Industry Gurus Discuss Graphic Production at the Expo

Last year, at the blockbuster 2015 SGIA Expo, the industry's top experts gathered in Atlanta to discuss some of the hottest topics specific to the community's various imaging sectors, affectionately dubbed the "Dream Teams."

Here, we've transcribed part one of the session, "Graphics Production Dream Team," which addressed topics such as: Techniques and strategies, workflow, color, production bottlenecks, capacity and other highly pertinent topics.

Originally presented on November 5, 2015 and moderated by Ray Weiss, SGIA's Digital Specialist, this panel of: Bron Wolff, Vomela Specialty Company; Dean DeMarco, IDL Worldwide; Dave Brewer, Image Options; Jose Puentes, The Ad Art Company; Elaine Scrima, GSP; Dan Kimmerly, KDM POP Solutions Group includes presenter's answers, audience questions and moderator feedback.

Weiss: I want to open it up to the floor. I'd like to encourage questions; if you don't have one or want to wait a minute, I have a few, but raise your hands and let's go! I'll start with one of mine: What can you tell us about some of the production challenges facing the industry today? From your perspective.

Scrima: I think there's a lot of challenges that we encounter on a day-to-day basis; some internal, some external. Managing customer's expectations is the biggest one for us; we deal with about 44 different convenience store chains and about 12-15 retail/fashion chains and they all have different requirements and different specifications. The biggest thing for us is obviously color management. We're G7 certified master printers, and you know, getting the customer to understand the color differences, not only across the mediums but across the substrates is a challenge for us at times. We try to manage the expectations as best as possible because we do employ both screen and digital within in our production facility, so there are some expectations we set with them from the beginning. When they come in we do a plant tour, and we try to establish that from the beginning. We try to understand what their tolerances are. So that's probably the biggest thing, for us, from a production standpoint, is trying to manage those expectations.

Kimmerly: I might just say, the quick-turn nature of the industry has gotten manic. And we all deal with it, and it's a fun thing to deal with every day. You go back years ago and we'd have plenty of

By Bron Wolff, Vomela Specialty Company; Dean DeMarco, IDL Worldwide; Dave Brewer, Image Options; Jose Puentes, The Ad Art Company; Elaine Scrima, GSP; Dan Kimmerly, KDM POP Solutions Group

time, and someone wants 2000 banners — and that's what we did, we did banners and posters — and sometimes I miss those days. But then again, now you'll get an order for 2000 banners and they'll want them to ship tomorrow and it's like, 2000 banners, OK, that's no big deal — we can print 100 banners an hour on our digital presses. But, now there's the versioning that gets involved or it's regionalized or they want one of this, ten of this, five of this and it all adds up to 2000, but then it's all the logistics involved and it's maddening and difficult.

Brewer: Probably where we have a lot of issues are files, and the way files are constructed. It's an interesting thing if you look back 25 years ago and you'd asked me what pre-press challenges were I'd say, "Files, and the way files are built." So, if there's an area that we probably spend the most time on, it's when the files come in you're not sure what the file is, you're opening up the file and trying figure it out, and then you try to process the file and doesn't process right, and then you're calling the customer and they say, "No, everything's there, everything you need." So a lot of our time and frustration and challenges are in (what you're talking about in color, obviously) but also about the way the files come in and managing the files. We have campaigns where we may have 6,000 files, so we're printing one of 6,000, not 6,000 of one. So when you start doing the math, if you have a third of those files with problems, the time just goes off the charts.

DeMarco: In addition to all these great comments, I think one thing I'll say is that we will never say no to an order. So, there are a lot of companies that will rightly say, no we can't handle that work, but we have never been in that camp. We have always felt that no matter what the project is, we'll find a way of getting it done. Now that also requires us to use a pretty extensive partner base. We have a robust sourcing team of people, international as well as local. As a matter of fact, Kimmerly is one of our partners. ImageOptions is potentially one of our partners for the Midwest as well. We look at all of our partners, people we can deal with, from both a high integrity standpoint, and really trying to match up color management — you know we try to align companies that have similar color management — that we put out there. So, we can't say no to an order. It's

just one of the things that we do and it requires a little bit of a different mindset for us because we're working with some really Fortune 500 brands all the time, and their expectations are that we're going to give you this project and you guys will get it done … without any sleep, and that requires a different model than what some other companies here might be accustomed to. That's probably one of the biggest challenges. Our production, when we ramp up, we obviously try to do all of the work inside, but then we get into these peak capacities and so we have to find a sourcing model and now you're talking about the net projects done. So how do you ramp up capacity without adding a lot of staff or equipment, and that's one of the ways we do it.

Wolff: Well, we can't say no to an order, but we can sure cuss it once it comes in! One of our biggest things is the expectations. We have customers that come in and they have five stores, and three pieces, and a week later they want 5,000 pieces and then they want 10,000 pieces and they want it in the same time frame and it all has to match. And, obviously for those of you in this business, it's not gonna match! I mean, we can get it damn close, but it's not going to be dead on. So, part of the big problem we have is A.) managing the customer, and B.) managing our sales force. And managing the expectations getting out there to our customers. We have more problems doing that than we have doing anything else.

We used to tell an old joke (I used to teach here at SGIA) every time we taught the classes, about an old guy out on safari. It was a sales manager and a production manager and they're out in the bush, the sales manager says, "You build the fort, I'll find us something to eat." So he heads out and finds a lion, hits him over the head with a club, and runs back to the fort yelling, "Open the gate, open the gate!" And the production manager says, "What'd you do that for?" And the sales manager answers, "I got him here, he's your problem now."

So, it's all about managing your customers' expectations. Make sure you get that customer what they want, number one; and when they want it, number two.

Audience: For workflow, we deal with five pieces, ten pieces, 500, 5,000. How do you deal with the orders? We find a funnel trying to get through order entry, and it takes us the same amount of time trying

to write out an order for five each of 10 lots as it does for 5000 of 10 lots. What type of front-end planning, front-end job order entry do you have to manage that?

Kimmerly: Gosh, we share in your pain. It's a challenge and I'd love to hear if anyone has that one solved. But, yeah, it's a similar problem for us. We streamline it the best we can: Like Wolff was saying, the sales managers will get it in, and then leave the project managers there to sort it out, and then we kind of filter after that — we kind of use a production-minded person to do that last-minute filtering and then we kind of do some planning, etc., maybe rearrange a few things on the ticket, but it's a tough one.

Wolff: I think you have to get out of the box. Many companies, ourselves included, we have six working plants, and years ago what they tried to do was standardize, which was I call, stupidize. If I'm floating a work order in for three digital pieces, what information do I need? I need to know a job number, I need to know the material, I need to know how many I'm doing and I need to know anything to help the customer. Beyond that, what the hell do I need? If I'm doing a thermo-form job, what information do I need, well a lot more. If I'm doing a litho job and I've got 5000 pieces and customer requirements up the kazoo, then I need a lot more.

Be sure to check back in the March/April issue for part two of the Graphic Production Dream Team presentation series.

Dave Brewer, Chief Technology Officer Image Options—Dave has over 30 years of experience in the graphic communications industry. Currently he is the Chief Technology Officer at Image Options as well as a business partner.

Prior to joining Image Options in 2011, he held multiple operations and technology positions at Vertis Communications dating back to 1996. In 1990 he was a co-founder of a company called Pacific Color Connection, which was sold to Vertis Communications in 1996.

From 1985–1990 Dave was the corporate systems coordinator for American Color. Mr. Brewer attended the University of the Pacific where he was a scholar athlete graduating with a B.A.

Dean DeMarco, Division Print and Technology Director at Matthews International—Dean has more than 35

years of experience as an executive manager of many different pre-press and printing operations, including screen printing, wide-format digital, lithography and flexography in the POS/POP and packaging industry, serving many brands. His expertise is in strategic planning and the development of operational strategies that helps companies become more efficient and profitable. Dean is a G7 Master and is also practiced in lean manufacturing methodology.

Dean also is an active participant in the industry through his involvement with various organizations that are responsible for providing leadership and direction to the specialty graphic industry. He is currently on the board of directors for SGIA.

Dan Kimmerly, Graphics Director, Manager of Estimating & Planning, KDM P.O.P. Solutions Group—During his tenure at KDM for the past 20 years, Dan has served in various management capacities across multiple print production facilities. His experience with Screen, Offset & Digital printing methods, along with his strong expertise in Color Management, has been an integral part of KDM's success and growth in the point-of-purchase printing industry serving national retailer and consumer brand accounts.

For the past decade, a majority of his time has been focused on prepress, digital print production, color management, cost analysis, R&D, and strategic planning for the advancement of KDM's printing services.

Dan has also served the industry in a variety of advisory roles. Currently, he is a member of the VCT (Visual Communication Technology) Advisory Board for Bowling Green State University.

J Puentes, Plant & Operations Manager, The Ad Art Company—J. Puentes has 27 years of experience in the print industry with expertise in all aspects of graphics manufacturing, particularly a strong background in pre-press, screen printing, digital and litho print processes.

Elaine Scrima, Vice President of Operations, GSP—Elaine Scrima has been with GSP for almost 20 years serving in various capacities as an integral part of GSP's success and growth. She currently serves as the Vice President of Operations and is responsible for overseeing GSP Operations in Florida, Wisconsin and Utah. Scrima has held various positions at GSP including Account Executive, Customer Service Manager and Director of Human Resources. Prior to GSP, she held management positions in food service and franchising organizations. Elaine has a BA in Communications from the University of Akron.

Bron Wolff, Technical Manager, Vomela Specialty Company—Bron began his screen printing career in 1970, while at college at Ball State University. After graduating with a degree in art education, he taught in the Indiana public school system. Developing a unit on screen printing using hand-cut stencils, he later taught indirect emulsion for posters and text. After working part-time with a screen printer, he opened his own business in Valparaiso, Indiana.

In 1992, Bron became SGIA International's Technical Education Associate. In that capacity, he helped develop curriculum and teach workshops offered by the Screen Printing Technical Foundation.

Bron Wolff began writing about the screen printing industry for Screen Graphics magazine in 1997 and became a contributing editorial writer for ScreenPrinting magazine in 1998, contributing over 20 articles which have helped to establish standards to improve the printing process. He continues to teach SPTF's Four-Color Graphics seminar, and is a frequent presenter at SGIA's annual Conventions and Membrane Switch Symposiums.

Industry Gurus Discuss Graphic Production at the Expo, Part 2

In the January/February issue of the 2016 SGIA Journal, we transcribed part one of the 2015 Expo session, "Graphics Production Dream Team," which addressed topics such as: techniques and strategies, workflow, color, production bottlenecks, capacity and other highly pertinent topics. Here, we've continued with Part 2.

Audience Member: For workflow, we deal with five pieces, 10 pieces, 500, 5,000. How do you deal with the orders? We find a funnel trying to get through order entry, and it takes us the same amount of time trying to write out an order for five each of 10 lots as it does for 5,000 of 10 lots. What type of front-end planning, front-end job order entry do you have to manage that?

Bron Wolff: I think you have to get out of the box. Many companies, ourselves included, have six working plants, and years ago what they tried to do was standardize. I call it stupidize. If I'm floating a work order in for three digital pieces, what information do I need? I need

to know a job number, I need to know the material, I need to know how many I'm doing and I need to know anything to help the customer. Beyond that, what do I need? If I'm doing a thermo-form job, what information do I need? Well, a lot more. If I'm doing a litho job and I've got 5,000 pieces and customer requirements up the kazoo, then I need a lot more.

I think if you standardize, you're killing yourself. You standardize to your operation, and you standardize to what you're trying to achieve. If I'm trying to achieve a digital print, I can take an 8x10, quarter it off into four sections. I get four orders out of one thing, then throw four orders out. I'm doing a litho part or screen part where I'm bending it or twisting it or turning it I probably need a lot more. I've got to spend more time out there. Not just looking at what's there, but I've got to spend more time trying to figure out what information's absolutely necessary to get to that production floor so they can do the job.

Do I have too much here that they don't need? It takes a project manager the

By Bron Wolff, Innomark Screen Print Division; Dean DeMarco, IDL Worldwide; Dave Brewer, Image Options; Elaine Scrima, GSP; Dan Kimmerly, KDM POP Solutions Group

same amount of time to write up an order for one as it does for 10,000. Just don't, is my opinion.

Dean DeMarco: If you look at companies, and there's a couple of those companies that are in this room, actually, if you really kind of look at the next wave of automation, if you look at transition of printing from analog to digital, one of the things that was always left out was true workflow automation. File preparation for automation, job ticketing, information automation.

You're seeing a number of companies stepping up now actually developing those solutions, like Terry Corman of Firehouse. He's obviously never been happy with the workflow solutions that have been provided in commercial aspects, so he's actually built his own.

If you talk to companies who build those solutions, they'll tell you, do you know who the number one competitor is for their solutions that they're trying to develop? The homegrown guys. GSP's developed their own. They have a fantastic solution, for that very reason, I think. Right now, what I would tell you is that it was probably an area of need that the market heard. For companies like GSP and Terry Corman who have already built their own, you're going to see, in a very short period of time, some fit solutions out there that are going to help you manage that, both from an order entry standpoint and also from a file preparation standpoint. It's not going to be a silver bullet, but it'll be better, certainly, than some of the solutions that are out there today.

Wolff: We've gone the gambit between too much information overload to too little, and we try to balance. What we found is if we customize it to plant-specific, in some cases, to substrate-specific, in some cases we have profiles on certain customers. If we have a big retail customer and they do the same thing all the time, you customize the order form. You're project manager uses that customer order form, and there you go.

Dean DeMarco: What are you doing now, where's your challenge?

Audience Member: Well the challenge we've got, we have an SOP. You have certain customers and certain jobs and products that will go through, and you've got written procedures, and how are you going to deal with them? You have information that you do put on the job ticket. The job ticket is very standardized, it covers everything. It's check boxes and it's fill in the blanks and it is proprietary, we developed it ourselves. There is a lot of information there.

We look at the challenge of, I'm just going to get four signs printed and out the door that this customer needs real quick. It takes so much time to fill out that job order. How do you do that? There's a lot of information that can be missed because you might have four sizes, you might have 50 sizes. You've got to tell what the packaging is, what the shipping information is. They might all go to 50 different locations. How to manage that, I guess, I kind of agree with you guys. There's no standard solution, but how do you simplify it?

Wolff: I don't speak for these guys but I speak for mine. We have multiple, multiple digital printers. In the course of two shifts, one press can run through 50 orders. You either overload yourself on the front end with project management trying to get it out there or you figure out how the project manager can get it out there quicker so they can move it.

Dave Brewer: I think bottom line, you're answering your own question. There's no single solution. What we've had to do is how we handle jobs. We have a quoting system. A simple job can go through the quoting system and you're saying it's a board rigid. Okay, a decision's made. That eliminates a whole bunch of stuff because it's rigid.

We've done things with some customers where everything's online. All the information's coming in. When it's ready to go, we hit a button. It tells us what's all in the kit. It's telling us how big that kit is, how to package it, because we're using Packsize to make our own packages. It just depends on what you're doing and how you can automate it. There is no single best solution. I think we all create pieces and tie it together.

Audience Member: How many of you five have your own system in place like Terry's? Or may have built your own?

Brewer: We have taken some off-the-shelf equipment, then we've also taken pieces and programmed what we need from other sources. I have a quoting system you can go out and buy, but a lot of the other stuff I have, you need programmers for. I have five programmers on staff.

Wolff: We have our own IT department, too, that can do a lot of that for us. We make changes constantly.

Audience Member: What programs do you use? Are there programs that start from the beginning and go all the way through the production? I think there's one called Cyrious.

Brewer: We use Cyrious. It has its strength, but I want to tell you, there are challenges. You need to look at it.

DeMarco: If you're going to buy those solutions, the first thing most people want to do is modify it. Customize it, they like to say. You can definitely go that route. What happens when you do that is typically when they start doing upgrades and improvements to it, it kind of limits you to what they do with that solution, because you've made changes to it. They're not part of that change, so now that they're like 'we'd like to upgrade our system' and 'I see you've done this.' Sometimes when you do that, it takes longer for them to implement and upgrade a path for that, specifically.

Certainly the rear-end solutions are going to have limitations. They're not going to do everything you can do. What I would tell you if you buy one of those solutions is that there are two schools of thought with that, specifically. You can conform your business to that solution, or you can modify it to make it fit your solution better. You have to understand the pros and cons of either one of those.

Wolff: Modifying your business to those solutions is, in my opinion, suicide a lot of times, because now you're letting the animals run the zoo.

Dan Kimmerly: We used to have one called Logic. Now we have one called Enterprise. There are some things we love about it and some things we hate about it. We use it all the way through the system. When the order comes in, it'll start off in estimating. If that becomes a job then it gets rolled into a job ticket, etc. Then there's data collection that goes on throughout the shop, which is very valuable if it's done right.

We've got over 300 employees. It's hard to keep them all properly trained and maintain data integrity. At times we will pull a report at the end of a job and find odd stuff like 10,000 sheets of 10 mil PVC charged to an offset job.

Enterprise has been okay, but I don't know if any of the management information systems are perfect for our needs.

Audience Member: That's a Microsoft product?

Kimmerly: No. I believe they're an independent.

Elaine Scrima: That's why we developed our own proprietary software system, because we found that we wanted to have control over certain aspects of the process from start to finish. From the time material hits the door until the finished product, all the programs link together. We started the same as a lot of you have, handwriting orders. It's not efficient. We spent a lot of time training our account managers on the front end to write the jobs up correctly.

Being able to have that system live throughout the whole process, there's quality control checks all along the way. I could be sitting here today and I could log on to our system, because it's web-based. I can see exactly where every job is in production, and any kind of quality issues that we had with it along the way. It also takes our materials and auto debits so our inventory is always correct. Well, as correct as it can be. Then it tracks it all the way until it hits the customer.

Even the shipping information is web-based so that customers, or we, can track packages. From start to finish, it's all-inclusive. Now we've spent a lot of money to do that, but we couldn't find a solution that met our requirements, so we developed our own. Just like these guys, we've got a full staff of developers that continue to maintain that.

Audience Member: You kind of answered my question. Is anyone running a website, like an e-commerce kind of thing? Or something that the customer can access, whether it's completely internal or not? Is there a benefit to that?

Scrima: Actually, our customers do have access to that information as well. We're just starting a program now with one of our customers where they can actually go in and customize individually for each location. They can customize signage orders for each location, and it auto generates a work order for us. Then we produce site-specific kits.

There are benefits to it. They aren't able to modify the data, so to speak, but they can go in and do order entry that way.

That helps from a labor standpoint. We already had predetermined the materials, all they have to do is go in and click on what products and pricing they want printed.

DeMarco: We have a digital store process very similar to that. Those solutions are pretty canned. You could go to a number of solutions providers and go out and get a digital storefront that's really pretty basic, or as advanced as you want to do it. There's really no need to do too much fussing around with it. It's pretty much plug and play.

Wolff: Those programs, we have two different ones.

DeMarco: It's really helpful. Most of those production orders just go directly to the press. You're not actually seeing anything, but those will show up in a queue. We sequence those into our normal work; process them through as normal. It's actually a pretty slick way to do it.

Audience Member: Right. That's all linked. It's customers, not new customers, but customers you know you're working with, they've registered with you, that kind of thing?

DeMarco: Absolutely. Certainly there's a level of security you go through to onboard those folks and make sure they understand, not just from a security standpoint. You want to make sure you're providing the great service to them, as well. Making sure they understand how to use the system, they should be trained and associated with it. Make sure they're doing it right so they're not putting something in that's going to give them problem at the back end.

Audience Member: I've got a question. You guys are all pretty large companies. Have you guys invested in computer-to-screen technology, if you have or if you haven't? And what type of rules do you have for those reasons?

Scrima: We looked at it but we decided that wasn't in our best interest to do.

Audience Member: How are you producing films this way?

Scrima: The old-fashioned way, film output, burn, then to screen exposure unit.

Audience Member: Is it inkjet, thermal or…?

Scrima: Inkjet.

Weiss: I want to throw a quick question out. If screen print is currently part of your operation, do you see it growing or dying in the next five years?

Kimmerly: We've charted this so that we know where to spend our money and what to do with the future. If I go back five years, screen print was 50 percent of our press production, digital was 30 percent, offset was 20 percent. That's pretty much flip-flopped since then. Screen's currently about 25–30 percent, digital's around 55 percent and offset's still 20 percent.

If that trend continues, then in five years, screen's maybe 10 percent. I imagine it will plateau somewhere around there. With digital presses I've got recently, they're around 100 boards an hour at the top end. If you go out there and buy the latest today, you're probably going to be 125, 150 on the top end.

That means if you've got quantities of 1,000 or so, then it makes sense to do it digital. Buy one today, maybe you're getting into that 1,200-sheet range. What's it going to be in five years? Hell, they'll be doing hundreds of boards an hour. Why would you screen print? Unless you're getting into that, it just absolutely has to be that perfect color, but with that expanded gamut of the inks and the way that's gone, I can hit a lot of Pantone colors right now. I'm sure that's only going to get better.

That's just my humble opinion and I love screen print and that's what I started in. It transitioned over to digital over the years. I think it will hit 10 percent in five years.

Weiss: How about you Elaine?

Scrima: We're probably almost 50/50 I would say, honestly. I agree with the statement. I don't know that we're going to invest a whole lot more on the screen side of it. As we make our additional investments, we're looking more to the digital side. I don't see screen printing going away, it's always going to be a part of our business. Just based on the nature of what we do and how we do it. I still think in my opinion, there's some effects that you can get from a screen printed piece that you can't get from a digital piece.

A lot of times we're combining the two technologies. We may print the initial piece in digital and add some effects on the screen side. To Dan's point, what we've noticed is our pendulum swinging.

Quantities that used to make sense to produce digitally now can be, as the ink prices have come down and the equipment has become more efficient.

DeMarco: It might depend really on your client. This is the first year our digital output will exceed our screen output. Seven years ago we started taking that digital journey, we looked at it and we said, hey, five years from now we want to be 50/50. We did exactly that, right where we are.

What we found out was that it was based on the type of work that we do, who we do work with, the length of runs of the jobs and things like that. You guys are digital only because you're working with specific clients, it fits very well with that.

We have clientele that screen printing still fits very well with. Elaine also talked about hybrid printing, we probably do more hybrid printing than anyone else that I'm aware of. Which is a combination of screen and digital. We take the best of analog technology, screen print in this case, and combine it with digital.

Some of the things that you can do with that, there are things that digital will never be able to do that screen printing can do. Whether it's exact Pantone matching, or special effects, or silvers, or metallics or even glitter, something crazy like that. You're not going to do that in a digital platform yet. You can still look at screen printing as a viable option. What you want to do is gear your clientele and your business to the strengths of that process. That's what we've been doing pretty effectively. We're probably not going to invest in screen, but our intention is to keep our screen printing going for the foreseeable future. We think it's still pretty viable.

Wolff: We're the same way. We do an awful lot of crossover. We do litho and screen, digital and screen. We just ran a 12,000-sheet run, where we put silver/metallic, it wasn't metallic but it was a silver ink down with litho print, but litho can't get that, so we ran that first, shifted over to the litho and put litho on top.

We did a big one for a customer on a digital run which was a couple of hundred big banners, fluorescents. They can't print them — we can. We laid the fluorescents down, set it up on digital, digital's on top of them. We do a lot of that.

I agree 100 percent, part of it's your clientele, part of it's your expectation, part of it is the crossover. I don't think screen's going away yet, but it's definitely taken a

good chunk out of it. I think litho's the next one. Make a big one out of litho coming up next.

Audience Member: What is your opinion of lean manufacturing? I can't decide if I'd rather ask that or about G7® in general.

DeMarco: We just went through the lean transformation. I think most of us up here have been exposed to lean. This is our second attempt at lean. The first time we did it, we tried to do it independently. We did a pretty poor job of implementing it.

We actually brought in a consultant group. They lived with us for a whole year, and really trained us on how to do lean all the way through. Here's what I will tell you — since we've implemented lean, we have seen a 38 percent increase in operations (OP). We all attributed to lean manufacturing, specifically.

Expedite freight's down, efficiencies are up and this will be the second year in a row since we've implemented lean that our OP overall has been above 10 percent. It's been a huge fit for us. I think the biggest challenge implementing it was culturally, getting people to understand why we're doing it. You cannot go into that without top down management, buying into and supporting it 100 percent. That's where we kind of failed the first time with it. We didn't feel like we had the top down management support of it. The second time through, I would never go back. I would tell you guys, unequivocally I would never run an operation now without some sort of lean principle in place, I think it's that powerful.

Brewer: I think the bottom line is, once you go into the lean and CI world, you're applying data. You're making decisions based around data, not emotions. As you're doing that, a lot of times you make this assumption about why something's happening. One of the key things you're going to ask five times is, why did this happen? Sometimes the answer is not what you thought. You ask the second thing that no one's answered up here: What is G7? In the offset world, G7 can really, really help. In the screen world, G7 can help, but in the digital world — am I going to linearize to G7 or am I going to profile? Don Hutchinson's going to tell you, you need to linearize to G7. There's a huge argument. Does the final output change? The thing is, in offset, you have inks that are manufactured to a standard, to a certain color. ISO standard. Everything's tied in.

DeMarco: It's been great, I think we certainly have seen a tremendous amount of benefit with it, since we're outputting four different processes and trying to align all of that. We have 300 items going into a kit, I've got to tell you something — a print buyer couldn't care less what you're printing with. They really couldn't. When they get their sample kit, they have 300 items in it and some of it was printed litho, some of it was printed maybe flexo screen and digital. All they want to know is, is the thematic consistent? If I'm going to put it up in the store, is it consistent looking? I have this specific thematic, it's a specific color way. Some of it's branded. All they care about it is when it goes up in the store, how good does it look, how matched is it aligned?

Brewer: They don't care how you got there.

DeMarco: Absolutely not. I'll tell you one thing, they certainly won't say a thing if it does match.

Wolff: Is G7 going to get you to a matched color across processes? The answer to that is no.

Brewer: I think that you'll find with G7 is the term's getting thrown around the wrong way. It's methodology for calibration.

Wolff: Yep, that's exactly right. It's a balance of gray across the board. It's methodology.

Brewer: It's not a standard.

Wolff: No, absolutely it's not. Are we G7? Absolutely we're G7, 100 percent across the board. Does that mean I'm going to match with digital? Absolutely not.

Kimmerly: There's a lot of things that we've done with G7, and most of our current clients couldn't care less if we're G7. It's the new clients that we don't have. They'll send in an RFQ, ask every question under the sun. What's your stance on sustainability, all these different things. Are you G7? It gets us in the door, because in this world, for the most part, if you're not G7, they're probably going to write us off pretty quick.

I don't know how many customers we've found by going to G7, I don't know how many people have gone to the G7 website and thought, 'KDM, G7, I'll go to them.' I don't know how much of that we've got. Now with that said, I think for the most part, we've practiced all the G7 philosophies. Perhaps not to the letter, but it's made fingerprinting an offset press a heck of a lot easier, when using current software. I absolutely love that.

I used to do it old school and you'd chart the dot gain and all that. It was a pain. It took forever, now I do the sheet. I get the CMYK, RGB, everything at the right L*a*b* I use. With the current software, maybe I'd go back. Sometimes it's a little trickier because we have a hybrid, UV inks that we use on the plastics. Those are a little trickier because they don't follow all the rules that the inks are supposed to. We can fingerprint a press pretty easily. The conventional offset presses are a breeze.

All the digital stuff, there's so many RIPs out there. We've had a lot of them. From a digital side, that's the best thing we ever did was shrink that down to one RIP. Years ago, when I took my first G7 class, that was the biggest thing. What I took from that was, I've got to get rid of all these RIPs. We just tried a bunch out, and also I didn't want one that's proprietary towards one press or another if I could avoid it. We went with one RIP and we have different print locations. I'll use it at different locations, and that has been a big one. For the most part, if it has the Wizard, you go through, scan this, print this, scan this, print this. Then you're done. Scan it, and guess what? It's G7 compliant. It's not that hard, most of them are right there. They're good enough.

Wolff: I've taught with the association of color management about four-color process for 15–18 years. We run with G7 all the time, but we had press proof two weeks ago. I do a paint by number, I have my operators. Before they engage me or production management, you better have all the numbers there so we can take a look at it, and we're going to make an intelligent decision based on what you're showing us. We had it done, and I'm running it to the numbers. My eye is color subjective.

Brewer: What he just said. The whole psychology of color. You could be perfectly on the numbers and because of the surrounding color, they don't buy it. Perfect match in some PMS color.

DeMarco: Or the white point of the substrate is different. It's casting something.

Wolff: Or you get them, we've got color-coordinated lights, which all of us do, D50s. We had a woman come in, we had model shots, and they looked great. She signed them off in 15 minutes and we said we're good. The next day the owner of the company calls screaming and howling about how red we were, we're way too red. Wait a minute, we're not even close to being red.

He drives in from Columbus, Ohio and looks at it under our lights and goes I don't understand it. I said where were you looking at it at? He said the conference room. He's looking at it under different lights.

Kimmerly: I don't think it's a cure-all by any means, but it's been a good framework. I remember the days going back 10 years ago when there were absolutely no standards. We all remember that, and that was absolutely terrible. At least now there's some framework.

Brewer: That's more the print properties committee than the G7. Really the standards, because if we really look back in the late 80s, we had some type of proof. We went into some type of viewing booth, five of us got together and said good or bad? What do you think? You had a coffee yet? Okay, it's good.

Wolff: If it was too red, you had no clue why it was too red, it was just too red. You're chasing the density which is probably the wrong thing to chase, but that's what you're chasing, but we didn't know and we didn't teach it. Now we have the standardization, we teach that. If you've got that, the rest will take care of itself.

Audience Member: I think I was interested in also from that G7 perspective, you have a second and third shift. You know, having that big of a shop you say here's your target and here's your tolerance. You turn them loose and say hey if you're within this tolerance, it's good. What happens if it doesn't match the proof once you're within that tolerance, because that's a pretty big tolerance.

Kimmerly: If you're printing on styrene versus banner it's going to look different, but for the most part when the stuff's coming through our shop it is a reasonable match. A lot of this comes down to the clients, and knowing your clients expectations. With some of them, you could be somewhere in the ballpark and that's fine. Every

job doesn't need to turn into a science experiment, or take three hours adjusting color. Then there's other customers, you know when that job comes in that you're going to spend three hours adjusting color because they're going to be that ridiculously picky about it. Most of our jobs, if the ticket comes through and it doesn't indicate color critical, we just push it through our RIP unaltered, which we've got dialed in. If between the salesperson and the project manager they note critical color, then we know we've got to turn this into a science experiment. That's when we absolutely make sure it matches the Epson, or whatever the client provided.

Scrima: We use it a little differently, I guess. Similar, but a little differently. The biggest problem we used to have before we became G7 certified was that someone would come in and say exactly that. I need that more red or I need this more yellow or whatever. That's great and we would tinker with it, we would adjust things. It was mostly on the screen print side, obviously.

We would make those adjustments, from a repeatability standpoint, and six months later we'd get the same job and nobody would remember what we did to get the color that we got. We found it's easier from a consistency standpoint to utilize the print by number, so to speak, on the screen print side. For digital, I think these guys are right. It's been very helpful because we do run three shifts and so that's what we look for in our tolerances.

If someone comes in and says they want something more red, we will push back and say you need to fix the file to make it more red, because the other biggest obstacle we face is they're looking at something on an un-calibrated monitor, sometimes. When they see a blue, it's really a purple. So if we run into an issue, we send a proof. With every job jacket, we do include an Epson proof so that our printers have something visual to match it to.

DeMarco: You're saying today is a lot of companies using the actual output devices of working equipment. Certainly some people just often say I'm not going to output a proof. Most of those proofs are internal proofs right?

Scrima: Yes.

DeMarco: Sometimes people are just opting and say you know what, because I don't want to go through this whole proof to print comparison, I'm going to

actually send you a one off approval prior production. What they're doing is they're actually outputting proof, looking at it, make sure it's aligned correctly like it should be and then sending it to the client for a final approval.

You're seeing more and more of that and it makes it more and more easier to sit there and say hey why do I have an Epson? I'm going to be printing it on a digital press in this case. I'll just go ahead and proof it that way and send it off to them. What's even crazier about that is we're not even sending a contract Epson proof of it, basically the output is the proof. The client gets it and says I love this or they say hey you know what? Can you make this adjustment? You're seeing quite a bit of that now, I would say.

Scrima: What do you do for your screen stuff then?

DeMarco: For the screen stuff we do a contract approve or in litho as well. I think that's been a big change of thought of what people are doing. They're just saying hey I'm just going to send the actual output to the client, see what they think of it.

Audience Member: Okay, now so let's take that. One of the prime things that the concerns the beginning of the challenges was the contracts. If it's 2,000 banners a day, how are you doing a press proof in that situation? Is that 50 percent of the business? Is that 10 percent of your business that you get that opportunity, is it 50/50? How many times a year, because we're all challenged with that, you know that turn time is crazy. It's just getting smaller and smaller and smaller. What's that percentage?

DeMarco: That's a great question, I think. For us, I would say it's probably 25 percent of the time. We've seen an increase in that. What we used to do, we used to have a lot of clients come in for press checks. Either agencies or the actual client themselves. The agency representing the clients they have. What's happened ... What I've noticed over the years, we've seen a huge decline in that. For a couple of reasons. One is cost and time. The second thing we've seen is, there's a good confidence in our account team that they don't need to do that. Some of it is just hey you guys are, we trust you to be able to perform that function well, so we're not going to do it. I'd say we've seen a decrease in people coming in for press checks and

an increase in actual one off proofs going out for client approval.

Last year I'd say there was probably 10 percent of the time we had clients in, 10 percent we had proofs going out, that way. Today I'd say it's about 25 percent proofs going out, 5 percent clients coming in for approval.

Audience Member: With your digital, how much are you seeing legacy starting to set in? I know with screens you don't have as much legacy depending upon the system software, or are you all keeping that isolated from the entire network?

DeMarco: Are you talking about the actual physical hardware itself? Yeah, okay. We're an M-Press Tiger user. There were only 20 of them ever made in the world. About a year and a half ago they exited that market, that technology. It really wasn't very good for us.

What I would tell you is, we're typically changing hardware about every three years. Primarily because it's, Dan will laugh about this a little bit, these guys were one of the earliest adopters of HS100s, two years, a year ago? So right now, if you go out on the floor, what do you see out there? An H125. Already, in that period of time you've seen a pretty advanced ramp up of the exact same platform that these guys adopted less than two years ago. I think the end game for us has always been three years. To say that we would like to take a look at something now, typically we hold on to that legacy hardware longer than that. I think we just got rid of a GS that was five years old. We knew that we had extended the life of that press longer than it should have been.

Our ROIs from a corporate level are based on 18-month return. It's really brutal. Those guys are really tough on us because they're saying if you can't justify paying this press off, or any capital expenditure in 18 months, don't even bring it to the board. That's one of the downsides of being a corporate owner.

Kimmerly: We're usually somewhere around a three-year ROI. In most cases we'll keep the equipment for probably five years. It's getting a little easier to keep it longer. If you go back a few years, we had one of the early Vutek PressVu 200–600s. That press printed approximately four 4x8 boards an hour. Then they came out with presses that did 10 boards an hour. Well, that's three times faster. That's a big deal.

Nevertheless, the one I bought last year can do 100 boards an hour, you can buy one today that will do 125. The speeds are increasing, but the percentage increase isn't as great. I'm sure they'll come out with something next year that will go 150 plus.

I think I'm done this year because we also have Indigos and other things we're looking into. I might buy something again next year. It's become somewhat of a generational thing too, if you go back a couple of years ago all the major manufacturers refreshed their presses. HP came out with the FB10000, Durst came out with a Rho 1012, Vutek had the HS100, etc. I'm guessing we're probably on target for another big refresh and speed jump about two years from now.

Brewer: It was Drupa that all of those were introduced. So guess what?

Kimmerly: And guess what's coming up? Drupa. And they will all introduce new presses. And they won't be production ready until early 2017 at best, and we'll all be shopping again.

Audience Member: So, roughly a two to three year hold on it before you purchase the next one on the digital side. Are you seeing the same thing on screens? Screens, from what I've seen, has a quicker turnover.

Brewer: Not at all. I mean you're looking at a system that we should get 15-20 years out of. We think we have the most modern screen printing machine, which is a Thieme Multicolor. I don't know of any other ones that you don't feel are as robust or as fast as those are... You're kind of limited in how fast, or in some of the substrates they can run, certainly. We've had those, our expectation is that those devices would last 20 years without a problem.

Bruce Ridge (Audience Member): You describe an industry that's fairly complicated and technological, what are you doing to hire young people? Where do you find them? Are you even looking?

Kimmerly: That's tough. That one is really tough. I mean I guess every generation says that the new generation doesn't want to work. I think my dad told me that. We do get some of our future digital press operators from local trade schools. I'm on an advisory board at one of the local vocational high school programs, I try to get some from there. Some of the local

colleges, may offer some people that are maybe a little more technical, and perhaps have a little more drive. Then you also have people that you're going to need in packing and everything else, that maybe didn't have that same drive and that's a tough pool. That one really is.

Wolff: Sure, let's face it, with digital a lot of your visual equipment now is allowing you to make color adjustments right out of press. You can go right in and adjust them right there. So, for what it's worth, we're getting some of ours from the same place — the local tech schools and that, that are coming out with the pre-press experience, right in there.

DeMarco: Obviously, we have Education Row this year, and it's been great. Bruce, you and I are on [the SGIA] education committee — it's been a big focus for us. Youth in print, what we've been doing besides that: We have a job fair every year at Clemson University, Matthews goes down there and we'll actually start talking to folks specifically about onboarding, etc. We actually have a pilot program where we intern people out of different universities into our facility. It's been pretty positive.

We're going to probably continue that. It's great to see the education row here, I suggest you guys go and talk to those folks because certainly they are very interested in placing personnel. I think it's up to us as industry, people in the industry to talk to those people specifically because they want to know what we need to start looking at their curriculum. To start specifically saying, what are you guys really looking for? What skill sets are you guys specifically looking for? They're more than welcome or willing to start adjusting curriculums, specifically to some of the needs that we have.

I think they're not going to do anything unless we speak out and engage them. I would just highly encourage you guys to go down there, talk to those folks down there, talk to your local universities and colleges. I think you'll find out that some of them are better at the graphics program than other ones. The ones that are really good at the graphics programs, I would suggest that you get in contact with them and you'd be surprised how many potential all stars are out there and willing to get out of college. They want to hit the ground and start paying off those college tuitions.

Weiss: I'm curious Dean, you mentioned that you have an internship program,

do any of you others have internship or apprentice programs?

Kimmerly: You were mentioning Clemson, I'm on an advisory board at Bowling Green State University, it's up in the Toledo area. Via KDM's relationship with Nazdar and EFI, we were able to get an old Vutek QS press installed up there. BGSU also has an Esko cutter as well, so they can print then cut. Maybe it's not the absolute latest technology, but the students are getting the basic gist. So yeah, we've had interns come into our place from both BGSU and local trade schools. We have also hired former students from both programs.

Wolff: The Printing Industry of America is another good source. We deal with them a lot, there's a local in Cincinnati, they have a lot of local contacts, a lot of local schools. We've brought some of their people in, used them also.

Audience Member: I was wondering your thoughts on outsourcing graphics?

DeMarco: I'll take that one since I'm the one that probably does the most of it out of this panel. That was one of the hardest things that probably I had to deal with when I came to work for IDL. They had a large sourcing team already. Primarily litho, but then we were talking about that "burst capacity," we've always had a need for burst capacity. We weren't going to spend a lot of money capitalizing for, "Hey we should be able to do all this work, no matter how much work you have." That's insane, you can't do that.

If you're not going to say, "No," to an order, ever, then you're probably going to have to rely on partners, specifically. Relative to that is … I'm part of that sourcing group, I go out and help identify the right type of partners. It's funny because when I go in to talk to another printer that we could be engaged with, I don't want to talk to the sales guy. There's

three guys I want to talk to. I want to talk to the owner, I want to talk to the quality manager, and I want to talk to the safety manager. Those are the three guys that I typically engage with.

We've also developed a scope of work you have to conform to the specific quality parameters, what color space are you working in, all the things that we would expect our own internal capabilities to adhere to. We send that out to those guys as well. We really look at it. It's a little bit tricky, and quite honestly you feel like you could lose control.

We also send project managers onsite a lot of times, and work with the printer there to make sure that the expectation is being met. We have eyes on the ground, we just don't really like to give them a job and just say, "Go." We actually build some of those costs into those sourcing models as well.

Brewer: Was that the question you were asking? You were asking about design?

Audience Member: That's part of it that was answered there. Talking about I guess, graphics production, outsourcing the graphics production services as opposed to having an in-house graphics design team actually producing our designs. That kind of thing, automation. It kind of clears up some of that, where outsourcing the graphics production work.

DeMarco: It's from a design standpoint. We do design whole-heartedly, the only other outsourcing of design that we do is to China. What we're doing with those guys specifically is mostly versioning. What I would call, not so much design, but production art. There's design, there's production art, and then there's prepress.

Something might be as simple as, "Hey, you know what? We can add bleed all these images, but do you really want your designer doing that?" We'll source that to a China source. We actually have a Hong Kong Office, so we work with those.

Brewer: Designers put bleed on that stuff? When did that start happening?

DeMarco: That's what I'm saying, we don't do that. We don't want them to do that. There's a lot of auto functions now associated with auto bleeding's and stuff like that you can do.

Brewer: We have design capabilities internally. I'd say it's growing, most of the stuff we get is provided here.

Wolff: We're internal, but we outsource to three different designers. We work real close with them, because designers are like sales people, you give them a leash, they'll hang themselves. They've hung us on a few. So, we have them all internal — that helps a lot.

Audience Member: What I'm doing right now is a little bit of both. There's always the question: Is it more cost effective to just get rid of a couple of people and throw the dirty work out where it's cheap… Get the standard, give them all our specs, so they know what to do with it. Work with them, build a relationship with them because maybe that can work out better if. Or, it can work out better with people in-house who will work at it, who are always there doing it. It's volume versus quality.

Brewer: You're making some economic decisions. You've got to look at the ROI, the cost. You have a full-time employee, you're paying them benefits and whatnot, versus if you don't have enough to support that then you want to outsource it. You really got to look at your economics of the business. There's not one right answer.

Audience Member: You were saying when you outsource a non-disclosure agreement (NDA) then you're basically like a spec sheet almost, like qualifications? How many of the other four do you sub out? Do you do an NDA and you said that runs into some issues, how many times do you get kickback from the NDA?

Weiss: He's asking about NDAs and outsourcing, right?

DeMarco: Certainly one of the things we've run into is occasionally we'll run into somebody we might want to partner with that's currently already doing that work. It's a sign of good fit. At the end of the day we have to protect our clients, we have to protect ourselves. If it's not a good fit for whatever reason, we're not going to move forward with it. It doesn't make sense for either company quite honestly.

Audience Member: Is it a kickback because they're already doing work for specific clients that you have and they have or does it just kick back to NDA period?

DeMarco: I think it's probably a 50/50 on that one. It's a pretty robust NDA, I think when people look at that and they're not

used to that they would say, "Hey, it's not worth my time. We'd like to work, but..." A lot of times, it could be based on, "Well, how much of this work am I really going to get?" They kind of weigh that all out as well.

Kimmerly: We don't personally outsource a lot. We do try hard to not turn work away. We do have a division called KDM Branding that we utilize. With KDM branding, if we have a customer requesting 1 million key chains. "No problem." We have dedicated employees that comprise the KDM branding group, and they'll go through their sources and they'll print a million key chains for them. Or balloons or whatever it is that we don't typically do.

Wolff: Nobody can do everything. We get them all the time where we have to.

Audience Member: When you do outsource it, like how much of a mark-up do you put on it?

DeMarco: That's a great question. It depends. What I would tell you is it's a variable. Sometimes we backed our partners into precarious positions where we have pulled the trigger too late for outsourcing. Now they're asked to work over time and things like that. Sometimes we've taken a loss on sourcing.

Typically what I would tell you is, you're not going to get much more than a 20 percent mark up on that. What I would also tell you is, we typically are 30 percent more profitable if we don't outsource, so we try not to outsource. It isn't like we're big fans of it and we just do it. We're not an agency for crying out loud. We are a manufacturing-based company. We know that we're more profitable and we also know that typically we're going to take less margin on it. At the end of the day we also have a client expectation that we're not, we are not going to miss. If that's the route we have to take, we make a corporate decision and we move forward with it. That was a great question.

Audience Member: In my production, I've been challenged by the man upstairs to take on more part-time, temporary staff as a means of controlling the dips and the peaks. I'm wondering what percentage of your organization is part-time staff compared to full-time employees.

Brewer: One of the ways we find employees is through temp labor. We actually use temp services, it allows us to bring people in, see what they're doing,

try them out. Probably five percent, maybe a little bit more of our work force is a flex force, that's temps. Obviously when an opening comes along we can use that — we've already evaluated, see how they work. I'm in Southern California and there's not really a graphic arts program available to us.

DeMarco: 30 percent of our force is temporary.

Kimmerly: We do a lot of temps as well. I mean some of those are just temps for the day, we need people that are going to, 'roll these up, put them in box' and that's it. Some of them will do temp-to-hire, which is maybe a little better level, supposedly. We might bring them in and I have them helping in digital for a couple of weeks. "Hey the guy's not bad maybe we'll go ahead and hire him." Or, go fish, get another one.

Wolff: We don't use [temps] on presses, obviously, but we do on a lot of the packing operations. We have leads on the lines, a lot of temp labor. We're probably close to that number, probably 25-30 percent.

DeMarco: I think you know, you look at skilled areas specifically. We do not have temp skilled labor. If you look at the graphics area … You were asking about design, we do contract designers.

Audience Member: Graphic production for design.

DeMarco: Certainly we have resources to go out and grab what I would call highly skilled people for a period of time. In our packaging area, I would tell you that the majority of our temp force is in that area because it is so variable. What we're doing is we're putting like supervision on a line with those people, a lot of these people are return people. I think David's absolutely correct. It's a great opportunity for you to see some good people in there and cultivate them into something longer term.

Some of these temps, I mean keep in mind, these temps return quite a bit. There'll be weeks at a time when they're on staff, or even as much as a month or two they're on staff. Then we get into a position we have to really scale back and they go away. We always know, we always request these folks back if they are available. Eventually they'll get into a temp-to-hire position. So, that's pretty much how we have to manage it, there's no other way to do it.

Wolff: We've had a lot of good temps, a lot of good hires from the temp force. We've had people that have been damn good and we've brought them on.

Scrima: We've actually developed kind of our own program, it kind of works like a temp but they actually our employees. We flex them out and they come back, but they actually are our employees. They get benefits, the whole bit, but they only want to work two weeks out of the month, which is typically when we need them. Again, non-skilled positions mostly. In the packaging area, some will work as either press assistants or quality control people at the end because they're our employees and they've been trained by us, they go away for two weeks come back and work for two weeks. But we have also found, in the way that we sell the program, is that with the overtime that we are able to provide for them, it's like working 30 days with regular hours. That's the way we sell the program.

Weiss: We are close to the end, so I'd like to ask each of you just a real quick wrap-up. What trends do you see, or opportunities for growth do you see in digital printing? If each of you would just take a minute on that.

Wolff: Digital, if you're talking digital, digital's almost unlimited with what it can do at the moment. We're down here [at the 2015 SGIA Expo in Atlanta] looking at digital equipment right now, as I'm sure several people are. The industry has, to me, changed so much. Not only with the printing, but in the marketing and the sales end. I can remember back when we used to print for McDonald's, we'd print for 12,000 stores. You'd run a 12,000. Well you'd run eight national promotions a year. Now they might run one. Then it went to regionals, now you get inside the regionals and you can have the Cincinnati area or you can have some stores doing the Cleveland Browns. The marketing and the sales has just completely flip-flopped and changed so much. It's become such quick-turn — that small-turn stuff — that digital has to be the way to go. It's got to be. You've got to figure out a way to move it quicker. That's one thing that we do now. I run the screen division but I've been up in our digital division. The reason I was brought up there was not to run the division, it's to stand there and see what the hell they're doing wrong. It's to see the processing, it's to see the workflow.

How can we improve the workflow? How can we get the materials to the presses quicker? How do we cut that time down, because each time you change you have to change the beds. What can we do to keep the presses going? That's where it's got go, it has to go there. That's where the challenge is going to be. It's in these quick turns. The whole industry's seeing it, it's not just us. Digital's the way it's going to go.

DeMarco: I think the volume of production orders and pre-press needs to be addressed. If you take a look at where the bottleneck is for this area, that will be where it is. How do you ramp up in that area without adding a lot of cost associated with it, I think, would be one of the biggest opportunities for a dealer.

The other thing that I think is going to happen, which you guys are going to see over the next couple of years will be single-pass technology coming out. That's probably going to be one of the biggest technology changes we're going to see within our industry in the next couple of years. The question's going to be how much of an impact is that going to have on our industry. I personally believe that that impact is going to be a bigger impact on markets like litho and flexo, and possibly screen. I mean if you're talking about machines out there that could produce 10–15 thousand square foot an hour. I think all of us combined, if we got all of our jobs together, we could probably feed that press. That's a massive amount of volume.

What you're going to probably see is that impacting probably other printing technologies like direct-print flexo and direct-print litho more than anything else. You are going to see that hit in two years, or you're going to see that come out and a lot of you guys are going to be saying what the hell does that mean to me? I can tell you that that technology's going to be extremely expensive. I can tell you that most people probably won't even be able to afford it, or they won't even have the work, volume wise, to put on it, unless you're a super large user. Don't freak out when you see it, but I can tell you it's going to be hitting other areas.

I think we did 25 million square feet of output last year. If I think about it, I think I could fill that press up for 30 days. What would I do with it the other 11 months of the year? It's going to be interesting to see how that technology handles short-run work.

Brewer: Digital's going to continue to grow. It's going to answer some regulatory issues that are going to be placed upon us through the EU and/or California. Speeds are going to continue to increase, the biggest challenge is going to be moving sheets fast enough, one of the things that typical offset presses and/or screen presses far exceed. The problem is, down [on the Expo floor] if you look at Inca in the Fuji booth, they've got this X3 device, they can print something in about eight seconds. It takes them six seconds to move it on and off the bed. Now the limitations are becoming, how can you move material? Digital is going to continue to grow. Everything that can be printed digitally will be printed digitally. We will continue to see that trend. The manufacturers are going to continue to find places to sell equipment. It's going to continue to grow.

Kimmerly: Everything they said. A lot of this is supporting digital. We're still getting the same 2,000 banners that I always got, but now they're splitting it up in 10s and 100s and 50s. It's became regionalized. Then you've got variable data. I don't know how many of you guys have gone on Shutterfly and bought a book or something like that, and amazingly three days later you get it in the mail and you wonder how the heck it happened when you can't get a job through your shop in three days. The deadlines will only continue to shrink in our industry. Speaking for myself, I've been pushing the press manufacturers as much as I can. I would like to see more in the way of inline cutting and finishing. We run 24/7 in digital with all these presses, now our cutting department is getting overloaded. I'm giving them big rolls of goods that they've got to sheet down afterwards. So I expect more automation in the entire solution: printing, cutting, packing etc. That's probably not next year, but down the road I expect it will get there.

Scrima: You know I agree. I think the automation part of it is going to be key to the continual growth because we have to continue to find ways to be more efficient at a lower cost. For me, right now I'd like to continue to see the technology advance so that the ink prices can come down, so that we can compete with a screen-print price. Once you hit your number, everything else is just material and labor. It's has to continue to be more cost effective. So if I'm running styrene, I'm going to run all my styrene jobs at the same time. I can impose them, I can do some stuff so we use i-Cut software, automation. So to be able to print and cut right off the end of the presses, are really going to be key going forward.

Even from when we first got into digital, the ink prices have come down significantly. I'd like to see that trend continue, but I also think that the single-pass is important. We print a lot of white as well. When you print white, you cut your speed in half. I'd like to see that technology advance as well.

Dave Brewer, Chief Technology Officer Image Options—Dave has over 30 years of experience in the graphic communications industry. Currently he is the Chief Technology Officer at Image Options as well as a business partner.

Prior to joining Image Options in 2011, he held multiple operations and technology positions at Vertis Communications dating back to 1996. In 1990 he was a co-founder of a company called Pacific Color Connection, which was sold to Vertis Communications in 1996.

From 1985–1990 Dave was the corporate systems coordinator for American Color. Mr. Brewer attended the University of the Pacific where he was a scholar athlete graduating with a B.A.

Dean DeMarco, Division Print and Technology Director at Matthews International—Dean has more than 35 years of experience as an executive manager of many different pre-press and printing operations, including screen printing, wide-format digital, lithography and flexography in the POS/POP and packaging industry, serving many brands. His expertise is in strategic planning and the development of operational strategies that helps companies become more efficient and profitable. Dean is a G7 Master and is also practiced in lean manufacturing methodology.

Dean also is an active participant in the industry through his involvement with various organizations that are responsible for providing leadership and direction to the specialty graphic industry. He is currently on the board of directors for SGIA.

Dan Kimmerly, Graphics Director, Manager of Estimating & Planning, KDM P.O.P. Solutions Group—During his tenure at KDM for the past 20 years, Dan has served in various management capacities across multiple print production

facilities. His experience with Screen, Offset & Digital printing methods, along with his strong expertise in Color Management, has been an integral part of KDM's success and growth in the point-of-purchase printing industry serving national retailer and consumer brand accounts.

For the past decade, a majority of his time has been focused on prepress, digital print production, color management, cost analysis, R&D, and strategic planning for the advancement of KDM's printing services.

Dan has also served the industry in a variety of advisory roles. Currently, he is a member of the VCT (Visual Communication Technology) Advisory Board for Bowling Green State University.

Elaine Scrima, Vice President of Operations, GSP—Elaine Scrima has been with GSP for almost 20 years serving in various capacities as an integral part of GSP's success and growth. She currently serves as the Vice President of Operations and is responsible for overseeing GSP Operations in Florida, Wisconsin and Utah. Scrima has held various positions at GSP including Account Executive, Customer Service Manager and Director of Human Resources. Prior to GSP, she held management positions in food service and franchising organizations. Elaine has a BA in Communications from the University of Akron.

Bron Wolff, Vice President Operations, Innomark Screen Print Division—Bron began his printing career an 1970, while at College at Ball State University. After graduating with a degree in art education, he taught in public schools systems in Indiana, developing units on screen printing using hand-cut stencils and indirect emulsion for posters and textiles.

After working part-time with screen printers he opened his own business in Valparaiso, Indiana.

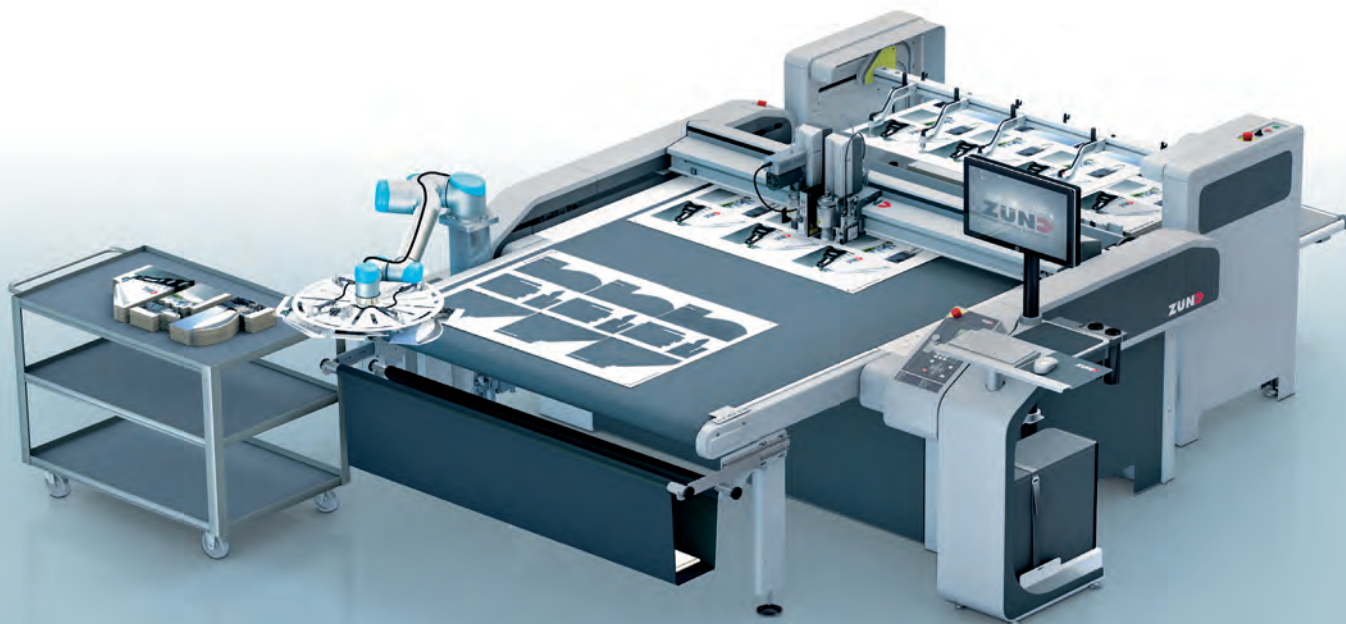In 1992, Bron became SGIA's International's Technical Education Associate. In that capacity, he helped develop curriculum and teach workshops offered by the Screen Print Technical Foundation for eight years. He worked on the ISO standards for screen print and ink technologies developed and passed in 2001 by the International Standards Organization.

Bron Wolff began writing about the screen printing industry for several print trade magazines and became a contributing editorial writer for Screen Printing Magazine in 1998, contributing over 20 articles which have helped to establish standards to improve the printing process. He continues to teach and contribute to the STPF's workshops and is a frequent presenter at the SGIA's annual convention.

Bron was elected into the Academy of Screen Printing and Digital Technology in 2002 for his contributions to the printing industry.