

SPECIAL EDITION

TYPECRAFT, INC.
& THE
COMPUTERWORLD
SMITHSONIAN
PROGRAM



“On behalf of the
Smithsonian Institution, the
American people, and
generations throughout
the world for whom
we hold these historic
materials in trust, it is
my honor and duty to
bestow this medallion in
commemoration of the
outstanding quality of your
work, and to thank you for
your contribution to the history
of information technology.”



*Daniel S. Morrow Executive Director
THE COMPUTERWORLD SMITHSONIAN Program*



Each year, the Computerworld Smithsonian Chairmen's Committee nominates individuals who use information technology to improve society for inclusion in the Smithsonian's National Museum of American History's IT Innovation Collection. Founded in 1988, the Computerworld Smithsonian Program searches for and recognizes individuals who have demonstrated vision and leadership as they strive to use information technology in innovative ways across ten categories: Business and Related Services; Education and Academia; Environment, Energy and Agriculture; Finance, Insurance and Real Estate; Government and Non-Profit Organizations; Manufacturing; Media, Arts and Entertainment; Medicine; Science; and

A Search for New Heroes



Transportation. Nominations for these awards are made by the Chairmen's Committee, a distinguished body of one hundred chief executive officers of the country's leading information technology companies. Judging for the awards is conducted by independent, expert panels for each of the ten categories.

Each year, the Awards Program provides the Smithsonian with detailed case studies of every member of the Collection. It also supplies extensive documentary materials, including video histories, on each of the Leadership Award winners. These rich materials provide a good annual snapshot of innovation related to information technology in the workplace, the community and the arts and sciences.

The Chairman's Committee
 Patrick J. McElroy
 International Duty Group
 Monica D'Ercole Adams
 Computerworld, Inc.
 Spencer Crew
 Smithsonian Institution
 Daniel Morrow
 Program Director

Member companies include:
 3Com Corporation
 Acer America Corporation
 Adobe Systems Incorporated
 Advanced Micro Devices
 Amtek Corporation
 America Online Incorporated
 Anderson Consulting
 Apple Computer, Inc.
 AT&T
 Autodesk, Inc.
 BMC Software, Inc.
 Bony-Alex & Hamilton, Inc.
 Bud Worldwide Information Systems
 Canite Corporation
 Canon Systems, Inc.
 Celer Systems
 Compaq, Inc.
 Compaq Computer Corporation
 Computer Associates International, Inc.
 Computer Motion, Inc.
 Computers Corporation
 Dell Computer Corporation
 Decoute Consulting
 Deloitte Incorporated
 Eastman Kodak Company
 Hiyahy

EMC Corporation
 Epson America, Inc.
 Eyer & Young LLP
 Evans & Sutherland Computer Corp.
 Excelsior Technologies
 Fluidix Corporation
 Geac Smart Enterprise Solutions
 General Magic, Inc.
 Genesys World
 GE Interconnecting
 Hewlett-Packard
 Hitachi Data Systems
 Hughes Network Systems Incorporated
 Information Builders, Inc.
 Informa Software
 Intel Corporation
 J.D. Edwards
 KPMG Peat Marwick LLP
 Leland & Housell
 Lemark International, Inc.
 Lockheed Martin MS
 Lotus Development Corporation
 Lucent Technologies
 Lucent, Inc.
 Maxxmedia, Inc.
 Midge Networks
 Matsushita Electric Corporation of America
 Perseus Communications & Systems Company
 MCI Worldcom
 Microsoft Corporation
 Morgan Stanley Dean Witter & Co.
 Motorola, Inc.
 NCR Corporation
 NEC Technologies, Inc.
 NetScout Systems, Inc.
 Novell Incorporated
 Oracle Corporation
 Papyrus, Inc.
 PricewaterhouseCoopers
 PSONe
 SAGE
 SAP America, Inc.
 SAS Institute, Inc.
 Scientific Atlanta
 3Com

Sequent Computer Systems, Inc.
 Siemens Information & Communications Networks, Inc.
 SSI
 SQA Software, Inc.
 Sprint
 Sterling Software, Inc.
 Storage Technology Corporation
 Sun Microsystems, Inc.
 Sullair, Inc.
 Symantec Corporation
 Technology Solutions Company
 Texas Instruments, Inc.
 Texas Instruments
 TimePlus Group
 Toshiba America Information Systems, Inc.
 Unisys Corporation
 Viste Technology
 Vixra Corporation
 WorldCom

Founders of
 The Information Age Exhibition
 American
 Bell Atlantic Corporation
 BellSouth Telecommunications, Inc.
 EDC
 IBM Corporation
 JBC Communications, Inc.
 US West, Inc.

THE COMPUTERWORLD SMITHSONIAN PROGRAM

134 Beach Street, Suite 4, Boston, Massachusetts 02111-2844
 Telephone: 617.357.1977 Facsimile: 617.357.7085 <http://innovate.si.edu>

FOR IMMEDIATE RELEASE

Typecraft, Inc. nominated for Computerworld Smithsonian Award

Washington, D.C. (February 1, 2000)—Typecraft, Inc.'s Computer-to-Plate (CTP) Printing will become part of the Permanent Research Collection on Information Technology at the Smithsonian's National Museum of American History on Monday, April 3rd when the 2000 Information Technology Innovation Collection is formally presented to the Institution.

"The Laureates in this year's Collection are utilizing new information age tools to extend the benefits of technology to society," said Dan Morrow, Executive Director of the Computerworld Smithsonian Awards Program.

Nominated by Norio Niwa, President and Chief Executive Officer of Epson America, Inc., in the Business & Related Services category, Typecraft, Inc.'s work is part of a collection that includes over 440 of the year's most innovative applications of technology from 38 states and 21 countries.

At Typecraft, Inc., direct creation of printing plates from a designer's computer files eliminates the time, expense, image degradation, and polluting chemistry of film-based plate-making, and produces a far superior printed image.

"The primary source material submitted by Typecraft, Inc. will enrich the National Museum of American History's growing collection on the history of information technology, and contribute significantly to the museum's on-going efforts to chronicle the Information Age," said Spencer R. Crew, Director of the National Museum of American History. The museum is part of the Smithsonian Institution, founded in 1846, which is a complex of 16 museums, 7 research facilities and the National Zoo.

Case Studies from the 2000 Computerworld Smithsonian Collection will be available at <http://innovate.si.edu>, the official Internet Site of the Computerworld Smithsonian Program, where the entire collection is available to scholars, researchers and the general public worldwide.

Each year, the Computerworld Smithsonian Chairman's Committee nominates individuals who use information technology to improve society for inclusion in the Smithsonian's National Museum of American History's IT Innovation Collection. Founded in 1988, the Computerworld Smithsonian Program searches for and recognizes individuals who have demonstrated vision and leadership as they strive to use information technology in innovative ways across ten categories: Business and Related Services; Education and Academia; Environment, Energy and Agriculture; Finance, Insurance and Real Estate; Government and Non-Profit Organizations; Manufacturing; Media, Arts and Entertainment; Medicine; Science; and Transportation. For further information please contact: Shabaeeda Abbas/Simone Ross Computerworld Smithsonian Awards 617.357.1977, Valeska Hilbig/Melinda Machado National Museum of American History 202.357.3129

*A Search for
 New
 Voices*





W

ashington D.C. is a very inspiring city, with its grand buildings and monuments. It buzzes with the excitement of important political happenings.

It was my first visit to the city and I was highly energized.

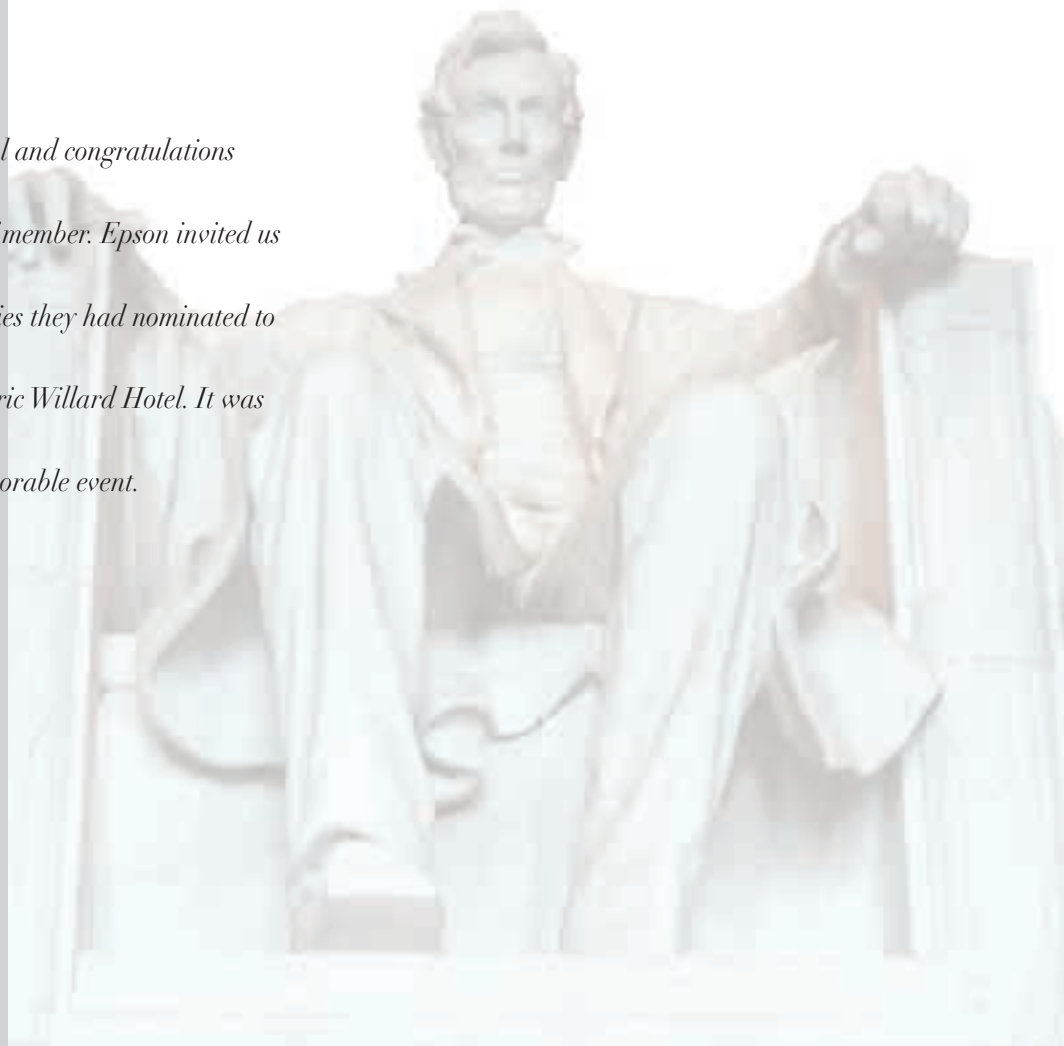


Our first event was an elegant dinner held in the spectacular Ronald Reagan Building where we had the opportunity to mingle and meet many of the others there. From our guest speakers we learned about the history of the Computerworld Smithsonian Awards.



The next morning we assembled in front of the original Smithsonian building, well known now as the Castle, to receive our medals. After an honor guard presented the colors, a military band played John Phillips Sousa. It brought tears to my eyes. I can't help it, I cry at parades.

Then we received a medal and congratulations from a Smithsonian staff member. Epson invited us and eleven other companies they had nominated to a great lunch at the historic Willard Hotel. It was the culmination of a memorable event.





My wife Phyllis and I then spent a few days being tourists in Washington. We had great fun spotting people you only see on T.V. as we visited the Senate and the House of Representatives. We also had breakfast with Senator Diane Feinstein. Afterwards we enjoyed the incredible national museums and monuments.

Len Jasmin
Len Jasmin



The original Smithsonian Museum, referred to as the Smithsonian Castle.

COMPUTERWORLD
SMITHSONIAN
PROGRAM

TYPECRAFT, INC.



COMPUTER-TO-PLATE PRINTING



SUMMARY

Computer-to-Plate (CTP) technology closes the time and quality gap between a designer's creation and end product — ink on paper. CTP accomplished this by radically shortening processing time, eliminating outdated steps, and significantly improving the final product, a perfectly registered image.

LONG SUMMARY

For years the commercial printing industry has labored under the restrictions of its antiquated film-based technologies. There were no other solutions available. Although Typecraft had received digital files from our clients for most of the last decade they needed to be converted into film and the film needed to be manipulated by hand (stripped) to configure a project to expose a plate. The exposed aluminum plate was then mounted and used on our offset presses to print our clients projects.

As is often the case when working with any technology, we had no idea of the weaknesses of this film-based workflow until we looked into a newly available alternative — Computer-to-Plate (CTP). We then saw how, by simply eliminating film, we could cut our processing time and streamline our workflow.

Since film is a mechanical process it is subject to collecting the artifacts of its production — dust, dirt, scratches, rips and tears all plague film production. Too much light or too little light ruins the images created on film. Too much humidity or too little effects how film runs through the imagesetters that are used

TIME CAPSULE

Computer-to-Plate (CTP) is an emerging technology gaining rapid acceptance in the graphic arts.

Over 50,000 printing establishments exist in the United States, but only a small percentage are large enough for CTP to be practical at this time.

As the cost of the required computers and lasers is reduced, CTP will become more affordable to the smaller printers and the benefits will be more widespread.

THE FACE OF INNOVATION

First memorable experience with a computer?

As a printing estimator, exchanging my pencil for a computer estimating program.

Most significant achievement since the invention of the computer?

The laser's use in research, education, office, manufacturing and military.

My most exciting experience?

Learning to fly as an Air Force Pilot. The excitement peaked the day I soloed.

The one question I would like answered?

Why can't we, as the most powerful nation in the world, find a way to control the use of illegal drugs?

Len Jasmin

Vice President, Typecraft, Inc.

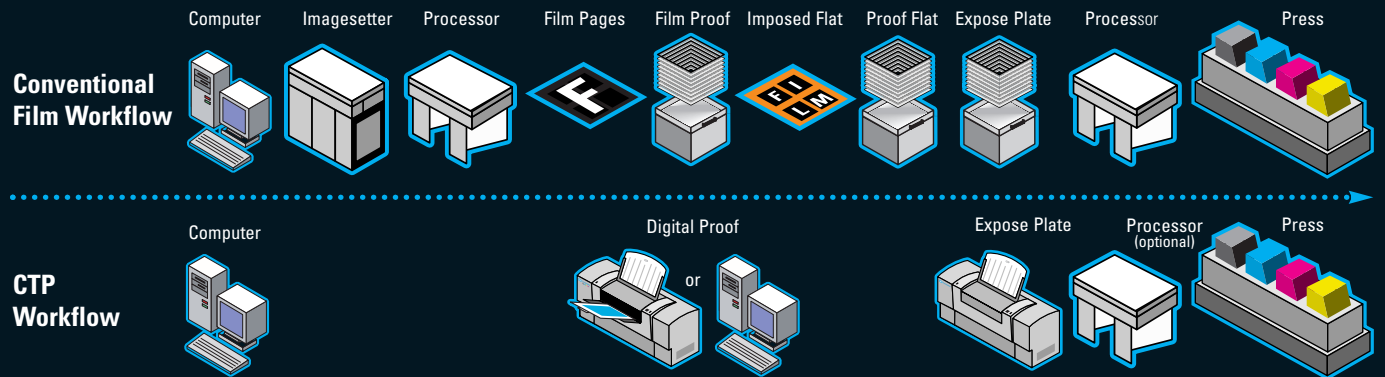
to expose the film. Too much heat or too much cold causes film to stretch or become brittle. And the chemistry to process film is very unfriendly to our operators and must be monitored very closely to protect the environment.

As we installed CTP we began to realize we were truly leaving the old ways behind. CTP eliminated a giant portion of our digital processing workflow and it eliminated all the artifacts inherent in film production. It did it in an environmentally sound way. This benefit alone would have made Computer-to-Plate a very valuable addition to our company. Then we saw we were getting projects turned around much faster.

As Typecraft acquired a real grasp of CTP we were able to trim our production times in getting digital proofs back to clients from days down to hours. Designers now had additional time to refine their projects and because we were creating full color digital proofs, instead of the old style monotone "Blueline," they could get a real sense of the look of their creation.

Finally, in addition to the timesaving and beautiful color proofs, we realized that the plates we could now make were far superior to any plates we had seen before. Being first generation digital plates meant that images were now sharper and the type much cleaner. The plate registration, how one color plate (i.e. cyan) is registered against another color (i.e. magenta) was perfect. Typecraft could now give our clients the best possible rendition of their creative projects in the shortest possible time.

CONVENTIONAL FILM WORKFLOW
VS.
TYPECRAFT'S
COMPUTER-TO-PLATE WORKFLOW



BENEFITS

Computer-to-Plate (CTP) technology was designed to close the time and quality gap between a designer's creation and the designer's end product – ink on paper. CTP accomplished this by radically shortening the processing time, eliminating many outdated steps, and significantly increasing the quality of the final image, producing a perfectly registered image.

CTP allows our clients to focus on their creative product, with the confidence that the end result can match their vision.

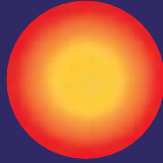
While the client does not see the CTP process directly, the internal workings of our company have evolved into a smooth and manageable workflow via CTP and its attendant software and hardware configurations. The bumps in the road have been eliminated. By shortening the time of manufacturing and increasing the quality and capability to create tighter design CTP opens the door a little wider to the creative designer.

CONVENTIONAL IMAGING
 VS.
 TYPECRAFT'S
 THERMAL IMAGING

Conventional
 imaging –
 film or CTP

Laser exposes a "spot."
 Note how exposure varies
 from center to edge. This
 causes a zone of
 unknown variation.

- Exposure energy
- Variation zone
- Below required exposure energy



The exposed
 spot on the
 plate has an
 unpredictable
 size caused by
 variations in
 exposure.



Spots are then
 knit together to
 form halftone
 dots. Each spot
 contributes its
 bit of variation.
 Note the uncon-
 trolled dot gain.



The final
 halftone on
 plate is a
 compromise
 of all the vari-
 ations that
 have gone into
 its production.



Creo's unique
 thermal CTP
 imaging

Laser exposes a "spot."
 Note that Creo's thermal spot is
 square and how small the vari-
 ation zone is. This unique spot
 provides unsurpassed precision
 and consistency.

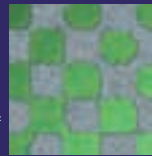
- Exposure energy
- Variation zone
- Below required exposure energy



Creo's square
 spot on the
 exposed plate is
 hard-edged,
 sharp and pre-
 cise.



Spots are then
 knit together to
 form halftone
 dots. Each dot
 benefits from
 the precision
 of the original.
 Note the lack of
 dot gain.



The final
 halftone on
 plate benefits
 from all the
 control made
 possible by
 Creo's unique
 square ther-
 mal spot.



THE IMPORTANCE OF
 INFORMATION TECHNOLOGY

The concurrent new developments of CTP, Thermal plates and digital proofing allowed us to establish our new, streamlined workflow. CTP technology allows us to produce a first generation digitally created plate for our presses to run. Thermal plates allow us to do this in a wide open work environment, instead of the traditional lithographic darkroom. Digital proofing gives us the ability to show our clients exactly what their design project will look like on press.

As a test bed for CREO (CTP), KODAK (Thermal plates) and EPSON (Digital proofing) we were able to evolve solutions for lithographic processes that took into account the real world issues our clients faced; quality, efficiency and budget. This combination of technologies, which seemed so daring three years ago when we began its use, is now growing to become the accepted, and most requested, technology in the printing industry. CTP does not so much define new challenges for society as it allows new design ideas the ability to be realized a little more efficiently.

ORIGINALITY

Typecraft was the first commercial sheetfed printer to adopt Computer-to-Plate technology, the first to use thermal plates and the first to adapt its workflow and production department to successful digital proofing. It's the combination of these new technologies, mixed and applied by the people of Typecraft, that have created and defined our successful digital workflow.

SUCCESS

Typecraft's integration of Computer-to-Plate workflow was essentially achieved over the last 3 1/2 years, with the final pieces put into place early in 1999. We have been producing projects that three years ago would have taken a couple weeks of intensive production and bringing them to the same stages of completion in less than a day. This provides enormous benefit to our clients in terms of their working schedules and production deadlines.

“The advantages we experienced from using a CTP workflow were seeing digital color proofs instead of blue-lines, improved color presswork due to better register and fit, and shorter turnaround times.”

Edmond Wong

Sheppard Associates

DIFFICULTY

Our early challenges were arranging our existing film-based workflow and finding an acceptable digital proofing solution. We were able to take our digital prepress department apart and reconfigure it with relative ease. Typecraft is a fairly small company and we are able to adapt rapidly to workflow adjustments.

Finding a digital proof proved more elusive. We implemented CTP and thermal plate technology as it arrived at our plant — actually, a very smooth transition. However, the offerings for digital proofing solutions did not really meet our requirements until a year later with the advent of Epson's higher quality ink jet printers.

Implementing our Computer-to-Plate system seemed a daunting task early on before we were 100% operational. There were, obviously, concerns for budget restraints and return-on-investment before we invested. However, because of Typecraft's 50 years experience we felt we knew what would work and what would not. After the initial installation and integration of CTP into our workflow it has really never occurred to us to look back.



Typecraft's principals
Len Jasmin (*left*) and
Harry Montgomery
(*right*) in front of
Trendsetter, reviewing
direct digital proof.

PROUD OF THEIR
ACCOMPLISHMENTS,
LOVING THEIR
EPSON PRODUCTS




BY JANETTE REYNOLDS

MANAGER, PUBLIC AFFAIRS

*A Search for
New
Heroes*





On Monday, April 3, 2000 Epson's Laureates to the Computerworld Smithsonian Awards Program stood proudly among over 400 of their peers, each bowing their head as a program representative carefully placed the ribbon bearing a gold-colored medallion around their necks. The medallions are given to officially honor the Laureates' innovative and 'heroic' utilization of technology for the betterment of mankind and the acceptance of their case studies into the Smithsonian's, National Museum of American History's Permanent Research Collection.

The ceremony was held in Washington, D.C., in front of the original Smithsonian Museum — referred to as the Smithsonian Castle — a red brick building that stands prominently on the Mall that stretches between the capitol building and the spindle-shaped Washington monument. Today, the Smithsonian museums number 16 and represent an institution whose charter is to collect and preserve treasures from all over the world that symbolize and document our history, milestones and progress.

Each year, Epson nominates individuals, companies, government agencies and non-profit organizations whose humane and innovative use of technology deserves this esteemed recognition as well as a permanent 'residence' in the Smithsonian's Permanent Collection database. Each Laureate's case study articulates in detail their specific utilization of technology.

After participation in this program for over 10 years, it seems that each year just gets better. In the past, we've witnessed many noteworthy applications that involve our products, like color printouts used in therapy sessions with brain damaged children, a handheld device that enables an autistic child to



interact with others and pursue an education; color ink jet printers used to print custom designed silk scarves; and scanners used by high school students to create textile designs for their home economics class.

This year, Epson nominated 12 Laureates to the program. Following the Awards Ceremony on the Mall, Epson hosted a luncheon for the Laureates and their guests. What transpired during the luncheon defies description. Each and every person who stood to tell us about their unique application of technology also gushed over the Epson product(s) that enabled them to pursue their work. Accolades for our printers (particularly graphics and photo), cameras, scanners and projectors came one after another after another. It was an honor to witness these unsolicited, unscripted and sincere testimonials about products that exceeded their expectations — in terms of performance and price — and the tremendous satisfaction they derive from their use.

It is difficult to explain the essence or profound significance of an application of technology; its ability to gradually move us forward through continuous change and evolution that enhances our lives. And it is even more difficult to describe the passion or curiosity which inspires a person to seek out better technological solutions enabling them to put forward their best work and best effort, and share it with those who need and want it most. As I watched the 11th Annual Computerworld Smithsonian Awards Laureates presentation, I was filled with pride and pleasure to know that our Laureates were not only creative and tenacious, but also honorable and humane in their use of technology.





Typecraft, Inc.
L I T H O G R A P H Y

2040 East Walnut Street
Pasadena, CA 91107
Tel 626.795.8093
Fax 626.795.2423

Email: info@typecraft.com
Website: www.typecraft.com