Honoring John Logie Baird

John Logie Baird pioneered early television with the mechanical scanning system he developed from 1923 to the late 1930’s. He is remembered today as a prolific inventor (178 patents) with considerable insight, who was in many ways ahead of his time.
John Logie Baird (1888-1946) is inducted into the SMPTE Honor Roll in recognition of his lifelong contributions as a pioneer in television technology. His accomplishments include the live first television demonstration (in 1925), the first publicly shown color television system (1928), and the first fully electronic color television picture tube. The BBC began transmitting with the Baird system in 1929. Baird continued to develop new technology including: a mechanical color system in 1939; a 700-line 3-D system in 1942; an electronic 600-line color display in 1944. Baird lobbied for post-war standardization of his 1000-line electronic color television system.

JLB was honored by SMPTE in 2014 with its highest accolade, Honorary Member.

John Logie Baird (1888-1946) is inducted into the SMPTE Honor Roll in recognition of his lifelong contributions as a pioneer in television technology. His accomplishments include the live first television demonstration (in 1925), the first publicly shown color television system (1928), and the first fully electronic color television picture tube. The BBC began transmitting with the Baird system in 1929. Baird continued to develop new technology including: a mechanical color system in 1939; a 700-line 3-D system in 1942; an electronic 600-line color display in 1944. Baird lobbied for post-war standardization of his 1000-line electronic color television system.
SMPTE, its broadcasting, and the IET

BBC started at Savoy Hill

Savoy Place renovation

SMPTE building

BBC Directors who have been IEE/IET Presidents over the years:

1941  Sir Noel Ashbridge
1953  Sir Harold Bishop
1978  Sir James Redmond
1988  T Bryce McCrirrick

in 2016:
Naomi Climer as IET President comes from the broadcasting industry
SMPTE and the International Broadcast Market

SMPTE is a partner in IBC, the International Broadcasting Convention, an organization “for the industry by the industry”

- SMPTE regularly programs sessions in both broadcast and Big Screen conference program
- Supports the IBC Rising Stars initiative to encourage youth in the industry
- Many SMPTE sustaining members support IBC as exhibitors

SMPTE in the UK

Strength in Film, Television, and New Media

A BRIEF HISTORY

1896  The Regent Street Polytechnic, the venue for the first public moving picture show in the UK, organized by the Lumiere brothers
1916  SMPE is formed – UK members
1926  JLB Demos
1936  The BBC Starts its first High definition TV service
2012  SMPTE UK Section is reformed,
   - Meetings across all of UK
   - Student activities, including link with NaSTA
2016  Third largest Section, now its own Region
   - Over 580 members!
Who is SMPTE?

MISSION IN 1916
In 1916, SMPE Objective is: the advancement in the theory and practice of motion picture engineering and the allied arts and sciences, the standardization of the mechanisms and practices employed therein, and the maintenance of a high professional standing among its members.

MISSION IN 2016
In 2016, SMPTE’s mission is: the advancement of the art, science, and craft of the image, sound, and metadata ecosystem, worldwide.

3 PILLARS
STANDARDS
MEMBERSHIP
EDUCATION

FOUNDED IN 1916
ADDED ‘T’ IN 1950
ALIGNED WITH HPA IN 2015
SMPE to SMPTE

Enabling Innovation and Creativity for 100 years

MAGICAL MOTION PICTURES
- Techno-art is born
- Silent, not soundless
- Talkies
- Rainbow of color
- Widescreen
- Experiential enhancements

MIRACLE OF TELEVISION
- Research and development
- All-electronic
- From novelty to living color
- Video tape recording
- Advanced television systems
- Highlighted milestone television: space launches, news/political conventions, sporting events, world events

DIGITAL DAWN
- Digital interface
- Digital audio
- Digital television
- Digital motion pictures
- Digital 3D cinema and television

EVOLVING PRODUCTION TECHNOLOGY
- Production
- Animation, graphics and effects
- Post-production
- News gathering
- To enlighten, educate and entertain

Any Industry Relies on Standards to Grow

Henry D. Hubbard, Secretary of the US National Bureau of Standards, speaking to SMPE on July 24, 1916 in Washington DC

Steady progress through standardization is the true aim. Such standardization should unite two elements – the tendency to conserve progress and the pressure for new progress. Standardization of this kind is the steady harvesting of progress.
Since our founding, SMPTE has focused on advancing two vital elements of our industry:

**Innovation & Creativity**

First Innovative Standards

Addressed differences in the size, shape and position of perforations of picture film:

"Their early universal adoption will save the industry a great deal of present annoyance and monetary loss.

Adopted in Committee by the whole Society, 1917."
Consumers know us in our various forms!

Timed Text

WELL, THESE COMPETITIONS TEND TO BE THE SORT OF [CHEERS AND APPLAUSE]
Timed Text for the Hearing Impaired

The US Govt (via the FCC) declared the SMPTE timed text a "safe harbor" standard which means that all broadcasters can use it to comply with FCC rulings. This action is for all pre-recorded content that is distributed via the Internet.

Important Standards of Today…. Just a few of them

- Digital Cinema standards
- Interoperable Master Format (IMF)
- Serial Digital Interface
- Material Exchange Format (MXF)
- Archival Exchange Format (AXF)
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Barbara Lange, 01/06/2016
NA TAS, ATAS and AMPAS recognize SMPTE’s technical work

SOCIETY TECHNICAL HIGHLIGHTS

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1916</td>
<td>SMPE Founded</td>
<td></td>
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<tr>
<td>1917</td>
<td>First Standards Adopted</td>
<td></td>
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<tr>
<td>1943</td>
<td>War Standards</td>
<td></td>
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<tr>
<td>1950</td>
<td>SMPE becomes SMPTE</td>
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<tr>
<td>1957</td>
<td>APMAS Award, Oscar statue awarded to Barton Kreuzer, SMPTE president</td>
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<tr>
<td>1974</td>
<td>NATAS Emmy Award – Time Code</td>
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<tr>
<td>1978</td>
<td>ATAS Emmy Award – One-inch Type C Continuous Field</td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>NATAS Honor - One-inch Type C Continuous Field</td>
<td></td>
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<tr>
<td>1981</td>
<td>Digital Interface Standard</td>
<td></td>
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<tr>
<td>1983</td>
<td>NATAS Emmy Award – Digital Video Standard</td>
<td></td>
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<tr>
<td>1987</td>
<td>NATAS Emmy Award – Digital Component Video Tape Recording</td>
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<tr>
<td>1989</td>
<td>AMPAS Special Commendation – “by establishing standards, they have greatly contributed to making film a primary form of international communication”</td>
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<tr>
<td>1990’s</td>
<td>Digital HDTV Standards</td>
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<tr>
<td>1993</td>
<td>NATAS Emmy Award – Digital serial interconnection technology</td>
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<tr>
<td>2005</td>
<td>Digital Cinema Standards</td>
<td></td>
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<tr>
<td>2008</td>
<td>NATAS Emmy Award – MXF open file format for interchange of video and audio material</td>
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<tr>
<td>2011</td>
<td>NATAS Emmy Award – Active format system technology and local cable ad insertion</td>
<td></td>
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<tr>
<td>2014</td>
<td>NATAS Emmy Award – High-definition serial digital interface</td>
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<tr>
<td>2015</td>
<td>ATAS Phil T. Farnsworth award – for 100 years of impact on television technology and engineering</td>
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<tr>
<td>2016</td>
<td>NATAS Emmy Award – Non-live broadband captioning</td>
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<tr>
<td>2016</td>
<td>AMPAS Special Award – “For one-hundred years, the Society’s members have nurtured technology, provided essential standards and offered the expertise, support, tools and infrastructure for the creation and post-production of motion pictures”</td>
<td></td>
</tr>
</tbody>
</table>
I'm thinking we could do a "expand-dim" animation to highlight the following achievements: 1974 Time Code; 1981 Digital interface Standard; 1990's digital hctv standards; 2005 digital cinema standards

Barbara Lange, 01/06/2016
Technology has enabled creativity for 100 years

HOW WE STARTED
Our founder, C. Francis Jenkins

SMPTE was founded by a man with a vision for the industry. His impact on our industry was monumental, and resonates still today.

A creative genius whose innovation and creativity set us on the right path.

C. Francis Jenkins’ ground-breaking inventions…

HORSELESS CARRIAGE

PAPER BOTTLE

PAPER TUBE MACHINERY

PRISMATIC RING
Before there was a Hollywood…

… a small Indiana town first experienced the magic of motion pictures.

On June 6, 1894 inventor Charles Francis Jenkins projected a filmed motion picture...moving pictures by way of reeled film and electric light... before an audience. It was "the first moving picture exhibition in the world".

C. Francis Jenkins as leader

Every filmmaker—from D.W. Griffith to Steven Spielberg—owes a debt of gratitude to C. Francis Jenkins...his technologies gave rise to the motion picture industry...

"Charles Francis Jenkins was...
...the only man in history who was present at the birth of both the motion picture and television."

Albert Abramson, television historian & author
The vision in action

C. Francis Jenkins accurately foresaw the need for standards in our industry - he knew what could happen without them. He had seen it before...

The manufacturing problems have paralleled in many respects those of the automobile industry, but have by no means kept pace with them. It was only with the standardization of parts, and with the adoption of a standard method of measurements and specifications, that the automobile industry was able to reach the development that it has today.

It is to be hoped that the Society of Motion Picture Engineers may do the same service for the motion picture industry as the American Society of Automobile Engineers is doing for the automobile industry.
Standards Boost Business

Standards set the foundation of an INDUSTRY

Creativity is built on this solid foundation

Standards promote growth and vibrancy in industry

Standards impact quality.

Standards enable interoperability.

Standardization leads to lower costs by reducing redundancy, minimizing errors, and reducing time to market.

Businesses can lower their overall R&D costs by relying on previously standardized technologies and terminologies.

How SMPTE’s standards have advanced our industry

Growth in Digital Cinemas

Trends of television sales

source: MediaSalles

source: DisplaySearch
BUILDING ON OUR STANDARDS

SMPTE Today: Three Pillars

STANDARDS

MEMBERSHIP

EDUCATION
BL5  I think these two slides (27-28) can stand alone since they introduce the other two pillars -- membership and education.
Barbara Lange, 01/06/2016
Membership

KEY FACTS

7000
MEMBERS

64
COUNTRIES

GLOBAL
REACH

14.5%
OF MEMBERS
ARE STUDENTS

WHAT WE ENABLE

We work to educate to continue to educate and inform thousands of members each year through our

- Conferences
- SMPTE Motion Imaging Journal
- Webcasts
- Virtual Classroom courseware
- Local Section events

SMPTE Sections around the world

Today’s Top Media Companies Support SMPTE’s Work

- technicolor
- deluxe
- technicolor
digtal cinema
- NETFLIX
- amazon
- Apple
- DOLBY
- ERICSSON
- Panasonic
- T
- NBC UNIVERSAL
- WB
- SONY
- Google
- The Walt Disney Company
- Microsoft
- CBS
- Blackmagic design
- dts
- Ross
- NOKIA
- Turner

SMPTE’s Reach Goes Around the World

- PHABRIX
- Snell Advanced Media
- 4
- SCREEN
- Pebble Beach Systems
- sky
- sundog Media Toolkit
- dpp
digital production partnership
- EBU
- Datapath
- TRANS MEDIA
- BBC
- Crystal Vision
- TSL
- Omnitek
- root6
- NATIV
- BT
- DIG

Total of 57 Sustaining Members in Europe
Our members represent the best in the business

SMPTE Honor Roll of Honorary Members

1926 C. Francis Jenkins
1928 George Eastman
1928 Thomas Alva Edison
1928 Frederick Eugene Ives
1928 Louis Lumiere
1931 William Fries-Grene
1931 Eugene Augustin Lauzé
1931 Louis A. Jaffe Prince
1931 Jean Acme Lefroy
1933 William K. L. Dickson
1935 Thomas Armat
1938 Robert W. Paul
1940 Lee de Forest
1941 Herman A. DeVry
1941 Albert S. Howell
1942 Edwin Stanton Porter
1944 Frank H. Richardson
1946 Theodore W. Case
1946 Edward B. Craft
1946 Leon Gaumont
1946 Samuel L. Warner
1950 Edward W. Kellogg
1950 Vladimir K. Zeevyn
1953 Joseph Arthur Ball
1953 Nathan Levinson
1955 John C. Capstaff
1955 Andre Debeze
1955 Walt Disney
1955 Alexander Erenmann
1957 C. E. Kenneth Mees
1957 Earl I. Sponable
1958 Herbert T. Kalmus
1959 Harvey Fletcher
1960 Oskar Mester
1961 Alfred N. Goldsmith
1962 Lloyd Thompson
1964 Alexander F. Victor
1965 John I. Crabtree
1966 Elmer W. Engstrom
1967 John G. Freyne
1968 Harold E. Edgerton
1969 Albert Narenth
1970 Max Skladanowsky
1971 Pierre Mertz
1971 George A. Mitchell
1972 Robert Richter
1973 Ralph M. Evans
1974 Jerzy Stuart-Courtney-Pratt
1975 Victor H. Allen
1976 Charles P. Ginsberg
1977 Peter C. Goldmark
1977 William T. Wintorpham
1978 John A. Mauer
1979 Wesley T. Hanson, Jr.
1980 Loren L. Ryder
1981 Kenneth M. Mason
1981 Sidney F. Solomon
1981 Linwood G. Dunn
1984 Charles R. Fordyce
1987 George W. Colburn
1988 Stefan Kudelski
1988 William H. Smith
1988 Kenjiro Takayanagi
1989 Walter Bruh
1989 Rodger J. Ross
1990 Marvin C. Cannas
1991 Frederick M. Remley, Jr.
1991 K. Blair Benson
1992 Ray M. Dolby
1993 Joseph A. Flaherty
1994 Masahito Morizono
1995 Roland J. Zavada
1995 Werner H. Peters
1996 Robert M. Smith
1997 Michael J. Sherlock
1997 Julius Barnathan
1999 Lefroy E. De Marsh
2000 John L. E. Baldwin
2010 Stanley N. Baran
2010 Ian Chiha
2012 Charles E. Anderson
2014 Leonardo Chiariglione
2014 George Lucas
2014 John Logie Baird
2015 Oscar B. Hanson
2015 Lawrence Thorpe
2015 Irwin Young
2015 John L.E. Baldwin
2015 Stanley N. Baran
2015 Ian Chiha
2015 Charles E. Anderson
2014 Leonardo Chiariglione
2014 George Lucas
2014 John Logie Baird
2015 Oscar B. Hanson
2015 Lawrence Thorpe
2015 Irwin Young

Things we do for student members

- First year free membership, then $10
- Scholarships
- Student paper award
- SMPTE-HPA Student Film Festival
- Student Chapters
- Other special things we do to encourage students
Nurturing the future

Delivering education for 100 years
Education takes many forms
Our founder’s influence is still with us

HPA advances SMPTE by integrating the creative and business community together with SMPTE's technical expertise. This follows on Jenkins' original mission of being a source of innovation and creativity.

HPA and SMPTE together enhance standards process

INDUSTRY PROBLEM IDENTIFIED
HPA User Groups
User Community

Amendments/Revisions
Published Standard
Approved Standard
Recommended Standard
Working Group Draft
Project Approved

USER INPUT
HPA User Groups
User Community
Our founder’s influence is still with us

From Ang Lee’s Billy Lynn’s Long Halftime Walk
STANDARDS
Developing standards that define an industry of motion imaging defines human communications.

MEMBERSHIP
Growing membership around the world that celebrates its diversity and future growth.

EDUCATION
Educating industry professionals to understand and master the latest technologies and what they enable.

MOVING IMAGES
presented by
I thought we could end with an inspirational photo (need to attribute this to its owner) and highlight on the three pillars.

Barbara Lange, 01/06/2016