JULY 2006

Learning about UV-cured, Solvent, Eco-Solvent Inkjet Printers:

Suggestions for Attending Graph Expo 2006 Trade Show



Nicholas Hellmuth

Introduction

Where else can you find UV-cured flatbed printers, eco-solvent printers, mild-solvent printers, laminators, and inkjet media all in one single location?

A trade show, yes.

But which trade show? There are so many it is hard to decide?

The FLAAR staff include evaluating trade shows as part of their program of general public education. So if you are a

- sign franchise printshop owner
- reprographics shop
- screen printer
- photo lab
- family run print shop: Quick Print, or any kind
- printer operator
- shop owner or investor
- printer manufacturer, distributor or reseller
- student
- or just curious,

It is worthwhile visiting a major international trade show.



Autumn is a nice time to visit Chicago. This city is relatively peaceful. So we like visiting Chicago. It's a great place for museums, historic American architecture such as Louis Sullivan and Frank Lloyd Wright, and just for walking around (it's good exercise too).

Sample of some of the Pertinent Exhibitors at GRAPH EXPO® 2006, in the Wide Format PavilionWe comment on the companies that we know personally. The other companies we look forward to getting to know them better at the trade show. After all, that's why you go to a trade show.

Aeromatrix is the long-time distributor of Infiniti solvent and recently UV printers (from China). Aeromatrix sells mostly to Latin America. Infiniti Digital is the official distributor for the US. We will have some site-visit case studies of Infiniti printers by early autumn.

BF Inkjet Media is the Bowers Family, Max Bowers Sr and his two capable sons. This is really a family enterprise. BF Inkjet is one of the leading suppliers of professional grade artist's canvas for giclee and décor.

The Big Picture Magazine is one of the top three trade magazines for the inkjet printing industry. We recommend you consider subscribing to their informative magazine.

Digital Graphics Magazine is also one of the top three trade magazines for inkjet printing. They have published about three articles from FLAAR and at least one from our partner, Bowling Green State University.

FLAAR tends to attend as many trade shows as possible, but it would be unrealistic for us to have a booth at every single show. But we do like to make our staff available to our many readers so they can meet us in person. Thus we will have a modest booth as you would expect of a university-affiliated institute.

Fujifilm Sericol USA, Inc will have their usual impressive booth with their sophisticated UV-curable inkjet flatbed printers.

Gandinnovations has become a leader both in solvent-ink, UV-curable, and direct dye-sublimation printers at grand format sizes. We have visited and interviewed owners of Gandinnovations printers; they state quite clearly they like the

machines, the tech support, and the company that stands behind the printers.

Grimco, Inc is a large regional dealer of several leading brands of inkjet printers including, but not limited to, Mimaki printers. We see a Grimco booth at many trade shows.

Hewlett-Packard will show water-based and solvent-based products, including results of their purchase of Scitex Vision and their alliance with Seiko.

Mimaki USA offers a diverse range of expertly designed and engineered printers, both water-based (Mimaki JV4, Mimaki JV22), and solvent-based (the best-selling JV3 and the new JV5). Mimaki also offers several specialized UV-curable inkjet printers with high quality (they don't use common printheads, they use a special printhead for the highest print quality that requires uni-directional mode).

Mutoh America, Inc. is undergoing corporate changes with new leadership (from Mutoh Europe). Mutoh Europe designs and manufacturers their own models of printers, as does Mutoh Japan (Mutoh America sells both, but does not itself manufacturer printers). We have recently published articles on the Mutoh utilization of a bio-ink (from InkWare/Vutek) in three international magazines: Digital Graphics in the US, SIP in Europe, and SignGraphics in Istanbul, Turkey.

Neschen Americas. Neschen is a giant international company headquartered in Germany. The parent company is engaged in many business that related to digital printing. However each particular division does only certain aspects. What Neschen tends to show at trade shows are its display systems.

ONYX Graphics used to be independent, then eventually became part of Gretag Imaging, then Oce, and now seems to be more independent again. Onyx makes a sophisticated RIP software that is used world-wide.

Resource Imaging Supply is a reliable company with capable leadership and knowledgeable sales reps. This is the company that BGSU uses as a source for inkjet media, inks, supplies, and general information. They sell nationally, since nowadays it does not make as much difference where a company actually has its offices.

Roland DGA Corp makes eco-solvent printers and vinyl cutters that are popular with family run sign shops. Our best experiences are with the Roland regional dealer in Athens, Greece, Atlas S.A. We have lectured at a UV-Curable Inkjet Workshop under their sponsorship, and have learned a lot about the capabilities of the improved third-generation eco-solvent inks from the staff at Atlas S.A. Obviously they are not in the Roland booth at a US trade show, but most of our awareness, for example of the diverse kinds of media and substrates that the third-generation eco-solvent inks work well with, comes from this particular Roland dealer.

Wasatch Computer Technology is probably the #2 RIP software company now, having previously been #4. We use Wasatch RIP at FLAAR because it is relatively easy to use, it works well at a professional level, and it runs almost every printer out there. So you need only one brand of RIP to run all your printers (this is a consideration when you have 24 inkjet printers like we do). We have recently visited Wasatch headquarters and can see why they have become more popular each year.

VUTEK, a division of EFI. Their well-known brand is sold direct, as well as now by selected dealers. A new dealer for Vutek is Global Imaging Inc, a company with experience both in grand format, UV-curable, and medium format digital cameras.

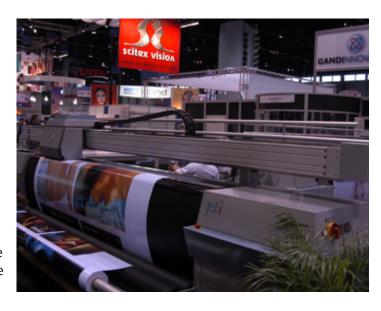
Zund America tends to exhibit their highly regarded cutters. Zund also makes UV-curable inkjet printers.

The companies listed above we know their products and booth personnel from previous shows. There will also be additional companies that are worth visiting, but we do not yet know them personally. But that is a good reason to visit their booths to learn more about the products, and the people behind the products. Plus, you can learn about them from the GRAPH EXPO® 2006 website.

Alameda Company
Banner American Products
Bertl (Adams Business Media)
Compose Systems
D&K Group
KAPCO Graphic Products
Mikkelsen Graphics Engineering
ProEdgeSystems.com

SA International

The above companies are grouped in one special area, the Wide Format Pavilion. Elsewhere at this international trade show are



Digital Output Magazine, Wide-Format Imaging (both industry trade magazines are sponsors along with the publications exhibiting in the Pavilion), **Oce, Canon, Xerox, Eastman Kodak, Agfa, Epson**, and **Konica Minolta Imaging**.

Konica Minolta makes high quality piezo printheads used in several UV-curable inkjet printers. Last year **Agfa** displayed their: Dotrix UV printer (we gave it a "Best in Show" award. Agfa also sells printers from Mutoh Europe and a co-branded UV printer.

So all together you will find

- Water based printers for giclee, décor, fine art photography, proofing, trade show graphics
- Eco-solvent printers for both indoor and outdoor
- Mild-solvent printers which are gradually gaining popularity over eco-solvent (FLAAR Reports publications are among the few that really explain the difference between eco- and mild-solvent chemistries and technologies)
- UV-cured flatbeds and roll-to-roll

Plus laminators, inkjet media and materials, all conveniently grouped together in one hall, exhibited in a friendly city, Chicago, that is easy to access from anywhere in the world.

See http://graphexpo.gasc.org/wideformat06.cfm for more information of the Wide Format Pavilion.

GRAPH EXPO and CONVERTING EXPO 2006, October 15-18, 2006, McCormick Place, Chicago, IL, www.graphexpo.com.

Appendix A

GRAPH EXPO 2007

Lectures for the General Public in the Wide Format Theater

Free Sessions located in the Wide Format Theater, booth 4987, will be available during show hours and presented by the exhibitors in the Wide Format Pavilion.



Sunday, October 15

10:30 a.m. - 11:30 a.m.

Using Digital Die Cutting to Finish Irregular Shaped Short Run Graphics

Steve Aranoff, Business Development Director, MGE, Inc.

Newcomers to narrow or wide format digital imaging should understand the different needs for finishing irregularly shaped graphic objects and how to fit the finishing process into their workflow. Short run labels, vehicle graphics, point of purchase displays and the like require cutting to shape; steel dies may not be cost effective. Learn about digital die cutting/finishing systems capable of supporting a variety of sizes and materials and the workflow implications that can make the difference between profit and loss. Particular attention will be directed to open workflows where one workflow can be used to handle many different printing or cutting machines.

12:00 noon – 1:00 p.m.

Optimizing your RIP to Optimize Business Efficiencies Walter Noot, President and CEO, ONYX Graphics

So many factors affect workflow and your bottom line from preproduction to finished output and beyond. This presentation will examine a typical printing environment to illustrate how the right RIP can control costs through increased efficiencies. You will hear how having duplicate steps in various software packages cost time and money. Learn how to make your own setup more flexible, how to manage multiple jobs from a variety of input/output sources, how to achieve consistent color across all devices, and how to do it all faster! Issues such as file management and the importance of good training and dependable tech support will also be covered.

1:30 p.m. - 2:30 p.m.

Digital Tools for Delivering Quality Prints

Kimberly Brown-Azzarello, Large Format Application Specialist, HP, Largeformat Printing

Printing devices are becoming increasingly more powerful and versatile. Today they come bundled with many "free" built-in tools, but do you know what they are and how to best use them? Discover what is available to you, including free utilities and other free digital content, and learn how to leverage that extra technology to gain a quality advantage. Learn how to make the most of PDF printing, as well as how to decipher and analyze your customers' files so you can avoid landmines and deliver the best quality output. Understand the differences between "good" quality and "good enough" quality, but most importantly learn what is attainable based on what you are given.

3:00p.m. – 4:00 p.m.

Commercial Print Applications for Solvent Printing and Packaging Proofing Using UV Inkjet

Steve Urmano, Marketing Manager, Mimaki

Package printing is a hot new market for offset printers. Learn how digital technology moved it from the exclusive realm of flexo and screen printers to a viable and profitable option for diversifying your business. This seminar will discuss the history and transition of package printing. Examine the range of new equipment and materials available which now give you the ability to produce high quality packaging and package prototypes digitally. You'll see examples of labels and packages produced using ink jet printers and learn why the many new substrates and media designed specifically for this

purpose are making package printing such an attractive choice for a surprisingly small investment. Add the ability to proof flexo graphics on the actual materials being printed rather than simulations, and you have a winning combination.

Monday, October 16th

10:30 a.m. - 11:30 a.m.

Finding the Right RIP for Your Wide Format Printer and Workflow

Kent J. Villarreal, Director, Workflow and Wide Format Analysis, Bertl

With so many RIP (Raster Image Processor) choices to drive wide format and cut sheet printers out there, how can you make the right decision for your company's specific needs? The wrong RIP decision will impact your bottom line now and in the future. In this presentation, you will learn—from independent analysts— how to distinguish between "nice to have" and "need to have" RIP features. You will learn how RIP devices and printers affect your overall wide format print workflow, the key factors to consider when making a buying decision, and what resources are available to help you make an informed choice. Mr. Villarreal will discuss the difference between hardware and software based RIPs, throughput issues, the importance of imposition capabilities, networking needs, color profiles, and calibration. This session will enable you to make an informed decision on the type of RIP device that will be the right fit for your current and future printer and workflow requirements.

12:00 noon – 1:00 p.m.

Printing on Wood, Stone, Metal, Tiles and Other 3-D Surfaces

Dr. Nicholas Hellmuth, Director, Large Format Digital Imaging Division, Center for Applied Technology, Bowling Green State University

The ability to print directly on wood, stone, glass, metal and tiles opens up a wealth of opportunities focused on serving the needs of architects, commercial space planners, home designers, furniture manufacturers, and many other specialty markets. Dr. Hellmuth will review the range of technology available for printing on 3-dimentional surfaces; he will discuss the pros and cons of each printing or decorating process, and then walk you through the entire workflow from image capture to finishing. Learn what you can do with the new flat bed printing technology and how to design a system for your applications of choice.

1:30 p.m. – 2:30 p.m.

Profitable Color Relationships: Creating a Collaborative Work Environment using the World-Wide Web

Mark Blundell, CEO, SA International

Learn how large format inkjet projects can be communicated, viewed, printed, and verified globally using a new Web based collaborative working environment. Hear how this environment can accelerate the entire production process from concept through approval while letting you avoid costly mistakes and re-runs. Mr. Blundell will address the issues of hard copy proofing, soft proofing, and the color measurement requirements for both types of proofing. He will tell you how to calibrate, control, and verify each component of the system through multi-device color profiling. Learn how to maximize your investment and avoid waste by allowing all participants involved in a project to seamlessly communicate and collaborate.



3:00 p.m. - 4:00 p.m.

New Markets and Specialty Applications for Digital Printing Laura Wilson, Product Manager, Roland DGA

Are you confused by the all the digital wide format inkjet technology emerging daily? Laura will clarify these advances with a broad spectrum presentation focused on how they can help you diversify your business quickly and easily. She will explain different types of output – from water-based sublimation to solvent, mild solvent, and UV curable and discuss the amazing capabilities of the new flatbed and hybrid printers. Learn about the variety of substrates available and how they can open new markets for you from high production label making, custom flags, promotional signage, and vehicle graphics, to specialty applications such as fine art, custom awards and even doming!

Tuesday, October 17th

10:30 a.m. - 11:30 a.m.

Understanding Digital Textiles

Dwight Bessette and David Conrad, Product Managers, Neschen America

Digital textiles are one of the most exciting advancements in media products to hit the market in many years. The world wide market for digitally printed textiles is growing 30% per year! You need to know about this technology in order to stay competitive. Instead of just printing on vinyl or paper, you now have the option of offering your customers "earth safe" bio-degradable, digitally printed textiles. Printing on textiles offers many advantages over traditional media products such as flexibility for transportation and handling and wrinkle-free appearance. Understanding how to put printers, inks, media and display systems together for optimum results can be a daunting task; with Mr. Bessette's help, you will learn about the various textiles available, the best printing technologies to use with each, and the applications for which they are best suited.

12:00 noon – 1:00 p.m.

Color Management for the Real World of Large Format Printing

Tony Miller, Product Manager, Roland DGA

The growing market and evolving technology of wide format inkjet printing is increasing the need for color management systems (CMS). Whether you are new to large format inkjet printing, or currently produce it and want to gain more control over the process, you need to attend this session. Tony Miller will start with a beginner's guide to color management explaining the goals and methods which can be used to achieve the best possible color output; he'll then move on to an advanced overview of a full ICC workflow. Learn the difference between default and custom color management systems, and how to create a full custom CMS workflow for your shop.

1:30 p.m. - 2:30 p.m.

Superwide Format Digital Printing; A Big Opportunity for Print Providers

Michael Wozny, Product Marketing Manager, VUTEk, a division of EFI

You've heard about the opportunities in wide format printing; what happens if you super size it? Mr. Wozny will show you why everyone is so excited about superwide format printing; he'll give an overview of the printing technology, discuss trends and the driving forces shaping the market such as the demand for short-run customized pieces, point of purchase, and out-of-home advertising. He'll share success stories

and give you examples of working business models you can adapt to your own situation. You'll leave with enough detailed information to put together your own plan; but you'll have to get your shake and fries at the snack bar.

3:00 p.m. - 4:00 p.m.

Finding the Right RIP for Your Wide Format Printer and Workflow

Kent J. Villarreal, Director, Workflow and Wide Format Analysis, Bertl

With so many RIP (Raster Image Processor) choices to drive wide format and cut sheet printers out there, how can you make the right decision for your company's specific needs? The wrong RIP decision will impact your bottom line now and in the future. In this presentation, you will learn—from independent analysts— how to distinguish between "nice to have" and "need to have" RIP features. You will learn how RIP devices and printers affect your overall wide format print workflow, the key factors to consider when making a buying decision, and what resources are available to help you make an informed decision. Mr. Villarreal will discuss the difference between hardware and software based RIPs, throughput issues, the importance of imposition capabilities, networking needs, color profiles, and calibration. This session will enable you to make an informed choice on the type of RIP device that will be the right fit for your current and future printer and workflow requirements.

Wednesday, October 18th

10:30 a.m. - 11:30 a.m.

Profitable Color Relationships: Creating a Collaborative Work Environment using the World-Wide Web

Mark Blundell, CEO, SA International

Learn how large format inkjet projects can be communicated, viewed, printed, and verified globally using a new Web based collaborative working environment. Hear how this environment can accelerate the entire production process from concept through approval while letting you avoid costly mistakes and re-runs. Mr. Blundell will address the issues of hard copy proofing, soft proofing, and the color measurement requirements for both types of proofing. He will tell you how to calibrate, control, and verify each component of the system through multi-device color profiling. Learn how to maximize your investment and avoid waste by allowing all participants involved in a project to seamlessly communicate and collaborate.

12:00 noon - 1:00 p.m.

Wide Format Inkjet Printing for the Offset Commercial Printer

Heather Willovit, Wide Format Graphics Technical Manager, Pitman

Despite the fact that wide format imaging represents a tremendous opportunity for commercial printers, some are reluctant to explore their options. Learn why you shouldn't hesitate. You already have substantial advantages over some wide format providers; you understand and use workflow and color management tools for superior color and image rendition, AND you have an existing customer base – many of whom are already buying this service elsewhere. This session will show you how to evaluate your existing customer base for wide format opportunity and how to build a system designed specifically to meet their needs. You'll also learn how to use your technological strengths to capture more business.