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"THE WINDOW ON IMAGING"

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SELECTED CONFERENCE ABSTRACTS: Archiving 2009

A Selection and Archiving Strategy for Science Records

John L. Faundeen; US Geological Survey Earth Resources Observation and Science Center (USA)

Abstract: The U.S. Geological Survey (USGS) Earth Resources Observation and Science (EROS) Center archives electronic science collections that total over two petabytes in size and over 100,000 rolls of aerial and satellite film. Limited resources, the evolution of missions, and recommendations from advisory committees have led to the development of a scientific records appraisal process as a means for determining long-term archiving priorities. The process was formed through extensive literature searches describing approaches used to appraise administrative, physical artifacts, and science records. Less information was available that specifically addressed science records; therefore, relevant portions from each records appraisal process was assembled.

In addition, involvement with the appropriate stakeholders was deemed critical and led to the active participation of scientists, records managers, and senior managers in the process. As part of the documentation portion of the process, an extensive online tool was developed to capture information describing each collection and detail preservation or access challenges that may be part of a collection. The U.S. National Archives and Records Administration rec-

ommends the tool as a best practice for U.S. federal agencies. To date, over 30 science collections have been appraised. This paper will detail the process used to appraise science collections for long-term archiving, the composition and rationale for the tool elements, and the results the USGS has attained.

Digital Preservation: Using the Email Account XML Schema

Riccardo Ferrante and Lynda Schmitz Fuhrig, Smithsonian Institution Archives (USA)

Abstract: The Smithsonian Institution Archives (SIA) and the Rockefeller Archive Center (RAC) conducted a three-year pilot that explored preservation challenges with email collections. This paper reviews the acquisition model and workflow used based on the OAI Reference Model. Rather than focusing on individual messages, the Collaborative Electronic Records Project (CERP) settled on preserving an account as a whole, maintaining the structure and relationships within a collection as well as simplifying metadata management. This paper also reviews some of the challenges with the email collections, including lack of organization and inclusion of non-record/sensitive material. Both archives also addressed the importance of sound recordkeeping practices and retention schedules and issued various guidance documents for depositors.

CERP also collaborated with another research team (the EMail Collaborative Initiative (EMCAP)) to develop an XML schema capable of encompassing a complete email account and its content. The E-Mail

To view full papers go to www.imaging.org/pubs/reporter/

* These papers were presented at the Archiving 2009 Conference, held May 4-7, 2009, in Arlington, Virginia.

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Account XML schema defines a standard XML structure for preserving an email account along with its internal organization, its messages and attachments, and the interrelationships of the messages without sacrificing granular email message data. This paper describes the schema, its unique characteristics, and its value to the archival and digital preservation communities in the context of, and comparison to, other efforts to digitally preserve email.

The schema structure positions preserved email accounts for multiple levels of searching strategies including: individual messages, account-wide, and cross-account search and retrieval. This helps to expose social networks and message interrelationships present in, and across, accounts.

The E-Mail Account schema has made possible the preservation of large bodies of related e-mail in a single XML file, as demonstrated in the recent EMCAP and CERP projects. Unlike other work in the area of e-mail preservation, this XML schema is distinct in: 1) its account-based paradigm; 2) the granularity of data captured; 3) its alignment with the email message standard RFC 2822; 4) the support of a single XML file representation of the account; and 5) its incorporation into two separately developed e-mail preservation software applications.

Digital Archive Program of the Songjiang Battle Array

*Yung-Cheng Hsieh, Hui-Wen Cheng, and Ya-Wen Xiao,
National Taiwan University of Arts (Taiwan)*

Abstract: “Song-jiang Battle Array,” which has been developed and preserved in Neimen, Kaohsiung County for three hundred years, is a precious cultural heritage. With the transformation of the society, however, Song-jiang Battle Array is now facing problems concerning its preservation, distribution, and its distance with people’s lives in the rapid modern society. This project, therefore, aims to preserve and spread Song-jiang Battle Array with digitized content development through the collaboration between Go-ping Community Association (the archive sector) and National Taiwan University of Arts (the academic sector).

This project aims to construct a “Digital Culture & Art Village of Song-jiang Battle Array” through six goals of digital content development—digital preservation, public demonstration, culture education, academic research, cultural inheritance, and value-added application planning. Through the six goals of digital content developments with the collaboration between the academic sector and the archive sector, it is expected that the project would not only preserve and spread the cultural heritage “Song-jiang Battle Array,” but also remove the barrier between traditional culture and modern life. Furthermore, it would create new commercial values for traditional culture, and a new business model would be created with the combination between digital archive and cultural creative designing industry.

Search and Access Strategies for Web Archives

Sangchul Song and Joseph Jala, University of Maryland (USA)

Abstract: The Web has become the main publication medium worldwide, covering almost every facet of human activity. In many cases, the Web is the only medium where such information is recorded. However, the Web is an ephemeral medium whose contents are constantly changing and new information is rapidly replacing old information, and hence the critical importance of establishing web archives to capture at least partially the information that is deemed important in the long term. In this work, we address search and access strategies of web archives, and outline our approach for carrying out effective search and retrieval of archived web contents.

In a typical web archive, the contents are highly unstructured and interlinked within a temporal context. Over time, such archived web contents can present an unprecedented opportunity for information and knowledge discovery in linking and fusing the appropriate information spread over several contextual domains, including the temporal domain. We present in this paper a number of methods for searching web archives which will significantly contribute towards realizing this opportunity. We also address different presentation strategies of the contents of interest, and extend information retrieval techniques to include temporal contexts seamlessly into the architecture.

Avoiding the Calf-Path: Digital Preservation Readiness for Growing Collections and Distributed Preservation Networks

*Martin Halbert and Katherine Skinner, Emory University, and
Gail McMillan, Virginia Polytechnic Institute and State University (USA)*

Abstract: Over the past six years, the members of the MetaArchive Cooperative have worked to identify a series of best practices for distributed digital preservation readiness. These best practices can benefit ongoing initiatives as well as start-up programs which have not yet established regular procedures and standards for directory structures, metadata, and file naming conventions. We document what we term the “calf-path syndrome,” the way in which early strides in an organization’s digitization work may create a legacy that is detrimental to the preservation readiness of their growing digital collections. We share relatively simple principles and guidelines for such programs that can greatly improve the subsequent likelihood of implementing successful distributed digital preservation programs. ▲

Archiving 2009: Digital Collection Stewardship & Imaging and Preservation

by Archiving 2009 General Chair William LeFurgy

The Archiving 2009 Conference, held in Arlington, VA, from May 4-7, 2009, had something for everyone with an interest in digital preservation.

The conference program was evenly balanced between digital collection stewardship, imaging, and preservation. This permitted a unique opportunity for cross-domain interaction and sharing.

The meeting also benefited from robust international collaboration. William LeFurgy (Library of Congress) served as general chair, with Simon Tanner (King's College, London) and Astrid Verheusen (National Library of the Netherlands) serving as program co-chairs. Christopher A. "Cal" Lee (University of North Carolina Chapel Hill) was short course chair.

Highlights from the meeting reveal the broad scope of topics talked about over the three days.

Keynotes Focus on Progress

Steve Knight (National Library of New Zealand; www.natlib.govt.nz) provided a keynote address that outlined the work behind its National Digital Heritage Archive.

The Archive is an operational digital preservation system for a variety of digital content, including web sites, sound and vision files, and digital images. Knight described the intent to provide New Zealanders access to information that is important to their lives and cultural identity. "Digital preservation is the glue that makes this happen," he said.

Google's Dan Clancy spoke at length about the legal, policy, and technical underpinnings of the company's Book Search Project (<http://books.google.com>). He outlined impressive access statistics for the books in the Google collection, noting that many of the volumes were now getting more use than they had previously. "We provide access to books from 200 years ago that had never been read before," said Clancy. "In some cases we went into libraries and found books with uncut pages and worked with staff to literally open them up to the world."

Clifford Lynch (Coalition for Networked Information; www.cni.org) gave the third keynote. He noted successful preservation efforts in some areas, but

ARCHIVING 2009 STATISTICS

Attendees:	175
Oral Papers:	29
Interactive Papers:	24
Short Courses:	4
Exhibitors:	7
Dates:	May 4-7, 2009
Location:	Arlington, VA

pointed to a broad array of important digital materials that remain at risk. "The level of demand for digital preservation services far exceeds the resources available," Lynch said. "We need to explore the minimal actions that are necessary to keep digital materials viable—a compromise between the 'perfect and costly' and the 'rapid and cheap,' if you will."

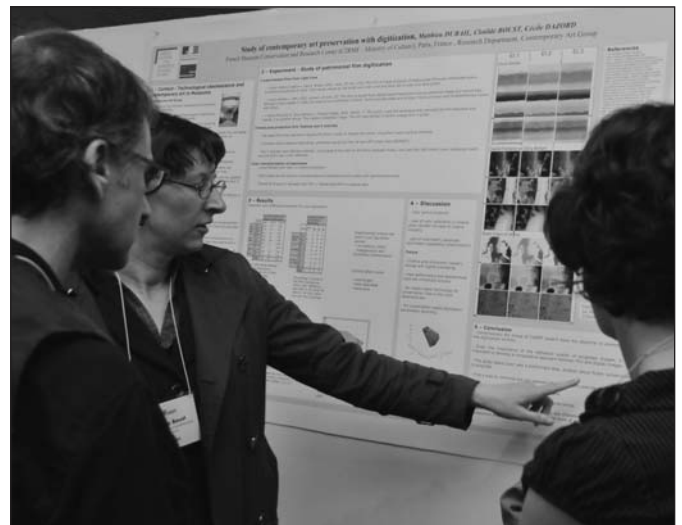
Technical Sessions Offer Rich Array of Topics

Sessions relating to digital collection stewardship considered subjects such as "Economically Sustainable Digital Preservation;" "Preservation, Cooperation, and the Making of the

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Yung-Cheng Hsieh, Hui-Wen Cheng, and Ya-Wen Xiao (far left) from National Taiwan University of Arts won the 2009 Obsolete Media Award for Best Interactive Paper. The abstract of their paper can be found on page 2 and is downloadable from the IS&T website.



Clotilde Boust (Centre de Recherche et de Restauration des Musées de France) explains the paper she co-authored "Study of Contemporary Art Preservation with Digitization" to Erik Landsberg (The Museum of Modern Art).

STANDARDS UPDATE:

Standards for Graphic Arts—How We Got Where We Are

David Q. McDowell, Editor

As part of the TC 120 meetings in China this September, the National Technical Committee 170 on Printing Standardization Administration of China is holding a Forum on Standardization Development in Printing and Graphic Technology. I was invited to be one of the speakers and the topic I chose was “Standards for Graphic Arts—How We Got Where We Are!”

As I developed my paper I realized that this topic would probably interest a number of the readers of the *IS&T Reporter*, so at the risk of being accused of double-dipping I am using that paper as the contents of this Update.

The Beginning

The year 1979 represents a significant milestone in the history of the graphic arts industry. It was 30 years ago this fall at a graphic arts show in Milan, Italy, that the SciTex Response 300 electronic prepress system was publically announced. It was the first Color Electronic Prepress System (CEPS), a commercial system that allowed images, line art and text to be handled as electronic data and viewed as a composite image on a display. The Scitex announcement was quickly followed by similar announcements from Linotype, Crossfield, Eikonix, and Dainippon Screen.

Although not recognized at the time, this event started a revolution in graphic arts technology and made standards mandatory. We finally had electronic data that could be exchanged (on 9 track magnetic tape, which was the only exchange media available), but each system used different encoding and data orientation and there weren't even file headers to say what where the data originated. That led several of us¹ to say that “without standards the graphic arts industry would not be able to effectively take advantage of the digital revolution.”

In 1979 there were no active interna-

tional graphic arts standards activity and no national body activities looking at electronic data. In the United States there was not even a national standards activity in graphic arts. Discussions within the Technical Association of the Graphic Arts (TAGA) and within the industry led to the creation of an industry activity called Digital Data Exchange Standards (DDES), which became ANSI committee IT8. The initial focus was file format standards for exchange of content data. First were header standards for magnetic tape, followed by media independent formats such as TIFF/IT and the ongoing work on PDF/X.

Although, we started with file format standards for exchange of content data, we soon realized that we had to have tools to describe the data that we were exchanging. This led to standards in colorimetry, densitometry, viewing conditions, characterization targets, test images, etc. In the United States, ANSI CGATS was created to work on these other standards.

By the late 1980s we realized that although many international representatives were involved in the ANSI IT8 and ANSI CGATS efforts, this work needed to be international if the standards being developed were to have the greatest impact. Representatives of IT8 and CGATS, working through ANSI, petitioned ISO to reactivate ISO TC 130, Graphic technology. TC130 had been formed in 1971, had held two additional meetings in 1975 and 1980, but had become dormant. A reactivation meeting was held in Berlin, Germany, in 1989.

The current TC 130 committee and its working groups (WGs) were the outcome of the Berlin meeting. In that meeting, the United States proposed a Working Group structure with responsibility for conveners and vice conveners of working groups assigned to national bodies. This was “not according to ISO traditions,” but after considerable negotiating we prevailed. The five working groups that were formed, and the

present national body convenor responsibilities, are:

- WG1 Nomenclature UK
- WG2 Prepress Data Exchange USA
- WG3 Process Control Germany
- WG4 Media and Materials Germany
- WG5 Ergonomics and Safety USA

Since that time several additional working groups have been formed to specifically support joint activities with other groups. Those currently active are:

- JWG 7 ICC Color Management
(Joint with the ICC)
- JWG 8 Revision of ISO 13655
(Joint with TC 42)
- JWG 9 ISO 12640-5, Scene Referred
Test Images (Joint with TC 42)

In addition TC130 is a participant in several Joint Working Groups that are the responsibility of, and under, other ISO TCs.

The Initial Focus of the Work

The file formats for data exchange were the initial emphasis and also represent the greatest success story for graphic arts standards. In 1980 film separations, hard copy text and line work were the only printing “data” exchange mechanism available. The initial standardized digital exchange formats were magnetic tape and the header standards for magnetic tape. The advent of desktop publishing (another computer revolution) in the late 1980s and early 1990s led to a flurry of vendor proprietary formats. These, along with magnetic tape, have largely ceased to exist for data exchange and today TIFF/IT (ISO 12639) and PDF/X (ISO 15930) dominate all aspects of graphic arts data exchange. TC130 WG2 Task Force 2 and Task Force 3 continue to work on file format issues. TF 2 is responsible for PDF/X and TF 3 is responsible for Variable Data Exchange.

However, equally exciting are the steps that we have taken to define the meaning

of the data being exchanged. This has led to an unprecedented level of standardization and consistency within the whole printing and publishing industry.

The first of these were metrology and material related standards. Things like: ISO 13655, Graphic technology—Spectral measurement and colorimetric computation for graphic arts images; ISO 3664, Graphic technology and photography—Viewing conditions; ISO 5, Photography—Density measurements; ISO 2846, Graphic technology—Colour and transparency of printing ink sets for four-colour printing; ISO 12635, Graphic technology—Plates for offset printing—Dimensions; ISO 2846 Graphic technology—Colour and transparency of printing ink sets for four colour printing.

Early in the standards process, well before ICC (International Color Consortium) Colour Management, the need for color characterization of devices and materials was recognized. This led to two standards that were the precursors to both color management and the control of color from the original to the printed sheet. The first of these was ISO 12641, which is better known as IT8.7/1 and IT8.7/2 (or even Q60), which defined a target that could be made by the manufacturers of the various photographic products. This allowed the prepress world to calibrate scanner input for the materials scanned so that the scan data better represented the color that the photographer saw in the film or print. At the same time it was important to be able to compare printed output from various devices using a common reference. This led to the ISO 12642 CMYK targets, which started life as ANSI IT8.7/3 and ANSI IT8.7/4.

Because data and numbers alone are often not enough to allow printing to be evaluated and compared TC 130 also developed several sets of test images as various parts of ISO 12640. These are available only as electronic data and are referred to as the Standard Colour Image Data or SCID images. The images in Part 1 are CMYK; Part 2 are XYZ or sRGB; Part 3 are CIELAB; Part 4 are Adobe RGB (1998); and Part 5 (which is still in development) are scene referred ROMM-RGB.

Traditionally the graphic arts industry has defined printing aims in terms of densities of the primary color solids using a specific ink and paper and the “dot-gain” of each of the primary scales. TC 130 partially broke with this tradition and introduced the concept of colorimetric definition of the aim solids and two-color overprints. We also introduced the concept of tone-value and tone-value increase so that users would be more comfortable applying these concepts to non traditional halftone processes (gravure, stochastic, ink-jet, etc.). Using these principals the ISO 12647 (Graphic technology—Process control for the manufacture of half-tone color separations, proof, and production prints) family of standards was developed. Today, this family of standards, coupled with the many national body printing specifications based on ISO 12647, define the bulk of publication printing and much of the commercial printing done throughout the world.

We have, and are continuing to, develop standards for the exchange of metadata about printing conditions, targets, color measurement data, process control, etc. The first of these standards was ISO 28178, which used XML and/or ASCII text. A more extensive standard is under development as ISO 17972 which will be based on CxF3.

Where We Are Going

The widespread acceptance of the principals of ICC Colour Management (the ICC Profile Specification has also been published as ISO 15076) has led us to a new level of standardized data exchange. We no longer have to depend on color of the solids and tone value increase to define a specific printing condition or specification. Using the aims of a specific part of ISO 12647 the ISO 12642 output target can be printed and measured using the specifications of ISO 13655. This allows the relationships between CMYK data in the computer and the CIELAB measurements of the corresponding color printed on the sheet to be tabulated for 1617 data patches. Such sets of data are referred to as color characterization data and are more and more being

used as a more refined aim than the data in 12647 alone.

Today, data is measured on a series of printed sheets, averaged, and then manipulated in various software programs to produce smoothed data that represents the intended aim conditions without the data noise that usually accompanies raw test data. Some of us refer to this smoothed data as representing a virtual or ideal press, in essence a reference printing condition. A number of organizations are currently making such characterization data public (FOGRA, ANSI CGATS, IFRA, Japan Color, etc) and the ICC has established a registry for characterization data at www.color.org. The ICC has also established a parallel registry for ICC profiles derived from such characterization data.

Our newest data exchange standards, the PDF/X family documented in ISO 15930, requires either inclusion of or a pointer to characterization data and profiles. This allows the content data being exchanged to be fully defined colorimetrically.

Building on the experience of both the color proofing community and the publication community we have begun to realize that color characterization data need not be process specific. For years the magazine community has used both offset and gravure, printing to the same aims, to provide run length flexibility. From the beginning, digital color proofing has used color management to allow a proofing device to emulate the appearance of various printing processes and aims.

Work has been started to develop a replacement for ISO 12647 that will be printing process independent. That is, there will be series of printing gamuts (six to eight or so), and reference characterization data that will span the expected range of achievable printing from heavy-weight coated stock to uncoated newsprint. These will be the aims for prepress and design. The printer will select the ink, paper, and process necessary to achieve the outer gamut of the reference aim. Color management will then be used to adjust the within-gamut data to match the appropriate reference characterization data.

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Two Presidential Citation Awardees Among 2009 Honors & Awards Recipients

In addition to the 2009 IS&T Honors & Awards recipients who were announced in March, two members of the IS&T community have been given a President's Citation this year.

These citations are given at the discretion of the current IS&T President to recognize outstanding long-term contributions and dedication to the achievement of the Society's objectives. The last President Citation was given in 2001. This year's recipients are Vivian Walworth, Jasper Associates, and Yee S. Ng, formerly of Kodak Company, recently deceased (see *The Reporter* vol. 23, #6).

President's Citation for Yee S. Ng

The Society has benefited deeply from the energy, organizational skill, and distinctive spirit of Yee Ng during his long-standing membership. He chaired NIP 19, has repeatedly served on NIP organizing committees, and has been instrumental in keeping the NIP conference strong and viable in a time of technological change. In addition, he has worked tirelessly for the IS&T Rochester Chapter.

Yee Ng is a prolific inventor, author of scientific publications, and conference presenter. In recognition of these original scientific contributions, he has been awarded the Carlson Award and IS&T Fellowship. He has also played an important role leading standards efforts for imaging performance evaluation of digital printers.

The Society is most grateful to Yee Ng for his contributions and service.

Yee Ng was intellectual properties manager at Eastman Kodak Company. He received his BS in Engineering Physics from the University of Illinois, his MS in Electric-

cal Engineering and PhD in Physics from Pennsylvania State University.

During his early career in Eastman Kodak Research Laboratories, Ng invented a two stage amplification method to increase the process sensitivity of the electrophotographic process substantially. He then moved on to create (as co-inventor) a liquid EP color-proofing process which resulted in the Kodak Signature Color-Proofing System for the graphic arts industry. In 1986, he started the multi-level LED printhead R&D effort in Kodak, and together with others created the scalable multilevel image chain tuned for electrophotographic high speed printers. Such contributions led to notable products including the Heidelberg Digimaster 9110 and the NexPress 2100 Production Color Digital Press.

Yee was a Kodak Distinguished Inventor with 97 issued patents, two additional applications allowed, and many more pending. The areas of invention include EP processes, color proofing, multi-level image rendering and enhancement, electronic writer designs, image data path architecture, and electronic design. His research interests led to more than 30 publications.

He was a member of APS, the New York Academy of Sciences, SPIE, IS&T, and a senior member of IEEE. Ng had been active in many IS&T conferences as presenter, session chair, and committee member; he was General Chair for NIP19. He also served on International Standards Committee as Project Editor for ISO/IEC 19799 (Gloss Uniformity) and ISO/IEC 24734 (Printer Productivity), Convener for ISO/IEC JTC1/SC28 (Office Equipment) Work Group 3, and Liaison Officer from SC28 to TC130 (Graphics). For his leadership efforts and results in International Standards, he received two INCITS awards in 2008. He was awarded IS&T Fellowship in 2004 and the Chester Carlson Award in 2000.

President's Citation for Vivian Walworth

The Society has benefited deeply from the editorial leadership, guidance, and dedication of Vivian Walworth during her long-standing involvement in the Society. After serving as IS&T President from 1981-1985, Vivian established



Vivian Walworth

IS&T's bimonthly newsletter, The Reporter, in 1986, serving as its editor for 22 years. In addition, she served as editor of the Journal of Imaging Science (1989-1991) and its successor, the Journal of Imaging Science and Technology (1992-1996), enhancing and the guaranteeing the quality of IS&T's publications program.

At an age when most have retired to a sedentary life, Vivian has remained intensely involved with imaging science as an inventor, author, conference committee member, and presenter, serving as an inspiration to us all.

The Society is most grateful to Vivian Walworth for her contributions and service during the past 48 years.

Vivian Walworth received her BS in chemistry from the University of Michigan in 1942. After joining Polaroid Corporation's Research Laboratories in 1944, she conducted research on polarizers, stereoscopy, photomicrography, photographic emulsions, dye sensitization, and novel photosensitive media. Her publications include papers and patents in these fields. Walworth retired from Polaroid in 1985 as senior research manager, photosensitive materials. She was named an IS&T Fellow in 1987 and Honorary Member in 2001.

Walworth wrote extensively on the Polaroid photographic processes. She co-authored with Edwin Land and Howard G. Rogers the chapter "One-Step Photography"

in *Neblette's Handbook of Photography and Reprography, 7th Edition*; co-edited Neblette's 8th Edition: *Imaging Processes and Materials*; wrote "Color Photography, Instant" for the Kirk-Othmer *Encyclopedia of Chemical Technology, 3rd edition*; and co-authored sections on Instant Photography for the 4th edition and 5th (on line) edition, as well as the Wiley on-line *Encyclopedia of Imaging Science and Technology*.

Walworth served on the SPSE Executive Committee 1967-71, and then became a director representing the SPSE Boston Chapter. She was the Society's executive vice president 1977-81 and president 1981-85. Under her leadership, SPSE undertook the transition to IS&T, first changing its journal titles and then its name.

As consultant at the Rowland Institute for Science (now part of Harvard University) from 1994-2002, Walworth helped develop the StereoJet process for ink jet printing full-color stereoscopic images. Her publications include papers on this technology, and she is now working toward its commercialization. Walworth serves on the Program Committee for the EI conference on Stereoscopic Displays and Applications.

Other awards presented this year are:

Honorary membership

James Larimer, ImageMetrics LLC

Fellowship

- *Raja Bala, Xerox Corporation*
- *Yeong Ho Ha, Kyungpook National University*
- *Michael H. Lee, Hewlett-Packard Laboratories*
- *Gabriel G. Marcu, Apple*

Senior Membership

- *Eric G. Hanson, Hewlett-Packard Laboratories*
- *Howard Mizes, Xerox Corporation*

Service Award

- *Michael Kriss, MAK Consultants*
- *Ross N. Mills, imaging Technology international (iT) Corporation.*
- *James Stasiak, Hewlett-Packard Company*

Chester F. Carlson Award

Santokh B. Badesha, Xerox Corporation

Johann Gutenberg Prize

Lawrence B. Schein, consultant.

Edwin H. Land Medal

Duncan T. Moore, University of Rochester

HP Image Permanence Award

Steven Puglia, US National Archives and Records Administration (NARA)

Charles E. Ives Journal Award

Hideaki Haneishi, Chiba University; and Nagaaki Ohyama and Masahiro Yamaguchi, Tokyo Institute of Technology

Itek Award

Seo Young Choi, Samsung Electronics; Ronnier Luo, University of Leeds; Michael R. Pointer, University of Leeds and the University of the Arts, London; and Peter A. Rhodes, University of Leeds

Raymond C. Bowman Award

Giordano Berretta, Hewlett-Packard Laboratories

Raymond Davis Scholarship

Weidong Lai, Hebei University

Citations and biographies for each awardee may be found on the IS&T website. ▲

Standards Update

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The first step along this road is represented by ISO TS 10128 (Graphic technology—Methods of adjustment of the color reproduction of a printing system to match a set of characterization data), which was published earlier this year.

What are the Steps in Developing a Standard

I would be remiss if I did not emphasize the cooperative nature of the international development of these standards. ISO TC 130 is made up of experts from the 19 National Bodies (countries) that have elected to be Participating or P members of TC130. Before work is started on a standard, a New Work Items (NWI) must be prepared and voted on by all P members. This is followed by a Working Draft (WD) which is approved by the experts in the particular

WG developing the standard. Once the experts are satisfied, a Committee Draft (CD) is prepared and voted on by the P member national bodies. The CD stage is where all of the technical issues between various national body interests are resolved.

After a successful vote at the CD stage the document moves on to the Draft International Standards (DIS) and Final Draft International Standards (FDIS) stages. At these stages the ballot is open to all 161 national bodies that are members of ISO.

This process insures that an ISO standard is both technically sound, broadly applicable, and the product of the whole community, not of any individual or special interest group.

For suggestions for (or input to) future updates, or standards questions in general, please contact the author at mcdowell@npes.org or mcdowell@kodak.com

Robert W.G. Hunt Awarded OBE

Color scientist and renown author and instructor, Robert W.G. Hunt, was awarded an Order of the British Empire (OBE) "For services to the Field of Colour Science and to young people through Crusaders" on June 16, 2009.

OBEs are traditionally announced on the Queen's Birthday—not the real birthday of the British Queen, but rather a public holiday to mark the occasion. OBEs are awarded in recognition distinguished regional or country-wide role in any field; achievement or service to the community; and/or to notable practitioners known nationally. More information on the Order, may be found at en.wikipedia.org/wiki/OBE. ▲

Archiving 2009

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Hathi Trust Digital Library;” and “Meeting the Preservation Demand Responsibly = Lowering the Ingest Bar.” Geospatial data stewardship was a special focus of the conference, with four papers looking into areas such as collaborative agreements, metadata, appraisal, and preservation infrastructure.

Imaging and preservation sessions treated topics such as “Digitizing the Dead Sea Scrolls;” “The Lifecycle of Embedded Image Metadata within Digital Photographs;” and “Federal Digitization—Moving to Common Guidelines.”

The Archiving 2009 conference also had a rich array of interactive presenta-

tions offered in two sessions. Topics included “Search and Access Strategies for Web Archives;” “Defining Digital Archeology;” and “Advanced Digital Image Preservation Data Management Architecture.” Attendees voted for “Digital Archive Program of the Songjiang Battle Array” as the best of the interactive presentations.

The Library of Congress National Digital Information Infrastructure and Preservation Program had a strong presence. More than 20 NDIIPP staff and partners attended and a dozen gave presentations.

During the meeting Steven Puglia (National Archives and Records Administration) received the 2009 HP Image Permanence Award. The award is given by IS&T and the International Institute for Conservation (ICC), with funding from the Hewlett-Packard Company, in recognition of advancements in materials, predic-

Seven companies participated in this year's one-day exhibit. Here attendee Jacqueline Vincent (Brechin Imaging Services) and Short Course Instructor Peter Burns (Carestream Health, Inc.) get a demonstration at the Image Science Associates booth.



Steven Puglia (NARA), recipient of the 2009 Hewlett-Packard Image Permanence Award.

tive science, and/or educational efforts that contribute to the field of image permanence.

Save the Date

Archiving 2010 will be held in The Hague, the Netherlands, June 1-4, 2010. For more information on the conference, go to www.imaging.org/conferences/archiving2010. ▲



IS&T REPORTER

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Managing Editor: Donna Smith
Standards Editor: David McDowell

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IS&T (imaging.org) is an international organization dedicated to keeping constituents aware of the latest scientific and technological developments in the broad field of imaging through conferences, journals, and other publications.

[Imaging.org](http://imaging.org) focuses on all aspects of imaging, with particular emphasis on digital printing, electronic imaging, image perception, photo fulfillment, color imaging, image preservation, digital fabrication, and the physics and chemistry of imaging processes. For more information, visit imaging.org.

IS&T publishes the *Journal of Imaging Science & Technology* and (with SPIE) *Journal of Electronic Imaging*.

Please send inquiries to: info@imaging.org
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UPCOMING IS&T EVENTS

September 20–25, 2009; Louisville, Kentucky

**NIP25: 25th International Conference on Digital Printing Technologies/
Digital Fabrication Processes 2009**

General Chairs: Huoy-jen Yuh (NIP25) and Reinhard Baumann (DF2009)

November 9–13, 2009; Albuquerque, New Mexico

Seventeenth Color Imaging Conference (CIC17)

General Chairs: Karen Braun and Moshe Ben-Chorin

January 17 - January 21, 2010; San Jose, California

Electronic Imaging 2010

General Chairs: Jan Allebach and Sabine Süsstrunk

June 1–4, 2010; Den Haag, The Netherlands

Archiving 2010

General Chairs: Simon Tanner and Astrid Verheusen

June 14–18, 2010; Joensuu, Finland

CGIV 2010: 5th European Conference on Colour in Graphics, Imaging, and Vision

General Chairs: Jussi Parkkinen and Timo Jäskeläinen

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