




International Reprographic Association

A large, decorative graphic consisting of a grid of blue squares of varying shades, arranged in a pattern that tapers towards the right. The squares are set against a dark blue background with a subtle, wavy light effect.

Digital Services and the Reprographer

Prepared by the IRgA Digital Services Committee

■ Built on Blueprints ■ Focused on Service ■ Powered by Technology

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Written by Curtis Thornton, Casey Simpson, Navina Waterman, and John Cronin

Special contributions by Tanner Bechtel, Steve Bova, Mike Carter, Chuck Gremillion, Kris Hunt, Janet Nelson, Bob Roperti, Steven Strooh, Jeremy Smitley, Bryan Thomas, Jared Willis, and Gary Wilbur.

Project Managers Casey Simpson and Curtis Thornton

Compiled by Curtis Thornton

Reviewed and Approved by the IRgA Digital Services Committee

Digital Services Committee 2007-2008

- Casey Simpson (Chairman), MBC Precision Imaging, Columbia, Maryland
- Charles A. Gremillion III, A&E – The Graphics Complex, Houston, Texas
- Chuck Hayes, OCB Reprographics, Irvine, California
- Mark Axford, Imaging Technologies Services, Inc., Atlanta, Georgia
- Betsy Kahn, Copycat Print Shop Inc., Wilmington, North Carolina
- Tony Militano, Carbon Copy Digital, Calgary, Alberta, Canada
- Curtis Thornton, Thomas Reprographics, Richardson, Texas

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Executive Summary

“Digital Services” is one of the hottest, yet most abstract topics discussed in the reprographics community today. As the marketplace changes and margins get squeezed, reprographers are looking for ways to capture these services while maintaining high levels of service, and be able to reach their profit objectives.

As a followup to our “Charging for Digital Services” document, along with presentations from past IRgA Annual Conventions, the Digital Services Committee presents “Digital Services and the Reprographer.” With this guide, we hope to continue to refine our language and best practices for digital services into coherent and profitable solutions for our industry.

IRgA BEST PRACTICES STATEMENT

In 2006, the IRgA reacted to the disparate theories on how to charge for digital services. We conducted a survey of reprographers to determine their opinions, usage, and charging practices for providing digital services. 88% of the respondents indicated that it is necessary to charge customers for digital services. Of those indicating that they do not currently charge for digital services, the most common reason was “because the competition doesn’t charge,” followed by “software and machines do the work.”

In addition to surveying reprographers, the IRgA spoke with several leading companies to determine their practices for communicating, performing, and charging for digital reprographics services. From that survey, the IRgA released the following best practice policy statement:

“Based on the survey data received, as well as added input from several industry members, the International Reprographic Association (IRgA) believes that it is customary and acceptable for reprographics shops to provide digital services and charge customers fees for the digital services to be performed. Reprographics shops have a responsibility first to their long-term viability and therefore may charge a fair market price to perform digital services for customers.”

Based on feedback from the survey participants, as well as from reprographers attending the IRgA’s 2006 Annual Convention and Trade Show, the IRgA Digital Services Committee has defined digital services for the reprographics industry as:

"The creation, preparation, manipulation, and management of all digital files— both black & white and color— created for the purpose of conveying information for electronic distribution, print output, or archival purposes."

WHY CHARGING IS NECESSARY

Technology is changing how reprographers do business, and is resulting in opportunities for reprographers to provide added value to customers. The art and science of organizing and distributing high fidelity, project-critical content from digital files grows more and more complex every day. More expertise is required to handle jobs, and more communication is needed— from the digital operator, to the salesperson, to the customer— to get the job right.

As a reprographer accepts digital files, he or she must look for missing fonts and graphics, software limitations, corrupt files, file conversion problems and other unexpected digital anomalies. Additionally, new digital output devices are introduced each year into the marketplace, along with millions of new designers. Therefore, it should be no surprise our research found that 20-50% of black and white and 50-70% of color jobs submitted digitally are not ready for print.

When considering these and other factors, one must conclude that providing digital services is a highly complex undertaking that needs the time and expertise of a trained professional, creating a service that deserves to be compensated for by the marketplace.

GUIDE CONTENT FLOW

We begin with a brief look at the past, present, and future of Digital Services within the reprographics industry. The goal is to provide you the best possible opportunity to grasp the whys and hows of charging and profiting from digital services.

To provide a complete picture, we have created a model of four hypothetical companies— of various sizes and with varying levels of technology— composited from actual stories from over twenty different reprographics companies. From this model, we can examine and learn from real-life scenarios happening in the industry today. Many of the companies interviewed for this project have been very transparent, sharing digital mishaps and poor decisions, in order to prevent you from making the same mistakes. If we can prevent you from making even one mistake, our guide will be worth your time. Our case studies offer a variety of topics, allowing you to read what you need now, and pass off sections to others within your organization.

THE PAYOFF

One of the greatest advantages of belonging to an organization like IRgA is hearing the voices from throughout the industry to gain better understanding and develop strategies to improve your own business. Because of this, we designed a guide that intertwines current market trends, commentary, and actual case studies of companies in our industry. We encourage you to use this guide as reference material for your entire organization. Our belief is that this guide has “bottom line” solutions for every company, of every size, at every stage of technological development.

The Past

In pre-digital times, a blueprint job progressed through a simple workflow. Orders came in over the counter or by drivers and couriers. Jobs would pile up in the production incoming area. The next available machine operator was responsible for taking a job, making any required adjustments, matching a translucent original to a sheet of blueprint paper, and loading the job into the machine one sheet at a time. An experienced operator could load sheets as fast as the blueprint machine could process. Multiple sets meant pushing the same sheets through multiple times.

Often, a second employee worked the back end, providing some quality control, while “jogging” paper into sets, binding and rolling for delivery. There were a few media options and sometimes split deliveries, but otherwise the process was pretty straightforward.

Each job went through relatively few hands, making it fairly easy to trace its progress and know who was responsible throughout the process. Along came the computer, soon followed by CAD software applications.

When CAD was introduced to the AEC industry, the main goal was duplicating the manual process of drawing, but on a computer rather than on paper. The tool of the trade changed from a pencil to a mouse, but the methodology was similar. This major shift in our clients’ processes demanded a shift in our own. Our tools needed to be adapted to handle files rather than vellum or sepia originals.

At one time we could run every machine in our shop. As times changed, we found ourselves with computers and equipment we had to hire people to run.

Reprographers also found that not all existing employees were able to make the transition, so internal training was required. As a result, a new breed of better-educated, more skilled employees evolved. Although not always directly involved in making prints, many of these new “knowledge workers” are necessary in order process incoming jobs, troubleshoot and get prints out of our machines.



As the complexity of our equipment increases, so too did the complexity of our relationships— with our customers, as well as employees.

Over time, our industry dramatically increased the number of services offered and the infrastructure to support those services. We put a tremendous amount of capital into hardware— computers, servers, printers, scanners, routers and networks— and software of all types, not only to run the new equipment, but also to access the internet. To better handle files, customer software was also added to the mix, with multiple versions and constant updates. The result brought many more choices and increasing complexity. A digital age had arrived.



The Present

As the pace of technology pushes the reprographics industry to its limits, complexity stretches our core competencies, communication channels intertwine, quality flaws are exposed, and customer service is tested. While many of us are at different stages of transition, the industry is certainly shifting. The result has brought many more choices and increasing complexity in how jobs arrive. Additionally, consideration must be made for file formats, workflow, type of media, storage and delivery.

In the past, the speed of change was much slower with fewer consequences. Today, its wrath can be rapid and unforgiving.

Ironically, our customers are experiencing a similar dilemma. The quest is to become “the source” for answers in a world of questions. The spoils go to those who can unite the construction industry with solutions that maximize workflow, harmonize relationships, provide relevant information, eliminate waste and increase profit.

In the past, we worried about the competition from fellow reprographers. Today, our marketplace has been invaded by outside forces attacking our treasured revenue streams.

Many of those industries even use the “eliminate the printer” mantra as an enticement to capture our customers. The good news is that most of these outside forces are having difficulties finding their niche. They simply don’t have the tradition and relationships that we’ve built over decades of partnership. Few have the strength of relationships, vast distribution channels, and expertise in the construction process. But, this will change if we don’t act now.

INTEROPERABILITY

Over the last few years, the term “interoperability” has gained increased popularity within the construction support industry, primarily due to the release of “Cost Analysis of Inadequate Interoperability in the U.S. Capital Facilities Industry” by the Advanced Technology Program at the National Institute of Standards and Technology (NIST).



Commissioned to identify and estimate efficiency losses in the U.S. capital facilities industry, this report found inadequate interoperability among computer-aided design, engineering, and software systems. Although the focus of the study was on capital facilities— commercial/institutional buildings and industrial facilities— it benefits key stakeholders throughout the construction industry. This report estimates the cost of inadequate interoperability in the U.S. capital facilities industry to be \$15.8 billion per year. Of these costs, two-thirds are borne by owners.

Interoperability /n/

The ability to manage and communicate electronic product and project data between collaborating firms and within individual companies' design, construction, maintenance, and business process systems.

Interoperability problems in the construction industry and beyond stem from the highly fragmented nature of the industry, continued paper-based business practices, a lack of standardization, and inconsistent technology adoption among stakeholders. On a national tour promoting technology to the industry, Tanner Bechtel accurately stated that “poor management and distribution of data, combined with a much faster pace of construction has created a problem that causes billions (with a b) of dollars worth of waste to all involved in the construction process.”

If we are to keep pace, we must view our role to be consultants who can help our customers maximize their interoperability.

A SHIFT IN THE BUSINESS OF REPROGRAPHICS

Over the course of time, many people both inside and outside of the industry felt the service of blueprinting became a commodity. In most cases, traditional reprographics were nearly the same wherever a customer went. Soon price became the only real way to differentiate one repro shop from another.

“Over the course of time, the service of blueprinting had become a commodity.”— John Cronin, PLP

Wikipedia defines a commodity as “anything for which there is demand, but which is supplied without qualitative differentiation across a given market.”

Commoditization occurs as a goods or services market loses differentiation across its supply base, often by the diffusion of the intellectual capital necessary to acquire or produce it efficiently. As such, goods that formerly carried premium margins for market participants have become commodities, such as generic pharmaceuticals and silicon chips.

A characteristic of commodities is that their prices are determined as a function of their market as a whole. For decades we saw blueprint/large black and white prices stagnate and eventually fall. But in the late 1980s and early 1990s, suddenly our 100 year old industry was infused with fresh blood: new services, new equipment, and new opportunities for revenue.

*“The reprographer no longer creates prints (a commodity), but rather provides a service involving the handling and processing of digital work. Prints are now a by-product of our service offerings.”
— Casey Simpson, MBC Precision Imaging*

Many companies have reflected this change by rebranding their image and taking on new names. Others have hired completely different sales staffs and established new core competencies. Some have even made a total shift into providing customers software solutions, support and ongoing training. The digital age has brought us new opportunities to differentiate ourselves in the marketplace.

The Future

Many industry leaders agree that, as our industry changes, printers who focus on paper and toner will drown in a pool of multiplying competition: Staples, Kinko's, UPS Store, AlphaGraphics, etc. Those that thrive will develop into learning organizations that are able to transform as business changes. Learning organizations develop a consultative attitude and become a resource for their clients in finding answers in their own sea of change.

“The best way to predict the future is to create it.”— Peter Drucker

The reality is that digital printing is a matrix where communication, technology, knowledge and people intertwine, often crashing together. Proofs. Color Management. File Formats. Compatibility. Technology. Redos. “Is printing going away?” We must realize that a digital world requires a dramatic paradigm shift from traditional AEC methodology.

*“For the last fifty years, a lot of smart people have embarrassed themselves by saying that print is going away. With the advent of BIM, document management, wide-open distribution channels and cheaper color options, the real story is print is shifting. Like the music industry, it will become more virtual, in smaller chunks, customizable, on a variety of printers and in more color and dimensions. We must change the positioning of how our customers view print, and more importantly the printer.”
— Curtis Thornton, Thomas Reprographics*

This is not meant to be pessimistic, but rather an opportunity to dominate your local competition by providing a refuge in a world of confusion. If you can become a printing company that provides innovative solutions for your customers, then you will become an efficient and profitable printing and digital document management organization.

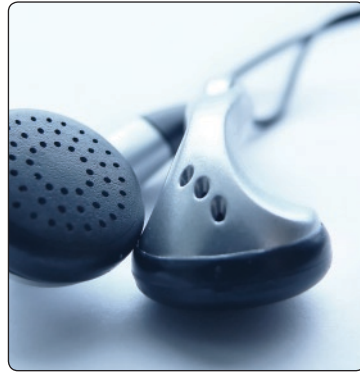
FOLLOW THE MARKETPLACE

It's becoming obvious that the reprographics industry is mirroring other industries. Our business is shifting to a more customized marketplace where we are selling more in smaller chunks. Technology allows us to harness this increased complexity, but we must continue to invest in document management systems to maintain profitability. We feel the music industry is a predictive example of how our industry must adjust to technology and the digital age.

"From a digital management perspective, the reprographics industry is experiencing what the music industry faced a few years ago with Napster. Products and services flow freely in a confusing marketplace waiting for someone to establish a trusted portal like iTunes. Whoever can offer an easy-to-use, customizable, hip and community solution will dominate the marketplace."— Curtis Thornton

Music industry analyst Michael McGuire of Gartner Research further explains what customers want from the music industry when he said, "while you may have put a lot of thought into the sequence of the album, I only like these three songs." He further states, "it comes back to consumers being in complete control of their media experience, and that is not going backwards."

Our reprographics customers are no different. They want ways to control costs, resources and selection. Our customers are not as worried about eliminating printing as they are about eliminating wasteful printing. They also want ways to easily access their content and pass it to others in a safe, fast and accurate process— printed or digitally. The reality is the printing will follow those who can manage the digital information and offer more relevant and customized printing options.



REPRO 2.0

John Cronin, President of PLP recently coined the term "Repro 2.0" to better illustrate the shift occurring in the reprographics industry. In the world of Repro 1.0, every location basically ran as its own separate company. It had sales, production, accounting and enough production equipment to satisfy their customers (including backup equipment). This was the traditional model, and it made sense in the past. Each location was self-sufficient. It had everything necessary to satisfy their customers. This model was also easy to manage. Each location was held accountable for revenue and profits. In the past, there was little reason for locations to work together. It was too difficult to share work and coordinate resources.

"Repro 2.0 companies look at their whole company as a single unit— the Enterprise— versus lots of independent locations. This migration will take rethinking the business model."— John Cronin

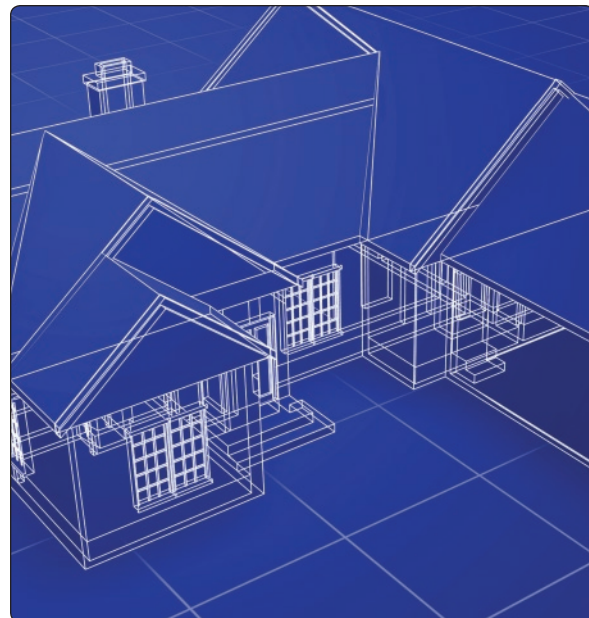
In the digitally connected world of Repro 2.0, the traditional model is inefficient. Locations can share work to better satisfy their customers. Every location does not need to be self sufficient. Every location does not need backup equipment. Locations can share resources. They can share work. In Repro 2.0, some business functions should be distributed to the branch locations, while other business functions should be centralized. Once this model is implemented, it becomes easier to open new locations to better service customers.

Ultimately, Repro 2.0 is about getting paid for the outsourcing of AEC business processes (e.g., logistics, distribution, file preparation, conversion, etc.), not just printing or putting dots on paper— which would be Repro 1.0.

BIM

More recently, we have seen the beginning of an equally monumental shift in our clients' methodology as they adopt a 3D workspace using BIM (Building Information Management) applications. In the same way that the shift in the 1980s to CAD prompted the reprographics industry to evolve, this shift will not only create new needs for our clients (and thus new opportunities for our industry), but also new ways of producing the output. We are already seeing huge opportunities for production color, more 3D images, and the printing and creation of 3D models.

Embracing this shift and being open to the new opportunities will only serve to strengthen the industry. Making sure to charge properly for these new services before they are a commodity will provide new revenue streams that will help to offset the decrease in black and white square foot printing that we continue to see. Like all new technology, the transition won't always be smooth, but we must realize that BIM is a big part of our future.



GOING GREEN

Reprographics by nature is a wasteful industry. We are in the business of producing endless streams of paper from a limited supply of natural resources. Our industry should be concerned that the "green" current has the potential to wash away printers who are not prepared to partner with their clients in this endeavor and pursue sustainability.

Jared Willis of Barker Blue in San Mateo, California summarized the movement recently when he said, "Green isn't just coming; it's already here." The mindset switch to sustainable construction has already arrived and most reprographers need to play catch up if they want see long term profitability.

"Green is another great way to avoid commoditization."— Jared Willis, Barker Blue

The good news is that reprographers can thrive in this "anti-paper" world. Many of the things that you can do to promote sustainable construction can also turn into profit centers for you. For instance, one reprographer installed solar panels on their roof which will save them \$60,000.00 per year by reducing their energy use 70%. In turn, think of the marketing benefit and credibility in getting work from LEED-centric clients. "Going green" does not have to mean that your costs skyrocket. There are many ways to be more responsible, more efficient and more profitable. Some industry leaders even believe there will be increased printing in the future.

"More digital information may actually equal more printing, not less. What a country! In the end, being more 'green' is just the right thing to do and you won't lose your profit in the process."— Jared Willis

In order to stay profitable, you must transition from a printer to an information manager. By controlling more digital information in your projects, (think way beyond plans and specs), you will be a more integral part of the process. This will allow you to be able to charge for more services, and be asked to print that information as well.

TECHNOLOGY INFRASTRUCTURE

Obviously, our industry is going increasingly digital, but we can't forget that technological infrastructure is vital to linking people and equipment. The problem is that many of our executives are not technology specialists. They must rely on key employees to make vital long-term decisions on networks, servers, equipment and structure. Sadly, many of these employees have the best intentions, but don't have a broad enough knowledge base to make the best decisions.

Some companies have found success by investing in an impartial outside consultant to audit their technology structure and maximize available solutions. Companies frequently invest in expensive systems or processes that are outdated or inadequate in just a few years.

John Cronin, President of PLP, often refers to a quote attributed to Wayne Gretzky that can teach us about technology in our industry. When Gretzky was asked why he was so great, his response was revealing.

"I don't skate to where the puck is; I skate to where the puck is going to be."— Wayne Gretzky

Why is this important to reprographers? Often, we are aiming too near in the future on our technology infrastructure and strategic planning. In the past, reprographers have generally been ahead of our customer in technology, but this may change if we don't plan ahead.

THE TIPPING POINT

Author Malcolm Gladwell has popularized the term "tipping point": a point at which bleeding edge becomes cutting edge or even mainstream. PC Magazine defines "tipping point" as the "point in time in which technology, procedure, service, or philosophy has reached critical mass and becomes mainstream." Some try to draw a line in the sand and declare that "now is the time everything changes". The problem is, in reprographics industry, it appears to be a moving tipping point, tipping in some areas of the country before others, and even tipping differently within companies, projects, workgroups and industries.

The firm or individual that is not acquainted with the latest machinery, methods, processes and requirements of their business is at a decided disadvantage in competition and is not in a position to render efficient service to his customers or clients.

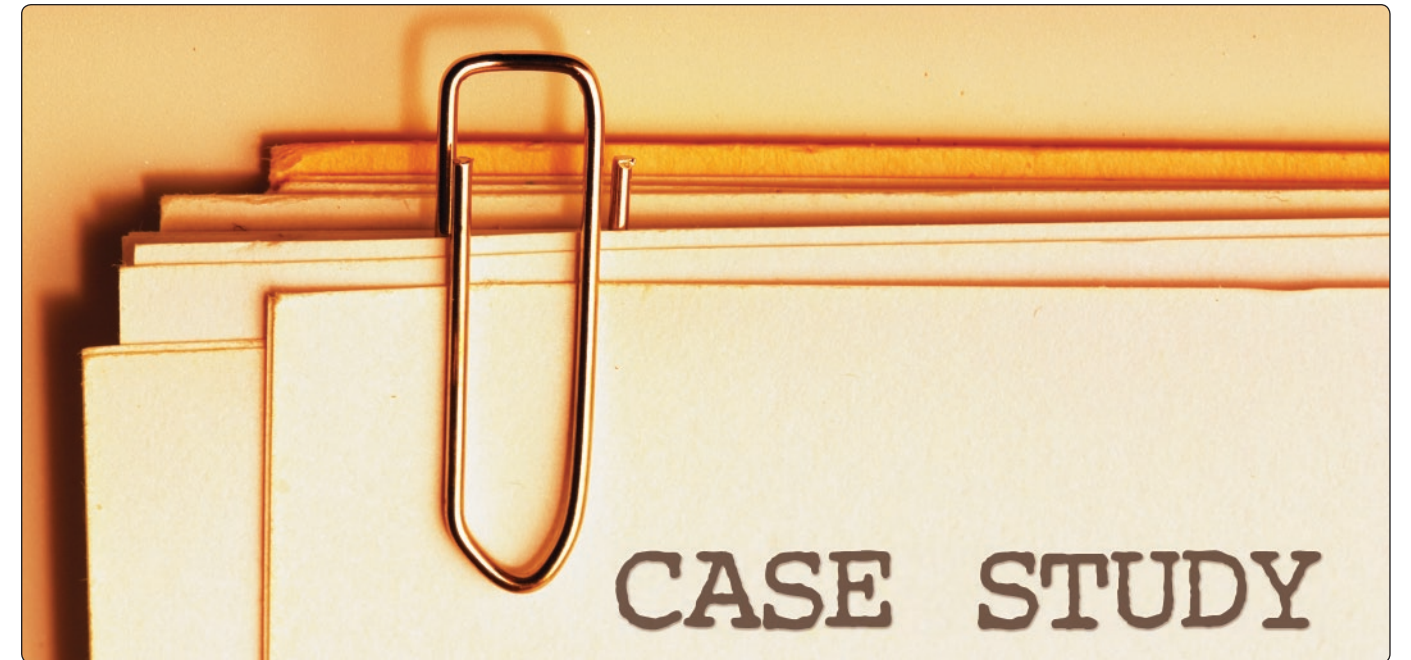
— Elgin E. Mott, First President of International Association of Blue Print and Allied Industries (1928)

When it tips for you or your client, you will want to be ready to tip with it, to anticipate new needs and requirements for service. That is the only way we can continue to partner with our clients, rather than simply offer a list of services. We certainly want to listen carefully to our customers, but we must realize they are looking to our industry for solutions.

"We must be able to supply the answer before they ask the question if we want to effectively 'create our future.' If we are unable to master this concept then other industries will fill that void." — Curtis Thornton

An executive of a major general contractor confided in us to watch for a dramatic shift in technological urgency in the next decade. He reasoned that a number of top executives are about to retire and turn major decisions over to younger executives waiting to make their mark by investing in technological solutions. He went on to say that, with the previous decade's profit boom and increased stock values, retiring executives do not want to invest millions into solutions that they are uncomfortable with or deem too expensive. As younger executives assume control of the larger companies, they will bring dramatic new perspectives in technology application.

Positioned correctly, the reprographics industry stands to benefit greatly from this shift. Our goal as an industry has always been to be viewed as a partner to our clients, but the ability to bring solutions to the table that address the new environment our customers are working in will set the *new reprographer* apart from those who don't adopt.



The Case Studies

The following case studies are a dissection of the evolution of Digital Services, their impact on our businesses and our customers, and an exploration of the importance of embracing the new opportunities and revenue streams they present.

- Charging for Digital Services
- Pricing Digital Services
- Informing Your Customers About Digital Services
- A Strategy for Charging for Digital Services
- Digital Workflow
- Purchasing Digital Equipment
- Archiving Digital Jobs



FOUR COMPANIES COMPOSITE STUDY

One of the comments we often hear at IRgA Conventions and Trade Shows is how valuable it is for executives to hear what other companies are doing to address issues. In creating this guide, we interviewed over twenty companies to find real stories on a variety of topics that will be addressed in the following case studies. We wanted this to be a living document, with real people succeeding— and sometimes failing— in the digital world. We appreciate their candor in sharing their experiences.

We've created a composite of actual, successful reprographics firms which have offered to share with our industry the journey they've taken in producing, selling and servicing digital services. The composites are categorized by size to allow readers to see how companies bigger and smaller than theirs are addressing some of our case study issues.



Mega Repro

Stories from companies with 300+ employees and multiple locations.



Super Repro

Stories from companies with around 150+ employees and multiple locations.



Medium Repro

Stories from companies with around 40-149 employees and a few locations.



Mighty Mite Repro

Stories from small companies with up to 40 employees in a single location.



Company X

General stories, not specific to the size of a company.



Case Study

Charging for Digital Services

There has been much focus on charging for digital services. As the market becomes commoditized and margins get squeezed, reprographers must find other ways to increase margins. Invoicing no longer shows only X number of prints at \$.XX/sf, but rather services ranging from file manipulation to data storage and management. So many things we do are now invisible, and not easily seen by a customer. The best way to slow down the commoditization of our offerings is to establish that there is a value to each and every line on an invoice, and not having to sell on price alone.

"Giving away digital services to get more printing is like burning your furniture to warm your house."— S. "Mohan" Chandramohan

Creating, explaining, and understanding the value of these services is one of the most important components of this new digital age. Sales people who cannot sell the value of these services will leave money on the table. Often, "old school" customers are the hardest to convince of the value of these services.

"Some in our industry have suffered because sometimes new technologies we offer call for us to explain and sell the VALUE of the services that take traditional reprographers outside of a comfort zone."
— Casey Simpson

At this point, we can say that very few reprographic companies are currently getting rich from digital services revenue. However, all digital revenue is a plus if you consider the alternative. Numbers range from 3% to 18% of total revenue coming from digital services.

However, almost all companies continue to work out ways to classify digital services on their Profit and Loss statements. Few have it as a separate department, although some are headed in that direction. Many are now pulling billing codes from individual departments to get a total. And since different companies include many services into their digital numbers, comparisons are difficult to make. For instance, some have document management departments and others do not. Some are looking primarily at their planrooms, while digital charges in black and white or color are considered revenue from those individual departments. Some include printing generated from digital departments and some don't. As an industry, it makes sense for us to compare "apples to apples" when we measure our success or failure with digital services.

All companies find that labor accounts for the largest proportion of costs in digital services. As sales increase, and digital departments become more profitable; the labor costs diminish proportionally. For example, for one company, labor was at 40% of revenue in 2004, while for the first few months in 2007, it was at 34%.

Theoretically, digital revenue should have a direct inverse relationship with labor: the more digital services you charge for, the less someone has to perform physical labor. For example, receiving jobs electronically should directly impact the number of pickups you perform. Creating half size prints from files should reduce the amount of operator labor it takes to produce the same set of plans from hard copy originals.

Those who have tracked digital revenue over time are seeing it slowly increase, and all expect it to increase dramatically in the years to come. As one owner points out regarding revenue from digital services, "It's not a tremendous figure yet, but when considering that this money was previously left on the table, it adds a nice cushion to the monthly sales totals."

Composite Study

Charging for Digital Services



Mega Repro

Digital services account for nearly 7.2% of company revenue. They are seeing a steady increase in digital services sales, so expect this number to increase accordingly. As with most companies, labor accounts for the largest proportion of costs. As sales increase and digital departments become more profitable, labor costs diminish proportionally. They have several digital services broken out for analysis and some are more profitable than others, with graphic design actually operating at a net loss.



Super Repro

This company has just started breaking out digital services on its P&L. Last month its billings were around 7% of total revenue. Additionally, the planroom was 2%, and EDMS was 4%. The President does not have exact costs broken out, but says that while digital services are not yet considered profitable, the expense is part of being a full service company, and that digital services are now 13% of total revenue instead of the zero income earlier.



Medium Repro

This company is not now breaking digital services out as a separate line item on their P&L (but will be doing so starting later this year). They estimate digital services to be nearly 11% of total revenue and growing— their goal is to reach 25% within a few years.



Mighty Mite Repro

This company now tracks digital sales, which are currently about 3.5% of revenue. This has been steadily increasing, and with new services planned, should expand even more. Profitability is a question mark, but getting revenue in this area does help pay off some of the necessary equipment and software expenditures needed to process digital files efficiently.



Case Study Pricing Digital Services

Those companies which have begun to charge for digital services are using a mixture of three main methods: hourly, à la carte, and value. Customer perception is an issue with any billing method. Some like knowing exactly for what services they are being charged, while others feel like they are being “nickel and dimed” when a whole list of relatively small (or large) charges appear on their invoices. Some companies only bill a digital charge for jobs that require any kind of special handling. This only works if the square foot pricing is high enough to offset the increased equipment, labor and overhead costs associated with digital file processing. Below we examine these models and how real companies are applying these models in today’s marketplace.

“A customer told me that he felt that because of the number of line items on our invoice, he was being “nickel and dimed”. What that said to me was that he didn’t associate a value with the things that we were charging him for. That is something we had to address.” — Gary Wilbur, R.S. Knapp/Napco

HOURLY PRICING

Hourly charges are fairly easy to implement and relatively straightforward to understand for both employees and customers. Those using hourly charges generally have minimums. The advantage of hourly billing is simplicity, and the fact that the minimum always appears on the invoice. A disadvantage can be in ensuring that all staff accurately and consistently records time. Training is essential! One problem might occur if a customer is billed differently when the same job is processed twice— simply because one employee or piece of equipment may be more efficient than another.

Occasionally a customer may also call and inquire as to exactly what happened in the time for which he was billed, but the companies using this method report that this is fairly rare and a simple explanation generally suffices.

À LA CARTE PRICING

Many companies use à la carte pricing because they feel their current system may miss revenue opportunities. The advantage of à la carte pricing is that it is very clear to see exactly what services the customer is being billed for. This can be a disadvantage as well, particularly if there is any lack of consistency in the billing. Skip a charge once and the customer believes it should never appear again. It also seems to be a challenge for employees to remember all the different items for which they should be charging. One company ran a “mystery shopping” job through all their sites and found considerable variation both in how it was billed and ultimately on the invoice total. This can be a big problem at times with your customers.

The other issue with à la carte pricing is that the customer sees itemized charges for the “add on” items they ordered, and it allows them to determine if that line item “was worth the charge”. Combo charges are often a good option. Take, for example, charging for colored paper when running a small format black and white job. If you charge for the copy and then separately for the colored paper, the customer can see the additional cost for the paper add-on, and evaluate that price separately from the service as a whole. A price for “copying on colored paper” is less easily picked apart.

VALUE PRICING

While many may base their pricing on costs, it is also important to consider value pricing. What is the value of the service being offered to the customer? One simple example of value based pricing is charging extra for rush jobs. The value will usually have little to do with the cost. It can be difficult to put a price tag on the knowledge, capability and reliability to perform a particular service. In general, your customer cares little about per unit costs. What is important is to consistently meet his expectations, hopefully better than the competition.

Another value pricing strategy is to use a subscription model. Other industries are using subscription models for pricing and this may be something reprographics companies can successfully incorporate into their pricing structures as well. Most subscriptions offer discounts for paying in advance and/or commitments for a substantial time period. This allows more accurate forecasting of revenue while “locking in” a price. Many companies use this with their document management pricing models.

Composite Study Pricing Digital Services



Mega Repro

This company has tried to maintain a different pricing structure between digital (plot) and hard copy (print) jobs. They point out that in an ideal world, digital files would process automatically, but in reality they actually require more handling (as well as the increased costs mentioned above). They have met increasing resistance to two-tiered pricing, largely because most competitors do not make this distinction.



Super Repro

This company bills a RIP time at an hourly rate in ten minute increments for all digital files processed. Additional file manipulation is billed at an hourly rate with a minimum charge. These charges appear on an invoice with the department name and either “Computer RIP” or “Computer Charge”.



Medium Repro

This company charges a flat hourly rate with a minimum for every B&W digital job. Most jobs are processed within the minimum. Downloading files from another web site or planroom is also charged at an hourly rate. Customers are notified if charges will exceed this amount. For creative work, primarily on the color side, an hourly rate is charged.



Mighty Mite Repro

Many of these companies have huge walk-in clientele. To more effectively deal with fluctuating job flow, this company has set up three levels of pricing. If the customer chooses to wait for a job, he receives “right now pricing”, which is about a 50% premium over a 24 hour turnaround. If it can wait a few hours, he pays a standard price. The 24 hour turnaround is called a “discount price”. 75% of walk-in customers are willing to pay a premium and still choose one of the first two options.



Company X

During extensive interviews with companies of all sizes, we compiled a list of possibilities for digital service items that are often charged for by various companies in the industry.

DIGITAL SERVICES THAT COULD INCUR A CHARGE

- Archive Data/Files
- Bulk Slide Scans
- CD - Duplicate CD
- CD - Update Existing CD
- CD - Custom Jewel Case
- CD - Custom Label
- CD/DVD - Burn Master
- Create Remote Print Job
- Data Entry & Indexing (per field)
- Data Entry & Indexing (per hour)
- De-Skew & De-Speckle
- Digital Document Management (includes revision handling, file re-ordering, rotation)
- Digital Document Management (includes revision handling, file re-ordering, rotation)
- Download Files
- DWF Processing
- Electronic Set of Plans
- Email
- Fax
- File Conversion
- File Creation - PDF Files
- File Creation - Plot Files
- Floppy Disk
- FTP jobs/make job available from FTP
- FTP Site - Host for Customer
- Graphic Services/Design/Production
- Hand Time - LF BW
- Hand Time - LF Color
- Hand Time - SF Color
- HP iPrint
- Minimum Account Charge - Large Format BW
- Minimum Account Charge - Large Format Color
- Minimum Account Charge - Small Format Color
- Minimum Dept. - LF BW
- Minimum Dept. - LF Color
- Minimum Dept. - SF Color
- Multi-File Document
- OCR Accuracy Check
- OCR Minimum
- OCR per Page 11x17
- OCR per Page 8.5x11
- Online Planroom (various) Place Order for Customer
- Online Planroom (various) PROJECT Setup (ea)
- Online Planroom (various) PROJECT Setup (sf)
- Online Planroom (various) Scanning & Update Plans
- Online Planroom (various) Scanning & Update Specs
- Online Planroom (various) Set Up Customer Database
- Online Planroom (various) Set Up Planroom
- Overtime/Rush Charge
- Pantone Match
- PDF Bookmarking (ea)
- PDF Bookmarking (hourly)
- PDF Processing to TIFF
- Process/Setup Fee (per file)
- Prolog Integration
- Raster Scan
- Raster to Vector (Paper to CAD)
- Reverse Out Blueprint
- RIP Time
- Scan - Large Format Color, Cruse
- Scan - Large Format B&W
- Scan 11x17
- Scan 8.5x11
- Scan - Graphic Arts
- Set Up File (per file)
- Set Up Offset File
- Set Up PDF (per page)
- Set Up Scale Change (per job)
- Set Up Scale Change (per page)
- Set Up Scale Change (sf)
- Sheet Repair
- Tab Typesetting
- Variable Print Data Manipulation
- IP Disk



Case Study Informing Your Customers About Digital Services

One of the most uncomfortable situations dealing with digital services is how to go about telling your customer about these “new” services. Many companies over the last few years have faced this dilemma and determined that it was necessary to start charging for digital services. Prior to that, these services were generating no income on their own and were simply considered necessary overhead in order to process prints.

To get the ball rolling, one owner sent out a letter to all customers explaining the changes that would be occurring and why. In part the letter read:

“Over the past several years, a paradigm shift has occurred in the reprographic industry. Our industry has evolved from what used to be merely print shops into high-tech firms which manage data and distribute information. Our client base is now asking and requiring services that don’t always involve putting an image on paper. These changes create challenges for our company regarding increasing our infrastructure, time, personnel and systems. With this and many other external factors come increases in our cost of maintaining a high level of service. Between now and July 1, we will begin implementing some charges that address these additional services.”

The letter went on to clarify what these services might include, and also gave contact information for any questions or concerns. The company president reports that this letter was received by customers with barely a ripple. The customers appreciated the forthrightness and being informed beforehand, and for the most part, totally understood the issues involved. After all, they too have had to invest heavily in new digital technology.

Most companies have had similar non-reactions from clients. All emphasize the need to communicate openly about it with customers. As always, some negotiating with some customers may be necessary. One company found themselves working against a competitor who advertised “no digital processing charges!” But this same competitor would typically charge a huge unexplained “setup fee” on their customers’ bills. The basic truth remains that the reprographic shop cannot provide extra and very expense-laden services for free for long and remain in business.

Another owner states, “We basically drew a line in the sand one day and started charging [for digital services].” We sent out a statement stuffer informing everyone and made a diligent effort to convey the information over the counter. Except in only a very few cases, the charges were not even acknowledged. Those who balked are those who balk about everything, including the weather.”

Most agonized over the best way to accomplish this and all expected a difficult time trying to sell charges to their customers. The surprising thing is that when the changes were instituted, the reaction was far less resistant than expected.



Case Study

A Strategy for Digital Services

We can all safely agree that charging for digital services is a great idea. But reprographers still have trouble deciding which services to charge for, how to charge for them, and finally, how to get their customers to pay for these non-print related services. Here's a strategy that may help.

In order to better understand the value of your digital services, you should know what your digital service offering will mean to your customer over the course of the project lifecycle.

PLANNING AND DESIGN PHASE

During the planning and design development phase, there are a variety of digital services that offer significant value to your design and planning customers. These digital services include, but are not limited to, the following:

- Convert DWF to TIFF
- Convert DWG to Plot
- Convert PDF to TIFF
- E-File Transmission
- Download from FTP or other service
- Upload to FTP
- Create Windows Folder to Store on File
- Planroom Setup
- Document Management Fee to Post to Planroom
- Setup Private FTP Site
- Minimum Special Labor Charge
- Color Profiling
- RIP Charge for Color Output
- Order Tracking (Shipping Information)
- 3D Model File Preparation
- 3D Model Setup
- On-Site Service (FM)

THE BID PHASE

During the bid stage, there are a host of other digital services that are equally valuable to other members involved in the project such as owners, general contractors and their subcontractors and suppliers.

- Scanning Small and Large Format (B&W, color)
- OCR Specs
- Planroom Project Setup Fee (users and security roles)
- BidCaster Setup (templates)
- Large & Small Format Document Management Fees for Posting to Planroom
- Indexing Sheet Descriptions
- Creating Custom Packages
- Digital Stamping
- Access to Plan Holders Report
- Electronic Bid Set on CD-ROM (create master)
- Burn CD-ROM (duplications)
- Convert DWF to TIFF
- Convert DWG to Plot
- Convert PDF to TIFF
- Download from FTP or other (Buzzsaw)
- Bid Communication Services (email/fax ITB and other notifications)
- Address Book Maintenance
- Order Tracking (shipping information)
- On-Site Services (FM)

BUILD PHASE

In the build phase, digital services are similar in scope to what you would offer in the bid stage, with addition of:

- Project Historical Drawing Index Report
- Color Scanning of As-Builts Markups
- Project CD with Index
- Scanning User Manuals
- Scanning Warranties
- Post RFI and Other Change Orders Documents into the Planroom
- Post RFI and CO Logs to the Planroom
- Planroom Used for Legacy (storage fees)

OCCUPANCY/FM PHASE

In this final stage, here are some services that will be of value to the occupant:

- Planroom Access to As-Builts (monthly subscription)
- Document Retrieval Fee
- Scan ancillary documents for Archive into Planroom
- Close Out CD Mastering
- CD Duplication

We didn't cover every digital service that many of you make available to your customers. But what is important to understand is that your AEC customers need and want your digital services. How you charge for these services is up to you. But if you do not know when and why these offerings are important to your customers, you won't be prepared to communicate their value when the customer asks, "How can you help... and how much does it cost?"



Case Study Digital Workflow

As digital workflow increases, most reprographers have found that existing methods of processing jobs through their shops need modification in order to remain productive. Many, but not all, have implemented job submission, Preflight, tracking, troubleshooting systems, and quality control. Most who have not yet added these functions are planning to do so in the near future.

JOB SUBMISSION

While it is good to be responsive to customers by being able to accommodate the way they want to send files, it's also important to take a close look at these methods, observe which ones are the most trouble-free, and figure out ways to funnel your customers into the processes that work best at both ends. There are now a number of products on the market to help make file transfers and electronic job ordering more efficient.

In our research, the most effective companies had a form and/or system for customers to submit jobs electronically in order to avoid problems.

For most companies, approximately 50-80% of Large Format B&W is now digital. On average, about 30% of this comes via email, 30% via walk-in or on disk via courier, and the rest is evenly split between FTP and an electronic web order form. The order form takes more time, but helps to ensure that all the information needed to process the job arrives with the job. If formatted correctly, it systematically walks the customer through the order process and ensures that the job gets to the right department based on customer input.

All shops surveyed report receiving a wide variety of file formats. For Large Format B&W, the most common formats are TIFF, PDF, DWG, PLT, CALS, VIC and DWF. On the color side, Adobe Photoshop, Illustrator and InDesign, as well as QuarkXpress, CorelDraw, and Microsoft Word are the most common applications. PDFs created from these applications were often submitted as well. How easily the files process depends on numerous factors, including in which application (and which version) they are produced, the parameters used in saving the files, the parameters used in setting them up, how the files are transmitted, and the equipment on which they are printed.

PREFLIGHT

Preflight covers a variety of functions, and can vary greatly from company to company. These might include minor adjustments such as rotating, ensuring that all required files are present, and putting sets into order. Preflight specialists may also create folders for jobs to be scanned into, and log them into a tracking system. They may also contact customers about problems. Many companies separate some of these functions between Preflight and CSR, because of the different skill sets required in handling files and in handling customers.

There are many reasons and benefits to having a Preflight person or team. One advantage is, by having someone look at the job as soon as it arrives, many problems can be found and addressed immediately rather than after the job has been in-house for several hours. Preflight allows the strategic placement of employees to more closely fit with particular skills, education, and training. It means that operators themselves are faced with fewer issues that require a resolution and can therefore be more productive in processing as much work as possible.

In general, Preflight allows employees to "run around" less and keeps them more focused on a narrower set of tasks.

Different companies use Preflight in slightly different ways. The functions may vary and the types of files handled may vary. In some cases, one Preflight department handles all incoming files, both B&W and color, in both large and small format. In other cases, each department may have its own Preflight person. Some of this variance can be ascribed to overall company size, but some is due to differences in philosophy. Advantages to having this functionality centralized are that less floor space is used, fewer computers are required, and the hub of information all begins in one place. Disadvantages are that each employee in the hub must have an even broader range of knowledge and capabilities, and Preflight may be farther from the action, making necessary interaction more difficult.



JOB TRACKING

As far as job tracking goes, most of these companies originally developed their own systems because little relevant off-the-shelf software was available when they began to notice the need for it. Now it is possible to purchase such software, much of it having been built in-house by other reprographers.

A tracking system not only allows every job to be found at any particular point in time, but also creates a digital record, and in the best scenario, creates an invoice at the conclusion of the job.

Most in the reprographics industry do not have their job tracking online in the way UPS or FedEx does, but a few actually do. The more automated a tracking system can become, and the more it is integrated with production and accounting systems, the more effective it will be.

TROUBLESHOOTING

In general, our research indicated that between 20-70% of all jobs required some form of special attention. The most common problems are missing fonts, images, pages, or xrefs; corrupt files, files out of order, or incorrectly saved files which require inordinate processing time.

Unfortunately, it appears that most reprographics companies develop troubleshooting procedures based on trial and error. A few companies utilize web forums and internet research for communicating with peers. For most of us, software companies have traditionally offered only limited help in troubleshooting print problems.

Composite Study

Digital Workflow



Mega Repro

This company uses a home-grown, Linux-based internal tracking system which was created in the mid-80s and continues to serve its purpose. It outputs a sticker to go with the job which tells where it will go. Every department adds its own codes when finished with the job so anyone can tell at a glance what has or hasn't been done on the job.

Sometimes PDF processing time can be huge. They have standardized throughout the company with third party software, which has helped both with consistency and speed. They have also invested in a high-powered PC dedicated to processing files.



Super Repro

When jobs arrive, they are logged into a tracking system which assigns it a five-digit code for internal tracking and also produces labels to increase the professional look of the final product.

Currently, this company maintains two separate departments between CAD Plotting and Large Format B&W. The CAD department is equipped to handle native files, and does substantial customer hand-holding. Many of their customers are very small firms who do not have the expertise in-house to set up digital files and look at the reprographics.

50% or more of this company's Large Format B&W printing still arrives as hard copy. The arrival of digital files is distributed evenly between Repro Desk, email and FTP, with increasing numbers coming in via FTP. They receive TIFF, PDF, DWG, PLT, CALS, and DWF file formats and find that PDF or DWFs are most common. They encourage customers to send DWFs. Incoming jobs follow a general workflow within each store: 1) Instructions received with incoming e-files, fax orders and hard copy jobs are reviewed by a manager or customer service rep. 2) All jobs arrive and depart through a centralized work order/billing department. Each location has two or more employees in this department. An e-Sales Order is generated and a hard copy of the Sales Order (which is a component of the billing system) is generated that moves with each job component. 3) Job components are then distributed to the required departments. 4) There is no Preflight department per se, but one or two employees at each location receive and set up digital jobs, looking for any anomalies that might prevent successful processing, and contact customers about problems as needed. A Preflight department is in the process of being implemented.



Medium Repro

This company uses a job tracking system built in-house. Jobs first come into a distribution center. The first processor makes sure the files open, creates a job ticket, logs the job into the tracking system, places the job into the storage/retrieval system, and notifies the correct department that the job is there. This company keeps

a system of folders on their server, and existing customers have their own folders where their jobs are placed. There is one exception: files arriving via Repro Desk are routed directly to a dispatcher for the next available operator. The company keeps scanning and printing functions separated, allowing them to train employees with different capabilities for each task. Their large format equipment is primarily KIP, but they do run a few Océ's as well, and use Plotworks for job processing.

The company uses Avanti File Management to manage workflow for all jobs. A Preflight department receives all incoming files, checks them to ensure completeness, and indicates the specs of the job so Customer Service can write a more accurate order. About 80% of this company's jobs are digital. They arrive via these methods: email (15%), FTP (15%), Repro Desk (20%), planrooms (10%), disk (20%), and hard copy (20%). Large Format B&W files received are generally PDF, PLT, VIC, DWF, or DWG. DWF and DWG files are converted to PLT or PDF for printing. About 80% of Large Format B&W files require no special handling before processing.



Mighty Mite Repro

About 40% of Large Format B&W jobs come in digitally. Of these, approximately 50% arrive via disk, 25% via email and 25% via FTP. Most small format jobs arrive as hard copy; only about 20% come in digital format.

Customers who FTP projects generally call and give verbal instructions to go with the files. The company receives many file types. Their preferred formats are TIFF, high quality JPEG or PDF.

Because of the small shop size, the workflow is informal. Whichever operator is available grabs the next job, completes it, and makes sure it gets where it needs to go.



Case Study Purchasing Digital Equipment

Choose your equipment carefully. Buy equipment to expand your current capabilities before you reach into unknown markets. Find equipment that complements your current core competencies. Realize that equipment and people go together. Great equipment with lots of features won't do much good if your people don't utilize your investment. Often, companies are tempted to save money after a big purchase by cutting back on training. Many successful firms interviewed recommend you send as many of your operators as possible to your equipment manufacturer's training class. A good printer will have several applications. Training early is much better than waiting for a crisis. Never buy a piece of equipment without having a sales plan in place.

Remember to consider your total investment cost. Often, manufacturers make money off consumables and service, not the equipment. Reliability should be considered whenever purchasing equipment. That color copier may seem inexpensive but when you add production downtime you may be surprised. Also consider the cost of personnel it will take to run the equipment.

IRgA membership is one of your best sources for research on digital equipment. It's great to visit trade shows, but beware: sometimes equipment does not work as smoothly in your shop as it did on the showroom floor. There is nothing like talking to members who already have the equipment and will give you the real story. Even companies that have been in the business for years can learn from visiting other operations.

You want to also survey your competition, check building code, and scrutinize financials to best determine the total cost of investment. There are many IRgA members willing to share their experiences. Some have two types of printers because one is more cost effective (typically because they can service it in-house), while some customers may notice the difference in output and demand to have their jobs printed on another brand.



Composite Study

Purchasing Digital Equipment



Mega Repro

Large Format B&W printers and scanners are generally the same brand. In most cases, there is a document management system in place to organize and archive jobs. Computers are refurbished about every two-four years with constant upgrades in software and memory. There is a wide range of color digital equipment in mega-size companies, including flatbed inkjets, color CAD plotters, high volume small format color printers and various finishing equipment. Many of the mega-size companies we researched have a good balance of color and B&W equipment.



Super Repro

Similar to the mega-size companies, super-size companies seem to have a good variety of types of equipment. Software and memory are constantly updated, and a few companies have organized document management systems. Super-size companies are generally more limited in color services, instead primarily focusing on high-end inkjets and color copiers.



Medium Repro

Although most of these companies have the same equipment for Large and Small Format B&W, very few have organized document management systems. Very few also have anything besides inkjets and smaller volume color copiers. Computers and servers are much smaller in scale, although some of these smaller companies have found a niche in major markets by having a better technology infrastructure than their much larger competitors.



Mighty Mite Repro

Again, much is the same in regard to traditional reprographics equipment, but fewer and lower level pieces of equipment exist at these small companies. Technology is at times a big obstacle, as software and computers are not usually updated as often as in larger firms, and systems to manage files are limited to the individual operator's preference. The biggest worries of these smaller companies are competing on volume jobs, and keeping up with the latest equipment, especially in markets with much bigger competitors. Often, a lack of modern equipment was overcome with hard work and exceptional relationship-based customer service.



Case Study

Archiving Digital Jobs

Once a digital job is processed, most reprographics companies keep the files on their servers for some period of time, which can vary from a few days to a few years. The amount of time files are kept on the server is sometimes simply a matter of hard drive space. If a customer requests the job be held, then most companies will do so. Although a few charge for this service, most currently do not.

In our research, all companies burn CDs of jobs. The charges for unstructured CD burning are generally low. Many companies also offer more sophisticated CDs with indexing and/or search capabilities.

Some companies charge a digital archive retrieval fee when the job needs to be re-printed. A few others require that jobs needing to be kept and re-printed be moved to their online planrooms. Some reprographers move active jobs into their online planrooms for internal convenience even if the customer does not request it.



Composite Study

Archiving Digital Jobs



Mega Repro

Small format jobs are kept for a few days only. Large format jobs are kept on a network drive for 3-5 days then moved to an archive folder. They are also on tape backup for emergency retrieval. If projects need to be kept longer, they must go into the vault or planroom. Customers can get a disk from the Large or Small Format Department with no indexing. If indexing is required, the job goes to the separate Scanning Department.



Super Repro

Most jobs remain available for about two weeks. They are archived to each store's SNAP server and backed up company-wide on a daily basis. Jobs are permanently archived per customer's request only, and this is done at no charge. The "kept" files are being increasingly moved into the planroom for better company-wide access.



Medium Repro

B&W jobs are archived on an archive server by request only and are indexed month by month. Once the server gets close to full, jobs are burned to DVD and stored in binders. This process takes only a few hours each month to maintain.



Mighty Mite Repro

These companies seem to practice the same archival procedures as others.

