

**SIGGRAPH 1990**

**17th International Conference  
On Computer Graphics and  
Interactive Techniques**

**Dallas Convention Center  
August 6th—10th**

## **COURSE NOTES**

# **10**

### **CHARACTER ANIMATION BY COMPUTER**

***Chair***

**Bill Kroyer  
Kroyer Films, Inc.**

***Lecturers***

**John Chadwick  
Ohio State Computer Graphics Group,  
Columbus**

**Matt Elson  
Symbolics, Inc.**

**Doris Kochanek  
National Film Board of Canada**

**Bill Kroyer  
Kroyer Films, Inc.**

## **Advanced Integration of 2D and 3D Character Animation**

**Speaker: Bill Kroyer**

**Course notes prepared by:**

**Mark Pompian  
Senior Technical Director**

**Ira Shain  
Technical Director**  
**Brian Schindler  
Technical Director**

**Kroyer Films, Inc.**

## **Course 10**

### **Character Animation By Computer**

#### **About the course....**

**This year's course is full of surprises. One of first surprises came early, when one of our scheduled speakers had to withdraw from the course just a few days before these course notes were due to go to press. We were very happy to invite Doris Kochanek of The Canadian Film Board to speak about her wonderful film, *L'Anniversaire - Anniversary*. The second surprise was that Doris was able to assemble some course notes in time for publication!**

**The speakers, and notes, are as follows:**

**PAGE**

- 1. Bill Kroyer, Kroyer Films, Inc., Burbank, California  
*Advanced Integration of 2D and 3D Character Animation***
  
- 14. Matt Elson, Symbolics Graphics, Los Angeles, California  
*Displacement Animation: Development and Application***
  
- 37. John Chadwick, The Ohio Supercomputer Graphics Project,  
Columbus, Ohio  
*The Critter Concept: A Computer Character Animation  
System***
  
- 95. Doris Kochanek, National Film Board of Canada, Montreal, Quebec  
*Case Study: L'Anniversaire - Anniversary***

**On behalf of the speakers, I hope you enjoy this year's presentation, and that the material increases your understanding and enjoyment of character animation by computer!**



**Bill Kroyer**

## **Lecturer biographies**

### **Bill Kroyer**

**As President of Kroyer Films, Inc., Bill has fused the traditional skills of animation with emerging technologies of tomorrow to become a leader in the animation industry. He received an Academy Award nomination in 1989 for the animated short, "Technological Threat," which successfully combined the personality of hand-drawn animation with the complexity of computer-generated characters. Since he founded the company in 1986 with his wife, Sue, Kroyer's animation has won awards all over the world, including the Apollo Award for computer animation at the prestigious animation festival in Annecy, France, and the Pixel Award at Monte Carlo's Imagina Film Festival. Bill has directed the animation of title sequences for "Honey, I Shrunk the Kids," "Troop Beverly Hills," and "National Lampoon's Christmas Vacation." He directed and co-wrote "Computer Warriors," a made-for-video animated film for Mattel Toys. One of the world's leading authorities on computer graphics, Bill lectures frequently on the subject. He has been chairman of the course on computer animation at the SIGGRAPH Conference in 1987, 1988, and 1989.**

### **Matt Elson**

**Matt is Symbolics staff artist. He created "Displacement Animation of Intelligent Objects" and is the creator and director of "The Little Death." He has been with Symbolics for several years during which time he has worked closely with both the Symbolics Graphics Division Development Staff and the Symbolics graphics user community. His work has been exhibited nationally and internationally in computer graphic exhibitions. In 1989 he received first place in computer graphics research from NCGA. He has both a BFA in painting from Pratt Institute and an MA in computer graphics from NYIT.**

### **John Chadwick**

**John received a B.S. in 1984 from the University of Maryland, Baltimore County with a major in Computer Science and a minor in Visual Art. While at UMBC, John worked with Stan Van Der Beek in various animation media including clamation, digital video and computer graphics. In 1985, he worked for Singer LINK Simulation Systems as a software engineer for the Displays Division. In 1986, John received an M.S. in Computer Science from Ohio State University, where he was working with Charles Csuri researching and developing tools for computer character animation.**

### **Doris Kochanek**

**Doris is the head of the Computer Animation Centre at the National Film Board of Canada in Montreal. In 1979 she received a Bachelor of Fine Arts degree in Visual Arts from the University fo Victoria, B.C., and in 1982 a Master of Mathematics in Computer Science from the University of Waterloo, Ontario. Since then, she has worked in computer animation research and production, collaborating on a number of well known NFB films including "Transitions," the world's first 3-D IMAX film (at Expo'86 in Vancouver) and "Anniversaire" in 1989. Doris has served on various SIGGRAPH conference committees since 1983 when she was chair for the Evening Film and Video Shows.**