Digital Technology Trends
by Howie Fenton, GATF

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⏩ **Economy shows early signs of recovery**

WhatTheyThink.com and CAP Ventures have released their monthly Printer Confidence Index. The data is compiled each month from printers throughout the United States. The goal of the index is to provide real-time analysis of print demand and capital spending expectations.

Although there continues to be negative sentiment among the 198 print providers about the conditions in their local market, there is significant improvement in market sentiment.

Key observations for February include:
- Growing percentage of companies cited improving market conditions
- Print growth index improved for the first time in 3 months
- Fewer printers expect their print volume to be down versus January
- Net expected increase of 3.7% growth for February over January
- Capital spending remains steady, high-speed digital color gaining

For more information go to PIA/GATF GAIN page
http://www.gain.org/servlet/gateway/redirect.html?url=http://205.128.3.23/newslink.cfm?vendorid=211%26id=5392

"Thriving In Challenging Times" is the main theme of the upcoming PIA President's Conference, March 13-17 in Scottsdale, AZ. The conference is designed to identify and explore the essential drivers of profitability in tough times. You will learn from the best and brightest in the printing industry new ways to deal with issues that are now uppermost on nearly every key executive's mind: how to survive and thrive in challenging times.

For more information go to PIA/GATF GAIN page
http://www.gain.org/servlet/gateway/PIA_GATF/presconf/info.html

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⊹ Mac G5 rumors quelled

Starting late last year, there have been rumors of the impending release of a Macintosh with a G5 chip. In an article in eWeek 12/6/01 Daniel Drew Turner said "Apple will release new desktop computers based on Motorola's "G5" family of processors, perhaps as early as January's Macworld Expo/San Francisco trade show".
http://www.eweek.com/article/0,3658,a=19537,00.asp

Since then, however, Apple has updated every product in its pro and consumer line-up. This update began with the PowerBook in mid December and more recently the iBook with a 14-inch display at Macworld Expo.

The Expo also saw the introduction of the revolutionary new iMac which is receiving rave reviews from unbiased sources such as USA Today and Fortune magazine.
http://story.news.yahoo.com/news?tmpl=story&u=/usatoday/20020206/tc_usatoday/3831633
http://www.fortune.com/indexw.jhtml?channel=artcol.jhtml&doc_id=206245

In late January, Apple finished the updates with a new line of Power Mac G4 desktops with speeds up to 1GHz in a dual-processor configuration. According to Apple's Senior Director of Hardware Product Marketing, Greg Joswiak, "We're not planning to introduce any new CPUs at Macworld Tokyo. As a matter of fact, we're set for some months now," said Joswiak. "Having just updated all four product quadrants, it's really nonsensical to think we're about to update the quadrants again at Macworld Tokyo."
http://maccentral.macworld.com/news/0202/11.applehardware.php

⊹ Case History: Streamlined Color Production DAM + ICC

Apple has created an interesting section on their web site called "Apple Solutions Experts" (http://experts.apple.com) which is filled with stories of companies using world class solutions. One such company is Pentagram Design an international architectural, industrial, and graphic design firm. They maintain tens of thousands of transparencies and digital artwork pieces within their portfolio.

In the past, when the senior staff had to create proposals, they would request the original images from archivists at each of the four locations. Previously the archivists would rescan the slides, over and over again increasing the likelihood that they would become damaged and increasing the chances that the color would not match the previous reproduction.

The solution was to streamline production using automation technology to create Extensis Portfolio catalogs (a DAM solution - Digital Asset management) and ICC (International Color Consortium) color management strategies to achieve more accurate and consistent color.

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First, Pentagram's Jim Anderson hired consultants who calibrated and configured all the scanners and Macs using GretagMacbeth's ProfileMaker Professional software. Next Pentagram replaced all of its' scanner software with SilverFast scanning software from LaserSoft.

The archivists scan images, clean, adjust them using Adobe Photoshop, and pull them into iView MediaPro image-cataloging software. To insure the widest possible color gamut all scans are made in 48-bit color depth, and saved in Kodak's ProPhotoRGB wide gamut color space to allow for the widest range of future output.

The automation is achieved using iPhotoArchive which is a collection of AppleScript routines that automate the process of storing images. Specifically, the script gives each file a unique sequential name, embeds image metadata into each file, and forwards files to a CD folder. When the folder is full, iPhotoArchive automatically initiates Roxio Toast CD burning software and gives each CD a sequential name.

For more information go to
http://experts.apple.com/stories/cdi2/index.html

⇥ Internet Security: Basic & Advanced

In the old days (2 years ago) responsibility for network and internet security was mostly the job of only the most techno-savvy staff members. That was because most thrill-seeking hackers broke into systems simply for the fun of poking around. Those days are gone. Today, security has become an issue for management and user, alike - especially in companies whose livelihoods depend on receiving an sending files

Today, security experts are seeing more malicious acts from hackers who are smarter about finding security holes and protecting their identities. There are more neophyte hackers (also known as script kiddies, packet monkeys, and cyberpunks) than ever. Symantec, the maker of Norton Internet Security 2002, estimates that more than 30,000 Web sites offer hacking tools and that teach anyone to hack in 10 minutes.

A new term in this field is "malware", which describes a threat whereby a malicious application gains entry to a system. The unwelcome application may be downloaded or enter as an e-mail attachment; in either case, it takes the name of a legitimate application. Therefore, it doesn't matter today if you are working on your home computer which has a DSL or cable modem connection or your company is connected to a T1 line – we all have to practice safe network computing.

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In the simplest of terms, that means
- ➢ 1st - Install antivirus protection on servers and clients. At home, have it scan all disks and downloads automatically.
- ➢ 2nd- Choose and use your passwords carefully. Don't write them on sticky notes and put them on your monitor.
- ➢ 3rd - DSL / cable modem is always on - you need a firewall. For home use, they are inexpensive and sold as personal or family firewalls.
- ➢ 4th – Up-grade your browser to the latest version—one that includes 128-bit encryption.
- ➢ 5th- Remain vigilant and suspicious of unknown email.

This link will download a white paper file as a pdf
ftp://ftp.eweek.com/pub/eweek/pdf/printpub/White/whitepaper.pdf

For more information go
http://www.pcmag.com/article/0,2997,s=1474&a=22020,00.asp

⇥ Advance security within Windows XP

On February 11, 2002 Microsoft Corp. released a cumulative patch to fix six newly discovered vulnerabilities in several versions of Internet Explorer. The patch is also designed to repair the vulnerabilities in IE 5.01, 5.5 and 6.0.

The most serious of the new flaws is a buffer overflow associated with a specific HTML directive that could enable attackers to run code on users machines. This attack would not be possible, however, if the user had turned off the ActiveX Controls in his browser.

For advanced users, there are many papers posted on Microsoft's Tech net site discussing the Windows XP's Internet Connection Firewall (ICF). It's found on Windows XP Home and Professional editions, and will also be on Windows .Net Server. There are different definitions of ICF. Simply put, "ICF allows outgoing communications that originate from your computer (and the corresponding incoming replies) while blocking everything else. For the technically orientated, ICF is a stateful-inspection packet filter.

For those who live and breathe TCP/IP networking. ICF's uses addresses, ports, sequence numbers, and flags in its state table. For TCP, the outgoing request must have only the SYN flag turned on; incoming replies must have only the "ACK" and "SYN" flags turned on; the next outgoing packet must have only the "ACK" turned on. If this sequence is violated, ICF terminates the connection."

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For more information go
http://www.microsoft.com/technet/treeview/default.asp?url=/technet/security/Default.asp
http://www.pcmag.com/article/0,2997,s=1582&a=22611,00.asp

⇥ Important Software Updates: Toast, Nero, QuickTime, Norton 7.0

According to version tracker the most popular Mac download is the update to the very poplar CD-ROM writing software Toast Titanium to version 5.1.2r2
http://www.versiontracker.com/moreinfo.fcgi?id=11427&db=mac

Ironically the most popular Windows download is also CD-ROM writing software called Nero to version 5.5.7.2
http://www.versiontracker.com/moreinfo.fcgi?id=16450&db=win

Previewed at QuickTime Live show, QuickTime 6 supports MPEG-4, the emerging standard for streaming high quality content. QuickTime 6, along with QuickTime Streaming Server 4 and QuickTime Broadcaster, enables MPEG-4 based streaming.
http://www.apple.com/pr/library/2002/feb/12qt6.html

Norton Utilities Public Beta 7.0 for Mac OS X is available for download. "Beta" software by definition means that the product is still under development and is likely to contain some imperfections or "bugs." This Beta Version includes: Norton Disk Doctor, Find and Repair hard disk problems, FileSaver, UnErase. And Scheduler.

WARNING ! Hard disk utilities are the most dangerous to use on machines involved with live work. It is not uncommon for hard disk utilities to successfully pass the beta stage and go into public release phase and turn perfectly working hard disks into scrambled eggs.

Therefore, Beta hard disk utilities should only be used on stand alone (not networked computers) after a complete hard disk backup is made. In addition, it is recommended that you wait a month after a new version of a hard disk utility is released, watch and listen to feedback on usernet forums, listservs and the companies web site - before installing the new software.

This link will download Norton Utilities Public Beta 7.0 for Mac OS X:
http://wsidecar.apple.com/cgi-bin/nph-reg3rdpty1.pl/product=01269&platform=osx&method=sa/NUM7Beta.hqx

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⇥ Hands-On Tips: Issues and Answers with PDF files

The current version of Acrobat is 5.x; it can create the latest version of the pdf file format known as the pdf 1.4 specification. The latest versions of Illustrator (9.x) and Photoshop (6.x) can also create pdf 1.4. There are not many enhancements from the 1.3 version of the spec that are important to most of us in print production. One useful enhancement is the ability export to RTF (Rich Text Format - a universal word processing format) while one problematic feature is the transparency feature.

Transparent drawing objects allow objects underneath them to show through. The color of a transparent object is a combination of its own color and the colors of objects underneath it. Transparency works well when images are displayed on screen, as in web browsers, CD-ROMs, and other digital media.

Problems occur with transparent objects that are printed, because PostScript does not support transparency and likely never will. One reason it would be illogical for PostScript to support transparency is that the transparency of printed objects involves interaction of different colors that are separated upon output. A second reason is that transparency in print is a function of the printing ink used and the screen tint percentage at which it is applied.

Transparency effects can be preserved in print if images are "flattened" during output. Flattening means that elements are broken into separate objects where they overlap other objects. In some cases vector graphics may be rasterized into bitmapped objects to preserve transparency effects. Both flattening and rasterization affect the editability of objects

It is recommended that designers who are creating graphics for print not use the transparency feature. Instead, the overprint feature with a tint percentage can be used where the illusion of transparency is desired. In Illustrator 9, the appearance of an overprint can be previewed using the View>Overprint Preview setting

Printers who receive artwork that contains transparency can retain the effect by flattening the artwork into a format that works like print, such as Illustrator 8 or Acrobat 4 (PDF 1.3).

Occasionally, flattened PDF files produce an artifact known as color stitching when they are output. Color stitching is a print artifact that can occur when vector graphics are placed on top of bitmapped graphics. Colors of the bitmapped graphic that are in proximity to the vector graphic are changed. According to Adobe, the likelihood of color stitching is highest when the File>Document Setup> Quality/Speed slider is positioned at the default or middle setting, and decreases if the slider is moved to higher quality settings.

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📂📂 **In the Works** 📂📂

- ➢ **CTP**
- ➢ **PDF Usage**
- ➢ **Digital Printing**
- ➢ **Ricoh AP3800C**
- ➢ **Remote Proofing**
- ➢ **Seybold NYC**

About the author

Howard "Howie" Fenton is the senior technical consultant of digital technology at the Graphic Arts Technical Foundation (GATF). He has worked as a consultant for more then a decade and performed over 300 audits.

His career began in the prepress trenches, when imagesetters, Macs and desktop publishing were novelties. He has managed a quick copy shop, several prepress facilities, and taught advanced computer graphics at Montclair State College.

Expertise

- ➢ Increasing productivity in order entry, preflight and prepress departments
- ➢ Evaluating digital prepress equipment and staff training, providing staff training and recommending new equipment
- ➢ Identifying and troubleshooting prepress problems
- ➢ Implementing new technologies such as computer to plate, digital proofing & color management
- ➢ Consulting on management issues such as feasibility analysis, new equipment justification
- ➢ Analysizing, inspecting and training staff on quality control inspection
- ➢ On-site training for customers, prospects, sales and CSR's on how to prepare files and the impact of new digital technologies
- ➢ On-site production training on file prep., file repair, scanning, preflight, proofing, digital printing, CTP, and PDF file prep. and file repair
- ➢ Market analysis of products and technologies