



Credit: Tradewinds St. Pete Beach

**15th Annual
Ink Jet Printing Conference**
Jan. 30 - Feb. 1, 2006
&
Ink Jet Academy
January 29 - 30, 2006

Tradewinds Island Grand Resort
St. Pete Beach, Florida

sponsored by

Information Management Institute, Inc.

This unique **15th Annual Ink Jet Printing Conference** is the only U.S. ink jet printing industry event devoted entirely to ink jet printing technologies, markets and applications. Ink jet printing continues to make technology advancements in product functionality, cost performance, print quality and nonprinting/deposition capabilities. As a result of these improvements, ink jet printing has become the leading digital printing technology with expansion into many new markets and applications. In addition to personal and office computer printing, applications such as display graphics, materials deposition, digital photography, digital printing presses, multifunction printers, printable electronics, 3D modeling, biomedical dispensing, textile printing, packaging printing and many other specialty printing and nonprinting applications are increasingly using ink jet as the technology of choice. As ink jet printing becomes a manufacturing tool as well as a printing technology, market opportunities have never been better, albeit in a very competitive environment.

This conference program is designed to bring together the ink jet industry's leading experts to provide a comprehensive assessment of the ink jet printing industry. The program will address the most recent innovations, trends and issues critical to continued adoption, growth and expansion of ink jet printing applications and markets. As ink jet printing continues to increase market share in numerous application sectors; this **15th Annual Ink Jet Printing Conference** provides an unique opportunity for representatives from all segments of the printing industry to obtain information critical to their understanding of ink jet printing technology and market dynamics that are shaping the industry's future.

Conference Co-Chairmen

Dr. Ross N. Mills, iTi
Mike Willis, Pivotal Resources

Conference Speakers & Panelists

Yuan Chang, Amica Software
Mark Elsbernd, Ricoh Printing Solutions
Michael Flippin, Web Consulting
Don Franz, Photofinishing News
Lawrence Gasman, NanoMarkets
Dr. Alan Hudd, Xennia
Dr. Rich Kellett, NESSPro
Chris Lynn, Xaar Americas
Dr. Sudhakar Madhusoodhanan, Hexion
Brian Miller, Membrana
Tom Molamphy, Phoseon Technology
Akiyoshi Ohno, Konica Minolta
Jep Tarradas, Hewlett Packard Espanola
Marc K. Torrey, Spectra
Don Veri, OTB - PixDro
Paul Yandell, Fujifilm Sericol
Liz Ziepniewski, I.T. Strategies

Free Displays and Suppliers' Forum

IMI offers complimentary display space to all conference registrants. Product displays and demonstrations are encouraged. IMI will cooperate with all interested parties to provide appropriate space so products can be displayed and demonstrated during the conference breaks and receptions. There is no charge in addition to the conference registration fee to have a display table. Interested companies should contact Al Keene at IMI al@imiconf.com to ensure that proper arrangements are made for product displays and demonstrations.

Also, you can participate in the popular **SUPPLIER'S FORUM**. You can give a 5-Minute Presentations describing your Company, Technology, Products, Capabilities, Services, New Product Introductions, etc. The Suppliers' Forum is open to all Conference Registrants.



15th Annual Ink Jet Printing Conference

Monday, January 30, 2006

12:00 Noon Registration

1:30 p.m. **Opening Session**
The Expanding Ink Jet Industry

WELCOME & INTRODUCTIONS

Alvin G. Keene, President, Information Management Institute, Inc., Carrabassett Valley, Maine
Dr. Ross N. Mills, Chairman & Chief Technology Officer, i T i, Boulder, Colorado
Mike Willis, Managing Director, Pivotal Resources, Cambridge, UK

TECHNOLOGY DEVELOPMENTS AND FUTURE ADVANCEMENTS

Mike Willis, Managing Director, Pivotal Resources, Cambridge, UK

- Latest Products & Announcements
 - Desk-top Gets To 1pl Drops
 - Dye-sub Printing Challenges Ink Jet Photo
- Existing Industrial Applications: Most OEM Needs Met Except Cost
- Emerging Industrial Applications Requirements
 - Fixed Heads: Not Just More Nozzles
 - Wider Fluid Handling Capability
 - Sub-picoliter Drops: The Move To Femtoliters
- The Patent Scene
 - Emergence Of MEMS Technology
 - New Players

INK JET AS A MANUFACTURING PROCESS: OPPORTUNITIES AND CHALLENGES

Dr. Ross N. Mills, Chairman & Chief Technology Officer, imaging Technology international, Boulder, Colorado

- Ink Jet Print Heads For Manufacturing
- Ink Jet For Manufacturing
- Choosing Ink Jet
 - Defining The Process
 - Selecting Components
 - Implementing The Design
- What Is Ink Jet Integration?
- Development Tools
- Production Systems
- Where Is Ink Jet Going?

GRAPHICS INK JET ADOPTION: IT'S ABOUT APPLICATIONS

Michael Flippin, Vice President, Web Consulting Inc. Boston, Massachusetts

- How Quickly Is Ink Jet Replacing Traditional Signage & Graphics?
- End Users: Finding & Defining Them
- Are Users Concerned By Differences Of Aqueous, Solvent & UV?
- Specialty Graphics: The Tail Can't Wag The Dog
- Challenges For Ink Jet's Future Adoption: Fragmentation Means Opportunity

INK JET MOVES INTO NON-PRINTING APPLICATIONS

Liz Ziepniewski, Consultant, I.T. Strategies, Inc., Hanover, Massachusetts

- Sectorization Of Market Opportunities: Printed Electronics, OLED Displays, RFID Tags, Photovoltaics, Etc.
- Current Market Size
- Value Proposition To Utilizing Print Technology
- Alternative Competing Methods
- Ink Jet Value & Fit: Where It Really Makes Sense
- Barriers To Implementation
- Realistic Market Development

5:30 p.m. Reception

Tuesday, January 31, 2006

7:00 a.m. Continental Breakfast

8:00 a.m. **Session 2**
Where Ink Jet Is Making A Difference

HEWLETT PACKARD PERSPECTIVE OF INK JET FOR GRAPHIC ARTS

Jep Tarradas, Research & Development Director, Large Format Business, Hewlett Packard Espanola, Barcelona, Spain

- HP View Of Graphic Arts: Applications, Technology & Markets
- Strategic Partnership With SII
- Acquisition of Scitex Vision
- Future Directions & Industry Trends

THE CHANGING PHOTO PRINTING MARKET

Don Franz, Publisher, Photofinishing News, Inc., Bonita Springs, Florida

- Prints From Cameras 2000 – 2009
 - Are The Total Number Of Prints Rebounding?
 - Prints Being Made From Different Sources (Film, Digital, Cameraphones)
- Where & How Will Prints Be Made?
 - Estimates To 2009
 - Evolving Output Technologies
 - Developments In Output Channels
 - Print Pricing Changes
- Changes In Consumer Image Storing/Sharing/Printing Behavior
- New Output Products
 - Who Is Developing The Appropriate Production Systems?
 - What Is Needed?

INK JET TECHNOLOGY FOR COMPUTER TO PLATE

Dr. Rich Kellett, NESSPro, Chicopee, Massachusetts

- Ink Jet For Offset Printing & CTP- What Are We Talking About?
- Markets Sizes: Printed Matter, Plates & CTP – Ink Jet Has Potential To Revolutionize The Market
- From A Graphic Arts Guru – “At DRUPA 2008, All Major Graphics Companies Selling Ink Jet Platemakers” & From Retired Litho Plate Company President – “Ink Jet Platemaking Is The Holy Grail Of Platemaking”
- Plate Requirements & Challenges For Ink Jet Production Systems
- Patent Activity & Serious Players
- Current & Developing Ink Jet CTP Systems
- System Comparisons: Ink Jet Vs. Film Vs. Laser

UPS & DOWNS OF UV WIDE FORMAT PRINTING

Paul Yandell, Global Business Development Manager, Fujifilm Sericol, Broadstairs, UK

- Speed Vs. Productivity
- How To Widen The Color Gamut
- Is UV Just A Solvent Printer With A Lamp?
- White – Fashion Statement Or Need?

UV CURE INK TECHNOLOGY & THERMAL INK JET PRINT ENGINES FOR INDUSTRY APPLICATIONS

Dr. Alan L. Hudd, President & Chief Technical Officer, Xenxia Technology Ltd., Royston, UK

- Printing Onto Nonporous Substrates From Coated Stock To Packaging Films
- The Ink Jet Compromise: Speed & Resolution
- Challenges Of Applying UV Cure Inks Using Thermal Ink Jet Printing
- Performance & Limitations
- The Proposition: Low Cost Industrial Strength Solution (Demo Video)
- How Does It Compare With Piezo Based Solutions?

12:00 Noon Luncheon

1:30 p.m. **Session 3**
Consumables Developments Generate Market Opportunities

MARKET OPPORTUNITIES FOR JETTABLE INKS AND SUBSTRATES FOR INK JET ELECTRONICS APPLICATIONS

Lawrence Gasman, Principal Analyst and CoFounder, NanoMarkets LLC, Richmond, Virginia

- Materials Opportunities: Organic & Metallic Inks And Substrates
- Material Application Requirements For Displays, Backplanes, PCBs, PV, RFID, Memory, Novelty Products & Wearables
- Critical Factors For Success
- Implementation Timetables

INK JET FOR PRINTED ELECTRONICS: NOT JUST PRINT HEADS

Don Veri, President, OTB USA, Inc., Hilliard, Ohio

- Application & System Requirements For Printed Electronics
- PixDro Technologies For Printed Electronics
 - Thin Layers
 - Accurate Dispensing Into Cells & Small Areas
- PL128 Print MEMS Ink Jet Head
- PixDro Laboratory Printer LabP150
- PixDro Industrial Printer InkP350
- Future Development Trends For Printed Electronics

HIGH OPACITY STABLE WHITE UV CURABLE INK JET INK

Dr. Sudhakar Madhusoodhanan, Senior Technical Development Specialist, Hexion Specialty Chemicals, Inc., Cincinnati, Ohio

- Opaque White UV Curable Ink Desirable For Industrial & Graphic Arts Applications
- Large Density Difference Between Inorganic Pigments & Ink Jet Vehicles Present Challenge To Developing Ink With Good Settling Stability
- Technological Breakthrough Which Provides UV Curable White Ink With Good Settling Stability, Excellent End User Properties & Jet Reliability

SUPPLIER'S FORUM: 5-Minute Presentations Related To Technology, Capabilities, Services, New Product Introductions, etc. The Suppliers' Forum is open to all Conference Registrants

5:30 p.m. Reception

Register Now

Online at www.imiconf.com

Call +1-207-235-2225

Fax: +1-207-235-2226

Email: imi@imiconf.com

Wednesday, February 1, 2006

7:00 a.m. Continental Breakfast

8:00 a.m. **Session 4**
Implementation Enhancement

PRINthead PANEL:

**PRINthead TECHNOLOGY DEVELOPMENTS
FOSTER APPLICATIONS GROWTH – THE
LATEST ADVANCEMENTS**

Panel Members:

Mark Elsbernd, Vice President, Ricoh Printing Solutions America, Inc., Simi Valley, California
Chris Lynn, VP Sales & Marketing, Xaar Americas, San Antonio, Texas
Akiyoshi Ohno, President, Konica Minolta IJ Technologies, Tokyo, Japan
Marc K. Torrey, Spectra Printing Division, Lebanon, New Hampshire

SINGLE PASS PRINTING: ONE STEP FORWARD

Akiyoshi Ohno, Managing Director, Konica Minolta IJ Technologies, Inc., Tokyo, Japan

- Prototype 720 DPI "Print-bar:" How It Was Designed & How It Works
- Technical Requirements To the Individual Elements
- Importance Of Designing Total System: Not Just Head Design But Ink As Well
- Variety Of Applications
- What Shall Be Next?

INNOVATION WITH RICOH INDUSTRIAL INK JET TECHNOLOGY AND NEW APPLICATIONS

Mark Elsbernd, Vice President, Ricoh Printing Solutions America, Inc., Simi Valley, California

- Printhead Design Advancements: Metal – Stainless Steel (Gen3 E3)
 - New Industrial Applications
 - Conductive Materials
 - 3D Models – Rapid Prototyping

**INDUSTRIAL SINGLE PASS INK JET PRINTING:
FACING THE CHALLENGE**

Marc K. Torrey, Spectra Printing Division, Lebanon, New Hampshire

- Why The Interest In Single Pass?
- Past & Current Implementations
- Criteria For Success: What Customers Really Want
- Impact On Printhead Requirements
- Implications For Printer Design
- Future Directions

SIDE SHOOTER TECHNOLOGY - AN UPDATE ON DEVELOPMENTS & APPLICATIONS

Chris Lynn, VP Sales & Marketing, Xaar Americas, San Antonio, Texas

- The Hybrid Side Shooter Printhead - What Makes It Different?
- Current Status Of Development & Testing
- How HSS Will Affect Digital Printing & Materials Deposition Markets

APPLICABILITY OF SOLID STATE UV LIGHT SYSTEMS FOR INK JET APPLICATIONS

Tom Molamphy, Director of Sales & Marketing, Phoseon Technology, Hillsboro, Oregon

- Practical Challenges For UV Ink Jet Implementation
- Phoseon & Spectra Joint Testing Procedures & Results
- Phoseon Technology's Patented Semiconductor Light Matrix (SLM) Technology
- Advantages Of SLM Systems Vs. Other UV LED Systems
- Implementation Trends For Ink Jet Applications

INK JET PRINTER INTEGRATION SOLUTIONS

Yuan Chang, Vice President of R&D, Amica Software, Irvine, California

- One Pass Printer Design
- Scanning Head Printer Design
- Ink System Design Options
- Printhead Controller Options
- Embedded Controller Options
- Printer Control Software

MEMBRANE DEGASSING CONTACTORS OFFER COMPACT SOLUTION FOR BUBBLE REMOVAL IN INK JET PRINTERS

Brian Miller, Key Account Manager, Membrana, Charlotte, North Carolina

- Why Bubble Removal?
- How Membrane & Membrane Contactor Works
- Where To Install Membrane Degasifiers
- Performance Data
- New Developments For Ink Jet Industry

1:00 p.m. Adjournment

Ink Jet Academy: Theory of Ink Jet Technology

Sunday, January 29, 2006

8:00 a.m. Registration

8:30 a.m. **Opening Session**

WELCOME

Alvin G. Keene, President, Information Management Institute, Inc., Carrabassett Valley, Maine

INTRODUCTION

- Course Overview
- Types Of Ink Jet Technology
- Brief History
- Drop On Demand Technologies
- Thermal & Piezo Ink Jet
- State Of The Art
- Office & SOHO Markets & Applications

INDUSTRIAL APPLICATIONS

- Industrial Drop On Demand
- Continuous Ink Jet
- Industrial Applications

INK TECHNOLOGY

- Evolution Of Ink Jet Inks
- Ink Jet Ink Formulations
- Ink Types & Properties
- Aqueous Based
- Oil-Based
- Solvent-Based
- Phase Change
- UV Curable

DOD PRINthead DESIGNS AND VENDORS

- Thermal Ink Jet
- Piezo Ink Jet
- Moving Wall Technology

12:30 p.m. Lunch

1:30 p.m. Session 2

MATERIALS FOR INK JET INKS

- Critical Materials
- Colorants
- Polymers
- Solvents & Additives
- Vendors & Ink Distribution Chain

DOD PRINthead DESIGN CONSIDERATIONS

- Drop Ejection Frequency
- Crosstalk
- Printhead Life
- Temperature Control
- Drop Placement Accuracy
- Considerations For Page Arrays
- Greyscale Techniques
- Drive Waveforms

MEDIA & PRINT QUALITY

- Paper & Coatings
- Drying Mechanisms
- Light & Waterfastness
- Non-Paper Media
- The 3 Factors Affecting Print Quality
- Technologies To Improve Print Quality
- Improving Print Quality

5:30 p.m. Reception

Sunday, January 29, 2006

7:00 a.m. Continental Breakfast

8:00 a.m. Session 3

UV CURING TECHNOLOGY

- Chemistry Of UV Curing
- Ink Formulation Issues For Piezo DOD
- UV Curing Systems

SYSTEM DESIGN ISSUES

- Nozzle Maintenance
- Drop Detection
- Filling/Bubble Removal
- Ink Supply & Replacement

INSTRUMENTATION FOR INK JET DEVELOPMENT

- Reliability
- Jet Characteristics
- Quality Control

FUTURE DEVELOPMENTS

- Evolution Of Current Technology
- New Developments
- Status & Developments Of Ink Technology

12:00 Noon Adjournment

COURSE LEADERS

Dr. Alan L Hudd, President & Chief Technical Officer, Xenxia Technology Limited, Royston, Hertfordshire, England

Mike Willis, Managing Director, Pivotal Resources Limited, Cambridge, England

The Ink Jet Academy: Theory of Ink Jet Technology provides a program and format to get an expert start in the ink jet field, to get an update or to open up new ink jet fields. **The Ink Jet Academy** is a 1 1/2 day course covering the basic theory of ink jet technology in use today. Learn how the printheads work, materials of fabrication and the theory of operation. Learn about inks and media, formulation supply/support systems. This course will provide a useful background to anyone entering the ink jet industry or seeking an efficient update of ink jet technology. Visit www.imiconf.com for additional details on this course.

Registration Information

Registration Fee:

\$1095 per registrant per program.

\$995 for second person and each additional registrant from same company to same program or for same registrant to additional programs when registered as a group.

The registration fee for each program includes attendance at all scheduled conference sessions, continental breakfasts, lunches, receptions, coffee breaks, plus the program reference binder.

Cancellations will receive a 100% refund if made 72 hours prior to the start of the program. Substitutions may be made at any time. Cancellations made less than 72 hours prior to the start of the program will be charged a \$300 cancellation fee, but will receive a copy of the complete program binder..

To register for the **15th Annual Ink Jet Printing Conference and/or The Ink Jet Academy**, submit the registration form with payment to Susan Meldrum, Conference Administrator, Information Management Institute, Inc., 1106 Valley Crossing, Carrabassett Valley, ME 04947 USA. You may reserve space by calling +1-207-235-2225, sending a fax to +1-207-235-2226 or by sending an email message to imi@imiconf.com or visiting our web site www.imiconf.com

Tradewinds Island Grand Resort

IMI's **15th Annual Ink Jet Printing Conference and The Ink Jet Academy** are being held at the Tradewinds Island Grand Resort & Conference Center located in St. Pete Beach, Florida. Hotel reservations are the responsibility of each meeting registrant. To receive the special meeting rate of \$159 for single or double occupancy, you must identify yourself as a registrant to an **IMI Conference**. **Early booking is advised** as the reduced rate is guaranteed only until January 11, 2006. Phone the Group Reservations Department at +1-800-808-9833 (Or +1-727-363-2212 and Ask for Group Reservations) to make hotel reservations. The hotel address is:

Tradewinds Island Grand Resort & Conference Center
5500 Gulf Boulevard
St. Pete Beach, FL 33706
Phone: +1-727-367-6461
Reservations Phone: +1-800-808-9833
Fax: +1-727-363-2275

REGISTRATION FORM

15th Annual Ink Jet Printing Conference
January 30 - February 1, 2006

Ink Jet Academy: Theory of Ink Jet Technology
January 29-30, 2006

NAME _____

JOB TITLE _____

COMPANY _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

COUNTRY _____

PHONE _____ FAX: _____

EMAIL _____

To Register Online: Go To www.imiconf.com

HOTEL RESERVATIONS

To make your hotel reservations at the Tradewinds Island Grand: Phone the Group Reservations Department at +1-800-808-9833 (Or +1-727-363- 2212 and Ask for Group Reservations).



Credit: Tradewinds St. Pete Beach

All checks should be in U.S. dollars drawn on a U.S. bank and made payable to Information Management Institute, Inc. An invoice with bank transfer details for IMI's U.S. or European bank account will be provided upon request.

SPECIAL NOTICE

WORLDWIDE PRINTER AND SUPPLIES MARKET REPORT TO BE PROVIDED TO ALL CONFERENCE REGISTRANTS

Information Management Institute, Inc. is pleased to announce that it has commissioned I T Strategies of Hanover, Massachusetts to prepare a confidential study report entitled "**Worldwide Printer and Supplies Market Report**" for distribution to all registrants to IMI's programs.

This exclusive market report is updated on an ongoing basis and provides a source of market information based on a consistent methodology and reporting structure. The report authors, I T Strategies, generate this report from their worldwide model of the printer industry.

All registrants to the **15th Annual Ink Jet Printing Conference** on January 30-February 1, 2006 at Tradewinds Island Grand Resort, St. Pete Beach, Florida will receive a complimentary copy of the latest edition of the "**Worldwide Printer and Supplies Market Report.**"

Don't Miss IMI's Other Jan/Feb 2006 Programs

Other IMI Programs at Tradewinds Island Grand
St Pete Beach, Florida

13th Tag, Ticket & Label Printing Conference
February 1-3, 2006

9th Annual Toner & Imaging Chemicals Conference
February 8-10, 2006

14th Annual Laser Printing Conference
February 8-10, 2006

Visit www.imiconf.com or www.imieurope.com for
program and registration details