

AMPAS Presents Industry Standouts with Scientific and Technical Awards

An Oscar statuette and 19 other awards were presented for scientific and technical achievement as part the 70th Annual Academy Awards held by the Academy of Motion Picture Arts and Sciences (AMPAS) on February 28, 1998, at the Regent Beverly Wilshire Hotel. AMPAS also presented the John A. Bonner Medal of Commendation at the ceremony.

Awards were voted on by the Academy's Board of Governors based upon recommendations from the Scientific and Technical Awards Committee, chaired by SMPTE Life Fellow Edmund M. DiGiulio.

Oscar Statuette

The Academy Award of Merit (Oscar statuette), is given for basic achievements that have a definite influence upon the advancement of the industry

This year the award was presented to Gunnar P. Michelson for the engineering and development of an improved electronic, high-speed, precision light valve for use in motion picture printing machines. The Michelson light valve is capable of making accurate changes in printing beam intensities more rapidly than devices formerly available to the motion picture industry. Mechanical linkages have also been eliminated. The all-electronic design makes it possible to pre-set the vane openings for each of the 50 positions in the device's total range. As a result, the light valves can be adjusted to conform to a standard light scale in a laboratory.

The Bonner Medal

The Bonner Medal, awarded in appreciation for outstanding service and dedication in upholding the high-standards of the Academy, was presented to Pete Clark. Earlier in his career, Clark worked on films such as *Ice Station Zebra* and *Thoroughly Modern Millie*. He served as director of advertising at the Mole-Richardson Co., and manager of development engineering at the Research Center of the Association of Motion Picture and Television Producers. The special effects expert has also operated his own motion picture technology consulting firm and authored the SMPTE publication "Special Effects in Motion Pictures."

Clark was the recipient of a Scientific and Technical Award for co-developing, with 3M, Nextel simulated blood. He has been a member of the Scientific and

Technical Awards Committee since 1974, and has served on the Rules and Steering committees for many years. He was chairman of the Visual Effects Award Executive Committee and is a founding member of the Academy's Visual Effects Branch.

Academy Certificate

The Technical Achievement Award (Academy certificate), recognizes those accomplishments that contribute to the progress of the industry. The following were recipients:

- Clark F. Crites was recognized for the design and development of the ELF I-C Endless Loop Film Transport and storage system. With its ability to handle up to four hours of film, free from damage, and its compact size, the ELF I-C has proven to be one of the most reliable and useful devices to automate the projection of motion picture film in a wide variety of film venues.

- Dan Leimeter and Bob Weitz were acknowledged for the development and implementation of a portable adjustment tool for T-Style Slit Lens Assemblies. The tool provides a means of quickly and accurately setting the azimuth and focal plane of the tubular style slit lenses in the optical soundheads of a significant majority of theatrical 35mm motion picture projectors.

- Greg Hermanovic, Kim Davidson, Mark Elendt, and Paul Breslin were chosen for the development of the procedural modeling and animation components of the Prisms software package. Through a procedural building-block process, the Prisms 3-D animation software is used to simulate natural phenomena, and create particle effects, complex 3-D models, and motion for feature film visual effects.

- Jim Keating, Michael Wahrman, and Richard Hollander were recognized for their contributions leading to the Wavefront Advanced Visualizer computer graphics system. The Wavefront system was the first commercial software package for modeling, animating, and rendering computer-generated elements and scenes to be adopted into widespread use to create digital images with sufficient quality for theatrical motion pictures.

- James M. Reilly, Douglas W. Nishimura, and Monique C. Fisher were chosen for the creation of A-D (Acid Detector) Strips, a diagnostic tool for the

detection of the presence of vinegar syndrome in processed acetate-based motion picture film. A-D Strips provide a repeatable, quantitative, calibrated check of the presence and extent of vinegar syndrome progression, a slow form of chemical deterioration in stored processed acetate-based film.

- Philip C. Cory was acknowledged for the design and development of the Special Effects Spark Generator. This nonpyrotechnical device provides a controllable, reliable, variable, and economical shower of sparks for motion picture special effects while improving safety on the set.

- Jim Frazier was acknowledged for the concept, and Iain Neil and Rick Gelbard were recognized for the design and development of the Panavision/Frazier Lens System for motion picture photography. This system provides a versatile, lightweight, deep-field and infinitely pointable lens attachment for 35mm motion picture cameras. Through its unusual shot making capabilities, it greatly expands the creative opportunities for cinematographers and directors.

- James F. Foley, Charles Converse, F. Edward Gardner, Bob Stoker, and Matt Sweeney were recognized for the development and realization of the Liquid Synthetic Air System. The system provides a stable, breathable mixture of liquid oxygen and liquid nitrogen for the creation of safe, low-lying fog effects in motion pictures.

- Richard Chuang, Glenn Entis, and Carl Rosendahl were chosen for the concept and architecture of the Pacific Data Images (PDI) Animation System. Pacific Data Images created an extensible and flexible procedural architecture for computer animation. This early proprietary system is still in use, meeting the increasing demands of contemporary visual effects and animation production.

- James A. Cashin, Roger Hibbard, and Larry Jacobson were recognized for the design, development, and implementation of a projection system analyzer. This device permits any projection system to be analyzed and uniformly quantified with a simple setup. This allows for the adjustment of the weave, jitter, and screen illumination for optimum projection performance.

Academy Plaques

Scientific and Engineering Award (Academy plaques) are granted for those achievements that exhibit a high level of engineering important to the progress of the industry. They were presented as follows:

- Eben Ostby, Bill Reeves, Sam Leffler, and Tom Duff were acknowledged for the development of the Marionette 3-D Computer Animation System. The creators of Marionette introduced a procedural system for computer animation with an extensible and flexible software architecture that allows creation of high-level controls for the animator. This system was used to create the first 3-D computer animated feature film, *Toy Story*.

- Richard Shoup, Alvy Ray Smith, and Thomas Porter were chosen for their pioneering efforts in the development of digital paint systems used in motion picture production. Much of the foundation for the numerous contemporary digital paint products for motion pictures can be traced directly to the early work of these digital pioneers.

- Kirk Handley, Ray Meluch, Scott Robinson, Wilson Allen, and John Neary were recognized for the design, development, and implementation of the Dolby CP500 digital cinema processor. Utilizing digital technology, the CP500 decodes digital soundtracks, facilitates installation, provides unprecedented ease of operation, and may also improve analog soundtrack reproduction.

- Craig Reynolds was acknowledged for his pioneering contributions to the development of 3-D computer animation

for motion picture production. Reynold's early contributions in the digital animation arena have become both influential and instrumental in the architecture of many later systems developed at companies throughout the computer animation industry.

- John Gibson, Rob Krieger, Milan Novacek, Glen Ozymok, and Dave Springer were acknowledged for the development of the geometric modeling component of the Alias PowerAnimator system. The system is widely regarded in the computer animation field as one of the best commercially available software packages for digital geometric modeling. Used by many motion picture visual effects houses, it has been a benchmark for comparison of modeling tools and has had a major influence on visual effects and animation.

- Dominique Boisvert, Rejean Gagne, Daniel Langlois, and Richard Laperriere were chosen for the development of the Actor animation component of the Softimage computer animation system. The commercially available Softimage system is widely used in computer animation of 3-D characters for the film industry. The Actor component provided breakthroughs in animation control and efficiency which led to the widespread use of Softimage in visual effects and animation production.

- Bill Kovacs was recognized for his creative leadership and Roy Hall for his principal engineering efforts leading to the Wavefront Advanced Visualizer computer graphics system. The Wavefront system was the first commercial software package for modeling, animating, and rendering computer-generated elements and scenes adopted into widespread use to create digital images with sufficient quality for theatrical motion pictures.

- Joel Johnson was acknowledged for the unique design improvement in fluid-head counter-balancing techniques as used in the Model 2575, the first spring counter-balanced fluid head to enable the camera to be tilted through a full 180° arc. The unique pan-and-tilt head balances the camera package at all tilt angles throughout the full range. This allows the camera to remain positioned without springing back towards the center.

- Al Jensen, Chuck Headley, Jean Messner, and Hazem Nabulsi were recognized for the production of a self-contained, flicker-free, Color Video-Assist Camera. This device can be used with virtually any professional motion picture camera and provides color or black-and-white video assist images which are flicker-free. Switchable options allow for image manipulation and increased low-light sensitivity.

Calendar

March 1998

cinec 98 International Trade Fair for Motion Picture Technology and Post-Production, M,O,C, Events Center, Munich, Germany. Info: Messe Munchen GmbH, cinec Exhibition Management, Messsegelände, D-80325 Munchen, Germany. *March 21-23, 1998.*

April 1998

NAB'98 International Convention and Exposition, Las Vegas Convention Center, Las Vegas, Nev. Info: National Association of Broadcasters, 1771 N St. NW, Washington, DC 20036-2891, <http://www.nab.org/conventions>. *April 4-9, 1998.*

May 1998

Lightfair International 1998, Las Vegas Convention Center, Las Vegas, Nev. Info:

AMC Tradeshows, 240 Peachtree St. NW, Ste. 2200, Atlanta, GA 30303. *May 27-29, 1998.*

June 1998

Showbiz Expo, Los Angeles Convention Center, Los Angeles, Calif. Info: Reed Exhibition Companies, 383 Main Ave., Norwalk, CT 06851, <http://www.showbiz-expo.com>. *June 12-14, 1998.*

October 1998

Rocky Mountain Film and Video Expo, John Q. Hammons Convention Center, Denver, Colo. Info: Mark Cramer, Expo-Masters, Inc., 7632 E. Costilla Ave., Englewood, CO 80112. *October 14-15, 1998.*

SMPTE Activities

LOS ANGELES, CALIFORNIA—2nd Annual SMPTE Film Conference. Co-

located with Showbiz Expo, Los Angeles Convention Center, Los Angeles, Calif. *June 12-14, 1998.*

PASADENA, CALIFORNIA—140th SMPTE Technical Conference & Exhibit, Pasadena Convention Center, *October 28-31, 1998.*

ORLANDO, FLORIDA—33rd SMPTE Advanced Motion Imaging Conference, *February 1999.*

SYDNEY, AUSTRALIA—SMPTE '99, *July 13-16, 1999.*

NEW YORK, NEW YORK—141st SMPTE Technical Conference & Exhibit, *November 19-22, 1999.*

For more information on these and other SMPTE activities contact SMPTE headquarters: (914) 761-1100, Fax:(914) 761-3115.