

THE **BIG** PICTURE

THE BUSINESS OF WIDE FORMAT

SUPERWIDE SUCCESS


Eight Daring
Projects

ON THE COVER: A new 28-story building wrap featuring Penn & Teller adorns the Rio Hotel & Casino in Las Vegas, celebrating the team's 35 years as "the bad boys of magic." Photo by Ethan Miller/Getty Images. Design by Bill Parsons.

Printed on CLEAR FOCUS perforated window graphics film.

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- Becoming Color Certified



By Lauren Mosko and Ashley Ferguson

The Next BIG THING

*Eight superwide projects that
showcase creative solutions.*

Since the advent of printmaking in the 15th century, artists and tradesmen have been trying to find ways to extend the borders of a simple sheet of paper and standard press. Paintings, murals, and tapestries were grand (in every sense of the word), but the innovators of the era knew even more could be done.

As we compile the wide-format case studies for this article, the Philadelphia Museum of Art is running an exhibition on this very subject—displaying large-scale woodcuts from fine-art masters like Titian and Dürer who used multiple woodblocks or engraving plates and joined sheets of paper to make a single “superwide” image. While Titian may not have achieved



work much larger than 4 x 7 feet in his lifetime, it's certainly fair to say that his vision, as well as that of his contemporaries, laid the groundwork for modern large-format graphics.

Today's print providers have taken up where the old masters left off, continuing to formulate and execute creative solutions that yield bigger, bolder graphics, using a variety of output technologies. In some cases, these print providers pushed their clients to think bigger; in others, client demands challenged the shops to work in new and different ways. But each story offers a behind-the-scenes look at the creativity, materials, machines, and processes that are producing the next big thing.

The Amazing Technicolor Presidents

Last summer in the South End of Boston, two of our nation's Presidents—Abraham Lincoln and Barack Obama—got together and caused quite a stir, without uttering a single poetic word. Rather, it was their faces, artistically conflated in Ron English's colorful painting "Abraham Obama" that attracted national media attention.

The hullabaloo stemmed from bootleg copies of the painting, photocopied and used to adorn utility poles, private residences, public buildings, restaurants, and pretty much any other available surface, which many local residents considered vandalism.

Operating on the right side of the law, however, was an "Abraham Obama" mural, commissioned by the nonprofit organization Fort Point Arts Community (FPAC) to promote an exhibition called *a politic*, which ran from September 2008 until election day 2008 at Boston's Gallery XIV.

The mural, which wrapped a barricade wall a city block long on Harrison Avenue, was not printed with photocopiers as part of a guerilla marketing campaign, but by Mammoth Media, based in Pembroke, Massachusetts.

"Fort Point came to us and said, 'We have this big blank barricade wall, and we want to create urban graffiti,'" recalls Mark Rowell, president and CEO of Mammoth Media. "They wanted a poster—a temporary billboard for the art show—and they originally came up with something a quarter of the size. I said, 'Why don't we make it as big as possible?'"

The mural, which measured 12 feet high x 150 feet long, began with a design by English. The artist provided the Mammoth Media team with high-resolution image files, which were imported into Photoshop. Proofing was done via PDF, with final approval coming from FPAC.

For final output, Rowell and crew relied on their EFI Vutek UltraVu 2360 roll-fed solvent printer and ColorBurst RIP with Inkware inks, printing onto Redd Paper's Raindance blue-back poster paper. Color management was achieved with X-Rite MonacoProfilor Gold and X-Rite Pulse ColorElite spectrophotometer. The graphic was printed in sections and took 6-1/2 hours to produce.

The mural was finished with a Zund XL-2500 cutter, then installed by FPAC with billboard-paper paste.

"Our main challenge stemmed from the fact that the job was originally much smaller, so we had a very tight deadline," says Rowell. "We made it four times bigger—and fortunately we had the machines to do it—but we still had time constraints. The whole thing was turned around in a week."

Mammoth Media (mammothmedia.net) has operated for five years as a grand-format printer, specializing in out-of-home marketing, transit graphics, and P-O-P. It has 14,000 square feet of production space, employs 22, and relies on five HP and EFI Vutek machines.

"Our typical customers are major outdoor agencies, but we do get involved in crazy stuff like this throughout the city, being local," says Rowell.

All-Star Ticket to Ride

Although the 2009 National Basketball Association (NBA) All-Star Game was scheduled for mid-February this year, the citizens of Phoenix, Arizona, saw the likes of Kobe Bryant and Shaquille O'Neal a few months early—on their new Metro Light Rail system. While the hoops superstars didn't actually give up their luxury vehicles for the comforts of public transit, local print provider bluemedia (based in Tempe) worked with Valley Metro and the NBA to promote both organizations' high-profile arrivals.

Prior to the Metro's launch, rail representatives approached the bluemedia team about creating a graphics-standard program for the new system. "We were asked to develop a guideline that would be used on all wraps," says Andy Salcido, bluemedia's corporate sales representative. "This included putting together a complete on-site survey of the rail cars and building the final production templates. We were supplied drawings from the manufacturer in Japan, which was a huge help."

Even with the guidelines, however, the city of Phoenix was still unsure about selling wrap space on the pristine new cars. Bluemedia did some mock-ups for city council meetings, and since the All-Star Game was coming to town, the city agreed to let the Metro do a trial wrap for four cars that would tie into the event. Salcido met with the NBA contact in town, and the plan for the trial wraps was set in motion.

All graphics were designed by the NBA creative staff and sent to bluemedia as Adobe InDesign CS3 files. Then, using its HP Tj8300 printer with HP inks, bluemedia

output onto 3M IJ180C Controltac pressure-sensitive vinyl with gloss laminate and 3M Scotchcal IJ8171 perforated vinyl window film with 8914 laminate. Each of the four rail cars required 1800 square feet of printed material, and total print time was between four and six hours.

"We created very precise, fitted panels for the vehicles, which helped speed up the installation and minimized the amount of trimming on the vehicle," recalls Salcido. "This included 40 Controltac pieces and 26 perforated window pieces for each car." The graphic for each car's side measured 78-feet long x 12-feet high. Finishing was done with a Seal Image 5500 laminator.

Installation was performed by bluemedia's in-house crew, which numbered between four and six people over the three-day install, in late January. The NBA wraps remained on the Metro rail cars for six weeks.

Even though train wraps are nothing extraordinary for bluemedia, Salcido acknowledges that this project was a big one for the company: "Other than this being a very high-profile project, not only for Phoenix but also for bluemedia, our final product will help [the city of Phoenix] decide whether or not to allow space to be sold on the cars in the future."

In business for 11 years, bluemedia (bluemedia.com) specializes in design and print services for large-format, vehicle, and environmental-graphic applications. The company operates with 21,000 square feet of production space and 39 staff members. Clients "range from the mom-and-pop shop up to large nationwide companies," says Salcido.



Fundraising Breakthrough

When the executive director of the Volunteer Center of Durham (North Carolina) needed help promoting the 2008 Great Human Race fundraiser, he contacted Barbra Denison—his former student at the Durham Chamber of Commerce's leadership program and co-owner of local wrap-advertising agency Cranky Creative Group.

"He had no idea what was about to hit him," says Denison. "He asked if I could just print some vehicle magnets, and I said, 'Uh, no ...'"

Denison had much bigger designs for the project and suggested a citywide campaign, featuring original photographs of the mayor and other important members of the community sporting identical pairs of running shoes, custom painted to match the campaign colors. All around town, local bank exteriors as well as fixtures like elevators and tables were wrapped with images from six photography shoots. And at the campaign's center: a 40-foot-wide building wrap on the back wall of Parker and Otis, a specialty grocer in downtown Durham's renovated Brightleaf Square.

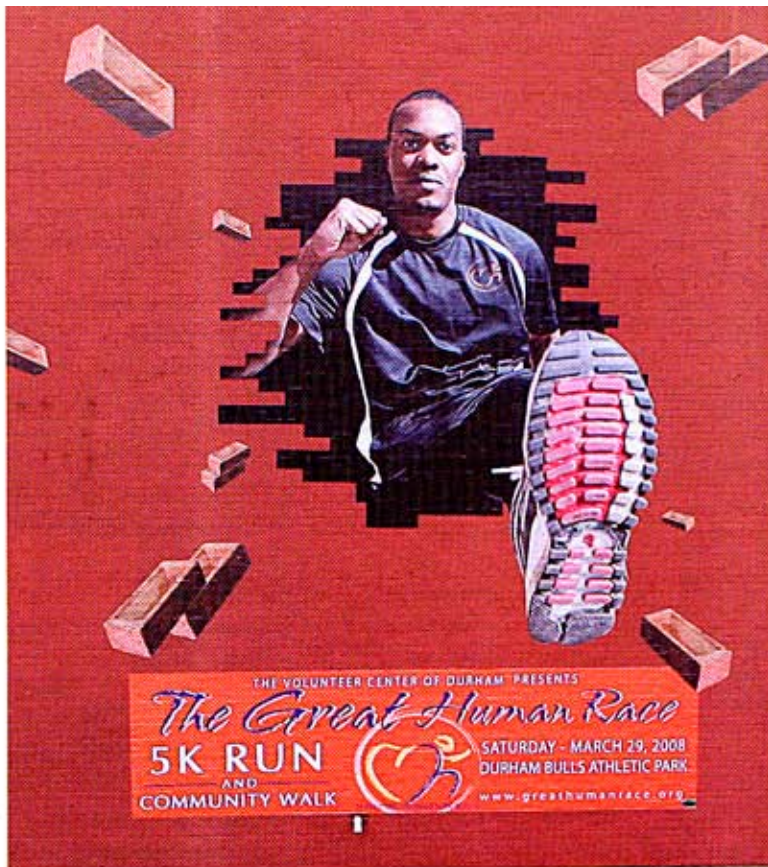
The day of Cranky Creative's photo shoot for this wrap was memorable for the team. "The model who volunteered, a prominent member of the city's parks and recreation department, looked like he just stepped out of a Nike ad," recalls Denison. "It was 28 degrees out—coldest day of the year—and we had him running down sidewalks and leaping out [at the camera]."

The model was shot against a green screen using an 11.1-megapixel Canon EOS-1Ds digital SLR. With Adobe Photoshop and Illustrator, the Cranky Creative team pulled the figure from the image and added flying bricks in the foreground for a 3-D effect.

Then, using a Mimaki JV3 printer with Mimaki inks, the final design was output onto 3M's Scotchcal textured wall film 1J8624. "The rough surface of the brick needed special attention," notes co-owner Keoni Denison. "We chose the material ... because we wanted to start incorporating this new material into our repertoire."

The job took a day and a half to print, and output included four sections totaling 20 x 40 feet of material. Contour cutting by hand was the only necessary finishing. "We didn't laminate. In order to minimize damage to the brick, which is old in downtown Durham, we did a test to check the longevity of both the wall and the wrap. The best result came with the un laminated print, in terms of removability," says Keoni Denison. "As a result, there was very little damage, and everyone was pleased. The owner granted us use of the space for future graphics."

Cranky Creative also handled the installation, tiling the panels together with just one technician and a mechanical lift. "We hadn't done a rough wall graphic of that magnitude," says Barbra Denison. "Being able to line up 30-foot-long panels with one person on a moderately breezy February day is always challenging."



In another positive turn for the campaign, a reporter and photographer from the local newspaper showed up, and the excitement drew a few dozen onlookers who lingered during the five- to six-hour install. "We took our time and went slow and made sure it went up right," says Keoni Denison. "We didn't know what it was going to look like; positioning the bricks when you're that close to the graphic was difficult. It felt like a big Tetris game."

The Great Human Race wraps remained installed for four months surrounding the event. As a result of Cranky Creative's campaign, Barbara Denison reports that the event's participation tripled, nearly doubling the Volunteer Center of Durham's fundraising for the year. "It's always good to partner with the right nonprofits," she adds. "This project brought attention and prestige to our business. The relationships and business connections you gain when you donate your services is worth doing. If planned correctly, you can get great results from donating to your community."

Cranky Creative Group (crankycreative.com), a 3000-square-foot graphics agency with four employees, has been in business for four years. Its typical customers include universities, advertising agencies, and retail establishments. "We distinguish ourselves in design," says Barbara. "We have some of the most captivating, interesting designs that aren't just background and logo. As in this case, our work involves custom photography and illustration. And we excel in installation. We are all PDAA master certified installers. We are part of the signage and graphics community, but we also consider ourselves in the advertising and media industry; we play in that creative space. We can produce the work, but we are also a creative company."

Riding the High Tide

Sterling Keays, president of Massive Graphics (massivegraphics.ca) in Fredericton, New Brunswick, Canada, has a background in engineering and a passion for designing and producing outdoor interpretive displays. When his contact at existing client Ducks Unlimited mentioned an upcoming wetlands restoration project with the South Maitland Historical Society in Nova Scotia, Keays was excited to get involved.

Plans for the project included erecting a building near the Shubenacadie River that would serve as an interpretive center, educating visitors about local tidal bores—waves that travel against a river's current.

After contacting the historical society for information, Massive Graphics was invited to submit a proposal. The historical society responded favorably, requesting a more detailed plan, complete with construction drawings, explanations of proposed colors and materials, and individual exhibit descriptions. Massive Graphics was finally awarded the contract to research, write, photograph, design, and construct the Fundy Tidal Bore Interpretation Center in South Maitland.

Although Massive Graphics employs its own designers, the scope of this job necessitated outside help. Local freelance designer Pierre Allain of Black Ink Design

(blackink-design.com) had helped Massive Graphics with the initial proposal so Keays retained Allain for the project itself.

All the maps for the exhibit were created in AutoDesk's AutoCad and then transferred into Adobe Illustrator. The rest of the designs were completed using Illustrator as well as Photoshop, which helped to refine the many original photographs the Massive Graphics team captured with an Olympus EVolt E-510 digital SLR.

Once the exhibit materials were designed, Massive Graphics turned to its Mimaki JV3-160 SP printer and Mimaki SS2 inks to print on Oracal OraJet 3651 2.5-mil vinyl. All were chosen due to their resilience to Nova Scotia's extreme temperatures, says Keays:

"The interpretation center is not open in the winter and is not heated, nor is it air conditioned in the summer. The temperature inside the building may reach -30° F in the winter and close to 90° F in the summer. We had to choose ink and substrates that could withstand this range."

The exhibit panels were printed over the course of a week in order to allow for final client approval as well as an "off gas" period prior to lamination. The final wall mural measured 106-feet wide x 8-feet high. Thirty wall plaques of various sizes offering simple experiments or

Building a Perfect Wave

To complete the vision for Coast, a one-of-a-kind teen lounge at the Ritz-Carlton in Palm Beach, Florida, Robert Leigh Designs of Pompano Beach was contracted to add a 3 x 20-foot backlit wave wall to complement the room's



overall "freedom of expression" theme. Coast—which also includes skateboard ramps that double as lounge areas, a built-in DJ booth and recording studio as well as a gaming area featuring flat-screen televisions suspended from the ceiling—is designed to be a resort for teens who want to shed their "style-cramping" parents while on vacation.

A pre-existing relationship with KMC Construction of Pompano Beach, which was responsible for the rest of the Coast lounge, led Robert Leigh's shop to the job.

KMC supplied a stock photo of the ocean wave. Leigh then used its 64-inch Mutoh 1604 ValueJet in conjunction with SAi FlexiSign 8.1 and Mutoh inks to reverse print the image onto clear vinyl. Printing the graphics took about a day.

The graphics were then applied to 15 3 x 2-foot acrylic panels, and a graffiti-proof dry-erase laminate was added to each panel for additional protection.

Installation of the 3 x 20-foot wave wall took two people one day to complete, using a built-in metal railing system. Graphics slid right in, Leigh says. "The most challenging part was making it look good."

Robert Leigh (robertleighdesigns.com) employs five contractors at his 2100-square-foot facility and has been up and running for about three years. "I like to tell people we do everything from business cards to bus wraps," Leigh says.

games for young visitors were also printed, using the same machines and materials, for later mounting to the mural.

All vinyl was finished with Drytac Interlam Emerytex, chosen because it matched the substrate and offered a pebbled finish that did not reflect or glare under the center's lights; the overlamine was applied with a GBC Titan 165. This process took several days since all plaque corners had to be rounded to match the mural design and then trimmed with a yellow paint to match the mural's ink.

Because Massive's Fredericton headquarters is a five-hour drive from South Maitland, installation presented its own set of challenges that required the same level of care and precision that went into design and production. "All of the graphics and plaques had to be packaged extremely well. We also had to make sure we had all the hardware and tools we needed because we could not come back until the project was complete," recalls Keays. Once they arrived, the July heat inside the building threatened the vinyl. "It was very soft, but we took our time and applied it one sheet at a time," says Keays. It took the three installers two days to complete the task.

"From the time we put our first proposal together to the time we installed the graphics, four years had passed," says Keays. Reasons for the delay included lack

of funding for the project, the construction of the building that houses the installation on such environmentally sensitive land, the educational and support challenges presented by steering-committee attrition, and the lack of available historical sources for the exhibit information.

Keays readily admits that outdoor interpretive displays are the type of project Massive Graphics takes the greatest pleasure in, so obstacles like these are all in a day's work for the five-person shop, which celebrates its 12th anniversary this year. Co-owned by Keays and his wife, Joanne, its office and production area total 4500 square feet, and in addition to interpretive displays, its products include tradeshow graphics and hardware, vehicle graphics, signage, museum installations, and banners.

"Since Fredericton is the capital of New Brunswick and is a university town, we do a lot of business with the government and both [local] universities. For our outdoor interpretive business, our typical client would be a conservation organization such as Ducks Unlimited or the Atlantic Salmon Federation," says Keays. "With the world getting greener, more municipalities are finding money for green areas and are putting up signage to help visitors identify local attractions. One of the perks of this work is the knowledge you gain from doing so much research into plants, birds, and other wildlife."



The Satisfaction of Consistency

Sometimes, a print provider has built such a solid, long-standing relationship with a client that obstacles to preparation and production have all but disappeared. Such is the case with Big Mountain Imaging, based in Philadelphia, and Harrah's Entertainment, which manages Harrah's Hotel and Casino in nearby Atlantic City.

After a year of proposals—trying to work out project details and allocating budget dollars—Big Mountain put together a graphics campaign that Harrah's simply couldn't pass up: a wrap project that would encompass the casino's two towers and the area between, requiring 33,900 square feet of mesh banners and 8700 square feet of perforated window film.

"They originally were going to just [wrap] the garage, and we told them that it wouldn't be as impactful," says Harlan Roberts, Big Mountain's vice president of sales.

Once Harrah's bought into the expanded project, its creative team designed the graphics, using a Canon digital SLR in the capture phase, and then turning to Adobe Photoshop for the actual design work. File prep went off without a hitch. "We have been working with Harrah's for almost 10 years and have ruled out any color issues long ago," explains Jeff Morrell, Big Mountain's pre-production/installation supervisor. "At the art/design level, we use a standard SWOP color profile, and we have saved output profiles at the print/production level."

Big Mountain then used two EFI Vutek 5330 printers to output onto Cooley CoolMesh 5600 for the banners

and its Vutek 2360 to print on Clear Focus Classic Vue perforated window film, both using Triangle Digital solvent inks.

The mesh portion, which covered the building's two towers, took 56 hours to print and was output in 100 x 25-foot sections. The window perf took a relatively short 15 hours to print and was produced in 10 x 4-foot sections.

To finish the job, two-inch webbing was applied with a Fiab RF welder to the mesh panels, and grommets were inserted with a pneumatic grommet press, while the window perf needed only trimming.

Big Mountain sent a crew of seven to do the installation work, which is where the best-laid plans and processes hit a couple of snags: "We installed this project during the end of August/beginning of September. The temperatures during the day reached the upper 90s, and with the summer sun beating on the windows, the surface temperature was just too hot to allow the graphic to be properly installed," explains Morrell. "We had to work through the night on the window portion in order to install while the surface temperature was cool enough."

And, recalls Roberts, "There was a roof just below the working site that did not allow our crane to access the working face," so the Big Mountain crew installed everything while in rappel mode.

Due to obstacles such as these, the graphics took three weeks to install. The good news is that the mesh cable system is permanent, blazing the trail for an easier time hanging the panels next time around. The window perf portion will be changed out yearly.

Now the Big Mountain team is eager to take on the next job. "We are at the point where taking on large projects is almost routine. They still receive our complete focus and attention, however from a production standpoint, it's a breeze. We get very excited about large projects like this and attack them as soon as they hit our desks," says Morrell.

Big Mountain Imaging (bigmountain.com) has operated in the wide-format marketplace since 1999, working from its 40,000-square-foot headquarters in Philadelphia, as well as an additional 15,000-square-foot facility in Las Vegas in order to better serve its clients at the major casinos there. The company, which employs 70 staff members across both locations, offers in-house design services as well as finishing and installation. Its areas of expertise include wall and floor graphics, trade-show displays, vehicle and mass-transit wraps, banners, backlit displays, and building wraps.





Excellence is in Their Jeans

"If a project makes the hair on the back of your neck stand up, that's where we shine," says Tom Trutna, president of Big Ink, in Eagan, Minnesota.

So when St. Paul-based custom fabricator Atomic Props & Effects called on the shop to help with a tough project and quick turn-around for Levi's, Trutna and his team didn't hesitate. "This kind of project exemplifies what we're really good at," he says.

Levi's and Atomic Props weren't looking for just any billboard. "They wanted a material that looked like denim," says Trutna. "They needed a fabric-like appearance; they wanted a texture. We suggested digital canvas, ran some tests for them, and they liked it."

Work could begin quickly because Atomic Props had already designed the graphics and had Photoshop files prepared. The graphic was broken down into 10 to 20 individual components that could be pieced together to make the waistband of a pair of 501 jeans.

Big Ink knew at the outset that a primary concern for the client was color: The fabric had to look specifically like a pair of 501s; the match had to be perfect. In order to get it right, Atomic Props supplied Big Ink with a printed sample from a previous billboard. The color was evaluated against Big Ink's calibrated monitors and judged to be close, so a small part of the image was printed as a color proof on the shop's EFI Vutek 3360 printer onto what would be the final substrate. The new sample was sent for customer review and approved.

"After an electronic PDF proof was approved, we arranged with the customer for a press-proof. The main

reason they came in for a press check was to evaluate the print quality and resolution of the image, which turned out to their satisfaction," explains Alan Stratton, Big Ink's technology manager.

With the client's color expectations met, the shop turned back to its Vutek 3360 solvent printer and Onyx ProductionHouse RIP, outputting with Vutek ink onto Insight Light polyester substrate from Verseidag Seemee. Each billboard was composed of 13 panels of various sizes, which totaled 193 feet x 126-inches wide. Big Ink printed three identical billboards; each took 4-1/2 hours to print.

"We knew that we could print their files at a faster speed and lower quality for the application and viewing distance of the final product, but because the print would be scrutinized closely, we had to print at half the speed to satisfy the customer," explains Stratton.

The print project took Big Ink one week to complete. Finishing and installation were handled by Atomic Props.

Big Ink (inkbig.com) has been in business in various forms for more than 20 years, opening first as Sigtific in 1987. Trutna purchased the company in 1999, and it now operates with 20 employees in 12,000 square feet of production space. In addition to its EFI Vutek, the shop runs Océ, Seiko, Kodak, Zund, and GBC equipment. Trutna describes his typical customers as industry leaders who take pride in quality work, rather than customers who are just looking for cheap and fast. The shop's areas of expertise include tradeshow, event, and corporate marketing graphics—specifically complicated or multifaceted jobs, which Trutna characterizes as having "shorter runs, larger size, and higher touch." >p48



<p31 Art on the Move

Of the many things in this world that inspire us to think about art and poetry, riding a public bus usually isn't one of them. That is, unless you live in Toledo, Ohio.

For the last five years, the Arts Commission of Greater Toledo has partnered with the Toledo Area Regional Transit Authority (TARTA) and the design department at Bowling Green State University (BGSU) in a program called "Art in TARTA." The program, which is funded by the federally mandated Transportation Improvement Program, holds an annual contest for original poetry, and designs inspired by these poems are then used to create vehicle wraps. This year, five buses in the TARTA fleet received a makeover following the theme "Restore Planet Earth."

While the winning designs came from BGSU and the winning poems were selected from the Arts Commission's Young Artists at Work program, the group responsible for performing the actual makeover was local print provider Off Contact Productions.

"It's great to work closely with BGSU college design students," says James Schall, president of Off Contact. "And for them to be able to enter their designs, be chosen from the Arts Commission, then to produce full-size art and see their art turn into a full bus wrap is pretty amazing. The students all come to a grand launch event, bringing their parents, grandparents, and friends, and you see them smiling ear to ear. This is a good feeling. And then the city of Toledo gets to see the bus art posted for many years."

Because Off Contact has been the print provider for the arts project since its inception, it's been able to refine its workflow along the way, beginning at the design stage.

"We started with templates from Digital Designware and tweaked them throughout the years to become closer to the real buses," says Schall. "Our template is now set up at 1/4 scale and matches the 40 Gillig buses perfectly."

The chosen designers submitted their finished graphics to Off Contact as EPS files, which were then output on

the shop's HP Designjet 9000 with Onyx Production-House RIP, using Budget Inks onto 3M IJ40 Scotchcal graphic film. The Off Contact team built its own ICC profiles, and a press proof was made before final output.

"For current customers we provide PDF proofs at no charge. If time permits and with critical colors, we like to provide a press proof using the Designjet 9000," explains Schall. "The TARTA project is designed by students, so we always make a press proof to make sure the file is printing correctly and providing the color needed. Our thought is that it's much easier to remake a press proof with correct color than reprint the complete bus."

Off Contact then printed 580 square feet of graphics per vehicle—each comprising 10 tiles approximately 48-inches wide—and each wrap took between four and five hours to print. Laminating was done via the shop's GBC Orca 1600 and gloss overlamine. Installation took two people a day and a half to complete. "Each wrap lasts two to four years," says Schall. "This film posts properly, goes up fast, and comes down without issues."

Even though his company has been handling this project for several years, says Schall, the issues it has are the same. "The time schedule and deadlines never change, and the art is always late. It's been like this since we started," he says. "From final artwork approval to providing a press proof and coordinating print and install is normally a horse race."

Off Contact Productions (offcontact.com), the company's digital division, has been in business for more than 20 years. A decade ago, it launched a fleet division, Budget Wraps (budgetwraps.com), and two years ago it also spun off Budget Inks (budget-inks.com), its discount ink subsidiary. In the summer of 2008, the 15-person staff moved into a new building with 15,000 square feet of work space. It specializes in vehicle graphics and wraps, primarily in the business-to-business space serving companies with fleets. ■