, as well as in Ojinaga, Mexico. Cas had some early fame after he wrote a book of poetry about being a cowboy.

Marfa, almost a mile high in elevation, is in the rugged but picturesque Chihuahuan Desert of the Trans-Pecos region and is surrounded by mountains. It's famous for several reasons. Over 75 documentaries, theatrical movies and episodic television shows have been filmed in the area, including "No Country for Old Men," "There Will Be Blood," and — probably the most famous — "Giant," released in 1956.

A rugged ranching town for many generations, today Marfa is home to minimalist artists from around the world. They come to study and get their creative juices energized by the warm days, cold nights, and remote location. Some come to figure out the eerie, orb-like phenomenon of "The Marfa Lights," which have been seen since 1883. There is even an annual festival celebrating the flickering but elusive ghost lights. I've seen them many times over the years, and it is fascinating to contemplate how they remain unexplained.

A cultural clash "cease-fire" with the multi-generational cattle ranchers has allowed these diverse cultures to co-exist. The popularity of being a Texas-styled artistic Santa Fe has driven up real estate prices to unprecedented levels. I'm proud to be a sixth-generation Texan, and spending years and later summers there shaped my dreams and goals, how I treat people, and eventually my entrepreneur spirit.

So, what does this remote area of West Texas have to do with the sign and graphics business, you ask? And how did I learn five life lessons about being an owner in this faraway place? LESSON No. 1: Lead by example

LESSON No. 2: Duplicate yourself

LESSON No. 3: Build a culture not a husiness

LESSON No. 4: Be proactive and not reactive

LESSON No. 5: Be a visionary

Lead by example

The fastest way to alienate employees is to tell them what to do instead of showing them how to do it. If you are unwilling to jump in and do the hard work or refuse to learn each facet of the business, your business will suffer. Your behavior will always outweigh your words. Inspire your team and get them to duplicate what you do.

My grandfather was legendary in how he ran his dealerships through leadership. Even though he died when I was six, he was a larger-than-life charismatic character and I wanted to dress and be just like him. He got a haircut every week and he was always impeccably dressed. He insisted on having his underwear and socks ironed. He never went anywhere without a suit and tie, his hat, and dark glasses. (He looked like a cast member of "The Godfather") I think that is where my obsession with clothes, leather jackets, and grooming (and recently, bourbon) originated. And some OCD behavior for good measure.

My earliest memories are of ogling big GM cars with fins in his Marfa showroom and how he doted on his employees. (I'm glad the fin fad went away in the early 1960s.) He was active in the community and financed the college educations of many employees, sometimes anonymously. His relationship-building talents helped him sell lots of cars (even during the Great Depression and WWII). He and his sales team even had Hollywood celebrities continue to buy vehicles for many

years. Some future actors and directors were stationed at or performed for troops during World War II in Marfa at Fort D.A. Russell (also a German prisoner of war camp) and Marfa Army Airfield, a pilot training site. This started a Hollywood love affair with Marfa that has endured to this day.

Duplicate yourself

I mentioned this earlier; you must learn to duplicate yourself with your team. You cannot do it all. And when it comes time to sell your company someday, you do not want to *be* the business. You want to be a part of its success, but only as a cog in the well-oiled processes you have developed.

When you can, hire someone just like you. As a perfectionist, I looked for talented people with passion who had similar traits as me: persistence, a good eye for details, an artistic flair, a knack for sales, and a great attitude (the saying, "hire for attitude, train for skill," is true). It's difficult to give up control of your business. Do not let your ego stand in the way of creating a profitable enterprise where others can help you run the day-to-day operations. Someday you will want to take more than three consecutive days off, sell or retire.

Find organized people that can do the more basic tasks that take up your time. Your goal is to work *on* your business, not *in* your business. Finding someone who can match your work ethic is a huge obstacle, especially in today's world. Look

for old souls in young bodies. These individuals can be a blessing and you will wish you could personally thank their parents or grandparents or other caregivers who instilled wisdom, aptitude, and pride in their core.

When you create written policies and procedures, you set up your business for success. Nita and I were fortunate to have worked in large companies and we ran our small business like a big firm until it actually became big. This helped us assimilate much easier once we were acquired by a larger organization because we had run like a multi-million-dollar company since early on.

Duplication is what made Colonel Harland Sanders wealthy. He took his chicken recipe and duplicated his efforts through franchising. Today, there are over 24,000 KFC outlets in more than 145 countries. That's a lot of chicken — too much to cook by yourself.

During my summers in West Texas, I often worked on my great uncle's ranch. Ranchers have shaped the political, social, and economic identity of Texas since the 15th century. It's a way of life. Working cattle is not an easy life; you start early, and teamwork is fundamental when you are dealing with 300-pound calves or 2,400-pound adult males. Everyone must learn how to rope and ride a horse so well it's instinctive. It once took ten cowboys to drive a herd of 3,000 cattle across the sparse grassland. The cowboys had to move as one and each learned to

Find organized people that can do the more basic tasks that take up your time.

One of the foremost success factors for mv career has been proactivity. Whether it applies to sales, marketing, or any other job function you attack as an owner, this one trait can set you apart and determine your fate.

duplicate their skills to ensure each animal was inoculated, branded, and tagged and stayed with the group. It's a ballet of sorts, and it's beautiful to watch a team of riders bobbing and weaving and leading lots of cattle to their destination. And I learned calf fries with scrambled eggs and tortillas are what you get for breakfast.

Build a culture not a business

Having a great culture is about assembling engaged people who want to come to work and who understand the core mission and values of the organization. Training is fundamental to creating a culture. Use communication to instill the behavior and expectations you want in your team. Be a mentor to your employees. Your goal is to invest in your staff with your time allocation and let them know what your plans are for the future. We did this with strategic planning each year. It helped each person feel vested in the trajectory of the company's goals.

Work on banishing negativity. You must address negative elements head on. Your mood and energy level will be key in setting the tone of your culture. Poor hiring choices can undermine your team's morale and negative people can undermine managers and derail momentum. "Hire slow and fire fast" is sometimes the best policy. Have your core group of leaders be involved with interviewing candidates. We used to call it the "gauntlet." Often, you will be surprised how intuitive your managers are and how they pick up on things you miss during the hiring process.

We spend a lot of time at work. Friendships emerge with your employees and encouraging social outings as a team helps solidify relationships and your family-style culture. Having fun promotes healthy interactive exchanges among your team. Always be approachable and encourage humor and a good time in the workplace. No one wants to work in a dreary and boring environment.

When I was a kid, we had a campmeeting in August each year. These started during the nineteenth century as religious revival meetings outdoors and were

popularized on the southern frontier. I attended Bloys Campmeeting in the Davis mountains near Fort Davis. This multi-denominational worship meeting goes for five days and has met each year since 1890.

We looked forward to these times of fellowship, Bible study, events, play, prayer, and good food. It was a time to see old friends and make new ones. Make no mistake, going to a campmeeting is very much a culture and has been an integral part of the spiritual heritage of west Texans for many generations. Each year, we learned and bonded as a group. Lifelong relationships were created that endure to this day. We were taught fundamental truths and experienced the importance of faith in everyday life. In many ways, those experiences set us on paths that have impacted the way we make decisions, how we treat people, and what we do when no one is looking — a sure sign of character. It helped to mold many of us to be leaders. Most importantly, it taught us that culture is the bond of any successful community.

Se proactive and not reactive

One of the foremost success factors for my career has been proactivity. Whether it applies to sales, marketing, or any other job function you attack as an owner, this one trait can set you apart and determine your fate. It is easy to sit back and be reactive. Taking things as they come can keep you more than busy each day. That approach can engulf your time.

Owning a business takes long hours, dedication, and deliberate effort. We all have 24 hours in a day. How we use those hours and minutes can put us in the win or lose column. As I trained salespeople over the years, I tried to instill proactivity into their work ethic more than anything. It's great if you can provide more value than the customer expects. It has been my observation that being proactive is what will set you apart from your competition.

As we tried to build our business, we had constant leads that kept us busy. It easily created 12–14-hour workdays. After some intense planning and identification,

What is a visionary? It's someone with foresight and imagination who sees a potential outcome and can often provide the roadmap to get there.

I started allocating time to call upon targeted clients whom I wasn't currently doing business with. Some were long shots and most took weeks, months and even years of systematic engagements before we ever saw an opportunity. Eventually, a day would come when their current vendor dropped the ball, missed a delivery, or worse. By staying top-of-mind during this proactive barrage, I ensured that the customer would inevitably call me. The door opened. It might have only been a small bit, but my foot was in. And that was all it took.

Many competitors would have given up long before then. I have a heavy dose of the persistence gene, so the challenge kept me going when my rational mind was arguing with the persistent part. In some cases, it took years to get my first order with some customers. One is now one of my largest clients each year and does well over \$1 million in annual sales. But if I hadn't been proactive and started when there was nothing, they would still be someone else's customer. So never quit, be tenacious, and go after them. It will pay big dividends.

For as long as I can remember, my mom taught me about being proactive. She was the first person in my life to read self-help books and invest in self-improvement. She was very optimistic and this imbued eternal optimism in me. She would always say, "You can be anything you want to be." She was encouraging and never limiting. This was not a product of her Depression-era parents; they were great, loving people but not big encouragers. My grandmother's sister Margie was the magical factor for my mom; she was a Renaissance woman who took vitamin supplements, exercised every day, and ate health food before it was popular. She showed my mom she was capable of anything. My mom went back to school to get her MBA and teaching certificate at Margie's urging. This allowed my mom to teach at the same school for 34 years and raise two boys on her own.

Margie was also a special caregiver in my life. She did the same things for me and encouraged me to dream big and to know there were no boundaries. She taught me about birds and spent time climbing the mountain with me behind her house in Alpine. She raised African Violets, collected Reader's Digest books, and spent quality time being a mentor to me. Her marriage was emblematic of cooperation, love, patience, and sacrifice. No one in our family saw Margie and her husband Jack share one argument or terse word in 70 years together. Margie was a 'get it done' individual and always on a mission. From her mouth, I heard the word 'proactive' for the first time. She epitomized the meaning of being proactive.

Be a visionary

What is a visionary? It's someone with foresight and imagination who sees a potential outcome and can often provide the roadmap to get there. Those with both discipline and vision are rare. Sometimes they are controversial figures. They often have the unique ability to allow their minds to flow freely and unencumbered. Yet they often can bring everything together to seamlessly integrate it with the real world.

For me, I live in the future. I believe you can state clear goals, outline a strategic road map to get to the destination, and empower the individuals in your organization to help you get there. You must be a risk-taker — brainstorm, dream and be creative. And you must be a good communicator and motivator. Don't forget to adjust your plan as needed.

The hallmark of a visionary leader is his or her ability to mobilize people towards a goal. This leadership style is defined by persuasion, charisma, and a high emotional IQ. Leaders who practice this management style can articulate a vision for the future and the path others must take to reach it.

For your business to survive and even thrive, you must have a visionary in your highest levels of management and/or ownership. They often have an uncanny way of knowing when, how, and where to catapult the company forward. They stretch everyone like Play-Doh.

Growing up in West Texas helped me become a visionary. With mountains and large vistas, you feel like you are in big sky country. You see ranchers who talk each day about when it rained last, when it's going to rain next, or whether their cattle prices are going to hit rock bottom. Ranchers must be visionaries; they look for diversification opportunities and ways to survive each season. Some invest in other businesses to augment their cattle raising. The dry climate and many days of sunshine produce some faces that are tanned and lined like the saddles they ride. But their optimism about change and what is next keeps their teams engaged and on track. They act like anything is possible, and that is contagious.

So set the stage in your organization and be the visionary. Let your mind wander through the possibilities. Figure out the way to get where you want to go. Do, plan and adjust. Never stop dreaming; it fuels the soul. And if you get the chance, go visit West Texas and spend some time in the cities I've mentioned. It will change your perspective on many levels. You might even learn a life lesson that will stick with you forever. GP

See Through It

Working with transparency



Stephen Romaniello is an artist and educator who has taught computer graphics since 1990. He is Professor Emeritus and the founder of the Digital Arts program at Pima Community College in Tucson, Arizona. Stephen is a certified instructor in Adobe Photoshop, Adobe Illustrator and Adobe Premier and the author of numerous books, articles and media on the creative use of graphics software. Stephen is the founder and CEO of GlobalEye systems, a company that offers training and consulting in graphics software and creative imaging.

The ability to see through solid objects is a superpower. The "Man of Steel" that we all know, aka Superman, who has X-ray vision, can see through closed doors and solid brick walls. (Fig. 1) It's a power that he possesses and fortunately to our benefit, uses his extraordinary powers only for truth, justice and the American Way. Of course, Superman is fictitious, dreamed up in the late 1930s by writer Jerry Siegal and artist Joe Shuster for DC Comics, so X-ray vision is simply a wild fantasy like flying, leaping a tall building in a single bound, super-human strength or the other powers that Superman possesses.

In the real world we have amazing gadgets that can perform see through magic such as X-ray machines, MRI (magnetic resonance imaging) devices, and CT (computerized tomography) scans, unfortunately for normal humans X-ray vision is not a power that we have ... or do we? (Fig. 2)

Virtual power

It shouldn't come as a surprise that in the relatively new world of computer graphics; yes indeed, X-ray vision is a virtual power that exists in many forms. Furthermore, it is user friendly, extremely powerful and completely at our disposal. All we need know is where to find it and how to control it. This Digital Eye will reveal the secrets of seeing through walls, doors or pretty much anything.

Software

Any software that manipulates images has features that control transparency. I'll be using Adobe Photoshop CC to demonstrate this idea, but similar features are available in Adobe Illustrator, CorelDRAW and PaintShop Pro. Even simple drawing and photo apps for cell phones and tablets have transparency controls. Weather the software is vector or pixel based, there is always a mechanism that controls the illusion of diminished visibility.

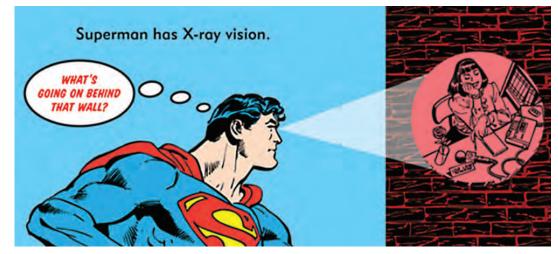


Fig. 1: Superman, who has X-ray vision, can see through closed doors and solid brick walls. (Images courtesy Stephen Romaniello)

86 GRAPHICS PRO · JANUARY 2023

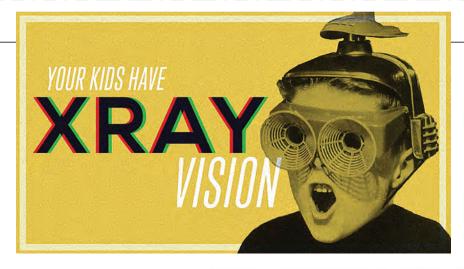


Fig. 2: Unfortunately for normal humans X-ray vision is not a power that we have ... or do we?

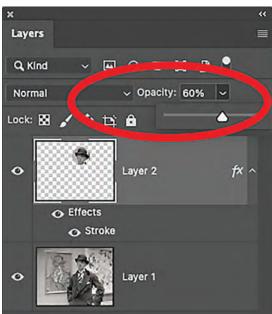


Fig. 3: When the algorithm is applied, it assesses the values of the superimposed pixels and adjusts them accordingly to alter the color to the percentage indicated by the opacity or transparency slider.

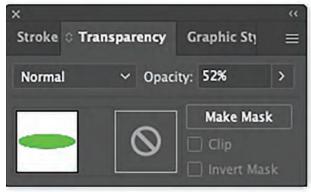
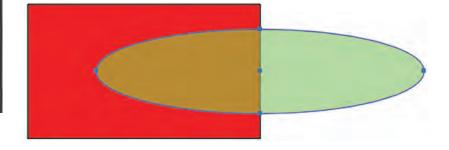


Fig. 4: In the case of vector software such as Illustrator, the algorithm is applied to the entire object which resides on a "sublayer."



Algorithms

How does the software perform this task? By applying an algorithm — finite sequential mathematical instructions, that mix and diminish the colors of the topmost content with that which resides underneath it in the stack.

In pixel-based images a grid of pixels each with a specific RGB value configure the content. When the algorithm is applied, it assesses the values of the superimposed pixels and adjusts them accordingly to alter the color to the percentage indicated by the opacity or transparency slider. (**Fig. 3**) In the case of vector software such as Illustrator, the algorithm is applied to the entire object which resides on a "sublayer." (**Fig. 4**)

Transparency vs opacity

These two terms though opposites, are inter-connected within the spectrum of visibility. 0% opacity indicates that the value is 100% transparent or totally invisible. 0% transparency indicates full opacity. Any value in between, for example 70% opacity, indicates a corresponding value of 30% transparency, 80% opacity indicates 20% transparency and so on. The reason I mention this is that depending on the software you are using you may encounter either or both terms in which case, be aware of which direction you are dragging the slider.

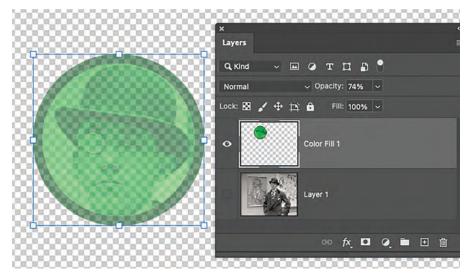


Fig. 5: When an image is superimposed over the checkerboard and the opacity is decreased then the checkerboard will appear through the content.



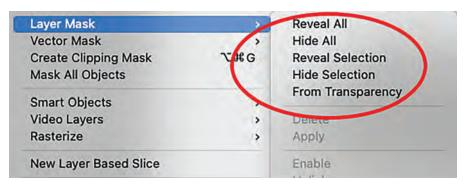


Fig. 7: In Photoshop a layer mask is created several different ways.

Layers

In order to control the level of opacity of regions, the content must be isolated to individual layers in pixel-based images or specific objects (or sub-layers) on vector objects. A global opacity adjustment can be applied to the entire layer or sub-layer so that layer content in its entirety is affected. The Opacity slider in Photoshop is calibrated by percentages from zero to one hundred percent. 100% opacity levels provide extremely precise control over the visibility of layer content.

Transparency in a Photoshop document is indicated by a gray checkerboard pattern. there is no content in that region. When the checkerboard is at full strength there is no content. When an image is superimposed over the checkerboard and the opacity is adjusted then the checkerboard will appear through the content. (**Fig. 5**)

Opacity settings are embedded in the content. If a layer that has been assigned an opacity percentage is cut or copied to a new layer or document, it will maintain that setting and can be readjusted back to one hundred percent or any other value.

Fill

The Layers panel in Photoshop actually has two opacity settings. The global setting is labeled "Opacity" and affects the entire layer content. (**Fig. 6**) The "Fill" opacity slider is designed to isolate only the layer content and excludes any layer styles that have been applied so that they remain at one hundred percent opacity when the setting is applied.

Layer masks

So far, we've looked at global opacity/ transparency adjustments that affect the visibility of an entire layer. These settings can be handy when the goal specifically requires that the viewer sees through everything that is on the layer. Suppose, however, that the layer content is complex and more specific and only part of content the needs to be transparent or semitransparent.

In these cases, layer masks provide a solution — a very different technique

than simply dragging opacity sliders. Layer masks rely on the darkness or lightness of white, black and gray to reveal, hide or partially conceal layer content. In Photoshop a layer mask is created several different ways. (**Fig. 7**)

At the bottom of the Layers panel click the Layer Mask icon

From the Menu at the top of the screen choose Layer > Layer Mask > Reveal All to produce a white layer mask that displays all of the layer content.

From the Menu at the top of the screen choose Layer > Layer Mask > Hide All to produce a Black layer mask that conceals all of the layer content.

If a selection is active, Reveal Selection or Hide Selection choices are displayed and produce a mask in the shape of the selection

If there are transparent areas on the image, From Transparency produces a mask in the shape of the transparent or semi-transparent areas on the layer.

White, black and gray

Layer masks use a shade of a neutral gray to reveal or conceal layer content. Any region on the mask that is completely white reveals the content. One hundred percent black on the mask completely conceals layer content. Shades of Gray, depending on how dark or light they are, produce semitransparency. Darker grays conceal more, and lighter grays reveal. These shades can be painted on the mask directly with a brush or any other tool that produces color. Gradients can be applied to layer masks so that areas can be subtly blended into one another. (Fig. 8) Selected areas on masks can also be filled with the paint bucket or the Fill command.

More transparency

What I'm about to explain next goes well beyond even Superman's X-ray vision.

In the realm of digital graphics software, transparency can be applied to produce a myriad of spectacular color combinations, all using layers, pixels and of the most magical of all, Blend Modes!

When I initially explained how transparency works; that it's an algorithm that



Fig. 8: Gradients can be applied to layer masks so that areas can be subtly blended into one another.

Fig. 9: Blend modes can be quite useful for color enhancements, saturation spiking, darkening and lightening content and even for beautiful special effects.



applies finite sequential mathematical instructions to produce an effect, in this case, blending and diminishing of the colors on the topmost layer's pixels, I didn't mention that there are many other algorithms within the software that produce even more transparent effects.

Blend Modes combine the color of the pixels on two or more consecutive layers. They apply an algorithm to the target layer that alters color combinations of the bottom layers unique ways. Opposite colors like reds and greens may cancel each other and produce areas of dark gray, while colors that are closer to each other on the color wheel, like reds and yellows, may produce richer, more saturated oranges. Blend modes can be quite useful for color enhancements, saturation

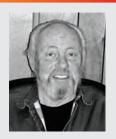
spiking, darkening and lightening content and even for beautiful special effects. Furthermore they alter transparency and color and can even be mitigated with the Opacity slider. With 31 blend modes to choose from, you can imagine the many possibilities. (**Fig. 9**)

Super powers

OK! Now that you're aware of the potential of your newly endowed super-power — virtual X-ray vision, you can have fun experimenting with these amazing features. Like Superman, you are able to see through brick walls, and solid oak doors and better still, make anything you don't like disappear. You can also magically alter color with the click of a mouse. Not bad for a mere mortal. GP

CorelDRAW Basics

Boosting your text creativity



Doug Zender has used CorelDRAW extensively since version 4. His goal is to minimize the intimidation of the program and give users the sense that CorelDRAW is a friend, not an adversary. Doug began as a design artist, then moved into the sign industry in 1992 doing vinyl graphics. You can contact him at dezender1@gmail.com.

have written numerous articles about CorelDRAW for this magazine, but recently while perusing those articles, it occurred to me that I had never talked about some of the basic functions of the program. I hope, here, to share some of that. The following information may be a bit superfluous and boring for some users, but for others, it may be the very thing they need to thrive with the program.

To begin, I guess that the differences of a good place to start. Most of our design projects involve some form of text. Most often we use Artistic text, which is simply a click with the text tool and Artistic text and Paragraph text may be begin typing. The resulting text can easily be resized as needed... stretched, skewed, font size, or manipulated as one desires. If you select the Shape tool on an Artistic text object, there are options to manipulate each text character separately... Size, angle, height, etc. See Fig. 1 in which I have manipulated each text character for a unique look.

In **Fig. 2**, there are two possibilities for this text. The first is simply a straight-forward typing of the text using "Sarah Script." But I wanted something more dynamic, so I chose to make some changes. To get the second image, with the shape tool I first clicked on the little square associated with the "L" and "C" and chose "Diner" as the font to use for these characters, and then had to change it slightly to match the size.

The "y" in Lucky seemed a bit unusual, so I replaced it with an alternate character that was included with the "Sarah Script" font. To achieve this, in the text dialog, (Text > insert character) I chose Insert Character from the drop down and double-clicked on the alternate character I wanted. (Depending on the version of CorelDRAW you are using, it all may be a bit different, but should be similar with all versions) project, you first choose the text tool and use it to draw a text bounding box. When you click the box, you can begin entering text.

Paragraph text is a bit different than Artistic text in that to begin a paragraph text This is mostly used for large bodies of text. There are several options available... Drop Caps, Wrap Text and a few others. We'll first look at Drop Caps as can be seen in this presentation. Unfortunately, it applies to all previous paragraphs and cannot, as near as I can tell, be altered to include only a single selection. In this case I chose "Georgia Bold" for all the Drop Caps. To access this feature, one must select a character with the little square associated with it, with the shape tool and, on the task bar, choose Text > Drop caps and a dialog opens with some sizing options. As one works with this feature, it becomes clearer how it works.

Wrap text is our next concern. Many times we are writing a piece that includes some kind of image and we want it to be included within



Fig. 1: I have manipulated each text character for a unique look. (Images courtesy Doug Zender)

90 GRAPHICS PRO · JANUARY 2023

Lucky Charms Lucky Charms

Fig. 2: There are two possibilities for this text. The first is simply a straight-forward typing of the text using "Sarah Script".

our text. Fig. 3 is an example of this technique. In this example, I first drew a circle and gave it a fountain fill as the object around which to wrap the text. Then I typed the paragraph text seen here. Then, with my object selected, went to Window > Dockers > Object properties and in the docker, chose the Summary icon (it's the one with the little question mark) ... a new dialog opens with several options. (See Fig. 4) I chose the one which best fit my needs. You can choose any one that is appropriate for the project at hand. Once the object is chosen, move it around and see how the text re-adjusts to the image. This process may require some experimentation to get it right.

When the text and target object are dynamically linked, you can move the target object up or down or right or left and the text automatically re-flows accordingly. I have included **Fig. 5** as a practical example of using this feature. This is a label design I created some time ago of a music CD for a singer/songwriter. Note that the list of song titles flows around the central core of the disk.

There are several other choices and options while using Paragraph text, including adding bullets to text frames. I would urge anyone to explore these options. The results are well worth the effort involved! Since using text images is one of the things that we must use extensively, it is best to know how get the most out of its use in CorelDRAW. The newer versions of the program have other text options that rely on the artificial intelligence abilities of Windows 10.

My next area of concern is the difference between vector and raster (bitmap) images, which is still an area of confusion

This example shows how text can be wrapped to flow evenly around an object... the object can be either a vector object or a bitmap.

Fig. 3: I first drew a circle and gave it a fountain fill as the object around which to wrap the text.

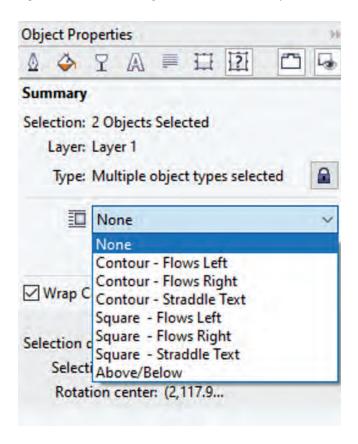


Fig. 4: With my object selected, went to Window > Dockers > Object properties and in the docker, chose the Summary icon.

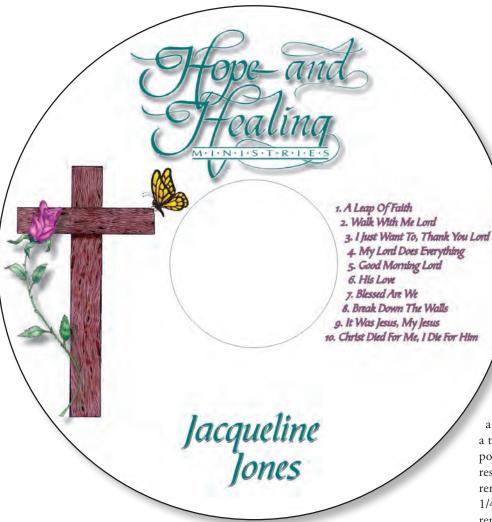


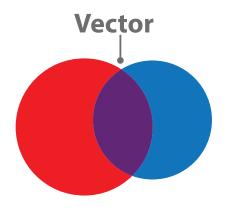
Fig. 5: When the text and target object are dynamically linked, you can move the target object up or down or right or left and the text automatically reflows accordingly.

for some. CorelDRAW is essentially a vector-based program... all the drawing tools create vector images whether rectangles, ellipses or a line drawn... by definition "a vector is a theoretical line defined by two or more points." Vector images can be scaled or resized to any dimension and the file size remains the same. I can draw a circle at 1/4" and stretch it to 10' and the file size remains the same.

Raster images, also known as bitmaps, are comprised of a number of pixels. A pixel is a "picture element" and contains a bit of information. A bitmap could be likened to a jigsaw puzzle... each puzzle piece contains a bit of information and when all the pieces are in place, they form a picture. In a similar way, when all the pixels in a bitmap are arranged, or mapped, in relation to one another, they form the picture or final image. (See **Fig. 6**)

Though CorelDRAW is a vector based program, one can import a bitmap to use in a project and while there are some limited editing options, it is best to use Photopaint for extensive editing of a

Although brief in explanation, I hope that all of the foregoing stuff is useful and valuable for users of CorelDRAW. I always enjoy hearing questions, comments and/or insights at dezender1@gmail.com Questions will be answered as soon as possible. GP



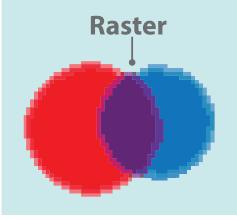


Fig. 6: Vector images vs. raster images.

92

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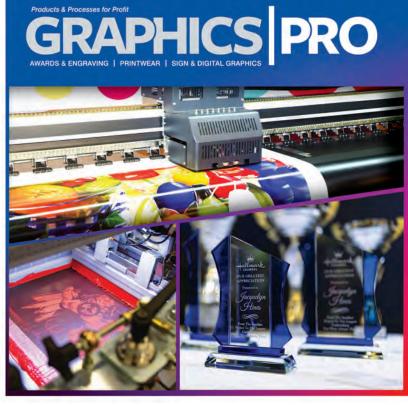




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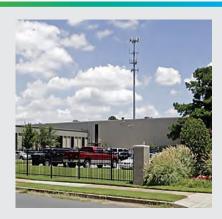




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