welcome

bienvenidos

ようこそ

bienvenue

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wilkommen

歡迎您光臨

Program and Buyer's Guide

SIGGRAPH

Conference
6 – 11 August 1995

Exhibition
8 – 10 August 1995

Sponsored by ACM's Special Interest Group on Computer Graphics

ACM
1515 Broadway
New York, New York 10036 USA

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Conference at a Glance

	SUN 6 AUG	MON 7 AUG	TUES 8 AUG	WED 9 AUG	THU 10 AUG	FRI 11 AUG
REGISTRATION/MERCHANDISE/INTERNATIONAL CENTER Advance Registration/International Center – South Lobby/LACC On-Site Registration/Merchandise – Hall K/LACC	11 am to 10 pm	7:30 am to 7 pm	7:30 am to 7 pm	8 am to 6 pm	8 am to 6 pm	8:30 am to 1 pm
EXHIBITION Halls G, H, J, and K/LACC			10 am to 6 pm	10 am to 6 pm	10 am to 3:30 pm	
COURSES (Full- and half-day) See pages 45-53 for course locations	 1:30 pm to 5 pm	8:30 am to noon 1:30 pm to 5 pm	8:30 am to noon 1:30 pm to 5 pm			
PAPERS/PANELS West Hall A/B and Petree Hall C/LACC				8 am to 5:30 pm	8:30 am to 5:30 pm	8:30 am to 5:30 pm
TECHNICAL SKETCHES Concourse Hall Room 152 F/LACC				1:45 pm to 5:30 pm	1:45 pm to 5:30 pm	1:45 pm to 3:30 pm
EDUCATORS' PROGRAM Rooms 403 A/B and 408 A/B/LACC						8:30 am to 5 pm
ELECTRONIC THEATRE Shrine Auditorium		7 pm to 9 pm	7:30 pm to 9:30 pm	7:30 pm to 9:30 pm	7:30 pm to 9:30 pm	8 pm to 10 pm Public Screening
COMPUTER ANIMATION FESTIVAL SCREENING ROOMS Rooms 406 A/B, 409 A/B, and Theatre/LACC	5 pm to 7 pm	9 am to 7 pm	9 am to 7 pm	9 am to 6 pm	9 am to 6 pm	9 am to 1 pm
ART GALLERY West Concourse Foyer and Room 153 B/C/LACC	5 pm to 7 pm	9 am to 7 pm	9 am to 7 pm	9 am to 6 pm	9 am to 6 pm	9 am to 1 pm
INTERACTIVE ENTERTAINMENT Hall K/LACC	5 pm to 7 pm	9 am to 7 pm	9 am to 7 pm	9 am to 6 pm	9 am to 6 pm	9 am to 1 pm
INTERACTIVE COMMUNITIES Hall K/LACC	5 pm to 7pm	9 am to 7 pm	9 am to 7 pm	9 am to 6 pm	9 am to 6 pm	9 am to 1 pm
ARTIST/DESIGNER SKETCHES Concourse Hall Room 152 F/LACC				10 am to 11:30 am	8:30 am to noon	8:30 am to noon
FUNDAMENTALS SEMINAR Concourse Hall Rooms 151	2 pm to 5 pm					
GENERAL SESSIONS West Hall B/LACC			Behind the Scenes: Computer Graphics in Film 12:15 pm to 1:30 pm	 12:15 pm to 1:30 pm		Ask Dr. SIGGRAPH 12:15 pm to 1:30 pm
KEYNOTE ADDRESS/AWARDS West Hall B/LACC				8 am to 9:30 am		
WELCOME RECEPTION Hall K/LACC	5 pm to 7 pm					
COURSE RECEPTION Dorothy Chandler Pavilion		8 pm to 11 pm				
PAPERS/PANELS RECEPTION Watercourt at California Plaza					8 pm to 11 pm	

Welcome to SIGGRAPH 95

THIS IS IT!

The SIGGRAPH 95 Committee, with its total dedication, amazing creativity, and boundless energy, has filled the Los Angeles Convention Center with events, programs, and exhibits that redefine the international computer graphics community.

You and more than 30,000 other attendees from all over the world have arrived in the city that converts ancient and modern myths to everyday reality. And thousands more are participating through broad-band networked environments.

IT'S SIGGRAPH 95!

For SIGGRAPH newcomers and SIGGRAPH veterans, this is the week we've all been looking foward to for many months. When we can assess the past, present, and future of computer graphics and interactive techniques. Greet old colleagues and meet new ones. Create and sustain collaborative intellectual projects. Celebrate the finest work in the field. And explore the outer boundaries of digital technologies.

WELCOME TO THE ADVENTURE!

BRIAN HERZOG
Sun Microsystems Computer Company

PETER MEECHAN
Alias/Wavefront

SIGGRAPH 95 Co-Chairs

Conference Map

The SIGGRAPH 95 Conference Committee used 3D computer graphics to enhance design and implementation of the conference environment. These images are derived from a 3D model of the Los Angeles Convention Center designed for previsualization of various SIGGRAPH 95 components.

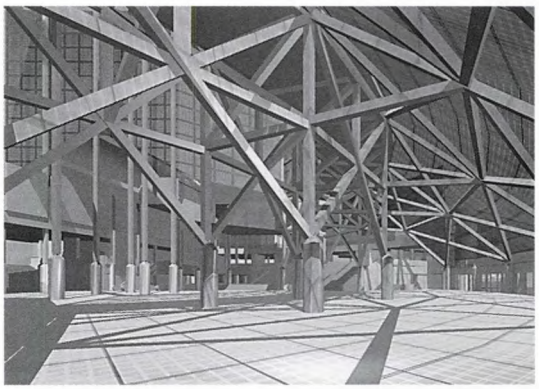
The model was built from AutoCAD plan drawings and construction bluelines. The mass modeling was then created using AutoCAD and 3D Studio, with assembly, refinements, and final renderings generated in 3D Studio R4.

Coordinator

BRIAN BLAU
Autodesk, Inc.

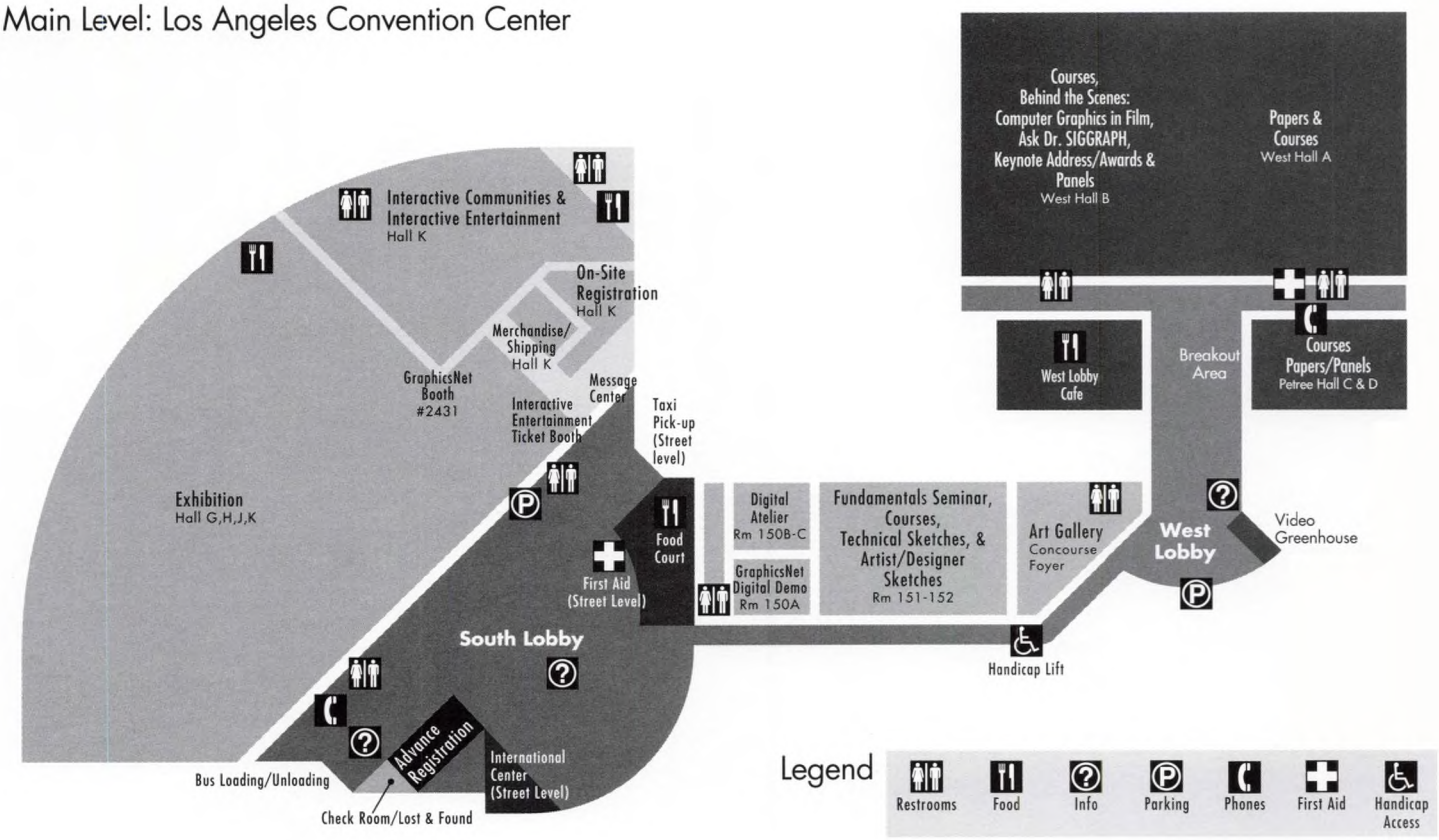
Modeling

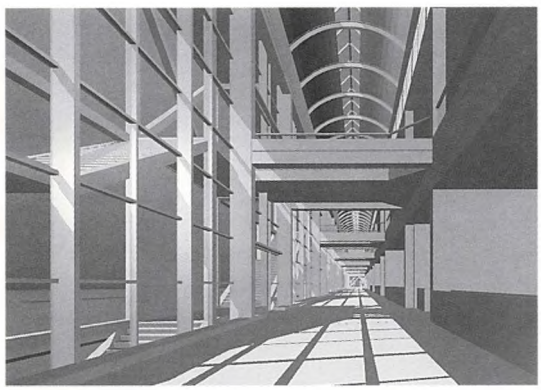
STEVEN ELLIOT
PHILIP MILLER
Autodesk, Inc.



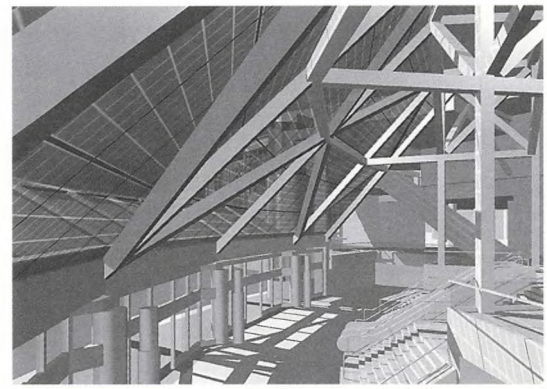
South Lobby

Main Level: Los Angeles Convention Center





Concourse



West Lobby

Mezzanine Level: Los Angeles Convention Center

Special Conference Events

Sunday, 6 August

2 pm – 5 pm

Fundamentals Seminar

Concourse Hall Rooms 151

Open to all SIGGRAPH 95 attendees.

An essential, accessible introduction to computer graphics jargon, concepts, techniques, and technologies. The perfect orientation for novices on the fast track.

Organizers

DINO SCHWEITZER
Capstone Management Group

G. SCOTT OWEN
Georgia State University

5 pm – 7 pm

Welcome Reception

Hall K

Open to all SIGGRAPH 95 attendees.

Mingle and chat with a fascinating and diverse group of people: industry leaders, software pioneers, hardware visionaries, academic theorists, and inspired artists.

Monday, 7 August

8 pm – 11 pm

Course Reception

Dorothy Chandler Pavilion
135 North Grand Avenue
Los Angeles, California 90012
Grand between First and Temple
+1.213.972.7200

Open to Conference and Courses Passport attendees.

The Dorothy Chandler Pavilion has hosted Broadway productions and the Academy Awards for more than 25 years. The Course Reception is in the Grand Hall, a glittering, three-level facility like none other in Los Angeles, and the open air Music Center Plaza.

Tickets for the Course Reception are included with the registration materials for Courses and Conference Passports. Tickets can also be purchased at on-site registration or the merchandise-only counter.

Tuesday, 8 August

12:15 pm – 1:30 pm

Behind the Scenes: Computer Graphics in Film

General Session

West Hall B

Open to all SIGGRAPH 95 attendees.

Join the industry's most adventurous artists as they take you behind the computer-generated scenes for detailed explanations and demonstrations of their work. See the convergence of Hollywood and Silicon Valley in action. Watch science fiction creatures, ghosts, spirits, and whole new worlds evolve from storyboard concepts to digital reality.

Presentations feature examples from recent work on these films: Species, Pocahontas, Casper, and Toy Story. The program begins with an introduction by Jamie Dixon, a pioneer in computer-generated imaging for motion pictures, followed by five 12-minute presentations.

Organizer

CAROLYN WILLIAMS
Williams/Keeler

Assistant
ELIZABETH COX

Introduction

JAMIE DIXON
President
Hammerhead Productions, Inc.
4640 Lankershim Boulevard #200
North Hollywood, California 91602 USA

Presenters

RICHARD EDLUND
President
Boss Film Studios
13335 Maxella Avenue
Marina del Rey, California 90292 USA

Richard Edlund, the visual effects supervisor for Species, MGM's new sci-fi thriller, demonstrates how state-of-the-art motion capture technology was used to generate a creature that exists only in digital form.

EDWARD KUMMER
Senior Manager of Digital Production
Walt Disney Feature Animation
500 South Buena Vista Street
Burbank, California 91521-4870 USA

Edward Kummer discusses feature animation production and illustrates how computer graphics are being used in animated films, including the latest Disney feature, Pocahontas.

TOM BERTINO
Animation Supervisor
Industrial Light & Magic
P.O. Box 2459
San Rafael, California 94912 USA

Tom Bertino, animation supervisor for the new Amblin production Casper, shows the new directions in digital character animation that brought Casper and his ghostly uncles to life.

RALPH J. GUGGENHEIM
Vice President, Feature Films Production

JOHN LASSETER
Vice President, Creative Development

Pixar
1001 West Cutting Boulevard
Richmond, California 94804 USA

Toy Story, a co-production of the Walt Disney Company and Pixar, is the first-ever fully computer-generated feature film. The film's producer and director discuss its genesis and production.

JOSEPH FRANCIS
Creative Director
RGA/LA
6526 Sunset Boulevard
Hollywood, California 90028 USA

Joseph Francis explores the realm of "invisible effects." With examples from recent RGA/LA productions, he demonstrates how digital animation and compositing allow filmmakers to create and/or enhance shots and sequences that would be impossible, impractical, or too expensive using traditional methods.

Wednesday, 9 August

8 am – 9:30 am

Keynote Address/Awards
West Hall B
Open to all SIGGRAPH 95 attendees.

Computer Graphics Achievement Award
The 1995 Computer Graphics Achievement Award is presented to Kurt Akeley of Silicon Graphics, Inc.

Steven Anson Coons Award
for Outstanding Creative Contributions to Computer Graphics
The 1995 Steven Anson Coons Award is presented to Jose Encarnação of the Technical University of Darmstadt and the Fraunhofer Institute for Computer Graphics.

12:15 pm – 1:30 pm

Behind the Scenes: Computer Graphics in Film
General Session

(See Tuesday, 8 August)

5:30 pm – 7 pm

Get Involved – Meet the SIGGRAPH 96 Committee
Room 503

The SIGGRAPH 96 Committee is dedicated to the proposition that every attendee should have the opportunity to teach and learn from other attendees.

We want to help you discover the best opportunity to participate in SIGGRAPH 96 by contributing your ideas, experiences, and enthusiasm. We have established new programs and are eager to discover creative ways for more people to share their work with the community.

Please come meet the SIGGRAPH 96 Committee. Tell us about your work and your computer graphics passions. Let's explore how you can be a part of SIGGRAPH 96 in New Orleans!

Thursday, 10 August

8 pm – 11 pm

Papers/Panels Reception
Watercourt at California Plaza
350 South Grand Avenue
Los Angeles, California 90012
Grand and Fourth Street
+1.213.617.3300
Open to Conference and Papers/Panels Passport attendees.

Food, refreshments, and socializing at downtown LA's outdoor Watercourt, where water elements perform solo and in harmony. The most prominent element: a huge matrix of air-powered water plumes.

Tickets for the Papers/Panels Reception are included with registration materials for Papers/Panels and Conference Passports. Tickets can also be purchased at on-site registration or the merchandise-only counter.

T-shirt Contest
The winners of the annual SIGGRAPH t-shirt contest will be announced at the Papers/Panels reception on Thursday. Prizes will be awarded.

Entry information is available in the Conference Management Office, Room 304 of the Los Angeles Convention Center.

Friday, 11 August

12:15 pm – 1:30 pm

Ask Dr. SIGGRAPH
General Session
West Hall B
Open to all SIGGRAPH 95 attendees.

How do they really make 30 frames/second video from 24 frames/second film? What is the sound of one ray tracing? What is the average airspeed velocity of a fully-laden reality engine? If a tree is rendered in a forest, and there is no light source, does it cast a shadow? How many pixels could a pixel plane plane if a pixel plane could plane pixels? If you have ever pondered such important issues, why not Ask Dr. SIGGRAPH? After all, "he knows more than you."

Our expert panel of Graphics Jims is prepared to answer any questions you might have about computer graphics and/or SIGGRAPH, from the serious and practical to the shamelessly metaphysical. Questions for our expert panel of Graphics Jims can be submitted through the World Wide Web kiosks at the Los Angeles Convention Center.

The narrator of the Ask Dr. SIGGRAPH session is Dan Coffey, more popularly known as Dr. Science!

Jims
JIM BLINN
J. LOREN CARPENTER
A.J. GLASSNER
JIM "JIM" KAJIYA
SALLY J. ROSENTHAL

Art Gallery

West Concourse Foyer and Room 153 B/C

Sunday
5 pm – 7 pm

Monday – Tuesday
9 am – 7 pm

Wednesday – Thursday
9 am – 6 pm

Friday
9 am – 1 pm

Exceptional aesthetic achievements showcased in the world's leading annual exhibit of computer art: 2D and 3D works, installations, interactive experiences, digital illustrations, artists' books, and postal art. The Art Gallery is documented in the SIGGRAPH 95 *Visual Proceedings*, the Multimedia CD-ROM, and the Art and Design Show Slide Set.

Chair
KEN O'CONNELL
University of Oregon

Administrative Assistant
BECKI PARKER

Assistant
JIM GIBSON

Committee
LARRY CUBA
Special Projects

LINDA ETTINGER
Critical Essays

EDUARDO KAC
Artist/Designer Sketches

MIDORI KITAGAWA DE LEON
The Ohio State University

LYNN POCOCK
Publicity

PATRIC PRINCE
Traveling Art Show Chair

DAVID STAIRS
Artist's Books

YING TAN
On-Site Gallery

ANNA URSYN
Gallery Support

VICTORIA VESNA
Interactive Artists

MIKE WHITENACK
Space/Exhibit Design

Jury
KAREN GUZAK
Independent Artist

CRAIG HICKMAN
University of Oregon

MIDORI KITAGAWA DE LEON
The Ohio State University

GLENN MITSUI
Studio M/D

BARBARA MONES-HATTAL
George Mason University

CRISTINA ALMEIDA
Study of a spoken dialogue
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Stop Smoking
Arday Illustration
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rock 02
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Mississippi State, Mississippi 39762
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Cathach
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DENIS A. DALE
"Having said, the grass is always greener ... in this case it was."
Flood series
Millennium Studios
224 North Madison Street
Stoughton, Wisconsin 53589
USA

JENNIFER DEBLOCK
Disguise
Only A Part
University of Evansville
1800 Lincoln Avenue
Evansville, Indiana 47715
USA

JOSEPH P. DELAPPE
The Continuum: Husband & Wife Starting To Look Like Each Other
Department of Art 224
University of Nevada, Reno
Reno, Nevada 89557
USA

JASON DITMARS
Mind and Body Environment
Art Institute of Chicago
4455 Vision Drive #1
San Diego, California 92121
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KEAY EDWARDS
Untitled/Family
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Sarasota, California 95070
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ANNE FARRELL
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Santa Fe, New Mexico 87501
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JAMES FAURE WALKER
A Pony in Clerkenwell
Die Formes: Flight
88 Greenwood Road
London E8 1NE
UNITED KINGDOM

DIANE FENSTER
Canto One/The Aurora Borealis
Canto Three/Circumstantial Evidence
Unseen the threads are knit together
140 Berendos Avenue
Pacifica, California 94044
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FRANZ FISCHNALLER
Lautriv Chromagnon/Medusa
F. A. B. R. I .CATORS
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6/20129 Milano, ITALY

KURT FLEISCHER
Spike
Caltech Graphics Group
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Pasadena, California 91125
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Bondi 2026
Sydney, AUSTRALIA

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None of Your Business
Thin Slice of Life
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Western Washington University
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Blue eyes in the Land of Forgotten
Moisture
University of Massachusetts
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Jumping the Waves
St. Olaf College
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Geometries
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LANE HALL
Woodland Goiter Series:
Mosshead
Spirochete
Waterbug
Teikyo Marycrest University
1607 West 12th Street
Davenport, Iowa 52804
USA

JEAN-PIERRE HEBERT
Un cercle trop étroit
4647 Via Huerto
Santa Barbara, California
93110 USA

DAVID HEEGER
People of the World
Department of Psychology
Stanford University
Stanford, California 94305
USA

Art Gallery

CRAIG HICKMAN (jury member)
Fine and Applied Arts
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University of Oregon
5232 University of Oregon
Eugene, Oregon 97403-5232
USA

MICHAEL HÖPFEL
Primo Tempore
Hochschule für Gestaltung
Offenbach a.M.
Untere Grenzstr. 36
63075 Offenbach a.M.
GERMANY

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Self-portrait 3
207 East 27th Street #LC
New York, New York 10016
USA

MASA INAKAGE
Relation
The Media Studio, Inc.
2-24-7 Shichirigahama-Higashi
Kamakura, Nanagawa 248
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NATALIE JEREMIJENKA
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Xerox PARC
3333 Coyote Hill Road
Palo Alto, California 94304
USA

CHRIS S. JOHNSON
eyesore
924 West Newport Avenue
#305
Chicago, Illinois 60657
USA

YOICHIRO KAWAGUCHI
COACERVATER:
Artificial Life Creation
Institute of Art
University of Tsukuba
1-1-1, Tennodai,
Tsukuba Science City 303
JAPAN

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Fine and Applied Arts
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Eugene, Oregon 97403-5232
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(jury member)
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Advanced Computing Center for
the Arts and Design
The Ohio State University
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Los Angeles, California 90066
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AVIV KRUGLANSKI
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Chicago
1518 West Augusta
Chicago, Illinois 60622
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SUSAN LE VAN
Another man/Another dog
Le Van/Barbee Studio
30 Ipswich Street #211
Boston, Massachusetts 02215
USA

KA-SING LEE
City at the end of Time
Ka-Sing Holly and
Cameraworks
P. O. Box 13710
Number 5, Ground Floor
Prince Terrace mid-level
HONG KONG

JEAN PAUL LONGAVESNE
Live Painting Creation
GRIP
64, avenue Jean Moulin
75014 Paris, FRANCE

TONY LONGSON
Pool #1
California State University
at Los Angeles
5151 State University Drive
Los Angeles, California 90032
USA

ANTE MAGZAN
Crveno Br. 1973
War inside my head
16 Karen Drive
Watsonville, California 95076
USA

KENT MANSKE
Answers
Pedestals
33 Dexter Avenue
Redwood City, California 94063
USA

GUY MARSDEN
Digital Numeric Relevator
Mk VII—Round Numbers
ART TEC
1027 41st Avenue #3
Oakland, California
94601-4034 USA

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good daughter, bad mother,
good mother, bad daughter:
catharsis + continuum
Department of Art
University of Tennessee
1715 Volunteer Boulevard
Knoxville, Tennessee 37996-2410
USA

MARK MILLSTEIN
Spill
Design Department
University of Massachusetts
at Dartmouth
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North Dartmouth, Massachusetts
02747 USA

GLENN MITSUI (jury member)
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Advanced Computing Center for
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Columbus, Ohio 43212
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CARLOS EDUARDO MUTI RANDOLPH
Vosco, Dumbo and Duvel
Muti Design
Avenida Atlantica
3576/501 Rio de Janeiro
Rio 22070-001
BRAZIL

BARBARA NESSIM
Common Sense in Short Supply Seeking Monumental Status
63 Greene Street
New York, New York 10012
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LESLIE NOBLER-FARBER
Golden Girls' Security
William Paterson College
14 High Street
Demarest, New Jersey 07627
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NIKI NOLAN
Candy Box – In Progress Greetings from Chicago
SAIC Loyola Columbia
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PETER PATCHEN
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Rossford, Ohio 43460
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Hollywood, California 90038
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Dream Cycle IV
Unique Editions
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Head III
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DENNIS STAFFNE
Circle of Grass II
Northern Michigan University
401 West Ridge
Marquette, Michigan 49855
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STARLA STENSAAS
Returning from West Africa to Fifteenth Street/Accordion Book White Out
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Blair, Nebraska 68008
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Texas A&M University
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JERRY D. THREET
What is Love?
1746 Meridan Avenue
Apartment 41
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D*ART group,
RCC Kurchatovski Institut
Vadkovsi Street h 20
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NICOLAI TSIBIN
Wind fair wind
D*ART group,
RCC Kurchatovski Institut
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RUSSIA

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Monday Morning Two Moons
University of Northern Colorado
Department of Visual Arts
Greeley, Colorado 80639
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ROMAN VEROSTKO
Illuminated Universal Turing Machine
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Minneapolis, Minnesota 55419
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Nothing Broke but the Heart
Academy of Media Arts
Cologne
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KAREN WHITE
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Art Department
University of Hawaii
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Cybatic
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Starkville, Mississippi 39759
USA

LESLIE WILSON
Ladies Dance
24 Washington Avenue
San Rafael, California 94903
USA

MCCRYSTLE WOOD
Bodies of Water #1
University of Cincinnati
2401 Ingleside Avenue
Cincinnati, Ohio 45206
USA

JUDITH YOURMAN
Leona Book I
1900 Princeton Avenue, J2
St. Paul, Minnesota 55105
USA

Computer Animation Festival/ Electronic Theatre

Electronic Theatre
Shrine Auditorium

Monday
7 pm – 9 pm

Tuesday – Thursday
7:30 pm – 9:30 pm

Friday
8 pm – 10 pm
Public Screening

Computer Animation Festival
Screening Rooms
406 A/B, 409 A/B, and Theatre
Los Angeles Convention Center

Sunday
5 pm – 7 pm

Monday – Tuesday
9 am – 7 pm

Wednesday – Thursday
9 am – 6 pm

Friday
9 am – 1 pm

An Electronic Theatre ticket is included with Conference Passport, Papers/Panels Passport, and Courses Passport registrations. Educators' Passport and Exhibits Plus registrants can purchase up to four Electronic Theatre tickets, based on availability, upon arrival at the Los Angeles Convention Center. On-site ticket sales begin Sunday, 6 August at on-site registration and the merchandise-only counter. The Computer Animation Festival/Electronic Theatre is documented in the SIGGRAPH 95 Visual Proceedings and the SIGGRAPH Video Review.

Shrine Auditorium
665 West Jefferson Boulevard
Los Angeles, California 90007
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The year's best computer animation on film, video, and other electronic media. For SIGGRAPH 95, the evening Electronic Theatre is presented in the elegant, historic Shrine Auditorium, home of the Academy Awards and other major film industry events.

An additional Electronic Theatre presentation for SIGGRAPH 95 attendees has been scheduled for Monday evening.

A broad array of works in several formats and categories is also presented in the Computer Animation Festival Screening Rooms (open free of charge to all conference attendees).

The Electronic Theatre and Computer Animation Festival Screening Rooms are for mature audiences.

For the first time in SIGGRAPH history, the Electronic Theatre is offering a public screening. With generous financial support from Microsoft Corporation, the Computer Animation Festival Committee has added a presentation on Friday night, 11 August, that is open to the public. Tickets are available at Ticketmaster outlets throughout the LA area.

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Sandbox: an Immersive Interface to Scientific Databases
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Interactive Communities

Hall K

Sunday
5 pm – 7 pm

Monday – Tuesday
9 am – 7 pm

Wednesday – Thursday
9 am – 6 pm

Friday
9 am – 1 pm

Interactive Communities explores how groups of people are using computer graphics, interactive media, and network communications to build new types of communities and engage in new forms of social interaction. The program establishes the ambiance of a broadcast production facility crossed with an air traffic control tower. In a bustling environment of large-screen projections and new media technologies, Interactive Communities serves as the nexus for network-wide communication, linking remote participants around the world with SIGGRAPH 95 attendees.

Co-chairs
COCO CONN
Digital Circus Productions

ANDY GOODRICH
Parallax Graphics

ROB HENNIGAR
Art Center College of Design

Administrative Assistants
ALETA PEARCE
KRISTY PENDER

Jury
BRIAN BLAU
Autodesk, Inc.

JIM COSTIGAN

CLARK DODSWORTH
Fujitsu Cultural Technologies

ENRIQUE GODREAU
Adobe Systems Incorporated

JEFF MAYER
SprickMayer&Company

KEN YAPKOWITZ
AND Interactive Communications

Committee
JIM COSTIGAN

MARITA ISAKSSON

CURT KASS
Sax Arts & Crafts

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SprickMayer&Company

MARIENA MOENCH

CELIA PEARCE

JIM THOMPSON
Tadpole Technology

ZANE VELLA
Internet Tours

KEN YAPKOWITZ
AND Interactive Communications

ALIVE dreams and illusions

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In these shared spaces of reflected dreams, users see mirrored images of themselves and, along with other people and agents, manipulate the state of the world and its agents to affect or guide the illusory experience. A "magic mirror" display is provided by compositing a reflection of users onto the graphics display and projecting the result on a large screen. Interaction between people and agents is via natural hand and arm gestures, without the use of goggles or gloves.

Audio Navigation in a Cyberspace Village

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NCSA's Audio Development Group provides sound-synthesis software and expertise to create *auditory* signatures that identify sites on the Interactive Communities network. Participating projects send data on their content and activities over the local network to the navigation site, where auditory signals are created in software and rendered in real time. The behavior of the sounds tells the story of what is going on at one or more exhibits as visitors "walk" past them in cyberspace. The audio ambiance changes as visitors move from neighborhood to neighborhood, reflecting the characteristic differences of the exhibits in each area.

Better Face Communication

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Better Face Communication presents visualization of a virtual face-to-face communication environment. A synthesized face is displayed with several kinds of expressions, which echo words spoken in real time. Communication and collaboration between the virtual operator and the participant control facial expressions. After a few minutes of training, the participant learns how to control facial expressions and lip movement with a pointing device and voice input.

Better Living Through Technology

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CSH is a unique student environment that combines personal and professional lifestyles, a community surrounded by technology, a place for learning, discovering, and productivity. Unification of college life and high-tech equipment creates an interesting environment and some unique projects. This exhibit showcases some of those projects and provides information about the innovative CSH lifestyle.

Breast Cancer Lighthouse

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In this CD-ROM and World Wide Web virtual support group, newly diagnosed women explore medical information and survivors' personal stories about breast cancer and treatment options.

The Digital Learning Center for Microbial Ecology

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The Digital Learning Center for Microbial Ecology uses multimedia and networking technologies to bring the invisible worlds of microscopic organisms and communities into view and make them accessible to students and teachers everywhere. As a gathering place for ecologists, biochemists, and microbiologists interested in microscopic ecosystems, it serves an extension of this worldwide virtual community, where teachers and students collaborate with colleagues, conduct seminars, and share their findings in a continuous dialog on microbial ecology.

The Electronic Postcard

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With the Electronic Postcard, anyone can send a digital postcard to anyone else in the world who has an email address and access to the World Wide Web. As in the real world, you choose a card from a variety of images, write your message, and send it off. But no physical card is sent. The image and the message are kept online. Because the Electronic Postcard is part of the World Wide Web, the message contents can be hypertext: images and sounds can be part of the message, and there can be links to any other data in the Web.

First Contact: An Exercise in Understanding

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In extremely popular and captivating games like DOOM, or commercial virtual reality arcade applications, aliens are usually for killing. The different, the unusual, the inhuman, is to be feared, evaded, and slain. The lesson is: "If it moves, kill it!" This is an inappropriate philosophy in our increasingly interconnected world. Through interactive technologies, First Contact illustrates that all is not as it first appears, and sometimes a stranger is a friend.

Frontiers of Utopia

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Frontiers of Utopia is the final part of a trilogy exploring the history and nature of idealism, technology, and design. By touching icons and objects in the virtual space, viewers become time travelers and move interactively through four time-zone layers to compare historical concepts and political attitudes. The project also addresses women's relationships and their attitudes toward media and technology.

HotWired Lounge

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http://www.hotwired.com/

HotWired is new thinking for a new medium. It broke the mold of online programming by eschewing "shovelware" and building a creative team of engineers, editors, and designers that produces original online material on a daily deadline. Since its launch in October 1994, it has changed the face of publishing in the online world. Its originality in graphics, content, and point of view make it utterly different from any other online service.

Interactive Exploration of Environmental Concerns on Planet Earth

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In this project, participants have an opportunity to learn how researchers, policy analysts, educators, decision-makers, and students use an umbrella of computer graphics and scientific computing techniques to examine environmental concerns. Four research groups and one educational program present real-time demonstrations of the latest visualization and decision-support tools for environmental and earth sciences exploration.

Magic Gigabit Testbed

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The MAGIC project comprises three principal components: TerraVision, which allows a user to view and navigate through a landscape based on high-resolution aerial and satellite imagery; an image storage system (ISS), which stores, organizes, and retrieves the processed images and elevation data required by TerraVision; and a network of several LANs interconnected by a wide-area ATM over SONET backbone. Interactive, real-time, data-intensive applications like TerraVision and distributed storage systems resembling the ISS will become more common as high-speed networks become the norm.

Located in the International Center

Network Neuro-Baby with Handshake

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A Neuro-Baby at the Institute of Industrial Science at the University of Tokyo communicates directly with a Neuro-Baby and its human acquaintances at the Los Angeles Convention Center. As the two Neuro-Babies share emotional states, which are mapped and communicated to human beings at both sites, they demonstrate different ways of communication and expression of feelings, and enhance intercultural understanding.

one input de three voices

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Using off-the-shelf technology to underline its proximity to the consumer market, graphic and industrial designers collaborate to cast aside the conventional interactive computing system and present a highly simplified set of three one-input/one-output interactive systems. The common input shared by all three systems is sound, which was selected for its ease of use, and is manifested as three separate interactive experiences (visual, aural, and tactile). All respond in real time at a monumental scale. This project re-evaluates and reorganizes the current philosophies of interactive design and highlights the future role of the interactive designer.

OSIRIS

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The Optimized Synthetic Infra-Red Interactive Simulation (OSIRIS) presents an immersive virtual environment for a simulated night-vision battle. Players attempt to find other players in a thermal environment so they can lase their opponents before getting lased themselves. OSIRIS implements 3D thermal modeling, 2D infrared texture generation, infrared atmospheric effects, thermal sensor degradations, optimized scene rendering, high-fidelity terrain, aspect-unique trees, and dynamic terrain to implement three networked environments and further advance the importance of detailed realism in the virtual worlds of the future.

Ping

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Ping is a 3D datascape created interactively by Internet users. Based on hyperlinks in a World Wide Web map, it creates a distributed interactive multimedia environment (the 4D virtual datascape) that gives users a visual impression of networking. As computer technologies converge with televison, Ping explores the possibilities of user interaction and representation within interactive broadcast media.

Shared Haptic World

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In Shared Haptic World, two force displays demonstrate cooperative work. Users feel reaction forces simultaneously, which enables them to cooperatively manipulate virtual objects. One user can grasp another's virtual hand and feel the force applied by the other user, a function that is useful in trainer-trainee interaction. The system is also connected to a remote force display located in Japan. Visual and haptic aids compensate for the time delays between the Los Angeles and Japanese force displays.

The Snake Pit: Mental Health Care in Sharp Focus

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The Snake Pit links recent developments in ultra-high-resolution display technology and global-network connectivity with aesthetic and social concerns in contemporary art to:

- Create forums for aesthetic and social engagement.
- Explore issues of mental health care and human consciousness.
- Address a significant social issue through innovative uses of technology while expanding the boundaries of traditional artistic media and visitor participation.

Solar System Modeler

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The solar system's great size and enormous complexity are immediately apparent, even to the non-scientist, from this immersive experience. Users fly through the solar system, travel between the planets, watch moons in orbit, and ride with a comet toward the sun. Solar System Modeler uses networked computers to compute and portray the movement of objects, and, based on each object's orbital parameters and the date and time of day, compute motions to support real-time interactivity with the virtual environment.

T_Vision

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T_Vision is a broad-band application research project. It provides a distributed virtual globe as a multimedia interface to visualize any kind of data related to a geographic region. The virtual globe is modeled from high-resolution spatial data and textured with high-resolution satellite images. A successful ATM T_Vision test network between Tokyo and Berlin was established in October 1994. A third node will be added this year, in Sunnyvale, California USA.

The Tele-Garden: An InterActive Art Installation on the WWW

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This tele-robotic project allows World Wide Web users to view and interact with a garden filled with living plants. Users can plant, water, and monitor the progress of seedlings via the tender movements of an industrial robot arm. Anyone can view the site; the rights to plant and water are granted to anyone willing to make his or her email address known to other members. Events will be recorded in logs so that members can note progress and exchange unsolicited advice.

Telemedicine

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Telemedicine allows medical specialists to consult across the barriers of space and time. As a health care provider assists the patient, the consultant conducts an interview and performs an appropriate physical examination. The health care provider is either the patient's primary physician, a physician assistant, a nurse practitioner, or a specially trained nurse who works with the primary physician. Telemedicine is an efficient means of medical consultation in rural America. The program reaches out to prisons, military bases, rural hospitals, and clinics.

Telluride InfoZone

RICHARD LOWENBERG
Box 1770
Telluride, Colorado 81435 USA
+1.303.728.6960
+1.303.728.4638 fax
rl@infozone.org
http://infozone.telluride.co.us/InfoZone.html
CommunityNet (First Class BBS):
+1.303.728.5553

The InfoZone is a pilot project for broad-spectrum community development and education in rural areas, using information and telecommunications technologies. It was planned as a pragmatic answer to real issues facing the town of Telluride, and as a test-bed for systems, services, and the long-range social, economic and cultural implications of "telecommunities" in our "information society."

Virtual Discussion

NOBUO MASUDA
5111 Denny Avenue #10
North Hollywood, California 91601 USA
+1.818.505.1837
+1.818.505.1548 fax
cyberenter@aol.com

In Virtual Discussion, participants choose one of two issues. A computer-generated virtual host introduces you to those issues and guides you into a conference room. There, just by clicking on the screen, you may watch and hear any other participants expressing their opinions in the form of digital video. Then, after you decide on your own position, pro or con, it's your turn to speak up, and your comments are automatically recorded and converted into the database of digital video.

Virtual Perambulator

HIROO IWATA
Institute of Engineering Mechanics
University of Tsukuba
Tsukuba 305, JAPAN
+81.298.53.5362
+81.298.53.5207 fax
iwata@kz.tsukuba.ac.jp

With this novel interface device for walkthrough simulation, the user perceives a 360-degree image of virtual space and a sense of walking while the position of the walker is fixed in the physical world. The system enables remote collaboration between architects and their clients, who can experience a house or other building while it is still in the design process. The design can be interactively changed in real time by the remotely located designer. At SIGGRAPH 95, models of virtual buildings are delivered via the Internet.

VR MON

STEPHEN MAHER
NASA
Code 932
Greenbelt, Maryland 20771 USA
+1.301.286 3368
+1.301.286.1634 fax
maher@holdeck.gsfc.nasa.gov

VR MON applies virtual reality technologies to help analysts efficiently monitor the Space Shuttle, the Hubble Space Telescope, and other satellites. It enables analysts to more quickly and easily survey the current physical environment of a satellite. Within seconds of receiving live telemetry from a satellite, VR MON presents the analyst with a stereographic representation of the satellite and its surrounding environment, including the Earth, the sun, the moon, the planets, the stars, other spacecraft, and user-definable objects.

Waxweb 2.0: Interactive 3D Cinema on the World Wide Web

DAVID BLAIR
artist1@interport.net
2D entrance:
http://bug.village.virginia.edu
3D entrance::
http://bug.village.virginia.edu/vrml
MOO entrance: telnet to
bug.village.virginia.edu *7777*

Waxweb 2.0 is the first interactive, intercommunicative feature film on the World Wide Web. It is also the first Internet-distributed narrative to offer real-time 3D navigation through a story.

Interactive Communities

Located in Hall K

SIGKIDS

CitySpace

ZANE VELLA, COCO CONN, JIM THOMPSON, CHRIS CEDERWALL, JIM DAMIANO, and DAVID GOLDBERG

info@cityspace.org

http://cityspace.org

CitySpace is an international project that invites young people from across the Internet to construct and explore a virtual city environment. The installation consists of a networked, interactive theatre in which visitors navigate the imaginary city and construct new buildings, vehicles, characters, and other creations.

Computer Clubhouse Online Art Gallery

BRIAN PATRICK LEE

The Computer Clubhouse @
The Computer Museum
300 Congress Street
Boston, Massachusetts 02210 USA
+1.617.426.2800 x347
+1.617.426.2943 fax
blee@media-lab.mit.edu
http://www.net.org/clubhouse.html

The Clubhouse is a diverse community of mentors and young people from urban communities who work together to explore and create using state-of-the-art computers and professional software tools. Members, who range in age from 10 to 18 and represent the diverse communities of Boston, create the art featured in the Clubhouse Online Art Gallery. Mentors – students and professionals in art, music, engineering, education, and a variety of other fields – work with members to create the format for the pages.

Interactive Creatures

DEREK WOOLVERTON

Video Bits
1310 East Orange Grove Boulevard, #112
Pasadena, California 91104 USA
woolstar@erehwon.caltech.edu

Video Bits and Mr. Film Studios combined an Ascension Flock of Birds body suit, a Xist face tracking helmet, proprietary studio animation software, and a Silicon Graphics Onyx Reality Engine2 to create Interactive Creatures. As the participant moves in the suit, the software translates the moves and draws a computer graphics character in real time, providing instant feedback and real-time results for recording.

Remote Collaboration with Monterey Bay Educators

DON BRUTZMAN

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Naval Postgraduate School
Monterey, California 93943-5000 USA
+1.408.656.2149
+1.408.656.3679 fax
brutzman@nps.navy.mil
http://lambay.cse.ucsc.edu/mb

Most Monterey Bay educators are new to the Internet. This connection to Interactive Communities helps them see the information superhighway firsthand and explore how live interactive graphics can be used in the classroom. Collaborative relationships are being established before, during, and after SIGGRAPH 95.

The Merlin Link

HUGUETTE CHESNAIS

Cyclop Production
La Moisais, 35730 Pleurtuit, FRANCE
+33.99.88.62.96
gue@altern.com

The legend of Merlin The Enchanter is the theme of an interdisciplinary study spanning continents, cultures, platforms, and languages in a collaborative effort to make optimal use of available computer graphics and telecommunications technologies. At SIGGRAPH 95, the group presents a Treasure Hunt that will be followed in real-time in The Forêt de Brocéliande near Saint Malo. The American Museum of the Moving Image in New York will document this adventure in November.

SIGKids Production Lab

The SIGKids Production Lab creates, collects, and edits a program presented daily onsite and online. Invited DJ's interview guest stars from the SIGGRAPH community for an international audience of netsurfers.

Space Colonies: A 3D Computer Simulation and Space Research Project

PARAS KAUL

Paras West Productions
11714 Goshen Avenue, Apt. 204
Brentwood, California 90049 USA
parasw@liberty.com
http://www.well.com/www/parasw/

Space colonization, a natural extension of virtual reality technologies, will develop as an outgrowth of interactive communities currently online with electronic networks. Space Colonies includes development of a home page for the World Wide Web with a 3D computer-generated model and a research database with information that can be accessed and received globally.

TeleCommunity Presents HEROES

ROBERT DUNN

Arc Vertuel, Inc.
111 The Oaks
Pittsburgh, Pennsylvania 15215 USA
+1.412.781.1563
+1.412.781.8138 fax
rd1s+@andrew.cmu.edu

In this collaboration, young students in Jerusalem, Pittsburgh, and Los Angeles are developing ideas, digital imagery, and multimedia pieces about their heroes. At SIGGRAPH 95, HEROES is a virtual studio environment that sustains the project's working relationships and international dialogue, and constructs novel multimedia pieces and interactive digital movies based on thoughts and digital materials shared by participants before and during the conference.

Located in Room 407

LOUNGE@SIGGRAPH

Anti•rom: The Antidote to Multi-mediocrity

ANDREW CAMERON

SASS/Anti•rom, London
+44.171.727.0812
andy@culture.demon.co.uk
http://cyan.medi.wmin.ac.uk/antirom.html

This interactive art event on CD-ROM created by seven London artists offers a radical critique of contemporary multimedia through a series of ironic experiences and formal experiments that explore the nature of interactivity.

Urban Feedback

GILES ROLLESTONE

Perfect Indigo, London
+44.171.794.5916
giles@urban.demon.w.uk

A CD-ROM and World Wide Web site that explores expressions of urban life. Artists, poets, philosophers, and composers create an interactive cityscape that provides new insight into urban life and media.

Consumer Product & Encyclopedia of Clamps

BILL BARMINSKI

Consumer Productions, Los Angeles
+1.310.338.9720

Los Angeles artist Bill Barminski presents "Bar-min-ski: Consumer Product," which is fast becoming a cult classic CD-ROM title, as well as his new works-in-progress: Encyclopedia of Clamps and Cyclops Boy.

MouseHouse/Space Invaders Student Demos

NORM MACLEOD

MouseHouse Multimedia Center
Århus, DENMARK
+45.8612.9402
mmcmpope@intnert.uni-c.dk

Student projects that explore new approaches to interface design, 3D graphics, audio, animation, and video.

Virtual Nightclub

Trip Media, London

TED COHEN

Philips Media, Los Angeles
+1.310.444.6500

Created by a group of London artists, musicians, and designers, Virtual Nightclub is a wild and wonderful walk-through environment of changing music, psychedelic mazes, dance, fashion, and philosophical excursions through the minds of poets and philosophers. A delightful adventure in underground culture from the people who brought you Burn:Cycle. Soon to be released on CD-i and CD-ROM.

Musical World

MARTHA SWETZOFF
Commotion New Media, Los Angeles
+1.310.451.6240
martha@commotion.com

Enjoy an evening in the bohemian district of a virtual downtown. Visit an interactive stand-up comedy club, a labyrinth of jazz poetry, and a musical statue that lets you change instruments and themes to create your own musical composition. A special sneak preview of an unpublished work-in-progress.

Duran Duran "Universe"

MALCOLM GARRETT and ALASDAIR SCOTT
AMXdigital, London
+44.171.613.5300
amxdigital@world.com

An interactive CD-ROM tour of Duran Duran's video and music catalog, including interviews with the band, remixing, and hidden games and features.

Global Goons

COLIN TAYLOR
Studio Dm, London
+44.171.490.3043
stuidodm@demon.co.uk

An avant-garde music and poetry CD-ROM from London produced by the publishers of Informer, a survey of the advertising industry and the first regular disk-based magazine in the U.K.

Inneractivity Finder - ColorScope

GOHSUKE TAKAMA
Meta Sound Engineering
PEGGY L. BARTLETT and
MASAHIRO KAHATA
IBVA Technologies, Inc.

In Inneractivity Finder - ColorScope, a color-animation program is used to generate a screen display and a set of two head-mounted EEG brainwave detectors as input devices. Data from the EEG brainwave detectors are processed and compared, and in turn they control color patterns that appear on the screen. As the two separate inputs become more similar, the color patterns become more harmonious. Participants are automatically sensitized and learn about the collaboration process by focusing their thoughts together.

The Virtual Gallery

CELIA PEARCE
CeliaPear@aol.com

Be among the first to try this new "free-motion" virtual reality platform that does away with cumbersome head-mounted displays and other gadgetry. The Virtual Gallery is a very special museum that allows you to step into the frame and literally walk around inside your favorite painting. Virtual paintings both familiar and obscure are created by students from North America and Europe.

Located in Room 150 B/C

DIGITAL ATELIER

Anthropology WebMuseum of Mexico

ARNULFO ZEPEDA NAVRATIL
Banamex
Mexico City, MEXICO
+52.5.725.1535
+52.5.725.1050 fax
azepeda@spin.com.mx

The goal of this project was to put the Mexican Anthropology Museum on the World Wide Web so it can be visited by anyone anywhere. The information (in Spanish and English) is structured so that it is fun and interesting, and it provides different ways for online visitors to leave their marks.

The ArtAIDS LINK Project

ANDREW NIMMO
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+44.181.980.6533 fax
A.D.Nimmo@dcs.qmw.ac.uk
http://artaids.dcs.qmw.ac.uk.8001/

Visitors to the ArtAIDS LINK galleries can browse exhibits, download images, keep images for modification, and upload works for subsequent exhibition. Most of the LINK pages are dynamically generated. They provide opportunities to offer feedback and add additional art-site links. Exhibits can be located at many sites around the world for retrieval by ftp or other means, depending on user location.

ChainReaction: An Interactive Collaborative Internet Art Experience

BONNIE MITCHELL
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College of Visual and Performing Arts
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bonniem@mailbox.syr.edu
http://ziris.syr.edu/

ChainReaction is a worldwide collaborative art project that involves digital image manipulation and networked integration of visual communication and the visual environment. Participants from locations around the world can collaborate with SIGGRAPH 95 attendees in manipulating images and communicating via CU-SeeMe and email. Because hardware, software, and networking capabilities vary from location to location, involvement in the project ranges from ftping manipulated images to networked video performances merged into the manipulated images and documented on the WWW site.

Guerilla Gallery

Guerilla Gallery offers members of the art and science communities the unique opportunity to experiment with the complicated process of printing images from their own files on a variety of printers, free of charge. The gallery includes a fully equipped imaging studio, where artists can produce digital prints on a high-end Iris ink-jet printer.

Motion Phone

SCOTT SNIBBE
1616 East Howell, Apartment 205
Seattle, Washington 98122 USA
+1.206.386.8836
+1.206.343.4240 fax
ssnibbe@adobe.com

Motion Phone is an experiment in pure visual communication. Users sit at workstations that display digital animation loops and use a tablet to choose colors and drawing tools from palettes on the screen. As the users draw, the speeds and locations of their marks are entered into the animation loop. Since the animation is stored in a display list, each viewer can translate over the infinite plane of interaction, or zoom into or out of parts. With more than two users, this space becomes an immense landscape upon which many dialogues are taking place.

University of California Riverside/California Museum of Photography

EDWARD W. EARLE
California Museum of Photography
University of California Riverside
+1.909.787.4787
+1.909.787.4797 fax
edward.earle@ucr.edu
http://cmpl.ucr.edu

As we move toward the end of the millennium, museums are rapidly changing. New communities must be addressed, whether they are disenfranchised by economic circumstances or geographic limitations. Through World Wide Web tools, The California Museum of Photography integrates technology, social history, and contemporary art and provides public opportunities for interaction on several levels.

Ylem's Art on the Edge: An Art Gallery on the World Wide Web

BEVERLY REISER
Ylem/Artists Using Science & Technology
6979 Exeter Drive
Oakland, California 94611 USA
Beverly@idiom.com
http://www.ylem.org

Ylem/Artists Using Science & Technology now has an art space on the World Wide Web: Ylem's Art on the Edge. It ranges in media from artists who do immersive environments, interactive multimedia, and music, to essays on evolving aesthetic theory.

Interactive Entertainment

Hall K

Sunday
5 pm – 7 pm

Monday – Tuesday
9 am – 7 pm

Wednesday – Thursday
9 am – 6 pm

Friday
9 am – 1 pm

Tickets

Due to limited capacity, the Tesla and Venturer S-2 installations in Interactive Entertainment are available only on a first-come, first-served basis. Interested attendees must reserve space on these limited-capacity rides.

Each day at the opening of registration, badged attendees can line-up for tickets to these rides outside Hall K at the Interactive Entertainment Ticket Distribution Counter. Each person in line (limited to the number allotted for each day) will receive one ticket for a specific time that same day. After the allotted spaces have been distributed for a given day, no more spaces will be available until the following day.

There is no additional charge for the Tesla and Venturer S-2 tickets.

This new program, inspired by the convergence of Hollywood and Silicon Valley, features outstanding examples of interactivity in location-based entertainment, television, on-line entertainment services, and electronic games. Some Interactive Entertainment displays also take attendees behind the scenes to demonstrate how specific projects were produced and how future projects might be conceived.

Chair
ISAAC VICTOR KERLOW
Pratt Institute

Administrative Assistant
D'ESTE HANSON

Committee
RED BURNS
New York University

CLARK DODSWORTH
Fujitsu Cultural Technologies

TERRENCE MASSON
Digital Fauxtography

ALETA PEARCE

CELIA PEARCE

BRUCE SINCLAIR
Alias/Wavefront

3D Virtual Theater

StrayLight Corp.
VICTORIA MASSULLI
150 Mount Bethel Road
Warren, New Jersey 07059
USA
+1.908.580.0086
+1.908.580.0092 fax

3D Virtual Theater is a stereoscopic three-minute virtual thrill ride that offers the audience the feel of a wild simulation experience. The 3D sound system is directly linked to the vibration seat, so every participant is completely immersed in the journey. A high-resolution head-mounted display enhances the special effects of the surrounding three-dimensional images flying off the screen. Several different experiences are available, including fly-throughs of computer networks, psychedelic tunnels, and ski races down the Swiss Alps. Participants not only watch the show, they also become part of the adventure.

CineACTIVE

Evolutionary Publishing
PETER MARX
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+1.310.260.0058
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pmarx@netcom.com

This interactive movie engine, developed by Evolutionary Publishing, made its first appearance in the spring of 1995 with Sony Imagesoft and Propaganda Code's "Johnny Mnemonic" Developers Peter Marx, Michael R. Abato, and Philippe Goodman give live demonstrations of the engine as it was used for "Johnny Mnemonic." They also discuss new projects and answer questions about the technology's potential applications.

Hellraiser and Icebreaker

Magnet Interactive Studios, Inc.
MATT ELSON
3255 Grace Street, NW
Washington, D.C. 20007
USA
+1.202.625.1111
+1.202.625.1353 fax
elson@aol.com

Hellraiser features a journey to Hell's labyrinth. Players are challenged with numerous obstacles including Pinhead and his apostles, an internal clock, and a multitude of clues. Icebreaker combines the impulsive fun of an arcade-style game with the intellectual problem-solving aspects of a fast-paced strategy game like Tetris.

Injection

Graviton
TOM WHITE
P.O. Box 829
Athens, Georgia 30603-0829
USA
+1.706.548.4332
TWhite@dcs.uga.edu

Injection enables full-bodied interaction between participants and a projection screen controlled by virtual "artists" residing in a Power Macintosh. These artificial artists, which generate a continuous stream of images on the screen, are created using a variety of genetic algorithms, including artificial evolution. Each has its own method of picking which stimulus to respond to and deciding how to embody its perceptions in a two-dimensional snapshot. There are no predefined rules for interaction. The nature of the interaction, including its duration and personal involvement, constantly changes to meet the needs of the participants.

Interacting with Virtual Actors

New York University Media Research Laboratory
ATHOMAS GOLDBERG
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New York, New York 10003
USA
+1.212.998.3469
+1.212.995.4122 fax
athomas@graphics.cs.nyu.edu

In this project, participants enter a darkened corridor and see a virtual room through a "picture window." A few virtual people in the virtual room are interacting socially with each other. Each participant's position is tracked; if the participant's movements interest the virtual actors, they might glance over or walk up to the "window." If the participant gets too close, a nearby virtual actor might step back. The virtual people might argue about the participant's presence, point, wave, or raise their voices. To the participant, the virtual people seem to be from another country or even another planet. They do not speak the same language, but there is an attempt to communicate, mostly through body language.

Interactive Marketing System

Brilliant Media
FRANK DUTRO, STEVE NELSON
450 Pacific Avenue, Suite 100
San Francisco, California 94133
USA
+1.415.434.5040
+1.415.777.2379 fax
S.Nelson@applelink

Steve Nelson and Frank Dutro of Brilliant Media, designers of "Peter Gabriel's Xplora I," the award-winning music CD-ROM, present their new interactive marketing system, a flexible tool that helps publishers, distributors and marketing managers review, evaluate, plan and implement marketing and distribution strategies for films, music, print, and multi-media products.

Mandala Turbo Kourier Module

The Vivid Group
STEVE WARME
317 Adelaide Street West
Suite 302
Toronto, Ontario M5V 1P9
CANADA
+1.416.340.9290
+1.416.348.9809 fax
diego@utcs.utoronto.ca

Turbo Kourier places the player in the role of a futuristic courier riding a gravity-defying skyboard. The object of the game is to collect packages and energy-increasing elixir while avoiding hovering animated opponents. Players use exaggerated gestures in front of the camera to control their on-screen images as they move through full 3D-rendered foreground and background graphics and a compelling sampled soundtrack.

Mekton

Silicon Graphics, Inc.

DAVE LIGON
2011 North Shore Boulevard
Mountain View, California 94043
USA
+1.415.390.3502

Members of the Terran Defense League and their giant humanoid robots (Mektons) have been assigned to protect the recently constructed Sunfire One colony in the Beta Crucis system, the vital link between the Rim Systems and the Core. The Pirates, who must have access to the supplies of hydrogen fuels the Earth Government has stockpiled in the Beta Crucis system, are prepared to face any danger, even the TDL's advanced Mektons, if that's what it takes to get those vital stockpiles. The battle is about to be joined. Who will be the victor? Who will finally rule the world of Mekton?

mTropolis & AVRe

Headspace

THOMAS DOLBY

mTropolis

HAMISH FORSYTHE
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San Francisco, California 94133
USA
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+1.415.548.9249 fax
hamish@mfactory.co

AVRe is a sophisticated sound-rendering technology that allows sound to be experienced as a spatial environment. mTropolis is a highly visual, object-oriented authoring environment that enables modular design of interactive experiences. These two tools are designed to complement each other so that sounds produced and manipulated in AVRe can be seamlessly integrated into mTropolis' multimedia applications. AVRe developer Thomas Dolby of Headspace and mFactory President Hamish Forsythe demonstrate this unique method for integrating visuals and sound, and answer developers' technical and creative questions about its possible applications in their own projects.

Real-Time Motion Capture System

Boss Film Studios
BOB MAZZA
13335 Maxella Avenue
Marina Del Rey, California 90292
USA
+1.310.823.0433
+1.310.305.8576 fax

Boss Film's real-time motion capture system is designed to accelerate character animation. Using a closed director-animator feedback loop and puppeteers with a moving virtual camera on a multi-axis armature, the system achieves up to two weeks of animation work in a single day. It also allows directors to direct character animation in much the same way as they would a live-action shot.

The system is currently capable of doing about 200 takes a day. It composites video-transferred shots from a set or location with recovered or live-camera motion and a motion-capture model to produce a real-time preview of the shot. Once the motion is approved, it is sent to animators for performance adjustments, then bound to a high-resolution skin, textured, lit, and composited into the scene.

At SIGGRAPH 95, the third generation of the Boss system, which was designed and implemented for the film *Species*, has been modified to demonstrate its application to both film/video production and multiple-participant virtual reality envirionments.

REALWare VR System

CCG MetaMedia, Inc.

JEFF ATLAS
460 West 34th Street, 7th Floor
New York, New York 10001
USA
+1.212.268.2100
+1.212.268.2105 fax

The REALWare VR system of "unencumbered" virtual reality presents two experiences. In Virtual Hoops, a one-on-one basketball simulation, computer-controlled opponents are high-resolution, digitized human actors who steal balls, block shots, and are generally menacing. Plax Power allows participants to battle plaque inside a virtual mouth. The program combines computer-generated graphics and cel animations to carry the participant into the mouth to fight pesky plaque, anthropomorphized as small, hairy varmints. They become the enemy in a virtual battle to maintain oral health.

Soundscapes Entertainment

Fakespace, Inc.

CHRISTIAN GREUEL
4085 Campbell Avenue
Menlo Park, California 94025 USA
+1.415.462.5830
+1.415.688.1949 fax
xianatro@crl.com

In this music-based immersive virtual reality entertainment experience, the simulated adventure begins aboard a photo-realistic steam locomotive. As they leave the station behind, passengers move downward through a tunnel of swirling mist and cruise among the shifting forms and intricate patterns they discover along the path. But this is no ordinary VR experience. The virtual locomotive is fueled by music. In fact, music drives nearly every aspect of the synthetic journey and generates the forms that occupy the landscape. Visual music techniques generate an infinite number of unique immersive experiences.

Tesla: 4th Generation LBE VR

Virtual World Entertainment

BRENDA SEXTON
1100 West Cermak, Suite B404
Chicago, Illinois 60608 USA
+1.312.243.6515
+1.312.243.7818 fax

Groups of four people are introduced to the theory and operation of the Tesla cockpit with a short film, interactive touch-screens, and verbal instructions. When they strap into the cockpit, they are "translocated" to another world, where they can explore and race through the canals of Mars. After their return, video recordings of the highlights of their mission are replayed and a printed log of activities is presented to each adventurer. A collection of multimedia touch-screen Macintosh machines provides background information and instructions to those waiting to experience the main attraction.

Toy Scout Arcade II

Creative Worlds Institute

DAVID MCLAURIN
3280 Progress Drive
Orlando, Florida 32826 USA
+1.407.249.4704
+1.406.658.5059 fax
mclaurin@vsl.ist.ucf.edu

The Creative Worlds Institute's Toy Scouts present four games at SIGGRAPH 95: JitalWast, a multiple-player shoot-out featuring the use of data gloves for player input; SyberKnight, a more realistic look at simulation training; Burning Blades, a sword combat program that emphasizes the fluidity of the players' model and motion; and Death Maze, a capture-the-flag-type game set in a maze where players encounter each other as computer-generated players. All of the games feature the Toy Scouts' unique six-dimensional sound interface and immerse players through seamless interfaces.

Venturer S-2

Thomson Entertainment Systems

ANTONIO CRUZ JR.

4900 Hopyard Road, Suite 100

Pleasanton, California 94588 USA

+1.510.736.5144

+1.510.736.5145 fax

Venturer S-2 is a safe and flexible entertainment attraction that takes up to 14 people on a thrill or fantasy ride of a lifetime. It integrates acceleration and g-forces to form a high-performance three-axis motion system with a point-of-view image displayed on a big screen and enhanced by CD-quality sound. The system is backed by an extensive library of software, all produced to full broadcast video standards and displayed using the latest CRV laser-disc technology.

YORB – The Electronic Neighborhood

New York University

NICK WEST

Interactive Telecommunications Program

721 Broadway, 4th Floor

New York, New York 10003 USA

+1.212.998.1894

+1.212.998.1898 fax

west@echonyc.com

YORB is an ongoing experiment in building an interactive virtual community. Viewers can reach YORB from their phone, computer, or television set. They can simply watch the neighborhood as it is displayed on cable, or they can participate by telephone. After they enter YORB, phone and computer participants can play music, games, or other cooperative activities. Viewers can also contribute to the virtual community by uploading graphics, sounds, or digital movies to the bulletin board system.

XBAND Video Game Network

Catapult Entertainment, Inc.

MELISSA MILLER

20823 Stevens Creek Boulevard

Suite 300

Cupertino, California 95014 USA

+1.408.366.1735 x269

+1.408.366.1729 fax

@catapent.com

XBAND links together video games from around the U.S. Participants' equipment requirements are simple: a Sega or Super Nintendo and a telephone line. They connect to the network via an "intelligent" modem that modifies execution of a game cartridge to make existing games that were never intended to be played over distributed systems work through the modem. The modem also includes a ROM-based operating system with a simple user interface, mini-email (with Internet access) for kids, and two online newspapers that are downloaded every time you connect.

Xenomorph

Virtual Reality Entertainment Corp.

BRAD GIANULIS

414 Baxter Avenue, Suite 230

Louisville, Kentucky 40204 USA

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+1.502.585.5784 fax

vree@thepoint.com

This location-based entertainment environment consists of four stand-up pods networked for interactive real-time play. The relatively inexpensive PC hardware combined with proprietary software provides a reasonable approach for entering the location-based virtual reality entertainment market. The software for the installation is Xenomorph, a multiplayer, fully immersive, virtual reality game experience that transports the player to a high-tech, futuristic scientific research complex on Mars. The task: save both the facility and its desperate crew from invading alien creatures. Unlike the standard adversarial approach to multiplayer games, Xenomorph offers a cooperative experience.

Artist/Designer Sketches

Concourse Hall Room 152 F

Wednesday
10 am – 11:30 am

Thursday – Friday
8:30 am – noon

Informal presentations of creative and production issues, new applications of digital technologies, experimental projects, and works in progress.

Chair
EDUARDO KAC
University of Kentucky

Wednesday, 9 August

10 am – 11:30 am

IMAGING ISSUES

10 am – 10:30 am

Life Without Iris

Inventive hard-copy processes used by the artists.

Lane Hall
Lisa Moline
Teikyo Marycrest University
1607 West 12th Street
Davenport, Iowa 52804
USA
lhall@acc.mcrest.edu

10:30 am – 11 am

Still Video and the Painterly Poem

Integrating still video into the painter's studio.

James Faure Walker
88 Greenwood Road
London E8G 1NE
UNITED KINGDOM
100666.2570@compuserve.com

11 am – 11:30 am

Image Paragraphs and Image Books

Verbal visual work with experimental digital fonts.

John F. Sherman
University of Notre Dame
Department of Art, Art History and Design
Notre Dame, Indiana 46556
USA
+1.219.287.3151 fax
john.f.sherman.1@nd.edu

Thursday, 10 August

8:30 am – noon

CD-ROM AS AN ART FORM

8:30 am – 9 am

Uneaten Future

3D navigable spaces based on personal mythology.

Rodrigo Toledo
5630 North Sheridan, Apartment 1112
Chicago, Illinois 60660
USA
rtoled@artic.edu

9 am – 9:30 am

Mothers and Daughters: Cold Medium/Warm Response?

Autobiographical non-linear multimedia narrative.

Susan E. Metros
The University of Tennessee
Department of Art 1
715 Volunteer Boulevard
Knoxville, Tennessee 37996-2410
USA
+1.615.974.3198 fax
smetros@utk.edu

9:30 am – 10 am

The Interactive Encyclopedia of Clamps

Humorous and provocative 3D environment.

Bill Barminski
Webster Lewin
Jerry Hesketh
Consumer Productions
3700 Englewood Boulevard, #8
Los Angeles, California 90066
USA

BEYOND 3D MODELING AND ANIMATION

10 am – 10:30 am

Synthesising the Wild

Synthesis of natural spaces in relation to the wild.

Jon McCormack
Monash University
Wellington Road
Clayton, Victoria 3168
AUSTRALIA
+61.3.9905.5146 fax
jonmc@cs.monash.edu.au

10:30 am – 11 am

Gigalopolis – The Art of Artificial Life Sensor

Self-organizing space experienced in stereoscopic HDTV.

Yoichiro Kawaguchi
University of Tsukuba
Institute of Art
1-1-1, Tennodai
Tsukuba Science City 305
JAPAN
+81.298.53.2832 fax
KGH03242@niftyserve.or.jp

11 am – 11:30 am

3D Printing

Designers explore ink jet based rapid prototyping system.

Jill Smith
Phil Dench
Headus (metamorphosis)
Lot 7 Soldiers Road
Roleystone, Western Australia 611
AUSTRALIA
+61.9.443.1632 fax
architec@cs.curtin.edu.au
cdiuser@cs.curtin.edu.au

11:30 am – noon

A New 3D Key

Installation integrating live video and 3D computer images.

Christa Sommerer
Laurent Mignonneau
ATR Media Intergration & Communications Research Laboratories
2-2 Hikaridai, Seika-cho, Soraku-gun
Kyoto 619-02
JAPAN
+1.81.7749.5.1208 fax
christa@mic.atr.co.jp

Friday, 11 August

8:30 am – noon

INNOVATIVE NETWORKING CONCEPTS

8:30 am – 9 am

GreenSpace

Interactive shared virtual space between the US and Japan.

Paul Danset
University of Washington
HIT Lab
Box 352142
Seattle, Washington 98195-2142
USA
+1.206.543.5075
pdanset@hitl.washington.edu

9 am – 9:30 am

12 Hour ISBN JPEG

Sequential posting of postmodern photography.

Brad Brace
2434 Southeast Belmont Street
Portland, Oregon 97214-2821
USA
bbrace@netcom.com

9:30 am – 10 am

Envisioning – A Child's Expression of the City

Multimedia Internet link between Japan and the US.

Richard Navin
Nancy Earle-Navin
Brooklyn College
Image & Communications Project
Art Department. Room 5306
Brooklyn, New York 11210
USA

ARCHEOLOGY OF MEDIA

10 am – 10:30 am

Genealogy of the Computer Screen

Complex relationship between the computer screen and the human body.

Lev Manovich
University of Maryland Baltimore County
Department of Visual Arts
5401 Villers Avenue
Baltimore, Maryland 21228-5378
USA

10:30 am – 11 am

The Aesthetics of Cognition

Boundaries between interface and imagination.

Timothy Druckrey
Independent Media Critic
269 Union Street #2L
Brooklyn, New York 11231
USA
+1.718.237.9457 fax

11 am – 11:30 am

Originality: So What?

Originality from cross-cultural perspectives.

Machiko Kusahara
Tokyo Institue of Polytechnics
Tokyo1583
JAPAN
+81.3.5395.1428 fax

11:30 am – noon

Archeology of Interactivity

Origins of interactive art in the pre-digital era.

Erkki Huhtamo
University of Lapland
Box 122 FN
96101 Rovaniemi
FINLAND
+358.60.324.361

Special Interest Groups

Saturday – Friday
5 – 11 August

Birds of a Feather meeting rooms: Room 509 B/C, LACC

Special Interest Groups are organized around particular products, topics, or problems. They are excellent forums for SIGGRAPH 95 attendees who share common interests and concerns to get to know each other and exchange ideas. Special Interest Group meetings are open to all attendees. They are usually informal. At some, general subjects are discussed; others convene around topics related to specific product vendors.

Birds of a Feather meetings are called during the conference. They can be scheduled at any time, to discuss any subject. To organize your own impromptu meeting, simply use the sign-up board in the Registration Concourse where late additions and revisions to the Special Interest Groups and Birds of a Feather schedules are posted.

Saturday, 5 August

Professional Chapters Meeting
4 pm to 6 pm
Santa Anita Room A,
Westin Bonaventure
Scott Lang
+1.914.961.6564

Sunday, 6 August

IEEE Computer Graphics & Applications (CG&A) Board Meeting
8 am to 5 pm
Venice Room A,
Hyatt Regency Los Angeles
Mary Johnson
+1.518.276.6754

Wave 95 – Alias/Wavefront Users Group Meeting
9 am to 9 pm
Regency Room, Biltmore Los Angeles
Rhonda Olson
+1.602.263.3939

AIAA Interactive Computer Graphics Technical Cmte. Mtg. on Comp. Graphics for Aerospace
2 pm to 5 pm
San Jose Room A,
Holiday Inn City Center
David Edwards
+1.203.727.7518

AVS Visualization System Users Discussions
4 pm to 5:30 pm
Room 508B, LACC
Michael Pique
+1.619.554.9775

SIGGRAPH 95 Late Night Party
9 pm to 4 am
San Bernardino Room,
Westin Bonaventure

Monday, 7 August

Autodesk HOOPS Graphic Engine Release 4.1
8 am to 5 pm
Santa Monica Room A,
Hyatt Regency Los Angeles
Bridget Clark
+1.415.507.6502

SIGGRAPH 95 Late Night Party
9 pm to 4 am
San Bernardino Room,
Westin Bonaventure

Tuesday, 8 August

Autodesk HOOPS Graphic Engine Release 4.1
8 am to 5 pm
Santa Monica Room A,
Hyatt Regency Los Angeles
Bridget Clark
+1.415.507.6502

Keystone Initiative
1 pm to 3 pm
Room 503, LACC
Mason Woo
+1.415.390.4205

How to be a SIGGRAPH Volunteer
3 pm to 5 pm
Room 511B, LACC
Steve Cunningham
+1.209.667.3176

SIGGRAPH 95 Late Night Party
9 pm to 4 am
San Bernardino Room,
Westin Bonaventure

Wednesday, 9 August

Autodesk HOOPS Graphic Engine Release 4.1
8 am to 5 pm
Santa Monica Room A,
Hyatt Regency Los Angeles
Bridget Clark
+1.415.507.6502

New Generation Memory
8:30 am to 10 am
San Francisco Room, Holiday Inn City Center
Allison Niday
+1.415.965.6124

Graphics Performance Characterization Committee (GPC)
noon to 1 pm
San Francisco Room,
Holiday Inn City Center
Bob Cramblitt
+1.919.481.4599

OpenGL
1 pm to 2:15 pm
Room 511B/C, LACC
Mason Woo
+1.415.390.4205

Molecular Graphics
1:30 pm to 3 pm
Room 511A, LACC
Michael Pique
+1.619.554.9775

General Education Committee
2 pm to 3 pm
Santa Anita Room C,
Westin Bonaventure
G. Scott Owen
+1.404.651.2245

Arts Curriculum
3 pm to 4 pm
Palos Verdes Room,
Westin Bonaventure
Barbara Mones-Hattal
+1.703.993.1020

Computer Science Curriculum
3 pm to 4 pm
Los Cerritos Room,
Westin Bonaventure
Maria Larrondo-Petrie
+1.812.877.8429

K-12 Curriculum
3 pm to 4 pm
San Fernando Room, Westin Bonaventure
Judy Sachter
+1.512.838.3035

Computer Graphics and Public Policy
4 pm to 5:30 pm
Room 508A, LACC
Judy Brown
+1.319.335.5552

Get Involved – Meet the SIGGRAPH 96 Committee
5:30 pm to 7 pm
Room 503, LACC
siggraph96@siggraph.org

Reuniao dos Brasileiros
5:30 pm to 7 pm
Room 511AB, LACC
John Michael Pierobon
pierobon@siggraph.org

UNC Chapel Hill Graphics Reunion
5:30 pm to 8 pm
Room 511C, LACC
Sherry Palmer
+1.919.962.1740

Massively Parallel Rendering
5:45 pm to 7:30 pm
San Jose Room A,
Holiday Inn City Center
Patricia Crossno
+1.505.845.5800

Computer Graphics Pioneers
6 pm to 9 pm
San Fernando Room,
Westin Bonaventure
Sherry Keowen
+1.805.527.2892

SIGGRAPH 95 Late Night Party
9 pm to 4 am
San Bernardino Room,
Westin Bonaventure

Thursday, 10 August

Professional Chapters Meeting
8:30 am to 10 am
Room 511A, LACC
Scott Lang
+1.914.961.6564

SIGGRAPH T-shirt Art Contest
noon to 1 pm
Room 502B, LACC
Jock Mackinley
+1.415.812.4335

SIGGRAPH Small Conferences
noon to 1 pm
Room 511A, LACC
Chuck Hansen
+1.505.665.3663

ISEA/ISAST/ISEA '95 Montreal, ISEA '96 Rotterdam
noon to 1 pm
Room 511BC, LACC
Cynthia Rubin
+1.802.656.8159

SIGGRAPH Art and Design Forum
1 pm to 2 pm
Room 511BC, LACC
Bonnie Mitchell
+1.315.443.1267

Ray Tracing Roundtable
5:15 pm to 6:30 pm
San Fernando Room,
Westin Bonaventure
Eric Haines
+1.607.257.1381

SIGGRAPH 95 Late Night Party
9 pm to 4 am
San Bernardino Room,
Westin Bonaventure

Friday, 11 August

AVS in Medicine
10 am to noon
Room 503, LACC
Alan Scrivenel
+1.714.253.4173

LA Art Events

Computer graphics-related shows, performances, conferences, lectures, screenings, and other activities scheduled in Southern California near and/or during SIGGRAPH 95.

The Digital Dialectic: A Conference on Convergence of Technology, Media, and Theory

The Digital Dialectic is an interdisciplinary jam session about what is happening to our visual and intellectual cultures as the computer recodes technologies, media, and art forms. Panelists: Robert Stein, Florian Brody, George Landow, Peter Lunenfeld, Lev Manovich, Erkki Huhtamo, Brenda Laurel, Christian Möller, William J. Mitchell, N. Katherine Hayles, Michael Heim, Carol Gigliotti.

4 – 6 August 1995

The Ahmanson Auditorium at Art Center
The Art Center College of Design
1700 Lida Street
Pasadena, California
+1.818.568.4710
+1.818.795.0819
peterl@artcenter.edu

Digital Meditations

An exhibition of seven international artists who are using digital and interactive media. Includes Jim Campbell, Lynn Hershman, Sara Roberts, Bill Seaman, Christa Sommerer/Laurent Mignonneau, and Jennifer Steinkamp. Curated by Laurence Dreiband, Erkki Huhtamo, and Stephen Nowlin. Opening reception, 5 August, 6 pm - 9 pm.

6 August – 1 October 1995

Alyce de Roulet Williamson Gallery at Art Center
The Art Center College of Design
1700 Lida Street
Pasadena, California
+1.818.396.2244

Patrick Reynaud: Absolutions

A multimedia installation including digitally-inflected sculpture and flat work.

12 July – 20 August 1995

Robert Berman Gallery at Bergamot Station
2525 Michigan Avenue, Building C-2
Santa Monica, California
+1.310.453.9195

Digitalogue at Bergamot Station

Tokyo-based Digitalogue, established in 1992 as Japan's only enterprise focused on new-media art projects, opens its American headquarters at Bergamot Station. Contact Tim Blum for further information: +1.310.453.8311.

13 July – 20 August 1995

2525 Michigan Avenue
Santa Monica, California

The LA Cyberscene: 1985-1995

A retrospective curated by Bob Gelman and Joan Collins

28 July – 19 August 1995

$2.00 suggested admission

EZTV @ Re:Solution Gallery
6518 Hollywood Boulevard
Los Angeles, California
+1.213.939.7100

New Visions: Los Angeles Art in the 90's

Works by over 40 Los Angeles artists, including computer-generated work by Darryl Curran, Tom Rose, and Robert Ketchum, in the museum's Art Rental and Sales Gallery.

24 April – 15 September 1995

UCLA at the Armand Hammer Museum of Art
10899 Wilshire Boulevard
Los Angeles, California
+1.310.443.7000

Pacific Dreams: Currents of Surrealism and Fantasy in California Art, 1935-1957

This exhibit examines dada, surrealism, and fantasy in California art with work by such artists as Salvador Dali, Helen Lundeberg, Man Ray, and Edmund Teske.

11 July – 17 September 1995

$4.50 admission

UCLA at the Armand Hammer Museum of Art
10899 Wilshire Boulevard
Los Angeles, California
+1.310.443.7000

Veered Science
This show, curated by Marilu Knode, presents artists who work with the impact of science and technology in our lives. Artists include: Colette Gaiter, Tim Hawkinson, Pauline Sanchez, Joseph Santarromana, Rodney Sappington, Rachel Slowiniski and Jesse Cantley, and Gail Wright

1 July – 4 September 1995

$3.00 admission

Huntington Beach Art Center
538 Main Street
Huntington Beach, California
+1.714.374.1650

New California Video: 1994-1995
Includes computer-generated and video work by artists Eric Saks, John Whitney, Gary Hill, and Bill Viola.

3 June – 20 August 1995

$2.00 admission

Long Beach Museum of Art
2300 Ocean Boulevard
Long Beach, California
+1.310.439.2119

Los Angeles International
Throughout July and August, over 80 galleries from around the world will be staging a series of exhibitions in Los Angeles. Call Toby Crockett at +1.213.484.1810 for specifics and techno-themed shows.

http://www.inetcafe.com/~lainternational

The History of the Burning Man
In the Hallwalls Gallery.

$2.00 suggested admission

LACPS @ Re:Solution Gallery
6518 Hollywood Boulevard
Los Angeles, California
+1.213.446.6232

Museum of Jurassic Technology
An educational institution dedicated to the advancement of knowledge and public appreciation of the Lower Jurassic.

$3.00 admission
$2.00 student/senior suggested admission

Museum of Jurassic Technology
9341 Venice Boulevard
Los Angeles, California
+1.310.836.6131

Digital SITE: Art/Computer Interface
Curated group exhibition of Southern California artists with emphasis on the interface between the postmodern canon and emergent digital aesthetic and practice. Opening, Sunday 6 August, 1 pm - 5 pm

20 July – 2 September 1995

SITE Gallery
719 West 7th Street
Los Angeles, California
+1.213.629.4532

Alan Rath: The Challenger
A digital installation.

12 July – 20 August 1995

Track 16 Gallery
Bergamot Station
2525 Michigan Avenue
Santa Monica, California
+1.310.264.4678

Dialogues in the New Media: A Group Show of Digital Work

13 July – 30 August 1995

William Turner Gallery
69 Market Street
Venice, California
+1.310.392.8399

Daily Program Schedule

Sunday, 6 August

11 am | 1:30 pm | 2 | 5 | 7 | 10 pm

Registration/Merchandise/International Center
11 am to 10 pm
Advance Registration/International Center – South Lobby
On-Site Registration/Merchandise – Hall K

Courses – Half Day
1:30 pm to 5 pm

2 Graphics Design and Production for Hemispheric Projection – Petree Hall C
12 VRML: Using 3D to Surf the Web – Room 403 A
17 Programming with OpenGL: An Introduction – Room 403 B
20 From Start-up to Success: Strategic Marketing of Technology Products – Room 502 B
24 Introduction to Curves and Surfaces – Room 502 A
27 Visualizing Multi-Dimensional Geometry and Applications to Multi-Variate Problems – Room 515 A

Computer Animation Festival Screening Rooms
5 pm to 7 pm
Rooms 406 A/B, 409 A/B, and Theatre

Art Gallery
5 pm to 7 pm
West Concourse Foyer and Room 153 B/C

Interactive Entertainment
5 pm to 7 pm
Hall K

Interactive Communities
5 pm to 7 pm
Hall K

Fundamentals Seminar
2 pm to 5 pm
Concourse Hall Rooms 151

Welcome Reception
5 pm to 7 pm
Hall K

Monday, 7 August

7:30 am 8:30 9 1:30 pm 5 7 8 9 11 pm

Registration/Merchandise/International Center
7:30 am to 7 pm
Advance Registration/International Center – South Lobby
On-Site Registration/Merchandise – Hall K

Courses – Full Day
8:30 am to 5 pm

1 Realistic Input for Realistic Images – Concourse Hall Room 152
3 Warping and Morphing of Graphical Objects – West Hall A
4 Using RenderMan in Animation Production – West Hall B
7 Artificial Life for Graphics, Animation, and Virtual Reality – Room 502 B
8 Programming Virtual Worlds – Room 515 A
13 Electronic Publishing on CD-ROM – Petree Hall D
14 Practical Guide to Recording Video Animation from Computer Graphics – Room 502 A
21 Introduction to Computer Graphics – Concourse Hall Room 151
22 Graphic Design for Usable GUIs – Room 408 B
26 Wavelets and Their Application to Computer Graphics – Room 408 A
28 Visualizing and Examining Large Scientific Datasets:
A Focus on the Physical and Natural Sciences – Room 403 A
30 Advanced Techniques for Scientific Visualization – Petree Hall C
33 Procedural Modeling, Texturing, and Animation Techniques – Room 515 B

Courses – Half Day
1:30 pm to 5 pm

18 Programming OpenGL with X – Room 403 B

Electronic Theatre
7 pm to 9 pm
Shrine Auditorium

Computer Animation Festival Screening Rooms
9 am to 7 pm
Rooms 406 A/B, 409 A/B, and Theatre

Art Gallery
9 am to 7 pm
West Concourse Foyer and Room 153 B/C

Interactive Entertainment
9 am to 7 pm
Hall K

Interactive Communities
9 am to 7 pm
Hall K

Course Reception
8 pm to 11 pm
Dorothy Chandler Pavilion

Daily Program Schedule

Tuesday, 8 August

7:30 am | 8:30 | 9 | 10 | 12:15 pm | 1:30 | 5 | 6 | 7 | 7:30 | 9:30 pm

Registration/Merchandise/International Center
7:30 am to 7 pm
Advance Registration/International Center – South Lobby
On-Site Registration/Merchandise – Hall K

Behind the Scenes:
Computer Graphics in Film
General Session
12:15 pm to 1:30 pm
West Hall B

Exhibition
10 am to 6 pm
Halls G, H, J, and K

Courses – Full Day
8:30 am to 5 pm

5 Tricks of the Trade: Computer Graphics Production – West Hall B
6 Designing Real-Time 3D Graphics for Entertainment – West Hall A
9 Developing Advanced Virtual Reality Applications – Concourse Hall Room 152
10 Sound for Animation and Virtual Reality – Petree Hall C
11 Dynamic Behaviors for Real-Time Synthetic Humans – Concourse Hall Room 151
15 Making Multimedia: From Vaporware to Goldrush – Petree Hall D
16 Introduction to Video and Audio Compression Techniques – Room 515 B
19 Programming Open Inventor: An Object-Oriented OpenGL Toolkit – Room 502 A
23 Practical 3D User Interface Design – Room 502 B
25 Computer Vision for Computer Graphics – Room 408 A
29 Visualizing Mathematics – Room 403 A
31 Perception-Based Visualization – Room 515 A
32 Interactive Walkthrough of Large Geometric Databases – Room 403 B
34 Physically Based Modeling – Room 408 B

Electronic Theatre
7:30 pm to 9:30 pm
Shrine Auditorium

Computer Animation
Festival Screening Rooms
9 am to 7 pm
Rooms 406 A/B, 409 A/B, and Theatre

Art Gallery
9 am to 7 pm
West Concourse Foyer and Room 153 B/C

Interactive Entertainment
9 am to 7 pm
Hall K

Interactive Communities
9 am to 7 pm
Hall K

Wednesday, 9 August

8 am | 8:30 | 9 | 9:30 | 10 | 11:30 | 12:15 pm | 1:45 | 3:45 | 5:30 | 6 | 7:30 | 9:30 pm

Registration/Merchandise/International Center
8 am to 6 pm
Advance Registration/International Center – South Lobby
On-Site Registration/Merchandise – Hall K

Artist/Designer Sketches
10 am to 11:30 am
Concourse Hall Room 152 F

Keynote Address/Awards
8 am to 9:30 am
West Hall B

Behind the Scenes:
Computer Graphics in Film
General Session
12:15 pm to 1:30 pm
West Hall B

Exhibition
10 am to 6 pm
Halls G, H, J, and K

Papers
10 am to 11:45 am
Compression & Multimedia
West Hall A

1:45 pm to 3:30 pm
Animation 1
West Hall A

3:45 to 5:30 pm
Animation 2
West Hall A

Panels
10 am to 11:45 am
David vs. Goliath or Mice vs. Men?
West Hall B

A National Research Agenda for
Virtual Reality
Petree Hall C

1:45 pm to 3:30 pm
Set-Top Boxes –
The Next Platform
West Hall B

Museum Without Walls:
New Media for New
Museums
Petree Hall C

3:45 to 5:30 pm
Interactive Multimedia:
A New Creative Frontier or Just
a New Commodity
West Hall B

Integrating Interactive Graphics
with Future Technologies
Petree Hall C

Technical Sketches
1:45 pm to 5:30 pm
Concourse Hall Room 152 F

Electronic Theatre
7:30 pm to 9:30 pm
Shrine Auditorium

Computer Animation
Festival Screening Rooms
9 am to 6 pm
Rooms 406 A/B, 409 A/B, and Theatre

Art Gallery
9 am to 6 pm
West Concourse Foyer and Room 153 B/C

Interactive Entertainment
9 am to 6 pm
Hall K

Interactive Communities
9 am to 6 pm
Hall K

Get Involved – Meet the
SIGGRAPH 96 Committee
5:30 pm to 7 pm
Room 503

Daily Program Schedule

Thursday, 10 August

8am 8:30 9 10 10:30 noon 1:45 3:45 5:30 6 7:30 8 9:30 11 pm

Registration/Merchandise/International Center
8 am to 6 pm
Advance Registration/International Center – South Lobby
On-Site Registration/Merchandise – Hall K

Artist/Designer Sketches
8:30 am to noon
Concourse Hall Room 152 F

Exhibition
10 am to 3:30 pm
Halls G, H, J, and K

Papers

8:30 am to 10:15 am
Modeling
West Hall A

10:30 am to 12:15 pm
Multi-Resolution Techniques
West Hall A

1:45 pm to 3:30 pm
Interactive Design
West Hall A

3:45 pm to 5:30 pm
Texture Synthesis
West Hall A

Panels

8:30 am to 10:15 am
New Developments in Animation Production for Video Games
West Hall B

10:30 am to 12:15 pm
Video Game Industry Overview: Technology, Markets, Content, Future
West Hall B

Aesthetics and Tools in the Virtual Environment
Petree Hall C

1:45 pm to 3:30 pm
Visualizing the Internet: Putting the User into the Driver's Seat
West Hall B

Algorithms and the Artist
Petree Hall C

3:45 pm to 5:30 pm
Performing Work Within Virtual Environments
West Hall B

Standardization: Opportunity or Constraint
Petree Hall C

Technical Sketches
1:45 pm to 5:30 pm
Concourse Hall Room 152 F

Electronic Theatre
7:30 pm to 9:30 pm
Shrine Auditorium

Computer Animation Festival Screening Rooms
9 am to 6 pm
Rooms 406 A/B, 409 A/B, and Theatre

Art Gallery
9 am to 6 pm
West Concourse Foyer and Room 153 B/C

Interactive Entertainment
9 am to 6 pm
Hall K

ACM SIGGRAPH Annual Business Meeting
5:30 pm to 7 pm
Room 151, LACC

Interactive Communities
9 am to 6 pm
Hall K

Papers/Panels Reception
8 pm to 11 pm
Watercourt at California Plaza

Friday, 11 August

8:30 am | 9 | 10:30 | noon | 12:15 pm | 1:00 | 1:45 | 3:30 | 3:45 | 5:30 pm

Registration/Merchandise/International Center
8:30 am to 1 pm
Advance Registration/International Center – South Lobby
On-Site Registration/Merchandise – Hall K

Artist/Designer Sketches
8:30 am to noon
Concourse Hall Room 152 F

Ask Dr. SIGGRAPH
General Session
12:15 pm to 1:30 pm
West Hall B

Papers

8:30 am to 10:15 am
2D Techniques
West Hall A

Implicit Surfaces
Petree Hall C

10:30 am to 12:15 pm
Shading & Cameras
West Hall A

Splines & Surfaces
Petree Hall C

1:45 pm to 3:30 pm
Virtual Reality
West Hall A

Sampling
Petree Hall C

3:45 pm to 5:30 pm
Volume Visualization & Morphing
West Hall A

Panels

8:30 am to 10:15 am
Cross-Media Authoring
West Hall B

10:30 am to 12:15 pm
Grids, Guys, and Gals: Are You Oppressed by the Cartesian Coordinate System?
West Hall B

1:45 pm to 3:30 pm
Visual Effects Technology: Do We Have Any?
West Hall B

3:45 pm to 5:30 pm
3D Graphics Through the Internet – A "Shoot Out"
West Hall B

Technical Sketches
1:45 pm to 3:30 pm
Concourse Hall Room 152 F

Educators' Program
8:30 am to 5 pm
Rooms 403 A/B and 408 A/B

Computer Animation Festival Screening Rooms
9 am to 1 pm
Rooms 406 A/B, 409 A/B, and Theatre

Art Gallery
9 am to 1 pm
West Concourse Foyer and Room 153 B/C

Interactive Entertainment
9 am to 1 pm
Hall K

Interactive Communities
9 am to 1 pm
Hall K

SIGGRAPH 95
Computer Animation Festival/ Electronic Theatre
Public Screening
Sponsored by Microsoft
8 pm to 10 pm
Shrine Auditorium

Courses

See pages 45-53 for course locations

Sunday
1:30 pm – 5 pm

Monday – Tuesday
8:30 am – 5 pm

Courses are categorized in three levels:

Beginning: no prerequisites for introductory courses, but prior experience with computing or graphics may be helpful.

Intermediate: attendees should have working knowledge of the subject, based on introductory courses, reading, and practical experience. Intermediate-level courses supply substantial technical content in detail, such as algorithms, techniques, and architectures.

Advanced: narrow topics covered in substantial technical depth. Presentations may include challenging mathematical concepts and programming examples.

Instructional sessions on the latest topics, trends, and technologies in computer graphics and interactive techniques. Course offerings cover the full breadth and depth of the discipline, and range from basic introductions to exploration of leading-edge concepts.

Two registration categories (Conference and Courses Passports) allow attendees access to all SIGGRAPH 95 Courses. Course seating is not guaranteed, and is available on a first-come, first-served basis. Please be sure to arrive early for the course(s) that you wish to attend.

Conference and Courses Passports registrants receive all course notes on CD-ROM. Subject to availability, printed course notes can be purchased at SIGGRAPH 95 on-site registration.

Chair
WAYNE CARLSON
The Ohio State University

Administrative Assistant
BOB McCARTHY

Committee
NAN SCHALLER
Rochester Institute of Technology

SCOTT SENFTEN
Shell Services Company

BARB HELFER
The Ohio State University

JEFF MCCONNELL

MIKE BAILEY
San Diego Supercomputer Center

STEPHAN R. KEITH
Sterling Software

Graphics Design and Production for Hemispheric Projection

Petree Hall C

Course 2 / Sunday / Half Day
Intermediate Level

Course Description

Graphics production techniques for hemispheric projection for use in planetaria and other advanced hemispheric environments. Technical overview of the latest developments in hemispheric multi-image, film, video, and laser graphics.

Who Should Attend

Anyone interested in the process of generating images for hemispheric projection for use in theme parks, planetaria, museums, and other scientific venues.

Organizer

ED LANTZ
Astronaut Memorial Planetarium & Observatory

Lecturers

MICHAEL HUTTON
Astronaut Memorial Planetarium & Observatory

STEVEN SAVAGE
Sky-Scan, Inc.

CHRIS WARD
Lightspeed Design Inc.

VRML: Using 3D to Surf the Web

Room 403 A

Course 12 / Sunday / Half Day
Intermediate Level

Course Description

This course presents VRML (Virtual Reality Markup Language) and its use in the World Wide Web. Attendees learn about presenting 3D data on the Web, the viewers that are available, and the issues involved in creating a viewer. In addition, attendees are exposed to current developments in VRML applications.

Who Should Attend

Researchers who would like to present 3D datasets to large audiences, modeling tool providers who want to harness the Web, and Web enthusiasts who are also 3D graphics enthusiasts.

Organizer

JAN HARDENBERGH
Oki Advanced Products

Lecturers

GAVIN ALEXANDER BELL
Silicon Graphics, Inc.

MARK D. PESCE

Programming with OpenGL: An Introduction

Room 403 B

Course 17 / Sunday / Half Day
Beginning Level

Course Description

This course is an introduction to programming with the OpenGL API for interactive graphics programs on a variety of systems. Emphasis is on computer graphics basics.

Who Should Attend

Programmers who want to write interactive graphics applications and who have little or no experience with OpenGL. A low level of graphics literacy is assumed.

Organizer

MASON WOO
Silicon Graphics, Inc.

Lecturer

LESLEY KALMIN
Silicon Graphics, Inc.

From Start-up to Success: Strategic Marketing of Technology Products

Room 502 B

Course 20 / Sunday / Half Day
Beginning Level

Course Description

This course discusses concepts, examples, and applications of strategic marketing that are critical to the success of start-up companies and all firms marketing high technology products. The course is focused on the elements of marketing strategy, rather than programs or tactics, that executives and managers of high-technology companies need to understand and apply to their organizations.

Who Should Attend

This course is suitable for all product or engineering managers and executives who are involved with defining or directing the strategy of their organizations.

Organizer

RANDY NICKEL
Technology Marketing Consulting

Lecturer

CHRIS HALLIWELL
Technology Marketing Consulting

Monday, 7 August

Sunday, 6 August

Introduction to Curves and Surfaces

Room 502 A

Course 24 / Sunday / Half Day
Beginning Level

Course Description

The most commonly encountered concepts from CAGD are introduced, including Bézier and B-spline curves and surfaces. Their salient properties and methods to handle them are also described. Also included: a short review of application domains and a brief survey of other concepts and techniques from CAGD. Many of the concepts are conveyed through animations and demonstrations.

Who Should Attend

CAD developers, programmers, analysts, animators, researchers, and educators who want an introduction to curve and surface modeling.

Organizer

ALYN ROCKWOOD
Arizona State University

Lecturer

HANS HAGEN
Universität Kaiserslautern

Visualizing Multi-Dimensional Geometry and Applications to Multi-Variate Problems

Room 515 A

Course 27 / Sunday / Half Day
Intermediate Level

Course Description

This course explores methods of augmenting human 3D perception to improve visualization of multi-dimensional geometry and multi-variate relationships. Theoretical material is applied to a variety of areas including statistics, finance, air traffic control, computer vision, instrumentation, and process control.

Who Should Attend

This course is for people working on multi-variate problems: statisticians, engineers, commodity traders and financial analysts, physicists, chemists, control theorists, optimization and OR specialists, human factors engineers, decision makers, and medical researchers. In general, people working in fields where multi-variate data are collected and analyzed, who would like to visualize the multi-variate relations arising in their areas.

Organizer

ALFRED INSELBERG
IBM T.J. Watson Research Center

Lecturers

A. CHATTERJEE
University of Southern California

K. ESBENSEN
SINTEF

Realistic Input for Realistic Images

Concourse Hall Room 152

Course 1 / Monday / Full Day
Intermediate Level

Course Description

Achieving realism in synthetic images requires realistic input data. This course examines the need for such data and various models to represent them, including physically realistic light sources, surface reflectance characteristics, and participating media. The models are discussed within a framework of practical implementation techniques for software developers and illustrated with examples from real-world applications.

Who Should Attend

Anyone interested in the science and art of synthesizing photorealistic images, including graphics researchers, computer graphics artists and software developers, lighting designers and architects, and people from related fields.

Organizer

IAN ASHDOWN
Ledalite Architectural Products, Inc.

Lecturers

DAVID L. DILAURA
University of Colorado

JOHN MARDALJEVIC
Aberdeen University

HOLLY RUSHMEIER
National Institute of Standards and Technology

ROBERT SHAKESPEARE
Indiana University

KENNETH TORRANCE
Cornell University

GREG WARD
Lawrence Berkeley Laboratory

Warping and Morphing of Graphical Objects

West Hall A

Course 3 / Monday / Full Day
Intermediate Level

Course Description

This course starts from the concept of graphical objects and moves on to study the theory and techniques behind warping and morphing of these objects. This provides a common framework upon which an integrated discussion of warping and morphing in 1D, 2D, and 3D can be built, comprising, among others, drawings, images, volumetric, and boundary objects. Special emphasis is on image morphing and morphing of geometric and volumetric 3D models, and their applications in the entertainment industry.

Who Should Attend

The course is specially designed for people interested in both the theoretical and practical issues associated with applications of warping and morphing techniques in the entertainment industry. It is aimed at researchers, educators, designers, and computer animators interested in conceptual issues as well as general use of warping and morphing techniques.

Organizer

JONAS GOMES
Instituto de Matemática Pura e Aplicada

Lecturers

JOHN BERTON
Industrial Light & Magic

BRUNO COSTA
State University of New York at Stony Brook

LUCIA DARSA
State University of New York at Stony Brook

LUIZ VELHO
Instituto de Matemática Pura e Aplicada

GEORGE WOLBERG
City College of New York

Using RenderMan in Animation Production

West Hall B

Course 4 / Monday / Full Day
Intermediate Level

Course Description

RenderMan has been used by many large and small animation production studios to create high-quality, often photorealistic, imagery for television and motion pictures. Its ability to render extremely complex scenes with motion blur, depth-of-field, and user-programmable shaders has made it the industry leader in feature film CGI.

This entertaining and informative course teaches people how to use RenderMan. We discuss generating data to pump into RenderMan renderers, programming the RenderMan Shading Language to generate special effects, and accessing the special features of the RenderMan-compatible renderers available today. We also examine production of several famous computer animations made with RenderMan, to show what it really takes to make most effective use of the tools RenderMan provides.

Who Should Attend

Graphics programmers, advanced graphics users, and CGI production personnel who want to learn the details of how to use RenderMan.

Organizer

TONY APODACA
Pixar

Lecturers

LARRY GRITZ
The George Washington University

OREN JACOB
Pixar

JOE LETTERI
Industrial Light & Magic

ELLEN POON
Industrial Light & Magic

M. J. TURNER
Walt Disney Feature Animation

Artificial Life for Graphics, Animation, and Virtual Reality

Room 502 B

Course 7 / Monday / Full Day
Intermediate Level

Course Description

This course investigates the increasingly important role that concepts from the field of artificial life are playing in the construction of advanced graphics models for animation and virtual reality. Attendees are exposed to techniques for realistically modeling and animating complex living things. Subsuming physics-based modeling, these techniques also model the mechanisms of living systems. They thus enable practitioners to progress beyond the simulation of lifeless physical "objects" to synthesize autonomously self-animating "subjects." Topics include modeling and animation of plants, animals, and people, behavioral animation, communication and interaction with autonomous agents in virtual worlds, and artificial evolution for graphics and animation.

Who Should Attend

Graphics researchers and practitioners, including animators and VR enthusiasts, who want to experience and explore "life" at the cutting edge of graphics modeling.

Organizer

DEMETRI TERZOPOULOS
University of Toronto

Lecturers

PATTIE MAES
Massachusetts Institute of Technology

PRZEMYSLAW PRUSINKIEWICZ
University of Calgary

CRAIG REYNOLDS
Silicon Studios

KARL SIMS
Thinking Machines Corporation

DANIEL THALMANN
Swiss Federated Institute of Technology

Programming Virtual Worlds

Room 515 A

Course 8 / Monday / Full Day
Beginning Level

Course Description

This course provides an introduction to virtual reality using immersive displays. It covers system requirements, hardware, design of applications, and implementation of virtual worlds. Emphasis is on the practical issues that must be addressed to begin working in virtual environments.

Who Should Attend

Those who wish to create immersive virtual environments.

Organizer

ANSELMO LASTRA
University of North Carolina at Chapel Hill

Lecturers

HENRY FUCHS
University of North Carolina at Chapel Hill

STEPHEN GHEE
Division Limited

MARK MINE
University of North Carolina at Chapel Hill

RANDY PAUSCH
University of Virginia

KENNETH PIMENTEL
Sense8

Electronic Publishing on CD-ROM

Petree Hall D

Course 13 / Monday / Full Day
Beginning Level

Course Description

The course covers all aspects of electronic publishing on CD-ROM from the content, technology, and business points of view. The attendee should come away from the course with a sufficient understanding of the process to be able to evaluate a potential CD-ROM title's costs, technical challenges, production and manufacturing processes, and distribution options.

Who Should Attend

Persons who are interested in multimedia and electronic publishing, particularly those who want to consider multimedia or technical titles on CD-ROM.

Organizer

STEVE CUNNINGHAM
California State University Stanislaus

Lecturers

STEVE LANGER
Disc Manufacturing Inc.

JUDSON ROSEBUSH
Judson Rosebush Company

TOM VOLOTTA
Volotta Interactive Video

Monday, 7 August

Practical Guide to Recording Video Animation from Computer Graphics

Room 502 A

Course 14 / Monday / Full Day
Beginning Level

Course Description

Video is used in a growing number of computing areas, from presentations to scientific visualization to education to art. The incredible rate of growth in WWW and other on-line information systems has created yet another outlet for desktop video recording. With the emergence of multimedia computers and multimedia as a "hot" topic in computing, the role of video production is increasingly important. This course is a basic introduction to video recording of computer-generated images from a variety of data sources. We present a practical "nuts and bolts" approach to building a computer video animation recording system, and we discuss techniques that aid in producing a polished, professional-looking video.

Who Should Attend

People starting or planning to build a computer-based video animation recording system, including desktop video or visualization centers for industrial and presentation uses.

Organizer

ROBERT JUDD
Los Alamos National Laboratory

Lecturers

JIM COSTIGAN

ROSS GAUNT
Lawrence Livermore National Laboratory

JON MAREDA
Sandia National Laboratories

ANDY MARTINEZ
Los Alamos National Laboratory

Introduction to Computer Graphics

Concourse Hall Room 151

Course 21 / Monday / Full Day
Beginning Level

Course Description

This course discusses the fundamentals of computer graphics from a technical perspective. Special emphasis is on the "how-to" and "why-do-I-care" aspects of a variety of topics. Taking this course enables novice attendees to get much more enjoyment from the rest of the conference.

Who Should Attend

This course is geared toward technical people who need a few topics explained or a few pointers to get started in the computer graphics field.

Organizer

MIKE BAILEY
San Diego Supercomputer Center and University of California at San Diego

Lecturers

ANDREW GLASSNER
Microsoft Corporation

PATRICIA WENNER
Bucknell University

Graphic Design for Usable GUIs

Room 408 B

Course 22 / Monday / Full Day
Beginning Level

Course Description

This course introduces participants to the terminology, theory, and practical principles of good design for all platforms and applications. With case studies that show the design process, we provide guidance for research and commercial product development, and we give participants actual experience through the use of pen and paper design exercises.

Who Should Attend

Product development engineers, software engineers, product marketers, scientists, technical staffs, applications developers, human factors specialists, graphic designers, industrial designers, technical editors, systems integrators, and applications analysts.

Organizer

AARON MARCUS
Aaron Marcus and Associates, Inc.

Lecturers

JOHN ARMITAGE
Aaron Marcus and Associates, Inc.

WOLFGANG HEIDRICH
Aaron Marcus and Associates, Inc.

VOLKER FRANK
Aaron Marcus and Associates, Inc.

Wavelets and Their Application to Computer Graphics

Room 408 A

Course 26 / Monday / Full Day
Advanced Level

Course Description

This course is intended to give the necessary mathematical background on wavelets and explore the main applications, both current and potential, to computer graphics. The emphasis is on the connection between wavelets and the tools and concepts which should be familiar to any skilled computer graphics person: Fourier techniques, pyramidal schemes, spline representations, and solution of linear systems.

Who Should Attend

Researchers and advanced practitioners in computer graphics who are currently trying to solve problems in image representation and compression, curve and surface representation, light representation and propagation, shading, and illumination models.

Organizer

ALAIN FOURNIER
University of British Columbia

Lecturers

MICHAEL COHEN
Microsoft Corporation

TONY DEROSE
University of Washington

MICHAEL LOUNSBERY
University of Washington

LEENA-MAIJA REISSELL
University of British Columbia

PETER SCHRODER
University of South Carolina at Columbia

WIM SWELDENS
Belgian National Science Foundation

Visualizing and Examining Large Scientific Datasets: A Focus on the Physical and Natural Sciences

Room 403 A

Course 28 / Monday / Full Day
Intermediate Level

Course Description

This course demonstrates the use of visualization tools and interactive techniques for examination and interpretation of large scientific datasets. Highly illustrative atmospheric, oceanographic, and geographic examples are demonstrated in real time. The process of developing effective visualization paradigms for supporting high-speed networking, database management, heterogeneous computing platforms, user interface design, collaborative computing, science education, and application of animation techniques are highlighted.

Who Should Attend

Scientific researchers, educators, and computer graphics specialists interested in exploring particular issues associated with handling large scientific datasets. Experience with scientific visualization systems and terminology is helpful as well as some understanding of graphics programming.

Organizer

THERESA-MARIE RHYNE
Martin Marietta/
U.S. EPA Scientific Visualization Center

Lecturers

BILL HIBBARD
University of Wisconsin at Madison

KEVIN HUSSEY
Jet Propulsion Laboratory

LLOYD TREINISH
IBM T.J. Watson Research Center

Advanced Techniques for Scientific Visualization

Petree Hall C

Course 30 / Monday / Full Day
Advanced Level

Course Description

This course describes the latest algorithms used to enhance understanding of complex 3D datasets typical in scientific environments. Advanced issues covering a wide range of scientific visualization problems are addressed. Special emphasis is on reducing the geometric complexity of contour surfaces, volume rendering, vector field visualization, multi-resolution techniques, and parallel rendering.

Who Should Attend

This course is intended for anyone interested in understanding effective solutions for representing 3D datasets, from the theoretical to the practical. The ideal participant is currently developing visualization software and wants to learn more advanced techniques than those provided by typical visualization environments.

Organizer

ROGER CRAWFIS
Lawrence Livermore National Laboratory

Lecturers

CHARLES HANSEN
Los Alamos National Laboratory

NELSON MAX
University of California at Davis

GREGORY M. NIELSON
Arizona State University

WILLIAM SCHROEDER
General Electric Corporation

Procedural Modeling, Texturing, and Animation Techniques

Room 515 B

Course 33 / Monday / Full Day
Advanced Level

Course Description

This course imparts a working knowledge of procedural approaches in modeling, shading, rendering, and animation. Procedural approaches include solid texturing, hypertextures, volume density functions, fractals, artificial evolution, L-systems, and implicit surfaces. The course provides participants with details often omitted from technical papers and explores how the speakers design such procedures.

Who Should Attend

Individuals interested in procedural modeling, shading, and texturing techniques, the procedural design approaches of several researchers, and a toolbox of procedures for producing realistic images.

Organizer

DAVID EBERT
University of Maryland Baltimore County

Lecturers

JOHN HART
Washington State University

F. KENTON MUSGRAVE
The George Washington University

KEN PERLIN
New York University

KARL SIMS
Thinking Machines Corporation

BRIAN WYVILL
University of Calgary

Programming OpenGL with X

Room 403 B

Course 18 / Monday / Half Day
Intermediate Level

Course Description

Learn programming of OpenGL with the X Window System. This course focuses on the window system integration issues for writing clean OpenGL programs for X. It also covers the use of OpenGL with the Motif and Xlib APIs.

Who Should Attend

X or OpenGL programmers who want to learn how to write OpenGL programs that cleanly interface with the X Window system.

Organizer

MARK KILGARD
Silicon Graphics, Inc.

Tuesday, 8 August

Tricks of the Trade: Computer Graphics Production

West Hall B

Course 5 / Tuesday / Full Day
Intermediate Level

Course Description

This course is specifically designed to help those involved in computer animation production become better animators and technical directors. It covers various aspects of production, from tricks for animating and lighting to ways of efficiently organizing large projects. Emphasis is on solving common production problems that many of us encounter every day.

Who Should Attend

Creators and managers of computer graphics in a production environment.

Organizer

JERRY WEIL
Metrolight Studios

Lecturers

NEIL ESKURI
Disney Feature Animation

ANDY KOPRA
VIFX

JOHN MCLAUGHLIN
Digital Domain

KATHY WHITE
Rhythm and Hues Studios

Designing Real-Time 3D Graphics for Entertainment

West Hall A

Course 6 / Tuesday / Full Day
Intermediate Level

Course Description

This course covers the issues involved in creating real-time 3D games on platforms ranging from home game consoles up to high-performance image generators used in theme park and location-based entertainment systems. Topics include hardware and software architectures, multiprocessing, performance trade-offs, visual simulation tricks, 3D modeling, real-time character animation, game prototyping, and programming. Speakers draw examples from their development of actual games, attractions, and real-time rendering toolkits.

Who Should Attend

Programmers, modelers, and individuals with a technical background in computer graphics who are interested in what goes on inside entertainment systems using real-time computer imagery.

Organizer

JAMES HELMAN
Silicon Graphics, Inc.

Lecturers

SHARON CLAY
Silicon Graphics, Inc.

WES HOFFMAN
Paradigm Simulation

ERIC JOHNSTON
Lucas Arts

MICHAEL JONES
Silicon Graphics, Inc.

MICHAEL LIMBER
Angel Studios

PHILIPPE TARBOURIECH
Electronic Arts

Developing Advanced Virtual Reality Applications

Concourse Hall Room 152

Course 9 / Tuesday / Full Day
Intermediate Level

Course Description

This course discusses the issues encountered in implementation of complex interactive virtual reality applications. Emphasis is on the design process leading to implementation of useful virtual environments. Human factors, optimization, augmented reality, and intuitive interface techniques are among the topics addressed.

Who Should Attend

This course is intended for those who have developed simple virtual reality applications and are facing the considerable difficulties of extending these applications to greater degrees of complexity. Those who have taken introductory courses in virtual reality will also benefit from this course.

Organizer

STEVE BRYSON
NASA Ames Research Center

Lecturers

RONALD AZUMA
University of North Carolina at Chapel Hill

RANDY PAUSCH
University of Virginia

DENNIS PROFFITT
University of Virginia

HENRY SOWIZRAL
Boeing Computer Services

ANDRIES VAN DAM
Brown University

Sound for Animation and Virtual Reality

Petree Hall C

Course 10 / Tuesday / Full Day
Intermediate Level

Course Description

Sound is an integral part of the experience in computer animation and VR. In this course, we present some of the important technical issues in sound modeling, rendering, and synchronization as well as the "art" and business of sound that are being applied in animations, feature films, and virtual reality. The central theme is to bring leading researchers and practitioners from various disciplines together to share their experiences in this interdisciplinary field.

Who Should Attend

Scientists and animators interested in expanding their understanding of sound for computer animation and virtual reality.

Organizer

JAMES HAHN
The George Washington University

Lecturers

PETE DOCTER
Pixar

SCOTT FOSTER
Crystal River Engineering Inc.

MARK MANGINI
Weddington Productions

TOM MYERS
Skywalker Sound

ELIZABETH WENZEL
NASA Ames Research Center

Dynamic Behaviors for Real-Time Synthetic Humans

Concourse Hall Room 151

Course 11 / Tuesday / Full Day
Advanced Level

Course Description

This course is intended to demonstrate the state of the art in motion synthesis for simulated humans. Applications of human animation include simulation and training, intelligent agents, sports analysis, biomedical modeling, trajectory following, low-level behaviors, and realistic motion synthesis for entertainment characters. The course covers the essential elements for synthetic (non-performance) animation via kinematic, inverse kinematic, dynamic, control theory, and sensing/acting motion control techniques, including: balance, collision avoidance, postural transitions, locomotion by walking or running, and other dynamics-driven motions. Additional modeling techniques for realistic human body motion include deformable primitives, finite element techniques, and physics-based models including parallel transition networks for coordination of sensing, behaviors, and acting; dynamic constraints; and grouping and obstacle avoidance behaviors. Interactive and real-time implementations are emphasized.

Who Should Attend

Animators, managers, software developers, students, and scientists interested in synthesizing human motions.

Organizer

NORMAN BADLER
University of Pennsylvania

Lecturers

JESSICA HODGINS
Georgia Institute of Technology

DIMITRI METAXAS
University of Pennsylvania

Making Multimedia: From Vaporware to Goldrush

Petree Hall D

Course 15 / Tuesday / Full Day
Intermediate Level

Course Description

This course provides insight into current research, development, and production techniques associated with multimedia. We seek to demystify the multimedia creation process as well as to clarify the aesthetic intent of multimedia as an emerging communications medium. Published titles and their developmental history will be used as examples of what works and what doesn't work in this highly volatile medium.

Who Should Attend

Anyone interested in multimedia as an emerging form of communication and in the development of production techniques for multimedia.

Organizer

MATT ELSON
Magnet Interactive Studios, Inc.

Lecturers

JOHN BLAKELEY
Magnet Interactive Studios, Inc.

BRAD GEAGLEY
Magnet Interactive Studios, Inc.

GREG JOHNSON
Magnet Interactive Studios, Inc.

LAWRENCE SCHICK
Magnet Interactive Studios, Inc.

Introduction to Video and Audio Compression Techniques

Room 515 B

Course 16 / Tuesday / Full Day
Beginning Level

Course Description

This course begins with an introduction to compression and lays out the individual techniques that together form the basis for most compression algorithms. Emphasis is on understanding the impact on performance and quality of each individual technique. This is followed by detailed descriptions of current and future video and audio compression algorithms, with particular emphasis on JPEG and MPEG.

Who Should Attend

Developers who would like a better understanding of the choices available for compression. Designers who would like a quick start in understanding compression algorithms. Content providers who would like to understand the limitations of compression technology.

Organizer

ANDY DANIEL
Alliance Semiconductor Corporation

Lecturers

DOUG BAILEY
Integrated Information Technology

PERRY COOK
Stanford University

BJORN JAWERTH
University of South Carolina at Columbia

Programming Open Inventor: An Object-Oriented OpenGL Toolkit

Room 502 A

Course 19 / Tuesday / Full Day
Intermediate Level

Course Description

This course shows how to write interactive 3D graphics applications using Open Inventor, an object-oriented OpenGL toolkit. The course discusses Inventor's programming interface and architecture as well as how to use Inventor in various operating system environments. Topics include 3D scene construction, rendering, picking, animation, 3D interaction, data monitoring, the Inventor file format, performance tips, and system extensibility.

Who Should Attend

This course is intended for applications programmers who wish to write interactive 3D graphics applications; programmers who wish to employ direct manipulation and animation; developers familiar with other 3D libraries who want to learn about the Inventor programming interface; and people interested in object-oriented, extensible graphics systems.

Organizer

DAVID MOTT
Silicon Graphics, Inc.

Lecturers

ERIC ENDERTON
Industrial Light & Magic

ERIC GREGORY
Strata G Systems

MIKE HECK
Template Graphics Software

PAUL STRAUSS
Silicon Graphics, Inc.

TIM WIEGAND
University of Cambridge

Tuesday, 8 August

Practical 3D User Interface Design
Room 502 B

Course 23 / Tuesday / Full Day
Intermediate Level

Course Description
This course covers principles and techniques for creating 3D user interfaces (3D UIs) for modeling, animation, information visualization, multimedia, and other emerging interactive systems with an emphasis on production quality applications. Speakers address their design principles and design processes, the choices they made, and the results of their final implementations. The focus is on real-world 3D UI problems and practical solutions.

Who Should Attend
This course is meant for UI designers and software engineers who wish to create new 3D UIs or extend their current UIs by incorporating 3D UI techniques into production-quality applications. Researchers can also gain an understanding of the demanding 3D UI needs of large systems, including scalability, robustness, consistency, and breadth of functionality.

Organizer

DANIEL ROBBINS
Brown University

Lecturers

PAUL ISAACS
Silicon Graphics, Inc.

KEVIN MATHEWS
Artifice Inc.

MARK MINE
University of North Carolina at Chapel Hill

ROMAN ORMANDY
Caligari Inc.

KEVIN SMITH
Alias/Wavefront

Computer Vision for Computer Graphics
Room 408 A

Course 25 / Tuesday / Full Day
Advanced Level

Course Description
In recent years, two traditionally separate fields, computer graphics and computer vision, have begun to emerge. This course investigates the increasingly important role that computer vision plays in 3D graphics and model building, animation, user interfaces, and biomedical applications. The course demonstrates how similar computer vision techniques are used in four diverse areas: 3D shape recovery from geometric and photometric properties; user interfaces based on hands, faces, and gestures; 3D modeling from video for animation and modeling perception for animation of humans and other living creatures; and biomedical applications such as 3D serial reconstructions, brain atlases, and the use of computer graphics and computer vision in the operating room.

Who Should Attend
Graphics researchers, software developers, and practitioners who want to augment their arsenal to include computer vision methods.

Organizer

INGRID CARLBOM
DEC Cambridge Research Lab

Lecturers

WILLIAM FREEMAN
Mitsubishi Research Laboratories

GUDRUN KLINKER
ECRC

WILLIAM LORENSEN
General Electric Corporation

RICHARD SZELISKI
Digital Equipment Corporation

DEMETRI TERZOPOULOS
University of Toronto

KEITH WATERS
Digital Equipment Corporation

Visualizing Mathematics
Room 403 A

Course 29 / Tuesday / Full Day
Intermediate Level

Course Description
Mathematical visualization uses computer graphics to illustrate mathematical concepts and proofs, and motivate new insight into mathematical problems. This course surveys recent work in this budding area of research. The speakers demonstrate visualizations through film, video, and interactive systems.

Who Should Attend
People with an interest in mathematics, visualization, pedagogy, video production, or system design.

Organizer

DAVID BANKS
ICASE

Lecturers

JIM BLINN
California Institute of Technology

SCOTT KIM
Interval Research Corporation

NELSON MAX
University of California at Davis

TAMARA MUNZNER
University of Minnesota

Perception-Based Visualization
Room 515 A

Course 31 / Tuesday / Full Day
Intermediate Level

Course Description
Because visualization is an emerging discipline, it is occasionally based on examples and anecdotes that are often detached from scientific theory. As researchers and practitioners address the increasing demands for visualization, they need to relate the theory to human perception. This is becoming perhaps the major requirement for producing effective, information-conveying visualizations. This course introduces the foundations of perception as related to visualization, illustrates their use with examples and case studies, and thereby prepares researchers and practitioners to develop improved perception-based visualizations. Attendees learn how to create, build, and critique visualizations that take advantage of, and enhance, users' perceptions of the data.

Who Should Attend
Visualization researchers, scientists, engineers, visualization systems developers, and users who want to learn the mechanisms of human perception and how they can improve visualizations.

Organizer

HAIM LEVKOWITZ
University of Massachusetts Lowell

Lecturers

STEPHEN EICK
AT&T Bell Laboratories

PENNY RHEINGANS
Martin Marietta

Interactive Walkthrough of Large Geometric Databases

Room 403 B

Course 32 / Tuesday / Full Day
Intermediate Level

Course Description

This course focuses on techniques, algorithms, data-structures, and databases for displaying very large geometric databases interactively (greater than one million polygons drawn at least 10 per second). Beginning with a discussion of basic techniques and leading to state-of-the-art algorithms, the speakers address key issues in walkthrough, including visibility computations, automatic object simplification, and memory management through database subset pre-fetching. Speakers show real applications of these algorithms to a variety of areas, including visual simulation, virtual reality, architecture, and digital mockup.

Who Should Attend

Workers in simulation, animation, virtual reality, architecture, CAD, medical imaging, and scientific visualization who deal with geometric databases much larger than the interactive display capacity of their workstations.

Organizer

ERIC BRECHNER
Boeing Computer Services

Lecturers

THOMAS FUNKHOUSER
AT&T Bell Laboratories

NED GREENE
Apple Computer, Inc.

JAMES HELMAN
Silicon Graphics, Inc.

JAREK ROSSIGNAC
IBM T.J. Watson Research Center

Physically Based Modeling

Room 408 B

Course 34 / Tuesday / Full Day
Intermediate Level

Course Description

This course provides a systematic introduction to physically based modeling, including dynamics of particles and mass/spring systems, continuum methods for simulating water and non-rigid objects, simulating systems described by arbitrary parameters, rigid body dynamics, kinematic and dynamic constraints, collision and contact, and control.

Who Should Attend

This course is designed for computer graphics researchers and implementors who wish to develop a solid understanding of physical methods as applied to animation and modeling. The material presented is of particular interest to those who wish to implement physically based modeling techniques and/or read and critically appraise technical papers in the area.

Organizer

ANDREW WITKIN
Carnegie Mellon University

Lecturers

DAVID BARAFF
Carnegie Mellon University

MICHAEL KASS
Apple Computer, Inc.

Papers/Panels

West Hall A/B and Petree Hall C

Wednesday
8 am – 5:30 pm

Thursday – Friday
8:30 am – 5:30 pm

Papers/Panels Breakout Area

After each Paper/Panel session, speakers and attendees are welcome to continue their discussions in the Papers/Panels Breakout Area – West Mezzanine Lobby.

Papers

The world's most respected forum for intellectual exploration of computer graphics and interactive techniques. Developers and researchers identify, clarify, and redefine problems, and propose creative, often surprising solutions. Papers are published in the SIGGRAPH 95 *Conference Proceedings.*

Panels

New visions and unresolved issues. Emerging technologies and creative controversies. Ethical dilemmas. Provocative opinions. SIGGRAPH 95 Panels feature all this and more, as panelists engage each other and the audience in free-wheeling debates. Panel abstracts are published in the SIGGRAPH 95 *Conference Proceedings.*

Papers Chair
ROB COOK
Light Source, Inc.

Committee
KURT AKELEY
Silicon Graphics, Inc.

JULES BLOOMENTHAL
George Mason University

KELLOGG S. BOOTH
The University of British Columbia

ED CATMULL
Pixar

MICHAEL COHEN
Microsoft Corporation

FRANK CROW
Interval Research Corporation

TONY DEROSE
University of Washington

STEVEN FEINER
Columbia University

KURT FLEISCHER
California Institute of Technology

ANDREW GLASSNER
Microsoft Corporation

PAT HANRAHAN
Stanford University

JOHN HUGHES
Brown University

DAVE KIRK
Crystal Dynamics

WOLFGANG KRUEGER
Stanford University

MARC LEVOY
Stanford University

NELSON MAX
Lawrence Livermore National Laboratory

DIMITRI METAXAS
University of Pennsylvania

DON MITCHELL
Microsoft Corporation

RANDY PAUSCH
University of Virginia

HOLLY RUSHMEIER
NIST

DAVID SALESIN
University of Washington

ROBERT SPROULL
Sun Microsystems Laboratories

MAUREEN STONE
Xerox PARC

TURNER WHITTED
Numerical Design Limited

ANDREW WITKIN
Carnegie Mellon University

Panels Chair
LEO HOURVITZ
Pixar

Administrative Assistant
BETH GERBER

Committee
MARK BOLAS
Fakespace, Inc.

JAMIE DIXON
Hammerhead Productions, Inc.

ALYCE KAPROW
The New Studio

MIKE KEELER
Silicon Studio, Inc.

F. KENTON MUSGRAVE
The George Washington University

THERESA-MARIE RHYNE
Martin Marietta/U.S. EPA Scientific Visualization Center

LINDA STONE
Microsoft Corporation

Wednesday, 9 August

8 am – 9:30 am

Keynote Address/Awards
West Hall B

10 am – 11:45am

PAPERS

Compression & Multimedia
West Hall A

Chair

DAVE KIRK
Crystal Dynamics

Geometry Compression
MICHAEL F. DEERING
Sun Microsystems Computer Company

Polygon-Assisted JPEG and MPEG Compression of Synthetic Images
MARC LEVOY
Stanford University

Plenoptic Modeling
LEONARD MCMILLAN and GARY BISHOP
University of North Carolina at Chapel Hill

An Image-Based Approach to Virtual Reality
SHENCHANG ERIC CHEN
Apple Computer, Inc.

10 am – 11:45am

PANEL

David vs. Goliath or Mice vs. Men?
West Hall B

The size of a production studio affects every aspect of its competitive edge, from the amount of capacity it possesses, to the capabilities of its software and hardware base, and even the career paths it can provide for its valued employees. This panel compares the advantages and disadvantages of various studio sizes.

Moderator

PAULINE TS'O
Rhythm and Hues Studios

Panelists

THERESA ELLIS
Insight Pix

RALPH GUGGENHEIM
Pixar

BRAD LEWIS
Pacific Data Images

RON THORTON
Foundation Imaging

PANEL

A National Research Agenda for Virtual Reality: Report by the National Research Council Committee on VR R&D
Petree Hall C

In 1992, the National Research Council established a committee to "recommend a national research and development agenda in the area of virtual reality" to set U.S. government R&D funding priorities for virtual reality for the next decade. This panel reports the (often surprising) recommendations of the committee, which will help establish funding policies for nine federal research and development organizations.

Chair

RANDY PAUSCH
University of Virginia

Panelists

WALTER AVILES and NATHANIEL DURLACH
Massachusetts Institute of Technology

WARREN ROBINETTE
Virtual Reality Games, Inc.

MICHAEL ZYDA
Naval Postgraduate School

Wednesday, 9 August

1:45 pm – 3:30 pm

PAPERS

Animation 1

West Hall A

Chair

ANDREW WITKIN
Carnegie Mellon University

Multi-Level Direction of Autonomous Creatures for Real-Time Virtual Environments
BRUCE M. BLUMBERG and TINSLEY A. GALYEAN
Massachusetts Institute of Technology

Realistic Face Modeling for Animation
YUENCHENG LE and DEMETRI TERZOPOULOS
University of Toronto

KEITH WATERS
Digital Equipment Corporation

Automated Learning of Muscle-Based Locomotion Through Control Abstraction
RADEK GRZESZCZUK and DEMETRI TERZOPOULOS
University of Toronto

Animating Human Athletics
JESSICA K. HODGINS, DAVID C. BROGAN, JAMES F. O'BRIEN, and WAYNE L. WOOTEN
Georgia Institute of Technology

PANEL

Set-Top Boxes – The Next Platform

West Hall B

Set-top boxes are currently a greatly hyped unknown. Panelists representing competing positions in the set-top box industry describe their markets and the hardware, software, and communication technologies that they are using to address those markets.

Moderator

JONATHAN STEINHART
Jonathan Steinhart Consulting, Inc.

Panelists

DERRICK BURNS
Silicon Graphics, Inc.

JAMES GOSLING
Sun Microsystems, Inc.

STEVE MCGEADY
Intel

ROB SHORT
Microsoft Corporation

PANEL

Museums Without Walls: New Media for New Museums

Petree Hall C

What role should computer graphics, multimedia, virtual reality, and networks play in the museum of the future? Representing a mix of the interactive, social, virtual, artistic, and scientific points of view, panelists explore this question with images and examples from museums and exhibits they have worked on.

Moderator

ALONZO C. ADDISON
University of California at Berkeley

Panelists

KENNETH HAMMA
J. Paul Getty Museum

DOUG MACLEOD
Banff Centre for the Arts

GERRY MARGOLIS
Beit Hashoah Museum of Tolerance

MICHAEL NAIMARK
Interval Research

HANS-PETER SCHWARTZ
Zentrum fur Kunst und Medienculture

3:45 pm – 5:30 pm

PAPERS

Animation 2

West Hall A

Chair

MICHAEL COHEN
Microsoft Corporation

TicTacToon: A Paperless System for Professional 2D Animation
JEAN-DANIEL FEKETE
Université de Paris - Sud and 2001 S.A.

ERIC BIZOUARAN, ERIC COURNARIE, THIERRY GALAS, and FREDERIC TAILLEFER
2001 S.A.

Fourier Principle of Emotion-Based Human Figure Animation
MUNETOSHI UNUMA, KEN ANJYO, and RYOZO TAKEUCHI
Hitachi Ltd.

Motion Signal Processing
ARMIN BRUDERLIN *Simon Fraser University*

LANCE WILLIAMS *Apple Computer, Inc.*

Motion Warping
ANDREW WITKIN and ZORAN POPOVIC
Carnegie Mellon University

PANEL

Interactive Multimedia: A New Creative Frontier or Just a New Commodity?

West Hall B

Artists and producers show their most recent work and tackle a range of hot issues: the aesthetics of the new medium, the criteria for successful interactivity and multi-sensory communication, the potential of digital cash, and the realities of selling creative work to multimedia companies.

Moderator

RUTH ISKIN
University of California, Los Angeles Extension

Panelists

RODNEY GREENBLATT
The Center for Advanced Whimsy

MIKKI HALPIN
Independent Producer

GEORGE LEGARDY
San Francisco State University

MICHAEL NASH
Inscape

PANEL

Integrating Interactive Graphics With Future Technologies

Petree Hall C

This panel examines the integration of computer graphics techniques with other technologies such as mobile and wireless personal assistants, intelligent agents, cartography, human perception, voice recognition, interactive television, cooperative computing, and high-speed networking.

Chair

THERESA-MARIE RHYNE
Martin Marietta/U.S. EPA Scientific Visualization Center

Panelists

ERIC GIDNEY
University of New South Wales

TOMASZ IMIELINSKI
Rutgers University

PATTIE MAES
MIT Media Laboratory

RONALD VETTER
North Dakota State University

Thursday, 10 August

8:30 am – 10:15 am

PAPERS

Modeling
West Hall A

Chair

KURT FLEISCHER
California Institute of Technology

Automatic Reconstruction of Surfaces and Scalar Fields From 3D Scans
CHANDRAJIT L. BAJAJ, FAUSTO BERNARDINI, and GUOLIANG XU
Purdue University

Creation and Rendering of Botanical Trees
JASON WEBER
Teletronics International, Inc.

JOSEPH PENN
Research Laboratory

Depiction of Fire and Other Gaseous Phenomena Using Diffusion Processes
JOS STAM and EUGENE FIUME
University of Toronto

Versatile and Efficient Techniques for Simulating Deformable Objects
MARTIN COURSHESNES, NADIA MAGNENAT THALMANN, and PASCAL VOLINO
University of Geneva

PANEL

New Developments in Animation Production for Video Games
West Hall B

The booming video game industry is currently making a dramatic move from modest, low-end production techniques to state-of-the-art computer animation frontiers such as 3D character animation. Video games are driving the development of new animation techniques like motion capture and adapting cinematic production techniques as Hollywood and Silicon Valley merge. Through presentations and demonstrations by the midwives of these dramatic developments, animators, producers, and directors gain practical insights about the special demands of video game animation and how new production techniques are being developed and adapted.

Moderator

JANE VEEDER
Time Warner Interactive

Panelists

ROBERT M. GREENBERG *R/GA Digital Studios, Inc.*

PAUL D. LEWIS *Time Warner Interactive*

ROBERT STEIN III *Trilobyte, Inc.*

CRAIG UPSON *Silicon Studio*

10:30 am – 12:15 pm

PAPERS

Multi-Resolution Techniques
West Hall A

Chair

DAVID H. SALESIN
University of Washington

Feature-Based Control of Visibility Error: A Multi-Resolution Clustering Algorithm for Global Illumination
FRANÇOIS SILLION
University of Grenoble and École Polytechnique, Palaiseau

GEORGE DRETTAKIS
University of Grenoble and Technical University of Catalunya

Live Paint: Painting With Procedural Multiscale Textures
KEN PERLIN *New York University*

LUIZ VELHO *Instituto de Matemática Pura e Aplicada*

Spherical Wavelets: Efficiently Representing Functions on the Sphere
PETER SCHRÖDER and WIM SWELDENS
University of South Carolina

Multiresolution Analysis of Arbitrary Meshes
HUGUES HOPPE *Microsoft Corporation*

MICHAEL LOUNSBERY *Alias/Wavefront*

MATTHIAS ECK, TONY DEROSE, TOM DUCHAMP, and WERNER STUETZLE *University of Washington*

PANEL

Video Game Industry Overview: Technology, Markets, Content, Future
West Hall B

Video game development, the largest and most well-established component of the interactive entertainment field, is an industry in the process of dramatic evolution and expansion. Suddenly, everyone is interested in (lucrative) video games, but how much do we really know about this industry? Industry experts present a vivid overview of the field and debate new developments in technology, the changing audience for video games, game formats, links to other areas of interactive entertainment, and future industry trends.

Moderator

JANE VEEDER
Time Warner Interactive

Panelists

SHERRY GRANER *American Laser Games, Inc.*

EUGENE P. JARVIS *Williams/Bally/Midway*

JOHN N. LATTA *4th Wave*

MARK STEPHEN PIERCE *Time Warner Interactive*

JEZ SAN *Argonaut Software, Inc.*

PANEL

Aesthetics and Tools in the Virtual Environment
Petree Hall C

Virtual reality promises artists the most exciting breakthrough for the creative process since the invention of motion pictures. But is anybody actually using these tools for aesthetics and personal expression? This panel brings together five leading artists working on the cutting edge of immersive experience. These pioneers shed light on the subject using their own projects as points of departure for in-depth discussion of the unexpected paradigm shift that has the art world shaking in its boots.

Moderator

CHRISTIAN GREUEL
Fakespace, Inc.

Panelists

PATRICE CAIRE
Virtual Reality and Multimedia

JANINE CIRINCIONE
Cirincione + Ferraro

PERRY HOBERMAN
Telepresence Research

MICHAEL SCROGGINS
California Institute of the Arts

Thursday, 10 August

1:45 pm – 3:30 pm

PAPERS

Interactive Design

West Hall A

Chair

KELLOGG S. BOOTH
The University of British Columbia

Image Snapping
MICHAEL GLEICHER
Apple Computer, Inc.

Intelligent Scissors for Image Composition
ERIC N. MORTENSEN and WILLIAM A. BARRETT
Brigham Young University

Interactive Physically-Based Manipulation of Discrete/Continuous Models
MIKAKO HARADA, ANDREW WITKIN and DAVID BARAFF
Carnegie Mellon University

An Interactive Tool for Placing Curved Surfaces Without Interpenetration
JOHN M. SYNDER
Microsoft Corporation

PANEL

Visualizing the Internet: Putting the User in the Driver's Seat

West Hall B

Information is dispersed over many Internet resources, and users often feel lost, confused, and overwhelmed. The panel and the audience discuss how advances in interactive computer graphics, visualization methods, software, and hardware could make information distributed via the Internet more intuitively searchable, more accessible, and easier to use by people of diverse interests from all walks of life. This will enable us to make full use of the Internet's information universe from our computers.

Moderator

NAHUM D. GERSHON
MITRE Corporation

Panelists

BRAN FERREN *Walt Disney Imagineering*

JAMES FOLEY *Georgia Institute of Technology*

JOSEPH HARDIN *National Center for Supercomputing Applications*

FRANK KAPPE *Graz University of Technology*

WILLIAM A. RUH *MITRE Corporation*

PANEL

Algorithms and the Artist

Petree Hall C

This panel addresses a number of problems related to viewing algorithms as the formulation of artistic statements. We analyze the nature of the algorithmic approach as opposed to direct physical action. We confront the algorithmic practice of the panelists as a basis for strong audience interaction.

Chair

PETER BEYLS
St. Lukas Art Institute

Panelists

STEPHEN BELL
Bournemouth University

BRIAN EVANS
Vanderbilt University

JEAN PIERRE HEBERT

F. KENTON MUSGRAVE
The George Washington University

ROMAN VEROSTKO
Minneapolis College of Art and Design

3:45 pm – 5:30 pm

PAPERS

Texture Synthesis

West Hall A

Chair

ANDREW S. GLASSNER
Microsoft Corporation

Artistic Screening
V. OSTROMOUKHOV and R.D. HERSCH
École Polytechnique Fédérale de Lausanne

Pyramid-Based Texture Analysis/Synthesis
DAVID J. HEEGER
Stanford University

JAMES R. BERGEN
SRI David Sarnoff Research Center

Cellular Texture Generation
KURT FLEISCHER, DAVID LAIDLAW, BENA CURRIN, and ALAN H. BARR
California Institute of Technology

Fast and Resolution Independent Line Integral Convolution
DETLEV STALLING and HANS-CHRISTIAN HEGE
Konrad-Zuse-Zentrum für Informationstechnik

PANEL

Performing Work Within Virtual Environments

West Hall B

Now that we can visualize fairly complex structures in a virtual environment, move around within such an environment, and even grab objects and wave them around, it's time to think about how we can use these environments to do real work.

Moderator

HENRY SOWIZRAL
Boeing Computer Services

Panelists

IAN G. ANGUS
Boeing Computer Services

STEVE BRYSON
NASA Ames Research Center

STEFAN HAAS
Fraunhofer Institute

MARK R. MINE
University of North Carolina

RANDY PAUSCH
University of Virginia

PANEL

Standardization: Opportunity or Constraint?

Petree Hall C

Who and what are standards for? Is their purpose to protect users' investments and ease the design of working, integrated solutions, or to generate product opportunities for suppliers? In this panel, experts from a variety of backgrounds debate the different attitudes toward standards in Europe and North America and among standardizers, politicians, suppliers, and users.

Moderator

DAVID ARNOLD
University of East Anglia

Panelists

JACK BRESENHAM *Winthrop University*

KEN BRODLIE *University of Leeds*

GEORGE S. CARSON *GSC Associates, Inc*

JAN HARDENBERGH *Oki Advanced Products*

PAUL VAN BINST *University of Brussels*

ANDRIES VAN DAM *Brown University*

Friday, 11 August

8:30 am – 10:15 am

PAPERS

2D Techniques

West Hall A

Chair

RANDY PAUSCH
University of Virginia

Correction of Geometric Perceptual Distortion in Pictures
DENIS ZORIN and ALAN H. BARR
California Institute of Technology

AutoKey: Human–Assisted Key Extraction
TOMOO MITSUNAGA, TAKU YOKOYAMA, and TAKASHI TOTSUKA
Sony Corporation

Stochastic Screening Dithering With Adaptive Clustering
LUIZ VELHO and JONAS GOMES
Instituto de Matemática Pura e Aplicada

Fast Multiresolution Image Querying
CHARLES E. JACOBS, ADAM FINKELSTEIN, and DAVID H. SALESIN
University of Washington

PAPERS

Implicit Surfaces

Petree Hall C

Chair

JULES BLOOMENTHAL
George Mason University

Animating Soft Substances With Implicit Surfaces
MATHIEU DESBRUN and MARIE-PAULE GASCUEL
iMAGIS/IMAG

Derivation and Application of Material Coordinates for Implicit Surfaces
HANS KØHLING PEDERSEN
University of North Carolina at Chapel Hill

Implicitization Using Moving Curves and Surfaces
THOMAS W. SEDERBERG
Brigham Young University

Polygonization of Non-Manifold Implicit Surfaces
JULES BLOOMENTHAL
George Mason University

KEITH FERGUSON
University of Calgary

PANEL

Cross-Media Authoring

West Hall B

Today's world has become very media-centric: multimedia, print media, and now, of course, new media. However, with this panel of authors, entertainers, and publishers, it becomes clear that the message does indeed come before the medium, so content comes before context. The panelists show how messages should not be created for media vehicles in isolation, but rather should "cross the media" from video to print, and CD to online, delivering a core or graphics message in concert. The panel examines several questions: What is this new expertise of cross-media authoring? What is the creative and career proposition for its authors? What are the tools or transfer agents for crossing media without compromising quality? How do authors implement a unified design strategy while realizing the unique opportunities of each medium?

Moderator

JEFF MARTIN *Apple Computer, Inc.*

Panelists

ALLEJANDRO VILLARROEL *Cole and Weber*

RICK CAPPS *Capps Studios Ltd.*

CHRIS GULKER *Hearst Newspapers*

RICK SMOLAN *Against All Odds Productions*

10:30 am – 12:15 pm

PAPERS

Shading & Cameras

West Hall A

Chair

HOLLY RUSHMEIER
National Institute of Standards and Technology

A Realistic Camera Model for Computer Graphics
CRAIG KOLB and PAT HANRAHAN
Stanford University

DON MITCHELL
Microsoft Corporation

Physically-Based Glare Effects for Digital Images
G. SPENCER, P. SHIRLEY, K. ZIMMERMAN, and D. GREENBERG
Cornell University

Applications of Irradiance Tensors to the Simulation of Non-Lambertian Phenomena
JAMES ARVO
Cornell University

Specializing Shaders
BRIAN GUENTER, TODD KNOBLOCK, and ERIK RUF
Microsoft Corporation

PAPERS

Splines & Surfaces

Petree Hall C

Chair

TONY DEROSE
University of Washington

A Signal Processing Approach to Fair Surface Design
GABRIEL TAUBIN
IBM T.J. Watson Research Center

Modeling Surfaces of Arbitrary Topology
CINDY GRIMM and JOHN HUGHES
Brown University

A General Construction Scheme for Unit Quaternion Curves With Simple High–Order Derivatives
MYOUNG-JUN KIM and SUNG YONG SHIN
Korea Advanced Institute of Science and Technology

MYUNG-SOO KIM
POSTECH and Purdue University

A-Splines: An Ergonomic Spline Model Designed for the End User
CAROLE BLANC and CHRISTOPHE SCHLICK
LaBRI

PANEL

Grids, Guys, and Gals: Are You Oppressed by the Cartesian Coordinate System?

West Hall B

This panel addresses gender-difference issues regarding computer technology in general and computer graphics in particular by examining and debating the question first raised at SIGGRAPH 93: Is the Cartesian coordinate system oppressive?

Moderator

GREG GARVEY
Concordia University

Panelists

BRENDA LAUREL
Interval Research Corporation

JOAN STAVELEY
Windlight Studios, Inc.

ALLUCQUERE ROSANNE STONE
University of Texas at Austin

ROB TOW
Interval Research Corporation

Friday, 11 August

1:45 pm – 3:30 pm

PAPERS

Virtual Reality
West Hall A

Chair

STEVEN FEINER
Columbia University

Rendering Interactive Holographic Images
MARK LUCENTE and TINSLEY A. GALYEAN
Massachussetts Institute of Technology

An Integrated Environment to Visually Construct 3D Animations
ENRICO GOBBETTI and JEAN-FRANCIS BALAGUER
Center for Advanced Studies, Research, and Development in Sardinia

Navigation and Locomotion in Virtual Worlds Via Flight Into Hand-Held Miniatures
RANDY PAUSCH and TOMMY BURNETTE
University of Virginia

DAN BROCKWAY and MICHAEL E. WEIBLEN
Science Applications International Corporation

A Frequency-Domain Analysis of Head-Motion Prediction
RONALD AZUMA and GARY BISHOP
University of North Carolina at Chapel Hill

PAPERS

Sampling
Petree Hall C

Chair

NELSON MAX
Lawrence Livermore National Laboratory

A Frequency-Based Ray Tracer
MARK R. BOLIN and GARY W. MEYER
University of Oregon

Optimally Combining Sampling Techniques for Monte Carlo Rendering
ERIC VEACH and LEONIDAS J. GUIBAS
Stanford University

Analytic Antialiasing With Prism Splines
MICHAEL D. MCCOOL
University of Waterloo

Stratified Sampling of Spherical Triangles
JAMES ARVO
Cornell University

PANEL

Visual Effects Technology: Do We Have Any?
West Hall B

The field of Visual Effects uses some of the most advanced tools computer graphics has to offer, but are they as good as we think they are? This panel will examine how some of those tools have been used and more importantly, look forward to the tools we will need to overcome our current limitations.

Moderator

DEREK SPEARS
Cinesite Digital Film Center

Panelists

SCOTT DYER
Windlight Studios, Inc.

CHARLIE GIBSON
Rhythm and Hues Studios

LINCOLN HU
Industrial Light & Magic

GEORGE JOBLOVE
R/GA-LA

3:45 pm – 5:30 pm

PAPERS

Volume Visualization & Morphing
West Hall A

Chair

MAUREEN STONE
Xerox PARC

Image Morphing Using Snakes and Free-Form Deformations
SEUNG-YONG LEE, KYUNG-YONG CHWA, and SUNG YONG SHIN
Korea Advanced Institute of Science and Technology

GEORGE WOLBERG
City College of New York

Feature-Based Volume Metamorphosis
APOSTOLOS LERIOS, CHASE D. GARFINKLE, and MARC LEVOY
Stanford University

Extracting Surfaces From Fuzzy 3D-Ultrasound Data
GEORGIOS SAKAS and STEFAN WALTER
Fraunhofer Institute for Computer Graphics

Time-Dependent Three-Dimensional Intravascular Ultrasound
JED LENGYEL, DONALD P. GREENBERG, and RICHARD POPP
Cornell University

PANEL

3D Graphics Through the Internet– A "Shoot Out"
West Hall B

Internet-based 3D graphics need to move beyond the current lowest common denominator of pre-computed movies, which consume bandwidth and are non-interactive. Panelists demonstrate and compare 3D graphical tools for accessing, analyzing, and collaborating on information through the Internet and World Wide Web. The "shoot-out" illustrates which tools are likely to be best for the various types of information, including dynamic scientific data, 3D objects, and virtual environments. The panel's goal is to encourage more effective use of the Internet by encouraging suppliers and users of information to adopt the next generation of graphical tools.

Moderator

CARL MACHOVER
Machover Associates Corporation

Panelists

GAVIN BELL *Silicon Graphics, Inc.*

TAMARA MUNZNER *University of Minnesota Geometry Center*

FABIO PETTINATI *Apple Computer, Inc.*

VAL WATSON *NASA Ames Research*

Technical Sketches

Concourse Hall Room 152 F

Wednesday – Thursday
1:45 pm – 5:30 pm

Friday
1:45 pm – 3:30 pm

Informal presentations of research in progress followed by questions, answers, arguments, and new perspectives. A committee of technical contributors reviewed proposals in May and selected sketches that have the best potential to stimulate new ideas and conversations in the computer graphics community.

Chair
ROB COOK
Light Source, Inc.

Jury
LOREN CARPENTER
Pixar

DAVID KIRK
Crystal Dynamics

F. KENTON MUSGRAVE
The George Washington University

Technical Sketches

Wednesday, 9 August

1:45 pm – 5:30 pm

1:45 pm
Activating Space with Electric Field Sensing

JOSHUA R. SMITH
JOSEPH A. PARADISO
THOMAS G. ZIMMERMAN
NEIL A. GERSHENFELD
MIT Media Laboratory

We review electric field sensing, argue that it facilitates a new style of interaction with technology, and present examples including a smart table that generates an active volume in which the hand functions as a 3D mouse.

2:05 pm
Realistic Animation of Liquids

NICK FOSTER
DIMITRI METAXAS
University of Pennsylvania

A comprehensive methodology for realistically animating liquids based upon the Navier-Stokes equations. Wave overturning, splashing, and rotational motion can be modeled in an arbitrary 3D environment including submerged or semi-submerged obstacles and dynamic floating objects.

2:25 pm
Coherent Rendering for Autostereoscopic Displays

MICHAEL HALLE
MIT Media Laboratory

This sketch describes a coherence-based rendering technique for producing a series of perspective views of a scene that make up an epipolar image volume, for use in autostereoscopic displays.

2:45 pm
Geometric Deformation by Merging a 3D Object with a Simple Shape

PHILIPPE DECAUDIN
INRIA

A new interactive geometric deformation technique for 3D objects. Local deformation of an object is obtained by merging it with a simple 3D shape (sphere, ellipsoid, etc.).

3:05 pm
A User Study Evaluating Level of Detail Degradation in the Periphery of Head-Mounted Displays

BENJAMIN A. WATSON
LARRY F. HODGES
NEFF WALKER
Georgia Institute of Technology

Evaluation of the efficacy of degrading level of detail (LOD) in the periphery of head-mounted displays. Results indicate that this sort of LOD degradation can be quite effective.

3:45 pm
Pulling Faces: Creating 2D Transformations for Manipulating Facial Appearance

DUNCAN A. ROWLAND
DAVID I. PERRETT
University of St. Andrew's

The creation of 2D transformations that alter both the shape and coloration of faces is explained. Illustrations include quantifying and altering the facial information pertaining to aging, gender, and identity.

4:05 pm
The Alice Rapid Prototyping System: 3D Graphics Made Easy

MATTHEW CONWAY
University of Virginia

We are developing Alice, a toolkit for the creation of interactive 3D graphics applications, designed with ease-of-learning by non-engineering undergraduates as the primary goal.

4:25 pm
A Statistical Approach to Color Juxtaposition

MYEONG LIM
F. KENTON MUSGRAVE
The George Washington University

Color juxtaposition can enhance both synthetic and digital images. We develop a random color palette for this purpose by manipulating a scatter plot of samples of a fractal color perturbation function.

4:45 pm
Quasi-Analytic Error-Bounded Ray Tracing of Procedural Height Fields with Adaptive Level of Detail

F. KENTON MUSGRAVE
The George Washington University

Description of a simple and surprisingly efficient method for ray tracing general point-evaluated height field functions. The method is error-bounded and utilizes a non-polygonal quasi-analytic ray/surface intersection test.

5:05 pm
Interactive Occlusion and Collision of Real and Virtual Objects in Augmented Reality

DAVID E. BREEN
ERIC ROSE
ROSS T. WHITAKER
European Computer-Industry Research Centre

We present several techniques that utilize calibration, modeling, and computer-vision algorithms to interactively perform occlusion and collision detection between static real objects and dynamic virtual objects in augmented reality.

Thursday, 10 August

1:45 pm – 5:30 pm

1:45 pm
A New Method for Reconstructing Polyhedral Shapes Robust to Topology Variations

JEAN-MICHEL OLIVA
MICHEL PERRIN
Ecole des Mines de Paris

SABINE COQUILLART
INRIA

We present a new method for restructuring a surface from parallel cross-sectional contours, robust to topology variations. It computes new intermediate contours by processing difference areas between neighboring cross sections.

2:05 pm
Modeling (Un)natural Forms

JON MCCORMACK
Monash University

This presentation describes the technical foundation of a recent interactive laserdisc production, "Turbulence." The focus is on an interactive rule-based modeling system that was developed specifically to model the shape, form, and behavior of both natural and imagined entities.

2:25 pm
Virtual Surface Tracing Manipulator of Low-Frequency Cycle Time

YUKIO FUKUI
HIROSHI YOKOI
JULI YAMASHITA
MAKOTO SHIMOJO
National Institute of Bioscience and Human Technology

A six-degree-of-freedom manipulator that can smoothly trace a virtual surface. The prediction control system enables the manipulator to work smoothly under low-cycle time control.

1:45 pm – 3:30 pm

2:45 pm
Edge Method for Artistic Rendering

ROLF RANDO
MIT Media Laboratory

A computationally inexpensive method for artistic rendering of 3D geometric objects combining mesh feature edge extraction techniques and z-buffered lining.

3:05 pm
On-the-Fly Behavioral Culling in the Alice System

JOE SHOCHET
RANDY PAUSCH
MATTHEW CONWAY
University of Virginia

Behavioral clipping reduces computation; users specify which (typically stateless) objects may be paused when not visually detectable. We present implementation issues and results obtained using the Alice system.

3:45 pm
Interactive Animation of Human Running

ARMIN BRUDERLIN
TOM CALVERT
Simon Fraser University

A high-level motion-control algorithm for animation of human running is proposed. A wide variety of convincing running styles can be generated in real time while interactively changing the values of high-level parameters such as desired velocity, step length, flight height, pelvic rotation, and bounciness.

4:05 pm
MouseLab, a Graphical, Interactive Kinematics Tutor

FREEMAN DEUTSCH
Harvard-Smithsonian Center for Astrophysics

The MouseLab software is an innovative, highly graphical, interactive program that enables users to gain an intuitive feeling for the relationships among some fundamental physical concepts: displacement, velocity, and acceleration.

4:25 pm
Warping Function with Force Fields

MASA INAKAGE
The Media Studio, Inc.

Image warping techniques have been effectively used in post-production special effects. This proposal presents a technique to effectively combine multiple warping functions.

4:45 pm
Longitudinal Deformation of Human Body Form Adding Invariant Characteristics to Free-Form Deformation

YUKIO FUKUI
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MAKIKO KOUCHI
National Institute of Bioscience and Human Technology

We have revised the free-form deformation method to avoid unexpected longitudinal deformation at the initial state. This new method of deforming the human foot form is applied to shoe manufacturing.

5:05 pm
VPLA: Visual Programming Language for Animation

WAYNE LYTLE
Cornell Theory Center

VPLA is a choreographer/modeler that has a 3D graphically editable representation of a hybrid object-hierarchy/data-flow network, with imbedded visual program-flow constructs such as recursive procedures.

1:45 pm
3D Emotion Space for Face-to-Face Communications Systems

FUMIO KAWAKAMI
Seikei University

SHIGEO MORISHIMA
University of Toronto

HIROSHI YAMADA
Kawamura College

An approach to very natural human-machine communication by giving a face and emotion to a computer.

2:05 pm
Immersive Design Tools for Virtual Environments

DOUG A. BOWMAN
LARRY F. HODGES
Georgia Institute of Technology

We present innovative methods for interactive design in immersive visual environments; discuss efficient, effective interactive tools for object creation and manipulation; and describe early experiences of architects with the system.

2:25 pm
Reshaping Rational G2 Splines

MICHEL FLEURY
Université du Quebec à Montréal

We present a video showing a natural attraction/repulsion associated with control points/edit points of rational G2 splines and a bias effect attached to edit points. These shape deformations involve simultaneously the usual local bias and tension parameters and present an alternative to gamma spline manipulations.

2:45 pm
Smoothly Maintaining a Vertical Orientation During Computer Animation

ERIC L. BRECHNER
Microsoft Corporation

Can you smoothly maintain vertical orientation in a walk-through-like application when the viewer looks skyward? We propose a solution that is easily implemented and has a nice gyroscopic feel.

3:05 pm
Multi-Sided Surface Macropatch Generation via Moving Average

YAN ZHAO
IBM

ALYN ROCKWOOD
Arizona State University

We propose a new multi-sided surface macropatch for free-form surface construction and vertex bleeding. It is convertible to Bezier patches. The proposed control pattern facilitates intuitive surface shaping.

Educators' Program

College/University Track
Room 403 A/B

Friday
8:30 am – 5 pm

K-12 Track
Room 408 A/B

Friday
9 am – 5 pm

SIGGRAPH 95 presents a one-day Educators' Program focused on educational issues in computer graphics and interactive techniques at both the K-12 and college levels.

Educators' Passport registration provides access to all Educators' Program sessions, which range from 30 minutes to 90 minutes in length. The Educators' Passport also includes entrance to the Exhibition, Technical Sketches, Computer Animation Festival Screening Rooms, Art Gallery, Interactive Entertainment, Interactive Communities, Artist/Designer Sketches, Fundamentals Seminar, General Sessions, Keynote Address/Awards, Welcome Reception, and one copy of the Educators' Program on CD-ROM.

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STEPHAN R. KEITH
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Co-chair
MARC J. BARR
Middle Tennessee State University

Administrative Assistant
CATHERINE M. KEITH

K-12 Track Organizer
JUDY SACHTER
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Canisius College

BARBARA MONES-HATTAL
George Mason University

YING TAN
Georgia State University

COLLEGE/ UNIVERSITY TRACK

8:30 am
Jeff McConnell
College/University Track Organizer

8:45 am
Creative Computer Graphics Teaching for Artistic Minds

REJANE SPITZ, Chair
PUC-Rio

TESS ELLIOTT
Middlesex University

CYNTHIA RUBIN
University of Vermont

PAUL RUTKOVSKY
Florida State University

ANNETTE WEINTRAUB
City College of New York

9:45 am
Adaptation of New Technologies for Production of Digital Portfolios and Their Applications to Graphic Design Education

LANNY WEBB
University of Georgia

10:30 am
An Effective Tool for Learning the Visual Effects of Rendering Algorithms

ROSALEE WOLFE
ANDREW SEARS
DePaul University

11:00 am
Design and Integration of Visualization Tools for the Graphics Classroom

DINO SCHWEITZER
BILL YOUNG
U.S. Air Force Academy

11:30 am
A Methodology for Producing Multimedia Computer-Based Training

JOHN L. CONNEL
STERLING SOFTWARE
NASA Ames Research Center

1:30 pm
The CGI Industry/Education Connection: Find the Best Education for the Right Job

BARBARA MONES-HATTAL, Chair
SIGGRAPH Education Committee

JOHN BERTON
Industrial Light & Magic

WAYNE CARLSON
The Ohio State University

PAULINE TSO
Rhythm & Hues Studios

2:30 pm
Towards a Theory of Computer Design Education

GREGORY PATRIC GARVEY
University of Georgia

3:15 pm
World Wide Web Panel Computer Science Education - Surfing the WEB

NAN C. SCHALLER, Chair
Rochester Institute of Technology

3:45 pm
WWW-Based Course for Computer Graphics and Scientific Visualization

G. SCOTT OWEN
Georgia State University

4:15 pm
Developing Artistic Interactive Multimedia on the World Wide Web

BONNIE MITCHELL
Syracuse University

K-12 TRACK

9:00 am
Alternate Resources in K-12 Computer Graphics Art Education

JACKIE WHITE, Chair
Los Angeles County High School for the Performing Arts

CATHRYN YODER
Art Institute of Dallas

10:00 am
Making Multimedia Happen in the Schools

DEBORAH HOWES
Austin Children's Museum

10:45 am
Artistic Interactive Multimedia - Designing, Authoring, and Expressing Artistic Content

BONNIE MITCHELL
Syracuse University

11:15 am
Three-Dimensional Graphics: Virtual Worlds for Real Schools

WILL FOWLER
San Jose Middle School

ANTHONY HARRIS
Hill Middle School

1:45 pm
Is Technology Driving Your Curriculum?

LORELIE JONES
Homewood-Flossmoor Community High School

2:15 pm
Techno-weenies vs. Whizzes

JOAN MARESH, Chair
J.F. Dulles High School

JANA ARMISTEAD
Stratford High School

DAVID MCCALL
School Vision of Texas

SHERRY WHITE
Armand Bayour Elementary

3:30 pm
Creating Learning Environments on the Internet: The Women in History Multimedia Program

ANNE JOELLE
Priscilla Beach Theatre

4:00 pm
Community Amusement/Entertainment Centers: New Schools for the Next Millenium

PETER H. ROSEN, Chair
Creativity Cafe

PC is to Piaget as WWW is to Bygotsky

ROBERT EDGAR
Inconceptual

Learning Communities on the Web

JOSHUA CALLMAN
Inconceptual

Using New Media Technologies in K-12 Environments

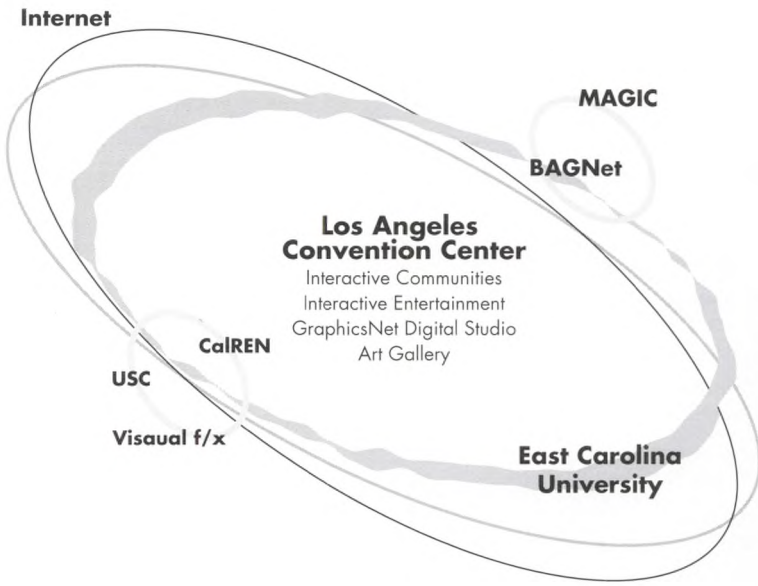
LARRY HINTER
Triadigm Technology

Children: The Designers of Our Future

EDITH ELLEN PAUL

GraphicsNet 95

GraphicsNet is a collaboration formed by all the various components of SIGGRAPH 95 to demonstrate graphics applications over an advanced switched internetwork.



Using the world's most advanced communications technologies – Asynchronous Transfer Mode (ATM), Synchronous Optical Network (SONET), High-Performance Parallel Interface (HiPPI), and Integrated Services Digital Network (ISDN) - GraphicsNet brings the international computer graphics community together in tele-seminars, tele-conferences, tele-medical consultations, and distributed visualization spaces. GraphicsNet interconnects people, hardware and software in the Los Angeles Convention Center, around the LA Basin, and throughout the nation, and gives its users the feeling of "being there," regardless of their location.

The ATM backbone supports the high-bandwidth needs of Interactive Communities, Interactive Entertainment, and the Computer Animation Festival/Electronic Theatre. ATM's high speed and low latency are also essential in the links to remote U.S. and international locations that support interactive, distributed graphics, real-time post production, and multi-point video distribution. The fully integrated ATM network gives users high-speed connections to the Internet, back to their offices, and to their local and international colleagues.

GraphicsNet is based on ATM technology from FORE Systems and ethernet switching products from LANNET. Essential Communications is providing products and support for GraphicsNet's HiPPI network. In what may be the first such use of this technology, Pacific Bell SONET services interconnect the South and West halls of the Los Angeles Convention Center, facilitating high-speed communications throughout the building.

Eastern Carolina University is providing remote medical exams to SIGGRAPH 95 participants over Sprint's nationwide ATM network. The same network also supports remote collaboration with educators in Monterey Bay and with researchers on the MAGIC Gigabit testbed.

In the GraphicsNet booth (2431), you can see the heart of this network in operation. GraphicsNet Digital Demo, a digital studio installed in room 150A of the Los Angeles Convention Center, puts state-of-the-art technology from FORE Systems, Silicon Graphics, Pacific Bell, and Visual f/x into the hands of SIGGRAPH 95 attendees.

The demo is connected to CalREN, a Los Angeles ATM network that provides content from remote locations at speeds so fast it is impossible to tell that it is not in the same room. And at the GraphicsNet kiosks, you can experience the effect of high-speed networking on some of today's most advanced applications, including VRML, Cinebase, and InPerson.

Construction of this state-of-the-art network in less than four days was expedited by resource contributions from leading networking companies. Without their expertise and advanced internetworking equipment, GraphicsNet would have been impossible to achieve.

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Registration Information

Programs included with your registration

	Exhibition	Courses	Papers/Panels	Technical Sketches	Educators' Program	Electronic Theatre Ticket	Festival Screening Rooms	Art Gallery	Interactive Entertainment	Interactive Communities	Artist/Designer Sketches	Fundamentals Seminar	General Sessions	Keynote Address/Awards	Welcome Reception	Papers/Panels Reception	Course Reception
Conference Passport	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Courses Passport	●	●		●	●	●	●	●	●	●	●	●	●	●	●		●
Papers/Panels Passport	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Educators' Passport	●			●	●		●	●	●	●	●	●	●	●	●		
Exhibits Plus	●			●			●	●	●	●	●	●	●	●	●		

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You must present your current ACM or SIGGRAPH membership number to receive member discounts. If you do not provide a valid membership number, you will be charged non-member rates. Students must present a copy of their 1995 ACM student membership card or valid student identification card. When you arrive at SIGGRAPH 95, you must show the same card (not a copy) to receive your badge and conference materials. If you do not show your ACM membership card or your valid student identification card, you will be charged the full non-member registration fee.

Conference Passport Registration

The Conference Passport registration includes Exhibition, Courses, Papers, Panels, Technical Sketches, Educators' Program, one Electronic Theatre ticket, Computer Animation Festival Screening Rooms, Art Gallery, Interactive Entertainment, Interactive Communities, Artist/Designer Sketches, Fundamentals Seminar, General Sessions, Keynote Address/Awards, Course Notes CD-ROM, Conference Proceedings, Conference Proceedings CD-ROM, Visual Proceedings, Welcome Reception, Course Reception, and Papers/Panels Reception.

Courses Passport Registration

The Courses Passport registration includes Exhibition, Courses, Technical Sketches, Educators' Program, one Electronic Theatre ticket, Computer Animation Festival Screening Rooms, Art Gallery, Interactive Entertainment, Interactive Communities, Artist/Designer Sketches, Fundamentals Seminar, General Sessions, Keynote Address/Awards, Course Notes CD-ROM, Visual Proceedings, Welcome Reception, and Course Reception.

Papers/Panels Passport Registration

The Papers/Panels Passport registration includes Exhibition, Papers, Panels, Technical Sketches, Educators' Program, one Electronic Theatre ticket, Computer Animation Festival Screening Rooms, Art Gallery, Interactive Entertainment, Interactive Communities, Artist/Designer Sketches, Fundamentals Seminar, General Sessions, Keynote Address/Awards, Conference Proceedings, Conference Proceedings CD-ROM, Visual Proceedings, Welcome Reception, and Papers/Panels Reception.

Educators' Passport Registration

The Educators' Passport registration includes Exhibition, Technical Sketches, Educators' Program, Computer Animation Festival Screening Rooms, Art Gallery, Interactive Entertainment, Interactive Communities, Artist/Designer Sketches, Fundamentals Seminar, General Sessions, Keynote Address/Awards, Educators' CD-ROM, and Welcome Reception.

Exhibits Plus Registration

The Exhibits Plus registration includes Exhibition, Technical Sketches, Computer Animation Festival Screening Rooms, Art Gallery, Interactive Entertainment, Interactive Communities, Artist/Designer Sketches, Fundamentals Seminar, General Sessions, Keynote Address/Awards, and Welcome Reception. Exhibits Plus registration is non-refundable.

Electronic Theatre Admission

One ticket per person is included with registrations for Conference, Courses, and Papers/Panels Passports. Every attempt will be made to accommodate your requested Electronic Theatre performance evening. All performances contain the same material. Any registered attendee may purchase up to four Electronic Theatre tickets (subject to availability) at SIGGRAPH 95 beginning Sunday, 6 August.

Registration Hours

SIGGRAPH 95 registration at the Los Angeles Convention Center is available during the following hours:

Sunday, 6 August	11 am to 10 pm
Monday, 7 August	7:30 am to 7 pm
Tuesday, 8 August	7:30 am to 7 pm
Wednesday, 9 August	8 am to 6 pm
Thursday, 10 August	8 am to 6 pm
Friday, 11 August	8:30 am to 1 pm

Media Registration

Media representatives must register at Media Headquarters, Rooms 404 A/B and 405. Media registration hours are listed on page 74.

Special Policies

The Exhibition is open only to badged attendees. Children under 16 are not permitted in the Exhibition. For information on child care, see page 73. No cameras or recording devices are permitted at SIGGRAPH 95.

On-Site Services

SIGGRAPH 95 and the Los Angeles Convention Center (LACC) offer a number of services during the conference to make your week more enjoyable.

Art Gallery Office
Room 153 A
+1.213.765.4202

Contributors can gather here to exchange ideas, leave messages, or discuss questions and concerns.

Audio/Visual Services
Room 501 C
+1.213.765.4203

Direct all questions about audio/visual needs to this office during these hours. For more information on audio/visual services for speakers, see Speaker Prep Room, page 74.

Busing
See Shuttle Services, page 78.

Career Center
Room 518

If you're looking for a new position, or if you're searching for talented employees, the SIGGRAPH 95 Career Center provides you with a place for efficient exchange of employment information. Private interview rooms are available for the exclusive use of SIGGRAPH 95 exhibitors.

Check Room
South Lobby

SIGGRAPH 95 provides complimentary luggage check services for briefcases, backpacks, and other small items during conference hours. Items cannot be checked overnight.

Child Care
Room 306 A/B

To leave messages for the Child Care area contact the conference management office:
+1.213.765.4204

Monday – Thursday: 8 am to 10 pm
Friday: 8 am to 6 pm

The child care schedule may change if participation is lower than expected.

KiddieCorp provides themed, age-appropriate child care activities for attendees' children from three months to 12 years of age. The KiddieCorp staff is licensed, bonded, certified, and trained in CPR and first aid. Children must be registered for at least three consecutive hours. No discounts are offered for longer time periods.

Rates:
$8 per hour for children under three
$7 per hour for children over three

Computer Animation Festival Office
Room 410
+1.213.765.4206

Contributors can gather here to exchange ideas, leave messages, or discuss questions and concerns.

Conference Management Office
Room 304 A
+1.213.765.4204

If you have questions regarding SIGGRAPH 95, call or stop by this office at anytime.

Conference Policies

Smoking is not permitted at any of the conference locations. No cameras or recording devices are allowed. Children under 16 are not permitted on the Exhibition floor. Lost badges can only be replaced for the original cost of the badge.

Electronic Theatre Tickets
See Tickets, page 75.

Exhibition Management Office
Room 303 B
+1.213.765.4207

If you have questions regarding the SIGGRAPH 95 Exhibition, feel free to call or visit a staff member here.

Exhibitor Registration
Hall K

Exhibitors should pick up their badges at the exhibitor registration counter, which is open during the same hours as other registration counters see Registration, page 72.

First Aid
+1.213.765.5133 (West Lobby)
+1.213.765.5136 (South Lobby)

A registered nurse or paramedic is on duty at the first aid areas during registration hours.

Food Services

The Los Angeles Convention Center operates several food concession areas for the convenience of SIGGRAPH 95 attendees. Food carts and casual seating are also available throughout the convention center.

Information Booths
South Lobby and West Lobby

Stop here for answers to questions about SIGGRAPH 95, how to find conference destinations, Los Angeles attractions, restaurants, and diversions.

On-Site Services

Interactive Communities Office
Hall K
+1.213.765.4213

Contributors can gather here to exchange ideas, leave messages, or discuss questions and concerns.

Interactive Entertainment Office
Hall K
+1.213.765.4216

Contributors can gather here to exchange ideas, leave messages, or discuss questions and concerns.

Internet Access Center
Room 402 A/B

Complete Internet access to your home, office, and colleagues around the world, available to all attendees every day during registration hours.

LACC Accessibility
The convention center is wheelchair accessible. It has no curbs, and there are elevators to second-floor levels. The special-assistance-equipped shuttle bus operates during SIGGRAPH 95 shuttle hours. Look for the signs indicating pick-up times and locations at your hotel, and refer to Shuttle Services, page 78.

LACC Business Services
Concourse

The Los Angeles Convention Center Business Center offers copying, faxing, and secretarial services for a fee.

LACC Parking
SIGGRAPH 95 attendees can park at the Los Angeles Convention Center for $6 per day. Enter the parking areas from either of the convention center's two main entrances.

Lost and Found
Check Room

Following the conference all items will be turned over to the LACC security.

Media Headquarters
Rooms 404 A/B and 405
+1.213.765.4211

Sunday	11 am to 7 pm
Monday	7:30 am to 7 pm
Tuesday	7:30 am to 7 pm
Wednesday	8 am to 6 pm
Thursday	8 am to 6 pm
Friday	8:30 am to 1 pm

Media-only Events
Media Briefing
Tuesday, 8 August
8 am to 8:45 am
Theatre, Los Angeles Convention Center

The official SIGGRAPH 95 media briefing is the place to discover "what's hot" in computer graphics and interactive techniques. You'll learn about some of this year's exciting conference programs and events and get a broad frame of reference for everything you'll see and experience at SIGGRAPH 95.

Media Tours

Exhibition Floor Tour
Immediately following the media briefing Tuesday, 8 August
8:55 am to 10 am

Access to the exhibit floor an hour before it officially opens and an overview of some of the products being featured at SIGGRAPH 95. SIGGRAPH 95 committee members will accompany small groups to selected booths, showcasing a variety of applications. The tour will be available in English, Japanese, French, and Spanish.

Program Tours

Sunday, 6 August	4 pm to 5 pm
Monday, 7 August	9 am to 10 am
Wednesday, 9 August	9 am to 10 am

If you're a SIGGRAPH first-timer, tours of the programs – such as Interactive Entertainment, the Art Gallery, Interactive Communities – will help you get an inside perspective and complete overview of the conference.

Meet at Media Headquarters (Room 404 A/B), Los Angeles Convention Center.

Exhibitor Press Events

A schedule of various exhibitor press events will be available in the Media Headquarters.

Merchandise
Hall K

SIGGRAPH merchandise is available for sale at SIGGRAPH 95 in the Registration Concourse. Merchandise must be purchased and picked up by 1 pm, Friday, 11 August.

Message Center
Hall K Foyer
+1.213.765.4200

Messages are posted on a bulletin board in the Message Center.

Registration
Advance Registration
South Lobby
+1.213.765.4212

On-Site Registration
Hall K
+1.213.765.4217

Registration Counters are open:

Sunday	11 am to 10 pm
Monday	7:30 am to 7 pm
Tuesday	7:30 am to 7 pm
Wednesday	8 am to 6 pm
Thursday	8 am to 6 pm
Friday	8:30 am to 1 pm

Restaurant Information Desk
South Lobby and West Lobby

Menus from local restaurants are available here. Staff members can assist you with restaurant selection and reservations. These desks are open during registration hours.

Shipping Desk
Hall K

For your convenience, a shipping desk at SIGGRAPH 95 provides next-day air, second-day air, and regular ground shipping services to destinations throughout the world.

Speaker Prep Room
Room 501 B/C
+1.213.765.4215

Sunday – Thursday	7 am to 7 pm
Friday	7 am to 2 pm

All speakers must check in at the speaker prep room at least 24 hours before their presentation.

Speakers and contributors should use the contributor registration desk in the Registration Concourse to resolve registration problems and obtain conference information.

Speakers may use the Speaker Prep Room 501A to prepare for their presentations, preview slides and videotapes, sort slides, and obtain slide carousels.

Changes in audio/visual equipment needs in presentation rooms should be directed to the speaker prep room.

Special Assistance Desk

South Lobby

Staff members at the special assistance desk help attendees resolve a wide range of possible problems and concerns, including:

- Credit card problems (validations, errors)
- Lost badges
- Misspelled names on conference materials
- Payments submitted without registration forms
- Refunds
- Receipts not received in the mail
- Registration forms submitted without payments
- Substitute registration (only if authorized on company letterhead)

Tickets

Additional Purchases

Electronic Theatre

One ticket per person is included with registrations for Conference, Courses, and Papers/Panels Passports. Every attempt is made to accommodate your requested Electronic Theatre performance evening. All performances contain the same material. Badged attendees may purchase up to four Electronic Theatre tickets (subject to availability) at on-site registration or merchandise-only cashiers beginning at 11 am, Sunday, 6 August.

Receptions

Badged attendees may purchase additional tickets for the course reception and papers/panels reception at on-site registration or merchandise-only cashiers.

Interactive Entertainment

Due to limited capacity, the Tesla and Venturer S-2 installations in Interactive Entertainment are available only on a first-come, first-served basis. Interested attendees must reserve space on these limited-capacity rides.

Each day at the opening of registration, badged attendees can line-up for tickets to these rides outside Hall K at the Interactive Entertainment Ticket Distribution Counter. Each person in line (limited to the number allotted for each day) will receive one ticket for a specific time that same day. After the allotted spaces have been distributed for a given day, no more spaces will be available until the following day.

There is no additional charge for the Tesla and Venturer S-2 tickets.

Telephone Numbers

Art Gallery Office
+1.213.765.4202

ATI Travel Management
+1.213.765.4201

Audio/Visual Services
+1.213.765.4203

Conference Management Office
+1.213.765.4204

Electronic Theatre Office
+1.213.765.4206

Emergencies (ambulance, fire, police)
+1.213.765.4605

Exhibition Management Office
+1.213.765.4207

First Aid Office
+1.213.765.5133/West Lobby
+1.213.765.5136/South Lobby

Interactive Communities Office
+1.213.765.4213

Interactive Entertainment Office
+1.213.765.4216

International Center
+1.213.765.4208
+1.213.765.4209 fax

Los Angeles Convention & Visitors Bureau (Spanish, French, Japanese, German, and English)
+1.213.689.8822

Media Headquarters
+1.213.765.4211
+1.213.765.4218 fax

Messsage Center
+1.213.765.4200

Registration
Advance Registration
+1.213.765.4212

On-site Registration
+1.213.765.4217

Speaker Slide-Making Room
+1.213.765.4214

Speaker Prep Room
+1.213.765.4215

International Center

In the International Center, the temporary headquarters of the world-wide computer graphics community, members of the SIGGRAPH 95 International Operations Committee and staff offer translation assistance and answers to conference questions. Multilingual student volunteers provide simultaneous translation and conference information. Look for their yellow vests with flags that indicate their language fluency.

The International Center, South Lobby, Los Angeles Convention Center, is open during the following times:

Sunday
11 am – 10 pm

Monday – Tuesday
7:30 am – 7 pm

Wednesday – Thursday
8 am – 6 pm

Friday
8:30 am – 1 pm

For information on the Los Angeles area in Spanish, French, Japanese, German, and English, call the Los Angeles Convention & Visitors Bureau: +1.213.689.8822

International Operations Committee

If you need additional information about SIGGRAPH 95, please contact any of the following members of the International Operations Committee.

Chair

Midori Kitagawa De Leon (Japanese)
The Advanced Computing Center for the Arts and Design
The Ohio State University
1224 Kinnear Road
Columbus, Ohio 43212 USA
+1.614.292.3416
+1.614.292.7776 fax
intl.s95@siggraph.org

Coordinator

Jean Ippolito (Japanese)
Savannah College of Art and Design
P.O. Box 3146
Savannah, Georgia 31402 USA
+1.912.231.2372
+1.912.238.2428 fax
intl.s95@siggraph.org

International Center Managers

Jim Scidmore
Linda Hersom
Scidmore, Hersom and Others Inc.
1115 Vicksburg Lane
18 Vicksburg Plaza
Plymouth, Minnesota 55447-3215 USA
+1.612.476.4976
+1.612.476.6083 fax
scidmore@aol.com

International Committee

Igor S. Alexandrov (Russian)
13/3 Sadovaya Chernogriazskaya Street
Apartment 158
Moscow 103064 RUSSIA
+7.095.208.4529
+7.095.128.1854 fax
igorsa@glas.apc.org

Len Breen (English)
31 Old Gloucester Street
Bloomsbury
London WC1N 3AF UNITED KINGDOM
+44.71.242.0551
+44.71.831.9377 fax
len1@mdx.ac.uk

Paul Brown (English)
Information Services Division
Griffith University
Queensland 4111 AUSTRALIA
+61.7.875.5286
+61.7.844.1486 fax
p.brown@ins.gu.edu.au

Felipe Gonzalez Carrasco (Spanish)
Playa Pichilingue #144
Colonia Reforma Iztaccihuatl
Mexico D.F. 08840 MEXICO
+52.5.6529566, ext. 210
+52.5.6523176 fax
felipeca@spin.com.mx

Thierry Frey (French)
1, rue Denis Litardi
83000 Toulon, FRANCE
+33.94.02.15.60
+33.94.24.50.50 fax
tfrey@email.enst.fr

Masa Inakage (Japanese)
Media Studio
2-24-7 Shichirigahama-Higashi
Kamakura, Kanagawa 248 JAPAN
+81.467.32.7941
+81.467.32.7943 fax
inakage@media-studio.co.jp

Myeong Won Lee (Korean)
Software Research Laboratories
Korea Telecom
17 Umyon-dong, Socho-gu
Seoul 137-792 KOREA
+82.2.526.6567
+82.2.526.5909 fax
mwlee@pine.kotel.co.kr

Maria Grazia Mattei (Italian)
Via Rimembranze di Lambrate 31
20134 Milano, ITALY
+39.2.2640062 phone and fax
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Wilhelminenstrasse 7
D-64283 Darmstadt, GERMANY
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Lower Kent Ridge Road
Singapore 0511 SINGAPORE
+65.772.2912
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POB 8656 3009 AR
Rotterdam, THE NETHERLANDS
+31.10.4778605 phone and fax
isea@mbr.frg.eur.nl

Steve Shi-Nine Yang (Mandarin)
Department of Computer Science
National Tsing Hua University
Hsin-Chu, TAIWAN 300
+886.35.731074
+886.35.723694 fax
snyang@cs.nthu.edu.tw

Marcelo Knorich Zuffo (Portuguese)
Av. Prof. Luciano Gualberto, 158 Trav.3
Sao Paulo - SP, 05508-900 BRAZIL
+55.11.818.5254
+55.11.211.4574 fax
mkzuffo@lsi.usp.br

SIGGRAPH Information Booths

The SIGGRAPH information booths, located in the South Lobby area of the Los Angeles Convention Center, provide information on SIGGRAPH services, conferences, and activities.

ACM

ACM, the first society in computing and sponsor of the SIGGRAPH conference, serves as an umbrella organization to information-technology professionals. Through its magazines, journals, books, and conferences, ACM offers its members access to information on the latest developments in cutting-edge technology, the transfer of ideas from theory to practice, and opportunities for information exchange. ACM is the resource for lifelong learning in the rapidly changing information technology field.

For more information contact:

ACM
1515 Broadway, 17th Floor
New York, New York 10036 USA
800.342.6626
(Continental U.S. and Canada)
+1.212.626.0500
(Metro New York and international)
+1.212.944.1318 (North America)
+32.2.774.9602 (Europe)
+32.2.774.9690 fax (Europe)
acmhelp@acm.org
acm_europe@acm.org

ACM SIGGRAPH: The Organization

See pages 132 – 133. For more information contact: Steve Cunningham
cunningham@siggraph.org

SIGGRAPH Education Committee

The SIGGRAPH Education Committee is involved with K-12 and university-level activities. This booth features student animations and graphics displays.

For more information contact:

Marc J. Barr
Associate Professor,
Radio/TV/Photography
#58 Middle Tennessee State University
Murfreesboro, Tennessee 37132 USA
+1.615.898.5118
+1.615.898.5682 fax
barr@siggraph.org; mjbarr@mtsu.edu

SIGGRAPH 96

Get a Big Picture of SIGGRAPH 96 in New Orleans.

Stop at the SIGGRAPH 96 booth for information on the hottest convergence of technology, art, scientific visualization, and electronic commerce. Celebrate the future of computer graphics, multimedia, and interactive techniques in New Orleans, a city that celebrates past, present, and future. Find out how you can be part of the picture by picking up your copy of the Call for Participation for SIGGRAPH 96. And talk to the people who are going to make SIGGRAPH 96 the graphics feast you won't want to miss!

SIGGRAPH 96
New Orleans
4-9 August 1996
Ernest N. Morial Convention Center
New Orleans, Louisiana USA

For more information contact:

SIGGRAPH 96 Conference Management
Smith, Bucklin & Associates, Inc.
401 North Michigan Avenue
Chicago, Illinois 60611 USA
+1.312.321.6830
+1.312.321.6876 fax
siggraph96@siggraph.org

SIGGRAPH One More Time

SIGGRAPH once again makes back issues of all publications, including slide sets, proceedings, CD-ROMs of the SIGGRAPH conference, and other conference proceedings, available to SIGGRAPH 95 attendees. Come early – many interesting materials are in very short supply.

For more information contact:

Steve Cunningham
cunningham@siggraph.org

SIGGRAPH Professional Chapters: Global Network

SIGGRAPH Professional Chapters is a global network that, throughout the year, develops and extends the achievements of the annual SIGGRAPH conference. You can continue your SIGGRAPH experience by joining a professional chapter in your local area, or if one does not exist, ask us at the SIGGRAPH Global Network Booth about how to form one.

For more information contact:

Scott Lang, Len Breen
ACM Professional Chapters
Steering Committee
pcsc@siggraph.org

SIGGRAPH Video Review

SIGGRAPH Video Review is the world's most widely circulated video-based publication. Since 1979, SIGGRAPH Video Review has illustrated the latest concepts in computer graphics and interactive techniques/technologies. Over one hundred programs provide an unequaled opportunity to study advanced computer graphics theory and applications. SIGGRAPH Video Review tapes are available in NTSC and PAL standards, VHS, and UMATIC (3/4") formats.

For more information contact:

SIGGRAPH Video Review
P.O. Box 11417
Chicago, Illinois 60611 USA
800.527.0231 (Continental U.S., Puerto Rico, and Canada 9 am–5 pm Central Time)
+1.312.527.0231 (Illinois and other international)
+1.312.789.7185 fax
svrorders@siggraph.org
http://www.siggraph.org/library/SVR/SVR.html

Travel and Housing

ATI Travel Management Assistance, Air, Housing and Car Rental

South Lobby

+1.213.765.4201

A representative from ATI Travel Management is available at the following times:

Sunday	11 am to 10 pm
Monday	7:30 am to 7 pm
Tuesday	7:30 am to 7 pm
Wednesday	8 am to 6 pm
Thursday	8 am to 6 pm
Friday	8:30 am to 1 pm

If you wish to rent a car, ATI has arranged special discounted rates with Alamo Rent A Car, Inc. Your ATI agent can book a car reservation for you or you can call Alamo directly at 800.732.3232 and mention SIGGRAPH ID #75148.

Local Shuttle Service/Buses

SIGGRAPH 95 provides free shuttle service between all conference hotels, University of Southern California dormitories, and the Los Angeles Convention Center. Look for the signs indicating pick-up times and locations at your hotel. For assistance with handicap service, please call +1.310.274.8819. We will be providing buses with wheelchair tiedowns and a wheelchair lift with a second entrance.

Routes

Please refer to conference locator for route information.

Los Angeles Convention Center Shuttle Schedule

Limited service: approximately every 15-30 minutes.

Heavy service: approximately every 5-15 minutes.

Sunday, 6 August	
10 am to 10 pm	Limited Service
Monday, 7 August	
7 am to 8:30 am	Heavy Service
8:30 am to 4:30 pm	Limited Service
4:30 pm to 7:30 pm	Heavy Service
Tuesday, 8 August	
7 am to 8:30 am	Heavy Service
8:30 am to 4:30 pm	Limited Service
4:30 pm to 7:30 pm	Heavy Service
Wednesday, 9 August	
7:30 am to 8:30 am	Heavy Service
8:30 am to 4:30 pm	Limited Service
4:30 pm to 7 pm	Heavy Service
Thursday, 10 August	
7:30 am to 8:30 am	Heavy Service
8:30 am to 4:30 pm	Limited Service
4:30 pm to 7 pm	Heavy Service
Friday, 11 August	
8 am to 6 pm	Limited Service

Shuttles to Receptions and Electronic Theatre

Course Reception – Monday

Shuttles leave the SIGGRAPH 95 hotels beginning at 7:30 pm to take attendees to the Course Reception at the Dorothy Chandler Pavilion. Return transportation to conference hotels is available until 11:30 pm.

Papers/Panels Reception – Thursday

Shuttles leave the SIGGRAPH 95 hotels beginning at 7:30 pm to take attendees to the Papers/Panels Reception at the Watercourt at California Plaza. Return transportation to conference hotels is available until 11:30 pm.

Electronic Theatre – Monday through Thursday

SIGGRAPH 95 transportation from the Pico entrance of the South Hall at the Los Angeles Convention Center begins at 6 pm on Monday and 6:30 pm on Tuesday – Thursday to the Shrine Auditorium. Return transportation to conference hotels only is available until 10 pm on Monday and 10:30 pm on Tuesday – Thursday from Shrine Auditorium.

Super Shuttle

South Lobby/Registration Concourse

Super Shuttle booth hours:
Wednesday – Thursday: 8 am – 6 pm
Friday: 8:30 am – 1 pm

One way $11 (with a $1 off coupon). A return reservation must be scheduled at least one day prior to your departure by calling the Super Shuttle reservation office at +1.310.782.6600 or +1.213.775.6600.

Hotel Map

1. Westin Bonaventure
   Headquarters Hotel
   404 South Figueroa Street
   Los Angeles, California 90071
   +1.213.624.1000
   +1.213.612.4800 fax

2. Beverly Hilton
   9876 Wilshire Boulevard
   Beverly Hills, California 90210
   +1.310.274.7777
   +1.310.859.9011 fax

3. The Biltmore Los Angeles
   9876 Wilshire Boulevard
   Beverly Hills, California 90210
   +1.310.624.1011
   +1.310.612.1628 fax

4. Checkers
   535 South Grand Avenue
   Los Angeles, California 90071
   +1.213.624.0000
   +1.213.626.9906 fax

5. Figueroa Hotel
   939 South Figueroa
   Los Angeles, California 90015
   +1.213.627.8971
   +1.213.689.0305 fax

6. Holiday Inn City Center
   Los Angeles Convention Center
   1020 South Figueroa Street
   Los Angeles, California 90015
   +1.213.748.1291
   +1.213.748.6028 fax

7. The Holiday Inn Downtown
   750 Garland Avenue at
   8th Street
   Los Angeles, California 90017
   +1.213.628.5242
   +1.213.628.1201 fax

8. Hotel Inter-Continental
   251 South Olive Street
   Los Angeles, California 90012
   +1.213.617.3300
   +1.213.617.3399 fax

9. Hyatt Regency Los Angeles
   711 South Hope Street
   Los Angeles, California 90017
   +1.213.683.1234
   +1.213.629.3230 fax

10. Inn Towne Hotel
    925 South Figueroa Street
    Los Angeles, California 90015
    +1.213.628.2222
    +1.213.623.1350 fax

11. Kawada Hotel
    200 South Hill Street
    Los Angeles, California 90012
    +1.213.621.4455
    +1.213.687.4455 fax

12. The Los Angeles Athletic Club
    431 West 7th Street
    Los Angeles, California 90014
    +1.213.625.2211
    +1.213.895.0300 fax

13. Los Angeles Omni
    930 Wilshire Boulevard
    Los Angeles, California 90017
    +1.213.629.4321
    +1.213.612.3989 fax

14. The Mayfair Hotel
    1256 West 7th Street
    Los Angeles, California 90017
    +1.213.484.9789
    +1.213.484.2769 fax

15. New Otani
    120 South Los Angeles Street
    Los Angeles, California 90012
    +1.213.629.1200
    +1.213.622.0980 fax

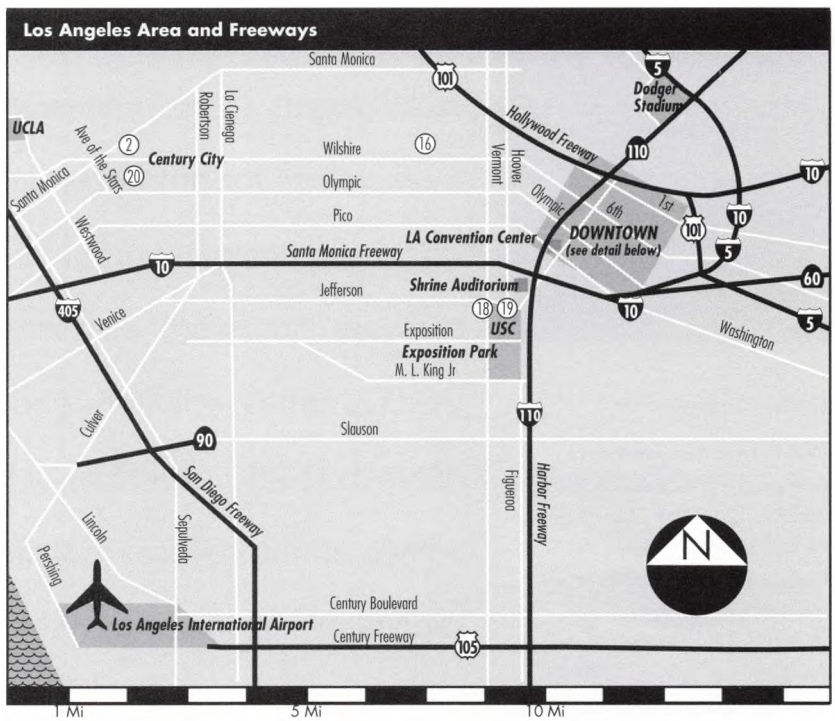
16. Radisson Wilshire Plaza
    3515 Wilshire Boulevard
    Los Angeles, California 90010
    +1.213.381.7411
    +1.213.385.2653 fax

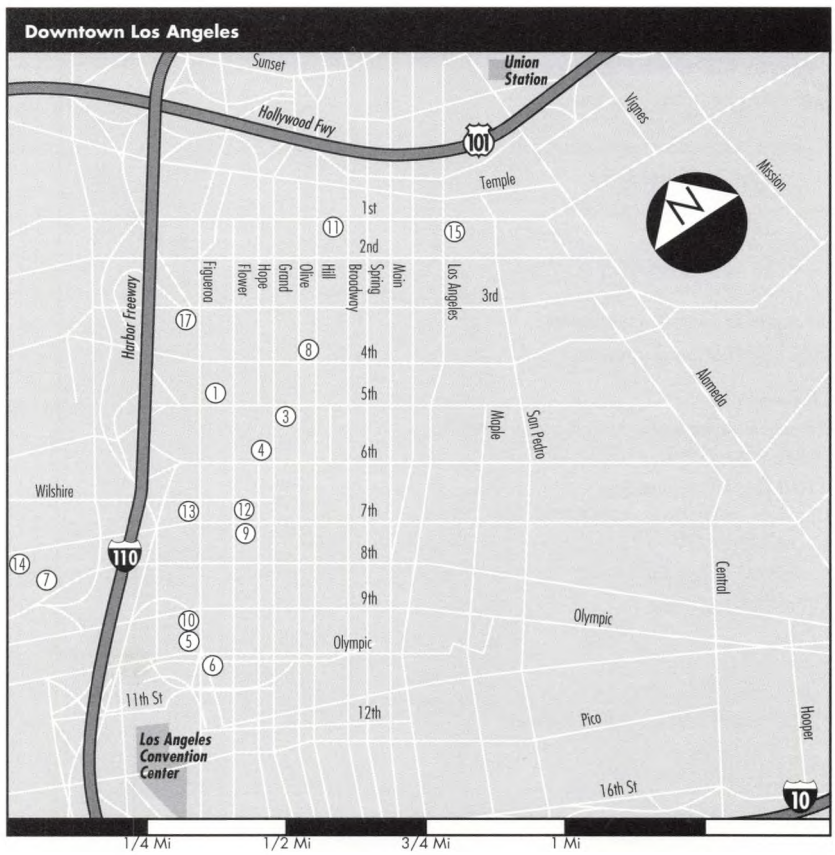
17. The Sheraton Grande Hotel
    333 South Figueroa Street
    Los Angeles, California 90071
    +1.213.617.1133
    +1.213.613.0291 fax

18. University of Southern
    California*
    642 West 34th Street
    Los Angeles, California 90090
    +1.213.740.2546
    +1.213.740.8488 fax

19. Vagabond Inn
    3101 South Figueroa Street
    Los Angeles, California 90007
    +1.213.746.1531
    +1.213.746.9106 fax

20. Westin Century Plaza
    2025 Avenue of the Stars
    Century City
    Los Angeles, California 90067
    +1.310.277.2000
    +1.310.551.3355 fax





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Charles Grecky
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Advanced Imaging is a monthly magazine specifically developed to meet the needs of professionals using all forms of emerging and converging electronic imaging technologies. Offering coverage of multi-media and multi-platform products and systems (video, photographic, and/or document-based) used for capture, manipulation, display, output, storage, and communication of real-world images. Editorial features report on the use of these products in applications.

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Christine Ferriter
Editor

Animation Magazine is the international trade publication for the animation industry, covering such areas as television, feature films, videos, commercials, post-production, multimedia, historical perspectives, and collecting animation art. Each issue also includes a column on CGI, and certain issues throughout the year are devoted to computer technologies and companies that are influencing the world of animation.

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AtLightSpeed is a developer of revolutionary, ultra-acceleration hardware for computer graphics workstations. Interfacing to software applications, TIME DRIVER is initially targeted for SGI's Indigo2. AtLightSpeed's library of algorithms processes images up to 200 times faster through TIME DRIVER's reprogrammable hardware. Designers can manipulate full-frame, film-resolution images in interactive real time.

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Director

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International Relations

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Marni Pingree
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CAD Institute is a degree-granting college with a BA in Multimedia and VR, and a BAS in CAD Technology. Also, short-term training for industry, graduate placement, and other industry services. The Computer Reality Center is an independent division that develops VR applications for industry.

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Programming Director

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Russell Marchetta
Manager, Public Relations

Canon U.S.A., Inc. is displaying its color laser copiers, including the CLC 350, 700, and 800. The copiers are connected to Canon's new ColorPass 4000 and 2000 controllers to demonstrate their color printing capability.

CELCO
BOOTH 1816

1150 East 8th Street
Upland, California 91786
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+1.909.985.9868
+1.909.982.2464 fax
74262.3674@compuserve.com

Peter Constantine
Director of Sales & Marketing

CELCO's eXtreme fx digital color film recorders provide unsurpassed imagery on 16mm to 8-inch x 10-inch for animation, business graphics, digital image retouching/restoration, and special effects. The unchallenged, wide dynamic exposure range of the eXtreme fx makes it the film recorder of choice where the ultimate in digital imaging is required.

CGSD Corporation
BOOTH 2501

2483 Old Middlefield Way, Suite 140
Mountain View, California 94043-2330
USA
+1.415.903.4920
+1.415.967.5252 fax
rlatham@cgsd.com

Roy W. Latham
President

CGSD integrates custom virtual reality systems using off-the-shelf components and designing custom software and hardware. CGSD also provides consulting services for all phases of system design, from market surveys through patenting, and publishes *Real Time Graphics,* a newsletter with subscribers in 35 countries.

Charles River Media
BOOTH 2621

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USA
+1.617.871.4184
+1.617.871.4376 fax
chrivmedia@aol.com

David Pallai
President

Charles River Media publishes professional-level books and CD-ROMs in the areas of multimedia and networking. Stop by our booth and see our recent releases, including: *Stereogram Programming Techniques,* the *HTML TemplateMASTER CD,* the *Macintosh 3D Professional,* the *Internet Training CD,* and *Creating Computer Art.*

Chromatek Inc.
BOOTH 2380

11450-F North Fulton Industrial Boulevard
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USA
+1.404.772.9852
+1.404.663.4726 fax

Betty Woodman
Vice President - Sales

Chromatek Inc. produces ChromaDepth 3D, a revolutionary process that enables simple creation of normal-appearing 2D images that transform into spectacular 3D images when viewed with the low-cost micro-optic ChromaDepth 3D glasses. ChromaDepth 3D can be used with computer graphics, medical imaging, hard copy, film, video, and laser shows.

Chyron Corporation
BOOTH 2054

5 Hub Drive
Melville, New York 11747
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+1.516.845.3895 fax

Isaac Hersly
Executive Vice President

David Frasco
Director of Marketing

Chyron designs, manufactures, and markets graphics, paint, compositing, and editing equipment. JALEO COMPOSITE/JALEO PLUS – digital compositing/editing post production systems for SGI workstations. New software releases for LIBERTY and INDEPENDENCE digital graphics packages and 64-bit LIBERTY digital film graphics studio. On show, iNFiNit!, the flagship of the CHYRON graphics systems featuring new options for increased creativity and flexibility!

Ciprico Inc.
BOOTH 1030

2800 Campus Drive
Plymouth, Minnesota 55441
USA
+1.612.551.4000
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Sue Leenerman
Director of Marketing

Ciprico Inc. develops RAID disk arrays targeted for high-bandwidth applications, including film/video production, medical imaging, and digital prepress. At SIGGRAPH 95, Ciprico introduces the Spectra 6900, the first disk array based on the new fast-20 SCSI specification to provide 40 MB/second performance on a Silicon Graphics workstation. With a 40 MB/second interface, the Spectra 6900 provides new levels of SCSI performance.

CIRAD
BOOTH 2221

B.P. 5035
34032 Montpellier Cedex 1
FRANCE
+33.67.10.15.75
+33.67.10.15.99 fax

Alain Chauchard
Head of Administration

AMAP software is the result of scientific research for plant growth simulation and can model any kind of plant including trees, bushes, grass, and flowers. AMAP also offers a quick and interactive 3D plant visualization and 3D scene editor for imaging landscapes, interior decoration, and urban scenes.

Cirrus Logic, Inc.
BOOTH 2620

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Fremont, California 94538
USA
+1.510.623.8300
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nhannum@corp.cirrus.com

Nancy Hannum
Marketing Communications

Cirrus Logic is a leading manufacturer of advanced integrated circuits for the PC market. Products on display include high-performance solutions for 2D and 3D graphics acceleration, MPEG decoding, and high-quality video playback for multimedia and teleconferencing applications.

Cogswell Polytechnical College
BOOTH 1362

1175 Bordeaux Drive
Sunnyvale, California 94089-1299
USA
+1.408.541.0100
+1.408.747.0764 fax
618-3314@mcimail.com

Tim Harrington
Outreach Programs Director

Cogswell Polytechnical College offers a comprehensive Bachelor of Arts Degree in Computer and Video Imaging (CVI). This integrated media degree offers the most exciting visual experience since the invention of film. CVI combines the finest aspects of multimedia derived from a classical learning approach. The only degree program of its kind in the country – the fastest-growing career field in the world.

Exhibitors

Computer Artist
BOOTH 2324

Ten Tara Boulevard, Fifth Floor
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USA
+1.603.891.9168
+1.603.891.0539 fax

Kim Norberg Burke
Promotions Specialist

Targeted at computer-based artists involved in imaging, illustration, and design, *Computer Artist* details hands-on techniques behind sophisticated digital effects, provides coverage of technical trends and new products, addresses artists' business concerns, and showcases the best of contemporary digital art.

Computer Graphics World
BOOTH 2324

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Kim Norberg Burke
Promotions Specialist

Computer Graphics World focuses on the state-of-the-art techniques and products used by leading engineering and animation professionals. Unlike any other publication on the market today, CGW covers everything from CAD/CAM/CAE/CIM and scientific engineering/visualization on the engineering side, to special effects for film/broadcast and interactive entertainment on the animation side.

Computer Video
BOOTH 2282

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John Spofford
Editor

Computer Video is the industry's hottest new tabloid publication, reaching 50,000+ buyers and users of desktop video products. Subscriptions are free to qualified professionals. *Computer Video* covers all platforms and is designed to bridge the gap between the converging worlds of professional video and computer systems.

Coryphaeus Software, Inc.
BOOTH 935

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Los Gatos, California 95030 USA
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+1.408.395.6351 fax
sales@coryphaeus.com

Coryphaeus provides power tools for real-time, 3D VR on Silicon Graphics workstations. Our leading-edge products include: EasyScene, a real-time visual system for the display of 3D scenes and databases; Designer's Workbench, an interactive modeling and editing environment; and EasyT, a 3D terrain and feature creation/modeling system.

Crystal River Engineering
BOOTH 2565

490 California Avenue, Suite 200
Palo Alto, California 94306
USA
+1.415.323.8155
+1.415.323.8157 fax
info@cre.com

Stephanie Cadet
Director of Sales

Crystal River, the technology leader in real-time 3D spatialized audio, exhibits its line of workstation and PC-based virtual acoustic displays. Crystal River's hardware and software products are used for simulation, training, psychoacoustic research, architectural and entertainment applications, as well as artistic and educational exhibits.

Cyberware
BOOTH 1039

2110 Del Monte Avenue
Monterey, California 93940
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+1.408.657.1450
+1.408.657.1494 fax
chris@cyberware.com

Chris Noble
Sales Manager

Rapid Color 3D Scanners. Model the whole human body in just seconds with the new Whole Body Scanner. Scan both shape and color of almost any object for animation, special effects, simulation, research, and design. Resulting meshes can be intelligently reduced, combined, and translated into many industry formats.

Cymbolic Sciences
BOOTH 1758

147 C Street, P.O. Box 4147
Blaine, Washington 98231-4147
USA
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+1.360.332.8032 fax

Neena Rahemtulla
Marketing Communications Manager

Introducing LightJet 2000, continuous-tone digital color recorders using three-laser technology for fast recording accuracy. Features include exceptional resolution of up to 2,032 lines per inch (Res 80) and direct connections to Macintosh Quadra, Power Macintosh, Silicon Graphics, Sun Microsystems, and 486 and Pentium PCs with FireWare Pro application software.

Daewoo International America Corporation
BOOTH 2605

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+1.310.669.2030 fax
mrbrown@cerfnet.com

Mark R. Brown
Multimedia Marketing and Development Manager

MPEG1 & MPEG2 compression of video/animations (3DStudio) for video output to composite (NTSC & PAL) VHS, SVHS, Beta SP, component Y,Cr,Cb (no additional hard disk). Windows-based conversion to MPEG of AVI, DIB, TGA, JPG, FLI or FLC outputs audio/video MPEG including CD standard system layer output (system layer interleaved audio/video).

Depthography Inc.
BOOTH 2619

122 East 27th Street, Second Floor
New York, New York 10016
USA
+1.212.679.8101
+1.212.679.8252 fax

Gary Darrow
Vice President

Depthography, the industry leader since 1990, has perfected the art of producing 3D auto-stereoscopic lenticular images. Multi-phase animated images incorporating up to 50 frames of animation into a single picture you can hold in your hand. Rear-lite or reflection prints. Superior 3D projection. More movement 2D into 3D. All in sizes to 30 inches x 40 inches.

DeskStation Technology, Inc.
BOOTH 2611

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Jodi Potter
Marketing Administrative Assistant

DeskStation just captured the industry's top computer systems award: *BYTE Magazine's* Best of Comdex Spring 95. Raptor 3, utilizing DEC's new Alpha 21164 CPU is the world's fastest single-process Windows NT workstation. In addition, the processor-independent architecture allows for field upgrades to future CPU's from DEC, MIPS, etc.

Desktop Images
BOOTH 947

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Burbank, California 91506
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+1.818.841.8023 fax
mailhost@desktopimages.com

Cheryl Olson
Marketing

Desktop Images instructional videotapes feature top instructors in the field of graphic design and animation. Our tapes dramatically reduce the learning curve. We currently offer 24 tapes in our catalogue. Each tape is a step-by-step guide to creating broadcast-quality video, graphics, sound, and 3D animation.

Diaquest Inc.
BOOTH 1521

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Berkeley, California 94702
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diaquest@crl.com

Dan Lindheim
President

Diaquest, the leader in frame-accurate video control for animation, desktop video production, image processing, and scientific visualization, showcases new PC, Mac, and UNIX software including: ANIMAQ/DIGITAL, networked DDR control; Animaq, software-only VTR control with Diaquest's revolutionary QuickPass; new plug-ins for Adobe After Effects and Premiere; and various networked and real-time video and graphics solutions.

Digimation, Inc.
BOOTH 1056

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St. Rose, Louisiana 70087
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LaVina Larkey
Vice President

Digimation, Inc. is the leading creator of third-party plug-ins for 3D Studio and the world's largest distributor of 3D Studio accessories. Our best-selling plug-ins include Bones Pro, LenZFX, Mirage, Bubbles, Magic, and many more. Digimation also produces "IN THE STUDIO", a complete video instruction course for 3D Studio.

Digital Compositing Systems, Inc.
BOOTH 2539

3309 Onyx Road
Miramar, Florida 33025
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+1.305.438.9541 fax

Marti G. Moore
Vice President

The Optical Bench is a digital compositor that is fast, easy to learn, and easy to use. Features include a graphical user interface, multiple image file formats, an extensive preview system including built-in flipbook and shotbox system, special effects, sophisticated layer management, and much more.

Digital Equipment Corporation
BOOTH 2018

129 Parker Street
Maynard, Massachusetts 01754
USA
800.DIGITAL

Digital Equipment Corporation features the fastest workstation in the world: The AlphaStation 600 and our newest graphics accelerators. At over 500 spec FP92, the AlphaStation 600 with the Evans and Sutherland Freedom graphics engine powers our exciting cybercycle VR riding race. Come and test your driving skills one-on-one!

Digital Imaging Magazine
BOOTH 927

21150 Hawthorne Boulevard, Suite 104
Torrance, California 90503
USA
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+1.310.542.0849 fax
KN@earthlink.net

Ken Nicholas

Digital Imaging magazine is a bi-monthly national publication devoted to professional users of graphic imaging products and services. See us at our booth for a complimentary subscription.

Digital Processing Systems Inc.
BOOTH 2065

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Florence, Kentucky 41042
USA
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+1.606.371.3729 fax
info@dps-inc.com

Brad Nogar
Vice President

DPS showcases their new Perception Video Recorder, a PCI bus digital disk recorder system. Ideal for animation and video editing, the PVR-2500 features an integrated SCSI hard drive controller and 10 bit video encoding. Software is offered for both Windows 3.1 and Windows NT (Intel, DEC Alpha, MIPS, and PowerPC).

Digital Semiconductor, Digital Equipment Corporation
BOOTH 2079

77 Reed Road
Hudson, Massachusetts 01745
USA
+1.508.568.6138
+1.508.568.6447 fax

Dawn Hansen
Event Manager

Digital Semiconductor, a Digital Equipment Corporation business that designs and manufactures Alpha microprocessors, the world's fastest, is demonstrating Alpha's superiority for animation, rendering, image processing, graphic arts, and video production. The exhibit features a variety of Alpha-based, video/graphics PCs and workstations and pits Alpha's performance against other relevant hardware platforms.

Digital Wisdom Inc.
BOOTH 957

300 Jeanette Drive
Tappahannock, Virginia 22560-2070
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CIS 72673,3360

David Broad
President

Digital Wisdom's collection of Mountain High Maps sets a new standard in spectacular and accurate cartography now used worldwide in educational, travel, publishing and video, television, and multimedia production. Mountain High Maps is provided with a number of tools, including political and other information layers, that allow original, dramatic, and completely customizable maps to be generated in Macintosh, Windows, or UNIX environments.

Dimensional Visions Group, Ltd.
BOOTH 2563

718 Arch Street, Suite 202N
Philadelphia, Pennsylvania 19106
USA
+1.215.440.7791
+1.215.440.7797 fax

Robert Morris
VP, Marketing & Sales

Dimensional Visions Group produces unique, high-impact lithographic three-dimensional DV3D lenticular prints that can be viewed without the use of special glasses or other viewing apparatus. DV3D applications include, but are not limited to: CD-ROM covers, point-of-purchase display, trading cards, posters, video game covers, direct mail, post cards, premium and incentive merchandise.

Discreet Logic
BOOTH 1121

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+1.514.272.0585 fax
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Stefanie Roche
Trade Show Coordinator

Discreet Logic develops non-linear digital image processing systems for creating special visual effects in feature films, television programs, commercials, and music videos. Supported by high-speed data transfer and networking solutions, Discreet Logic systems offer a complete production suite that merges traditional production values and digital technology.

Division, Inc.
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info@division.com

Saundra Oberle
Marketing Programs

Division is the world's leading supplier of total solutions for immersive and desktop professional virtual reality. Division demonstrates real-time VR applications in engineering design, architecture, training, and simulation on HP, SGI, ProVision, and PC systems. Products include dVISE, the interactive virtual world authoring tool, and the dVS runtime environment.

DreamWorks
BOOTH 1264

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North Hollywood, California 91603
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+1.818.733.5415 fax

Rob Hummel, Dylan Kohler, Bill Villarreal
Technologies/2D/3D

In alliance with Silicon Graphics, DreamWorks is currently developing a revolutionary digital system for creating and managing creative content. The system will be used initially for DreamWorks' first animated feature, The Prince of Egypt, and later in aspects of live-action feature films, television, interactive media, and music.

DV Magazine
BOOTH 2545

600 Townsend Street, Suite 170 East
San Francisco, California 94103
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Wendie Marro
Marketing Director

DV Magazine is the definitive source of buying and usage information for creators, producers, and developers of digital video and multimedia content. Each monthly issue contains rated product reviews, product comparisons, late-breaking industry news, and tips and techniques for digital video tools such as animation, authoring, multimedia, and graphics packages. Stop by our booth and pick up a free copy of the September issue.

Dynamic Realities
BOOTH 1873

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Waukesha, Wisconsin 53186
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+1.414.798.9400
+1.414.798.9403 fax
afrerking@aol.com

Andrew Frerking
President

Dynamic Realities represents a new force in the animation world. Their first product, IMPACT!, is an animation motion generator for users of LightWave 3D. Applying the laws of Newtonian physics as well as collision detection and response, realistic looking motion is produced quickly and easily. Once only for Amiga, IMPACT! is now available for Windows NT.

EarthWatch Communications
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Jan Foster
VP of Operations

EarthWatch Communications is the leading developer of 3D weather visualization systems worldwide – technology so unique, it has received a patent. EarthWatch is committed to developing sophisticated software products for simulation of atmosphere and ground-based phenomena. Our goal is to create affordable visual solutions that provide users with an increased understanding and appreciation of the earth.

Eastman Kodak Company
BOOTH 1113

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Rochester, New York 14653-5301
USA
+1.716.726.9210
+1.716.253.9334 fax

Glenn Kennel
Cineon Marketing Manager

Eastman Kodak Company is displaying digital imaging software and hardware for motion and still imaging. Highlights for motion imaging include the CINEON ImageStation 1000, 4000, and 8000 series; CINEON image compositing and retouching software; and CINEON GENESIS digital film scanners. Eastman Kodak's full range of still imaging solutions for the desktop include: Kodak digital cameras, Photo CD products, high-speed color printers, and CD writers and authoring tools.

Elastic Reality/Parallax Software/Avid Technology
BOOTH 1505

Metropolitan Technology Park
One Park West
Tewksbury, Massachusetts 01876 USA
+1.508.640.3103
+1.508.851.0418 fax

Kara Misenheimer

Feature film post production using Matador paint and 2D animation software; Advance compositing and effects system; Jester digital cartoon ink and paint software; Elastic Reality shape-to-shape morphing software; and editing using Film Composer and OMF Interchange; high-end video post production with Avid Media Spectrum suite of editing, painting, effects, and compositing tools with uncompressed CCIR-601 images; games and interactive production using Matador Sprite and Digidesign Pro Tools III.

Electric Image, Inc.
BOOTH 2055

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lisa.pykkonen@electricimg.com

Lisa Pykkonen
Corporate Communications

ElectricImage Version 2.5 is a high-end 3D graphics program designed for computer graphics and animation professionals. It is a "fat application" that runs on both 680XO and PowerMac computers. Features include: inverse kinematics, batch processing, network rendering, light rays, deformations, sync sound, professional gamma control, and much more.

ElectroGIG USA, Inc.
BOOTH 2305

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gigsf@netcom.com

Anthony Mohr
Tradeshow Manager

ElectroGIG develops, markets, and supports the GIG family of software products and services for design professionals in the broadcast, film and video, CAD, and publishing industries. The company's core technologies include 3D solid modeling, visualization, and animation software, as well as virtual set technology. With its mission to provide superior digital media tools, ElectroGIG is at the forefront of the burgeoning field of interactive communications.

ENCAD, Inc.
BOOTH 1871

6059 Cornerstone Court West
San Diego, California 92121
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+1.619.677.5051
+1.619.452.0891 fax

Candy Adams
Trade Show Manager

ENCAD demonstrates the NOVAJET III large-format color inkjet printer/plotter with the NovaRIPP, network raster image processor. Applications include graphic arts (digital photo imaging, sign making, presentation graphics), CAD (architectural, engineering, and construction design), and geographical information systems such as surveying and mapping.

ENEL S.P.A.
BOOTH 2455

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00100 Roma
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+39.6.850.98836 fax

"St. Peter's Basilica" is a virtual reality work that recreates the Basilica and its external square with photographic realism. It is possible to visit it now or travel back in time and arrive in 1500, when Constantine's Basilica was demolished to make way for the new one.

Engineering Animation, Inc.
BOOTH 1445

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vislab@eai.com

Brad Shafer
Sales Coordinator

VisLab is a 3D rendering and animation software package. Using external model files, VisLab's unique proprietary technology creates sophisticated animations at unparalleled rendering speeds. This high-throughput animation features sophisticated motion, interactive texturing, and an extensive particle library. Product demonstrations are presented several times a day throughout the SIGGRAPH 95 Exhibition.

Ensemble Designs Inc.
BOOTH 2284

P.O. Box 993
Grass Valley, California 95945
USA
+1.916.478.1830
+1.916.478.1832 fax
cindy@endes.com

Cindy Zuelsdorf
Marketing

Multibuffer: highest-quality solution for transferring Mac graphics/animations to video. Software encoded images transfer via ethernet or Appletalk, from Mac to MultiBuffer. Also high-resolution still video capture. All digital and analog video formats are supported. Serial Box Convertors: high-quality conversion between all analog formats and serial digital components.

Epson America, Inc.
BOOTH 1020

20770 Madrona Avenue
Torrance, California 90503
USA
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+1.310.782.5182 fax

Judie Fuller
Manager of Events

Epson offers an extensive array of technology products including printers, scanners, computers, projectors, digital cameras, and PCMCIA cards. Epson is an affiliate of Seiko Epson Corporation, a global manufacturer and supplier of quality technology products that meet customer demands for functionality, compactness, systems integration, and energy efficiency.

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Eptron, S.A.
BOOTH 1661

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Jose R. Lopez Mesa
President

IMPERACTOR: Real-time animation system of the face of a virtual mascot (eyelids, eyebrows, pupils, mouth, etc.), using artificial vision technology with a video camera. No sensors are involved. HUDAS (Human Data Acquisition System): real-time interaction of a group of people in virtual scenarios without physical connection to the system.

Equilibrium
BOOTH 1455

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info@equil.com

Cara Ucci
Marketing Manager

Equilibrium is showing their DeBabelizer product line, featuring the latest version of DeBabelizer Toolbox. This award-winning product saves time, effort, and money by offering automated graphics processing, extensive image manipulation, and unrivaled cross-platform bit-mapped file conversion - all in a single integrated application.

Eurographics
BOOTH 836

Eurographics Association
P.O. Box 16
1288 Aire-la-Ville (GE)
SWITZERLAND
info@eg.org

Eurographics is the European Association for Computer Graphics. It has a worldwide membership. Eurographics publications include *Computer Graphics Forum, Tutorial Notes,* and *State of the Art Reports,* conference proceedings, workshop reports on animation, rendering, visualization. This year's annual conference is in Maastricht, 28 August – 1 September. Web site: http://www.cwi.nl/Eurographics/

Evans & Sutherland Computer Corporation
BOOTH 1131

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Jayne Anderson
Marketing Communications Manager

E&S builds high-performance computer image generators, graphics accelerators, and off-the-shelf or custom environment software for cost-effective, 3D graphics solutions. Turnkey VR products include the Virtual Glider hang gliding experience; Virtual Adventures, the most advanced multi-player VR game; and Digistar II, the world's only digital planetarium projection system.

Extron Electronics
BOOTH 2231

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Ivan Perez
Marketing Communications Manager

Extron Electronics is a leading manufacturer of computer-video interfaces, RGB and video switchers, matrix switchers, distribution amplifiers, decoders, scan converters, and signal-enhancement equipment. Featured at SIGGRAPH 95: the Inertia workstation-to-VGA-video graphics scan converter and the new RGB 202xi totally universal computer-video interface.

FARO Technologies, Inc.
BOOTH 1459

125 Technology Park
Lake Mary, Florida 32746
USA
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+1.407.333.4181 fax

Sharon Cowman
Show Coordinator

FARO Technologies Inc., leading manufacturer of portable 3D measuring devices, demonstrates the SpaceArm, its newest and most affordable 3D digitizing system with new direct interfaces to 3D Studio and Lightwave for Amiga. Employing the latest in digital signal processing technology, the SpaceArm digitizer features a 48-inch spherical diameter digitizing volume, and has a resolution of 0.001 inches, and an accuracy of plus or minus 0.015 inches.

FAST Electronic U.S., Inc.
BOOTH 1031

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Son Hoang
Marketing Assistant

FAST Electronic showcases the Video Machine digital player/recorder, the first true hybrid system capable of simultaneous switching between nonlinear/linear and online/offline video editing. VM DP/R also offers unique animation features: alpha channel animations, split to frames, and real-time playback of animations directly from the hard disk. FAST Electronic introduces the new Movie Line Family: FPS60, Movie Machine II, and PCI Video.

Fast Forward Video
BOOTH 844

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Fast Forward Video manufactures digital video compression and recording technology. Its products include the Bandit, a SCSI digital video recorder used by SGI animators and others involved in desktop video production. Its board-level products include the Outlaw, a digital video subsystem, and, its latest product, the Recon 11, a portable digital video subsystem providing broadcast quality recording and two channels of CD-quality audio.

Film & Video Magazine
BOOTH 846

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Film & Video is written for producers of motion pictures, television programming, commercials, music videos, and multimedia. Designed to educate and inform readers of the changing technologies and emerging trends in the film, television, and interactive industries, the magazine's mission is to advocate creativity through editorial focus on key personnel in the production and post-production processes.

Folsom Research, Inc.
BOOTH 1645

526 East Bidwell Street
Folsom, California 95630
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Ed Hart
Director of Sales and Marketing

Folsom Research, Inc. introduces our new video-in windowing product: the Model 9600 VIP video-in peripheral designed for applications that require displaying up to four real-time live video windows on a workstation or PC monitor and simultaneously display video from up to four video cameras, recorders, or teleconferencing systems. We are also displaying our latest scan converter Models 9400 JR and 9500 SR. Both provide auto-sync and broadcast-quality conversion of any high-resolution computer or video source to NTSC or PAL.

FOR-A Corporation of America
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Cypress, California 90630
USA
+1.714.894.3311
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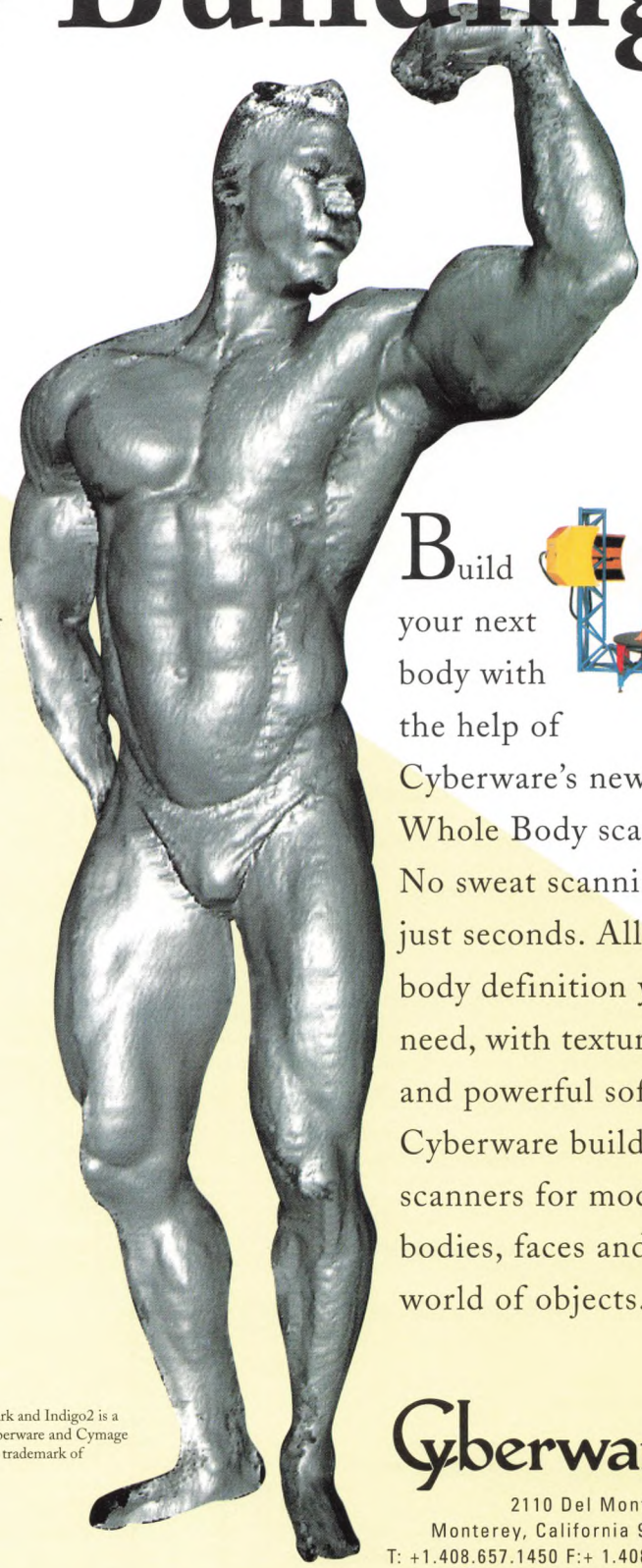
Michael Hobart
National Sales Manager

DR-300, the new and versatile non-linear Disk Recorder, simplifies operations for circuit TV systems, worldwide news events to computer graphics animation applications, and produces superb quality imaging. LDR-100, the nonlinear, random access, Live Digital Recorder is ideally suited for use during online or offline editing sessions. The HMC-1220 High Resolution Nubus Digital Camera provides Macintosh computer users with an extraordinarily fast way of importing high-resolution images.

Body Building



This image began as a 20 second scan. The body builder posed on the platform of Cyberware's new WB4 Whole Body Scanner. The scanner uses four Cyberware optical scanning instruments positioned to the front, back, left and right. Starting from the top the scanners moved downward while scanning a cross section of points and color each 1.67mm.

Then about one minute of processing by Cyberware software running on a Silicon Graphics Indigo2 Extreme produces a mesh of 220,000 triangles. A pass through the Zipper software made the four separate meshes into one. By scanning from four sides at the same time the model's surface is well aligned and amazingly complete.

We then reduced the triangle mesh's complexity by using the Cymage decimation tools. This gave the 35,000 triangle model shown here.

The WB4 is now available for sale and demonstration. Four-headed WB4 is $410,000.

For details call Chris Noble at +1 408 657 1481, sales@cyberware.com. Fax to +1 408 657 1494, or browse at http://www.cyberware.com.

Build your next body with the help of Cyberware's new Whole Body scanner. No sweat scanning in just seconds. All the body definition you need, with texture maps and powerful software. Cyberware builds scanners for modeling bodies, faces and a world of objects.

Silicon Graphics is a registered trademark and Indigo2 is a trademark of Silicon Graphics, Inc. Cyberware and Cymage are registered trademarks and WB4 is a trademark of Cyberware Laboratory, Inc.

Cyberware

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Dawn Hannah
Trade Show Manager

Fractal Design Corporation is the leader in award-winning, innovative graphics software. Fractal Design markets and develops Natural-Media painting, drawing, and image retouching software, for Macintosh, Power Macintosh, and Windows. Fractal Design demonstrates new Painter 3.1 which includes more than 50 new features; Poser, a new and intriguing figure design tool for modeling the human body; and new Fractal Design Dabbler 2.0, a learn-to-draw and learn-to-paint program.

Fujitsu Microelectronics, Inc.
BOOTH 825

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+1.408.922.9857 fax
hpatel@fmi.fujitsu.com

Hiten Patel
Senior Product Marketing Manager

Fujitsu presents its new family of PC graphics products featuring the Sapphire 2SX 3D/Windows Accelerator card. The Sapphire 2SX provides 3D graphics capabilities for a PC that were previously available only from expensive graphics workstations. Accelerated rendering features supported by the Sapphire 2SX include shading, texture mapping, anti-aliasing, atmosphere, and depth cueing.

FWB, Inc.
BOOTH 2076

1555 Adams Drive
Menlo Park, California 94025
USA
+1.415.325.4392
+1.415.775.2125 fax
jimnelson@FWB, Inc.

David Barten/Jim Nelson

FWB unleashes PCI. See graphics files open in a flash on the new Power Macintosh 9500 with FWB's SledgeHammer for PCI. See the SledgeHammer-VS play back broadcast-quality digital video at compression rates of 4:1. Watch the SledgeHammer-FT exhibit ultimate fault tolerance. Check out FWB's entire line of World Class Storage Solutions including CD Recorders, Magneto Opticals, DLT Drives, and ToolKit software.

General Reality Company
BOOTH 2625

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Arthur Zwern
President

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Robert Hunter
Trade Show Manager

The gm833x3 is the latest digital video/image scaling DSP IC from industry leader Genesis Microchip. The chip is part of the Acuity Resizing series of real-time video resizing engines – devices that minimize aliasing distortion and preserve image integrity. Genesis also produces the gm2242B Half-Band Filter.

Grand Junction Networks Inc.
BOOTH 1023

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Marshall Hash
President

Animation Master V3.0, the 3D motion picture studio, is the most powerful and affordable spline-based modeling and animation program available that is specifically designed for classic character animation. Animation MASTER includes: inverse kinematics, time-based materials, image mapping, alpha channels, and patch raytracing.

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Jeff Chapman
VP/Marketing

Helios Systems and Piiceon are divisions of Piiceon, Inc., which manufactures memory upgrades for workstations, PCs, laptops, and laser printers, as well as PC card modems for laptops. Its newest products are direct-connect cellular fax modems – both 28.8K and 14.4K. All Piiceon Inc. products come with a lifetime warranty.

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Jerry Aldrich
Sales Manager

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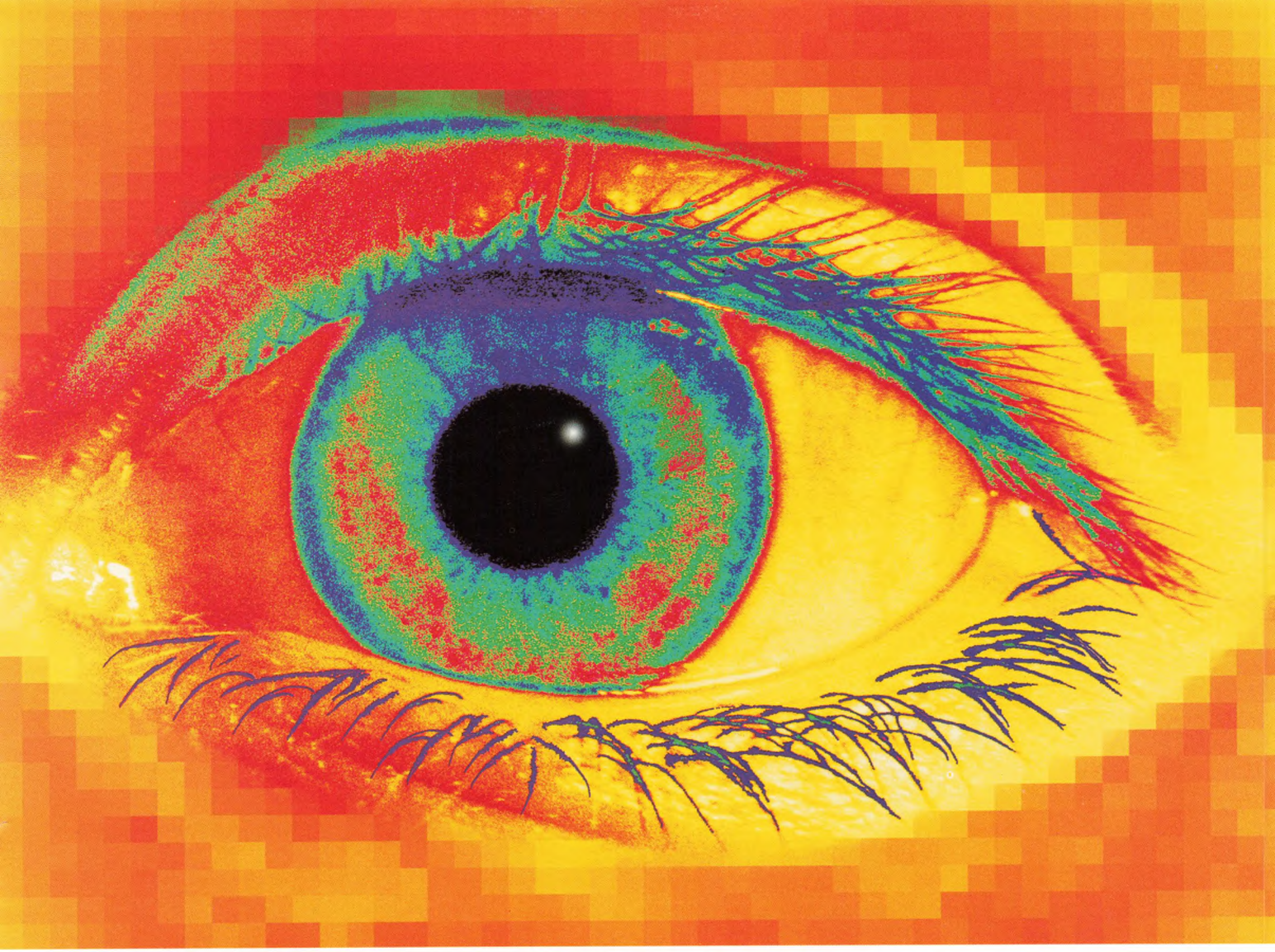

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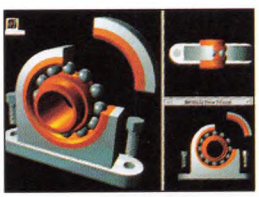

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Roger Huncovsky

Hewlett-Packard, Convex Computer, and mental images in cooperation with the High-Tech-Center Babelsberg (Germany) showcase a parallelized rendering solution. The High-Tech-Center Babelsberg is a new networked creative center with leading-edge tools that open up new dimensions for the artistic creative forces in film, television, and engineering, on a worldwide basis. The High-Tech-Center Babelsberg offers rendering services over ATM and ISDN networks featuring a parallelized version of mental images' rendering solution, mental ray, running on an HP PA-RISC-based Convex parallel computer.

High Techsplanations, Inc.
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Martin McGurn
Director of Business Development

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Jim Holly
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I.D. Magazine
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Adrienne Levine
Circulation Director

I.D. (formerly International Design) is a magazine about the art, business, and culture of design. *I.D.* is the only interdisciplinary design magazine. It covers product, graphic, multimedia, furniture, and environmental design. Each year, *I.D.* publishes the *Annual Design Review,* America's oldest and most prestigious design recognition program.

IEEE Computer Society
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fkoester@computer.org

Frieda Koester
Sales Manager

The IEEE Computer Society displays books and magazines in the graphics field. The society, which is the largest association of computer professionals in the world, offers a comprehensive program of publications, meetings, and educational activities. It is the world's leading publisher of technical material in the computing field. Memberships will be available.

IMAGICA Corporation of America
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Koji Ichihashi
General Manager

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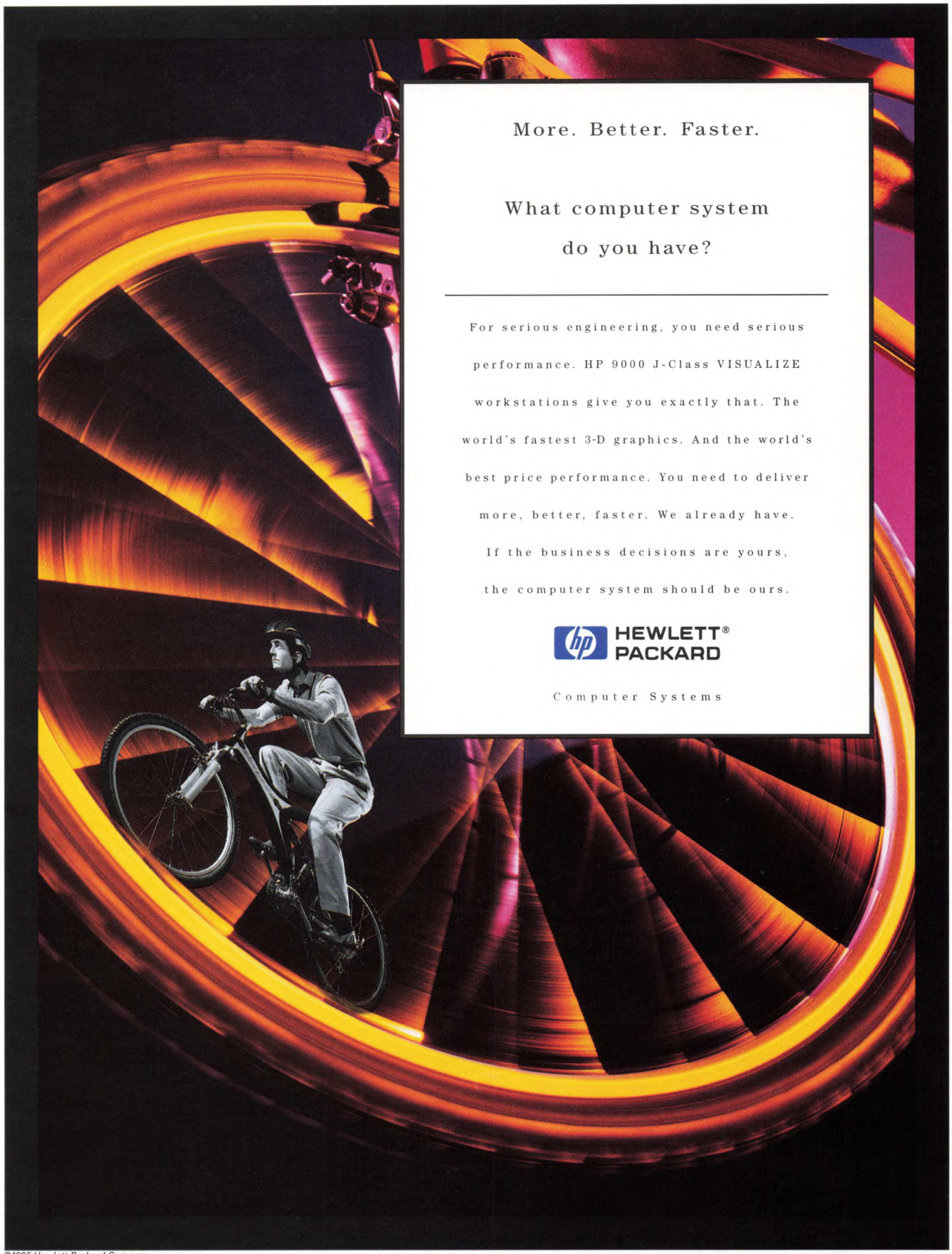
Genevieve Pichon
International Relationships

IMAGINA is the European event for computer graphics, virtual worlds, info-highways, and special effects with an industrial exhibition, conference, and a competition for computer-generated images: Prix Pixel-INA. IMAGINA is organized by INA and the Television Festival of Monte-Carlo, with the collaboration of CNC. IMAGINA will be held in Monte-Carlo, 21-23 February 1996.



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Vice President

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in:sync corporation
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Trish Naudon
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Jonas Lee
General Manager

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Maura Timko
Exhibit Manager

Integrated Research announces three new products for the Silicon Graphics workstation. Integrated Video v2.0, full-featured media integration and editing software, features synchronized audio, improved editing, and web authoring. Also: a non-linear editing system with synchronized, multitrack audio editing and powerful compositing, and a new stand-alone image processing application.

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Jim Koziol
President

Intoons Entertainment Group specializes in the newest advances in performance animation services and software for use in TV, film, corporate meetings, and trade shows. IEG also stages events using their animated characters and can provide turnkey systems to create and operate animated characters for sale or lease. Intoons provides a memorable event for all who experience it.

IRIS Graphics, Inc.
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Herman Boothe
Manager, Trade Shows

IRIS Graphics is showing a model from its product line of high-resolution color printers. IRIS printers offer: image formats from 10.6 x 17.2 inches up to 34 x 46.8 inches, the ability to print on a wide range of media, an effective resolution of 1500-1800 dpi, and the largest digital color gamut.

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Sales Manager

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Janet Marlow
Tradeshow Coordinator

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Knowledge Industry Publications (AV Video/Multimedia Producer)
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Adrienne Fiedler
Marketing

AV Video is a monthly magazine for hands-on production and presentation technology professionals. It covers video production and post-production, computer graphics for video, presentation hardware and software, audio for video, and interactive multimedia. *Multimedia Producer* is a monthly magazine written for creators, producers, developers, programmers, and managers involved in production and distribution of interactive multimedia programs for entertainment, business, and education.

KUB Systems, Inc.
BOOTH 843

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Kyra Petty
Marketing Coordinator

Zydeco is an integrated system for simultaneously manipulating and compositing multiple live video inputs and unlimited layers of graphic images in 3D space. All processing is handled in real time at full 10-bit 4:2:2:4 resolution. The Zydeco system uses an image processor to perform the real-time video processing and a PowerMac native application to provide a familiar graphical environment for operators and artists.

Laser InSpeck inc.
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Li Song
General Manager

Laser InSpeck manufactures color and black-and-white non-contact optical 3D digitizers. Equipped with an eye-safe halogen light source, the systems provide coordinate and texture measurements of a 3D object for which the acquisition time is less than 0.5 seconds. These digitizers can also be used to capture 2D digital video images.

LegaSys International
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Lightscape Technologies, Inc.
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Stuart Feldman
Vice President

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Pete Henderson
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Toni M. Poper
President

The Animation Stand is a comprehensive 2D animation and ink and paint system used worldwide. In addition to Macintosh, both 32- and 64-bit versions of TAS are now available for SGI. Also new: ScanLink, an optional integrated scanner driver that supports bulk-load feeders, performs clean-up, line repair, and automatically creates X-sheets.

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Rosemary Gorz
OEM Marketing Manager

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BOOTH 1831

600 Townsend Street
San Francisco, California 94103
USA
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+1.415.626.0554 fax

Theresa O'Brien
Marketing Manager

Stop by the Macromedia Interactive Theater to preview the latest in multimedia production, graphics design and illustration, 3D modeling and rendering, and computer-based training authoring tools. Macromedia features the new Extreme 3D, the most powerful 3D design environment for Macintosh and Windows; Director, for multimedia production; FreeHand, for design and illustration; Authorware Professional, for interactive information; and Fontographer, the award-winning font editing tool.

MAGELLAN Geographix
BOOTHS 1338/1421

6464 Hollister Avenue
Santa Barbara, California 93117
USA
800.929.4MAPS
+1.805.685.3330 fax

Sales

Introducing 3D maps of the world. MAGELLAN Geographix is the leading supplier of 2D and 3D professional-quality color maps for broadcast, publishing, multimedia, and animation. MAGELLAN Geographix 3D GeoModels are available in 20+ graphics formats. On-line and on-disk, 24 hours, seven days. Customize maps with 15-50 layers of information or use as-is. 3D by Viewpoint DataLabs. Look for us in Viewpoint's booth #1421.

Exhibitors

Management Graphics, Inc.
BOOTH 1739

1401 East 79th Street
Minneapolis, Minnesota 55425
USA
+1.612.854.1220
+1.612.851.6159 fax
keep@mgi.com

Sheri L. Keep
Marketing Coordinator

Management Graphics, Inc. is exhibiting the Solitaire Cine III Image Recorder, the most advanced in MGI's line of film recorders designed to support post -production, special effects, and animation companies around the world. The Cine III images are as fast as 18 seconds per frame at 2K or 4K resolution. Solitaire Image Recorders have been used to create futuristic special effects in Forrest Gump, Jurassic Park, Terminator 2, The Mask, and Batman Returns.

Maximum Strategy, Inc.
BOOTH 2627

801 Buckeye Court
Milpitas, California 95035
USA
+1.408.383.1600
+1.408.383.1616 fax
sandys@maxstrat.com

Sandy Staufenbiel
Manager, Marketing Communications

Maximum Strategy, the recognized leader in providing superior high-perform-ance data servers for the high-perform-ance computing market, is demonstrating the Strategy proFILE family of file servers, providing standard NFS and FTP services and supporting an aggregate file rate of 50 MBytes/second and capacity up to 376 GBytes. proFILE includes four network ports – HIPPI-IP, ATM-IP, and FCS-IP– that can be intermixed.

Mecklermedia
BOOTH 2173

20 Ketchum Street
Westport, Connecticut 06880
USA
+1.203.226.6967
+1.203.454.8540 fax
pizza@mecklermedia.com

Marilyn Reed
Exhibit Hall Sales Manager

Mecklermedia is the leading provider of information about virtual reality technology. Each issue of *VR World* provides columns, articles, and news about virtual reality developments and applications. Our Web site (http://www.mecklerweb.com/) also provides extensive virtual reality information in its new "VR Metropolis," a virtual community where VR enthusiasts can learn about and explore VR worlds online.

Mediascape Corporation
BOOTH 1603

1586 Redding Road
Birmingham, Michigan 48009-1029
USA
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+1.810.540.2253 fax
hel@medias.com

Howard Luby
President

Artstream is an integrated illustration, layout, and retouch application for Silicon Graphics. Designers will find comprehensive tools for creation of detailed colorful compositions, including imported Postscript. Files remain in compact, object-based Artscript, while output can be produced to either EPS, Postscript, or RGB or CMYK bitmaps of user specified resolution.

Micro Publishing News
BOOTH 927

21150 Hawthorne Boulevard, Suite 104
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+1.310.542.0849 fax
KN@earthlink.net

Ken Nicholas

Micro Publishing News is California's premier newsmonthly for electronic publishers, designers, and multimedia professionals. Please stop by our booth for a complimentary subscription.

Micropolis Corporation
BOOTH 2279

21211 Nordhoff Street
Chatsworth, California 91311
USA
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+1.818.709.3497 fax

Gordon Paulus
Senior Marketing Communications Specialist

Micropolis manufactures Super-Capacity 3.5-inch and 5.25-inch AV Gold disk drives with 2GB to 9GB of formatted capacity especially tuned for enhanced AV performance. All drives are available as MICRODISK external storage systems. Micropolis also manufactures RAIDION fault-tolerant disk array subsystems for digital media applications.

Microsoft Corporation
BOOTH 2341

One Microsoft Way
Redmond, Washington 98052
USA
+1.206.882.8080
+1.206.936.0251 fax
ellentu@microsoft.com

Ellen Tucker
Marketing Manager

Founded in 1975, Microsoft is the worldwide leader in software for personal computers. The company offers a wide range of products and services for business and personal use, each designed with the mission of making it easier and more enjoyable for people to take advantage of the full power of personal computing every day.

Miller Freeman Inc.
BOOTH 1044

600 Harrison Street
San Francisco, California 94107
USA
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+1.415.905.2232 fax

Jeanine Kitahata
Assistant Marketing Manager

Miller Freeman's properties include: *AIXtra, CADENCE, Circuits Assembly, Computer Security Institute, Database Programming & Design, DBMS, Dr. Dobbs, CD-Rom Dr. Dobbs, Embedded Systems Programming, Interoperability, LAN Magazine, Mathematica Journal, Microsoft Systems Journal, OS/2 Developer, OS/2 Magazine, Printed Circuit Design, Printed Circuit Fabrication, Software Development, Network VAR,* and *UNIX Review.*

Millimeter Magazine
BOOTH 1872

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New York, New York 10168
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+1.212.867.5893 fax
72302,261@compuserve.com

Lisa Ostrover
Assistant Editor

Millimeter is a monthly magazine that serves film, video, and multimedia production professionals in advertising, motion pictures, and television. Our mission is to furnish our readers with information that makes their jobs easier – applications showcases on technique, real-world stories on business, and news on technology and creative talent. As the computer, publishing, and entertainment industries converge, the learning curve in production has become steep.

Minicomputer Exchange
BOOTH 1536

610 North Pastoria Avenue
Sunnyvale, California 94086
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+1.408.733.8009 fax
info@mce.com

Jane McGowan
Advertising Manager

Minicomputer Exchange is a used computer dealer. We sell, buy, rent, and repair Sun and SGI workstations, peripherals, and boards. We were established in 1973 in California's Silicon Valley and have been dealing in Sun and Silicon Graphics gear since such equipment existed. Services include: 120-day warranty, technical hot-line, fast delivery, world-wide shipment, and prices far below new equipment.

Mirus Industries Corporation
BOOTH 1050

3350 Scott Boulevard, Building 48
Santa Clara, California 95054-3123
USA
+1.408.980.6600
+1.408.980.6601 fax
AppleLink:MIRUS

Bruce A. Mackay
President

Mirus Industries Corporation offers a complete line of high quality desktop digital film recorders for the computer graphics industry, including presentations, graphic arts, and medical imaging. Featured products include the award-winning FilmPrinter turbo II, which produces excellent quality slides from Macs and PCs; the FilmPrinter GALLERIA, the first desktop digital film recorder that produces 5K resolution slides.

Mitsubishi Electronics America, Inc.
BOOTH 1345

5665 Plaza Drive
Cypress, California 90630
USA
+1.714.220.4608
+1.714.229.3854 fax

Barbara Shubin
Trade Show/Special Events Manager

Mitsubishi Electronics America, Inc. shows continued leadership and the latest technology with its new products. The S3600-40U introduces our new ADOBE PS Level II solution. The newest technology in dye sublimation roll type digital printers is introduced in our CP-700D, and our A3-NX incorporates the latest technology in thermal variable dot printers.

MMS Multi Media Systems GmbH
BOOTH 2174

Krepenstr. 8
Hannover, 30165
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+49.511.678070
+49.511.630070 fax
spoer@dvs-hannover.de

Peter Spoer

ProntoVideo - Digital DI/4:2:2 Video Disk Recorder; SCSI/Video - Computer to DI/4:2:2 Video Interface with M-JPEG; VideoConnect - cost effective DI/4:2:2 monitoring D/A-converter; PCI/Studio - PCIbus board with DI/4:2:2 uncompressed and M-JPEG-compressed I/O; MovieVideo - RAM-based multi-channel frame buffer for HDTV and DI; and Sphinx3D - automatic 3D modeling software package for natural objects.

Morgan-Kaufmann Publishers
BOOTH 2303

340 Pine Street, Sixth Floor
San Francisco, California 94104
USA
+1.415.392.2665
+1.415.982.2665 fax
mkp@mkp.com

Cyd Harrell
Marketing Associate

Morgan-Kaufmann publishes innovative books in computer graphics and interface design. Our exhibit features *Principles of Digital Image Synthesis* by Andrew Glassner; *Readings in Human-Computer Interaction*, Second Edition by Ronald Baecker, Jonathan Grudin, William Buxton, and Saul Greenberg; and *Radiosity and Global Illumination* by Francois Sillion and Claude Puech. Show discounts are featured.

Motion Analysis Corporation
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dean@macorp.com

Dean LaCoe
Vice President

Motion Analysis Corporation is the world's largest provider of performance capture systems to the games, broadcast, and film industries. Systems are available for 3D full-body and face capture, and 2D real-time face capture for "virtual hosts." Systems are offered in a wide price/performance range. Installation, training, and support is provided worldwide.

MultiGen Inc.
BOOTH 1664

550 South Winchester Boulevard,
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San Jose, California 95128
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+1.408.261.4100
+1.408.261.4101 fax
multigen!cindi@uunet.uu.net

Norman Miller
Director of Sales

MultiGen Inc. develops graphical modeling tools used to create scenes for interactive, 3D visual simulation in real-time applications. Products include MultiGen and ModelGen2 production modeling systems, and GameGen for entertainment, game development, and LBEs. These products are demonstrated, plus SmartModel, MultiGen's new 3D, real-time Virtual Reality scene assembler.

Mutoh America Inc.
BOOTH 1865

3007 East Chambers Street
Phoenix, Arizona 85040
USA
+1.602.276.5533
+1.602.276.9007 fax

Brian Benner
Marketing Coordinator

Mutoh America supplies high-quality input and output devices including plotters, sign cutters, and digitizers for CAD/CAM/CAE and graphic design applications.

NC/Vision
BOOTH 1120

109 S.W. Maynard Road, Suite 218
Cary, North Carolina 27511
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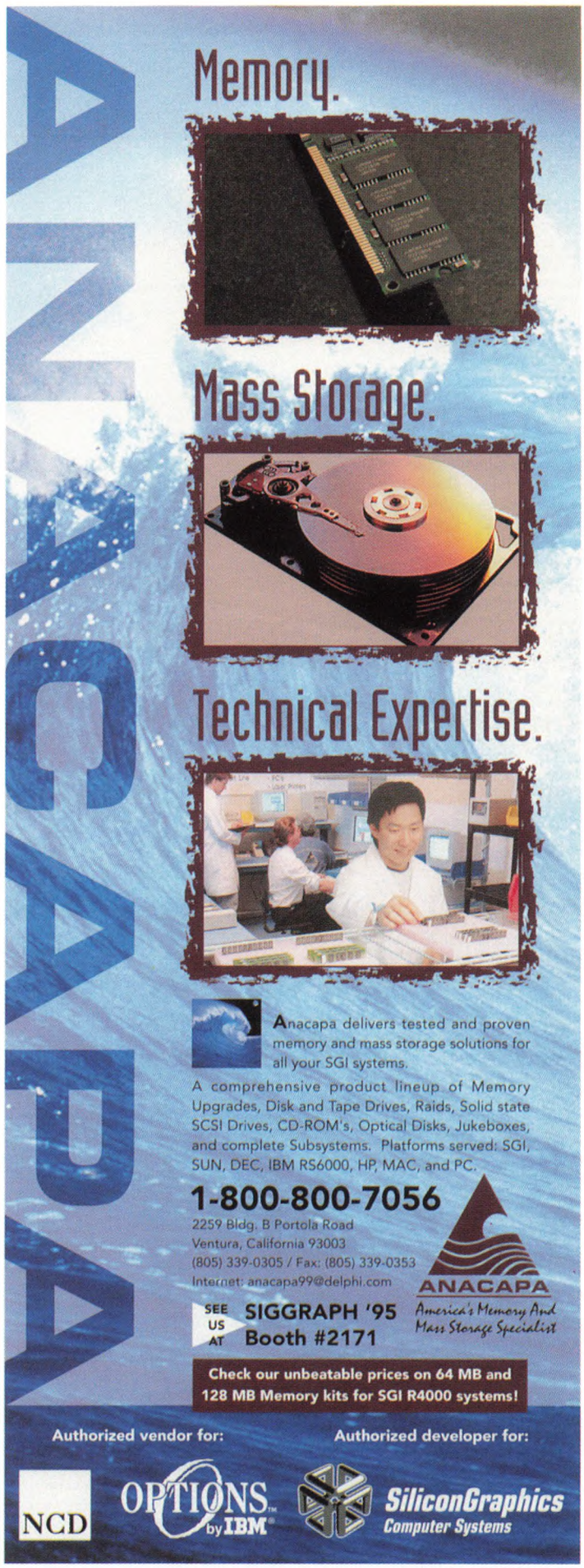
+1.919.481.0578
+1.919.481.4639 fax
ncvision@cybernetics.com

Nick England
President

NC/Vision, sponsored by the non-profit Interactive Visual Technologies Center (IVTC), is a program to increase awareness of North Carolina's computer graphics and imaging expertise. The NC/Vision booth features demonstrations from leading organizations and information about technology and applications developed in North Carolina.



NEC Electronics Inc.
BOOTH 2257

475 Ellis Street
Mountain View, California 94039
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800.366.9782
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klomeli@el.nec.com

Kathy Lomeli
Senior Marketing Communications Specialist

NEC Electronics Inc. manufactures and markets an extensive line of electronic products including ASICs, microprocessors and microcontrollers, digital signal processors (DSPs), memories, and components including flat-panel displays. The company operates a 676,000-square-foot manufacturing facility in Roseville, California. NEC Electronics Inc. is an affiliate of NEC Corporation (NIPNY).

Network Computing Devices (NCD)
BOOTH 2075

350 North Bernardo
Mountain View, California 94043
USA
+1.415.694.0650
+1.415.961.7711 fax
info@ncd.com

Michele Schneider
Exhibit Manager

NCD is demonstrating its HMXpro24 color X terminals, which provide 24-bit true color at less than half the cost of a workstation. They also offer 1600x1200 bit resolution, a 64-bit RISC processor, and a choice of 17-inch, 20-inch, or 21-inch monitors, in addition to advanced software that supports sophisticated imaging, graphical, and multimedia applications.

NewGen Systems Corporation
BOOTH 2372

17550 Newhope Street
Fountain Valley, California 92708
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+1.714.641.2800 fax

Jackie Rieck
Marketing Coordinator

NewGen Systems Corporation is a high-technology printer company committed to delivering advanced monochrome and color proofing and image-setting system solutions to the prepress market through a well-qualified network of manufacturers representatives, distributors, OEMs, and dealers worldwide. NewGen's software and font technology strength has contributed to its leadership position in many areas of the world.

NewMedia Magazine
BOOTH 2557

901 Mariner's Island Boulevard
Suite 365
San Mateo, California 94404
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Kerry Howe
Merchandising Manager

NewMedia Magazine is the premier publication reporting exclusively on multimedia technologies across all major platforms. Published 13 times a year, *NewMedia* features industry news, comprehensive comparative product reviews supported by a state-of-the-art multimedia testing laboratory, and expert advice critical to making purchasing decisions. *NewMedia* has a controlled circulation of 250,000.

NewTek, Inc.
BOOTH 2245

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Kathryn Ewing
Events Coordinator

LightWave 3D is an all-in-one animation system. Users can model, render, surface, and animate, all from within a single straightforward environment. Originally available only as part of the Emmy award-winning Video Toaster desktop video workstation, LightWave 3D has established itself as the professional standard in 3D graphics.

NHK - HDTV Group
BOOTH 1057

2-2-1, Jinnan, Shibuya-Ku
Toyko, 150-01
JAPAN
+81.3.5478.2758
+81.3.3481.1874 fax
hachiya@hi-vision.nhk.or.jp

Hideo Nakazawa
Senior Director

NHK is exhibiting a "hyper-real museum," based on HDTV images, that is capable of interactively appreciating works of art in 3D. NHK, the first organization in the world to develop HDTV, welcomes approaches from anyone willing to cooperate in opening up a new era in visual technology.

Nichimen Graphics
BOOTH 2205

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+1.310.577.0577 fax
schnur@nichimen.com

Larry Schnur
Director of Marketing

N-World is a complete game development environment. It includes N-Geometry (3Dmodeler), N-Dynamics (animation and IK skeletal system), Action Editor (converts animation data into formats for 3D game systems), N-Render (photorealistic renderer), and N-Paint (2D graphics). Completely extensible in C or LISP and available as an integrated suite or individual modules.

NICOGRAPH Association
BOOTH 917

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Tokyo, 101
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+81.3.3233.3475
+81.3.3233.3450 fax
LDC02132@niftyserve.or.jp

Hidekata Ando
International Department

Nippon Computer Graphics Association and NIKKEI will hold NICOGRAPH '95 from 20 to 22 November at Makuhari Messe, Japan. The Multimedia '95 convention will also be held at the same time. NICOGRAPH Association has been organizing the NICOGRAPH Convention since 1982, and NICOGRAPH has become the most comprehensive exhibition and conference for computer graphics in Asia. NICOGRAPH '95 will showcase the astonishing growth of computer graphics techniques applied to manufacturing, education, entertainment, and broadcasting.

Nissho Electronics Corporation (Nelco)
BOOTH 1054

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niki@nelco.com

Hitoshi Niki
Assistant Manager

Nissho Electronics introduces the newly developed DataGlove (patent-pending), which employs special vend sensors instead of fiber optics. This provides high resolution, reliability, and easy calibration for the user. Nissho Electronics also shows the 6D input device with tactile feedback, called HapticMaster.

NoRad Corporation
BOOTH 2609

1160 East Sandhill Avenue
Carson, California 90746
USA
+1.310.605.0808
+1.310.605.5051 fax

Bruce Sperka
Director of Marketing

NoRad is demonstrating JitterBox, which protects a monitor from image jitter, waviness distortion, and loss of color integrity. All of the company's radiation-shielding products for monitors are on display and include the NoRad Shield, UltraGlass, and ELF ProTech, an external ELF magnetic field suppressor for monitors.

Northern Digital Inc.
BOOTH 2555

403 Albert Street
Waterloo, Ontario N2L 3V2
CANADA
+1.519.884.5142
+1.519.884.5184 fax
sales@ndigital.com

Northern Digital Inc. produces the OPTOTRAK, a system that tracks 3D movement of active markers on a subject and relays real-time 3D data to your own computer. Hundreds of OPTOTRAKs are used worldwide in biomechanics and surgery as well as in commercial applications including virtual reality, robotics, and aeronautics.

Numerical Algorithms Group, Inc.
BOOTH 2527

1400 Opus Place, Suite 200
Downers Grove, Illinois 60515-5702
USA
+1.708.971.2337
+1.708.971.2706 fax
naginfo@nag.com

Kierith Ferrara-Kurth
Marketing Manager

NAG will demonstrate IRIS Explorer release 3, the latest version of the complete object-oriented visualization package. Designed for top-quality performance in distributed processing environments or individual workstations, IRIS Explorer is the choice of scientists, engineers, and other business professionals. Includes exciting new features/enhancements; now available for numerous platforms.

NuVision Technologies, Inc.
BOOTH 2502

1815 NW 169th Place, Building 3060
Beaverton, Oregon 97006
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+1.503.614.9000
+1.503.614.9100 fax

George Westerholt
Marketing Manager

NuVision Technologies manufactures and sells active and passive 3D stereoscopic products for industrial and consumer markets. Products range from low-cost eye wear for computer games and video to state-of-the-art, large-area, liquid-crystal pi-cell shutters. The company also manufactures high-resolution one-inch and three-inch color shutter virtual reality monitors.

NVision, Inc.
BOOTH 2082

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Suite 2030
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+1.214.432.8104 fax

Debbie Jenkins
Sales and Marketing Coordinator

"Killer" custom models from NVision – 3D digitizing services and products for multiple platforms and formats. Applications for NVision's 3D digitizing services include animation, reverse engineering, rapid prototyping, virtual reality, quality control, and medical and industrial technology.

n-Vision, Inc.
BOOTH 2258

7915 Jones Branch Drive
McLean, Virginia 22102
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+1.703.506.8808
+1.703.903.0455 fax
viper@cais.com

Melissa Sexton
Marketing Coordinator

n-Vision is the leading producer of high-resolution virtual reality display products. The company's products combine miniature CRTs and lightweight precision optics to project virtual environments with maximum visual clarity. Customers include Autometric, Raytheon, Volvo, Thomson CSF, and the National Information Display Laboratory.

Odyssey Productions
BOOTH 1503

4413 Ocean Valley Lane
San Diego, California 92130-2430
USA
+1.619.793.1900
+1.619.793.1942 fax
odyssey@cts.com

Steven Churchill
President

Led by founder Steven Churchill, Odyssey Productions is the award-winning producer of multi-platinum videos: The Mind's Eye, Beyond the Mind's Eye, The Gate to the Mind's Eye, Computer Animation Festival Vol. 1 & 2, Virtual Nature, Imaginaria, State of the Art of Computer Animation, and also the CD-ROM programs CyberVisions and Future Visions.

OnLine Design Publications, Inc.
BOOTH 2612

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Jeffrey D. Brown
Associate Publisher

All SIGGRAPH 95 attendees qualify for a special free trial subscription to *OnLine Design*, California's monthly for electronic design and graphics. Since 1992, *OnLine Design* has pioneered the cutting edge with feature articles, technical reviews, regional and industry information, and its monthly Electronic Graphics and Digital Media Resource Guide.

ON Production and Post-Production Magazine
BOOTH 1884

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Encino, California 91316
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Howard Kunin
Publisher/Executive Editor

A trade magazine covering production and post-production of multimedia, special venue films, features, television, commercials, corporate communications, and computer graphics. Readership consists of animators, producers, video facility managers, agency creatives, directors, editors, graphic artists, production managers, engineers, post-production executives, etc. Current issues are on display, and complimentary subscriptions are offered.

Onyx Computing, Inc.
BOOTH 1972

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Cambridge, Massachusetts 02138
USA
+1.617.876.3876
+1.617.868.8033 fax
onyxtree@aol.com

Pjer Zanchi
General Manager

Onyx Computing features a new 3.0 version of TREE PROFESSIONAL, a dedicated tree modeler that gives you complete control over resolution and detail of tree models and exports 3D DXF files with full geometry and color. Libraries of over 160 already-modeled trees, palms, and bushes are included; TREE provides the highest degree of interactivity and ease of use. Presented for the first time is TREE Plugin for Electric Image, which allows EIAS to read the TREE's parametric files directly.

Optical Disc Corporation
BOOTH 1883

12150 Mora Drive
Santa Fe Springs, California 90670
USA
+1.310.946.3050
+1.310.946.6030 fax

Noreen Pettinger
Marketing Coordinator

ODC's DVW (Digital Video WORM) boasts a storage capacity of up to 99 minutes at 5.6 MB/second. DVW-X achieves even higher data rates and capacities up to 10 gigabytes. Our DVW Player adapts to different video requirements with multiple playback speeds. Transfer your MPEG-encoded tape to disc with ODC's MPEG-to-disc service.

OS/2 Magazine
BOOTH 1044

600 Harrison Street
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+1.415.905.2200
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Jeanine Kitahata
Assistant Marketing Manager

Welcome to *OS/2 Magazine*, the independent magazine for users and administrators of IBM's OS/2 personal computer operating system. Written for people who work with OS/2 every day, *OS/2 Magazine* is filled with hands-on tutorials, product news and reviews, industry analysis, and feature articles written by the best writers and technical experts in the field. Visit our booth for complimentary issues and discounted show subscriptions.

Oxberry
BOOTH 1431

180 Broad Street
Carlstadt, New Jersey 07072
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James Aneshansley
Director, Sales & Marketing

Oxberry manufactures open-system digital filmmaking products for film-to-digital-to-film conversion. Demonstrated will be the OXBERRY CINESCAN 6400 motion picture scanner with Liquid Gate registration, real-time film advance, auto-focus zoom and optics, and 2000-foot reel capacity. Oxberry will also show 35-65-70mm digital-to-film output cameras.

Panasonic Broadcast & Television Systems Company
BOOTH 2215

1 Panasonic Way
Secaucus, New Jersey 07094
USA
+1.201.348.7000

Alec Shapiro
General Manager

Panasonic is showing its new line of DataPro and GraphicsPro projectors. The CRT-based projectors feature both high-scan rates and high resolutions, and the LCD units offer bright pictures utilizing PolySilicon technology. The WJ-MX1000 Postbox nonlinear A/V workstation features a complete character generator, paint system, and A/V special effects, including 300 real-time transitions.

Paradigm Simulation, Inc.
BOOTH 1882

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Dallas, Texas 75240
USA
+1.214.960.2301
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marketing@paradigmsim.com

Amy Bayers
Marketing Manager

Paradigm is the world leader in software development tools for real-time, 3D, visual and audio applications. Vega, Paradigm's next-generation, fully integrated software system for rapid development of highest performance real-time simulation, virtual reality, and visualization applications. AudioWorks 2 makes it easy to add continuous, real-time 3D processing of multiple independent moving sounds.

Parallax Graphics, Inc.
BOOTH 1531

2500 Condensa Street
Santa Clara, California 95051
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+1.408.727.2220
+1.408.980.5139 fax
info@parallax.com

Sales

XVideo and PowerVideo cards bring high-performance video into your computer for video capture and cuts-only editing with hardware compression and decompression. Other applications include video-conferencing, TV-in-a-window and video distribution. Parallax Graphics video is full-motion, 640x480 resolution, and 24-bit truecolor for exceptional detail and image quality. Development tools are available.

Parallax Software/Elastic Reality/Avid Technology
BOOTH 1505

Metropolitan Technology Park
One Park West
Tewksbury, Massachusetts 01876
USA
+1.508.640.3103
+1.508.851.0418 fax

Kara Misenheimer

Feature film post production using Matador paint and 2D animation software; Advance compositing and effects system; Jester digital cartoon ink and paint software; Elastic Reality shape-to-shape morphing software; and editing using Film Composer and OMF Interchange; high-end video post production with Avid Media Spectrum suite of editing, painting, effects, and compositing tools with uncompressed CCIR-601 images; games and interactive production using Matador Sprite and Digidesign Pro Tools III.

Parity Systems Inc.
BOOTH 1464

110 Knowles Drive
Los Gatos, California 95030
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+1.408.378.1022 fax
inquire@parity.com

Tracy Power
Marketing Manager

Parity Systems Inc. specializes in providing workstations, applications software, networking, and storage peripherals to the UNIX marketplace. Parity is a recognized leader in the field of disaster recovery and file management of large databases. In addition, Parity manufactures a complete line of memory, tape storage, RAID systems, and CD technology products for both UNIX workstations and servers.

PC Video Conversion
BOOTH 1874

1340 Tully Road, Suite 309
San Jose, California 95122
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+1.408.279.2442
+1.408.279.6105 fax

Daryl Manning
Marketing/Communications

PC Video Conversion designs and manufactures affordable products bridging the computer and television media worlds. HyperConverter scan converters enable users to videotape, display, project and transmit, and print high-resolution (up to 1280 x 1024) computer graphics from all platforms (Sun, SGI, HP, DEC, IBM, E&S, PC, Mac).

P.E. Photron (Precision Equipment Photron)
BOOTH 2145

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San Jose, California 95117
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+1.408.261.3613
+1.408.261.3628 fax
pepman@netcom.com

Tak Takimizu
Sales Manager

P.E. Photron shows chromakey and image compositing software, PRIMATTE for SGI workstations. The PRIMATTE Polyhedral Slicing Algorithm is a revolutionary concept in image compositing, providing advanced techniques for extremely fine manipulation of color regions that are not possible using conventional chromakey techniques. The software also plugs into Discreet Logic's FLAME/Flint and Wavefront's COMPOSER. P.E. Photron also launches its new high-end scan converter, FSC-64V1.

PHI Enterprises, Inc.
BOOTH 1265

12832 Garden Grove Boulevard, Suite E
Garden Grove, California 92643
USA
+1.714.537.7858
+1.714.537.8228 fax

Jennifer Reilich
Exhibit Manager

The Professional Touch therapeutic massager provides rhythmic kneading to sore and aching muscles. This revolutionary new product is also equipped with an electronic timer to program the desired length of a deep tissue massage to melt away occupational stress and tension.

Pivotal Graphics, Inc.
BOOTH 1875

655 River Oaks Parkway
San Jose, California 95134
USA
+1.408.954.2700
+1.408.954.0118 fax

Stacy Getman
Tradeshow Coordinator

Pivotal Graphics, Inc. is showing their range of Professional MPEG encoding and multimedia authoring solutions. With the demand for MPEG growing daily, the ability to generate high-quality encoded data is a must. By integrating broadcast equipment with PC components and complementary software, we can deliver turnkey solutions for all budgets.

PIXEL (Japan) - Super Media Corporation
BOOTH 2626

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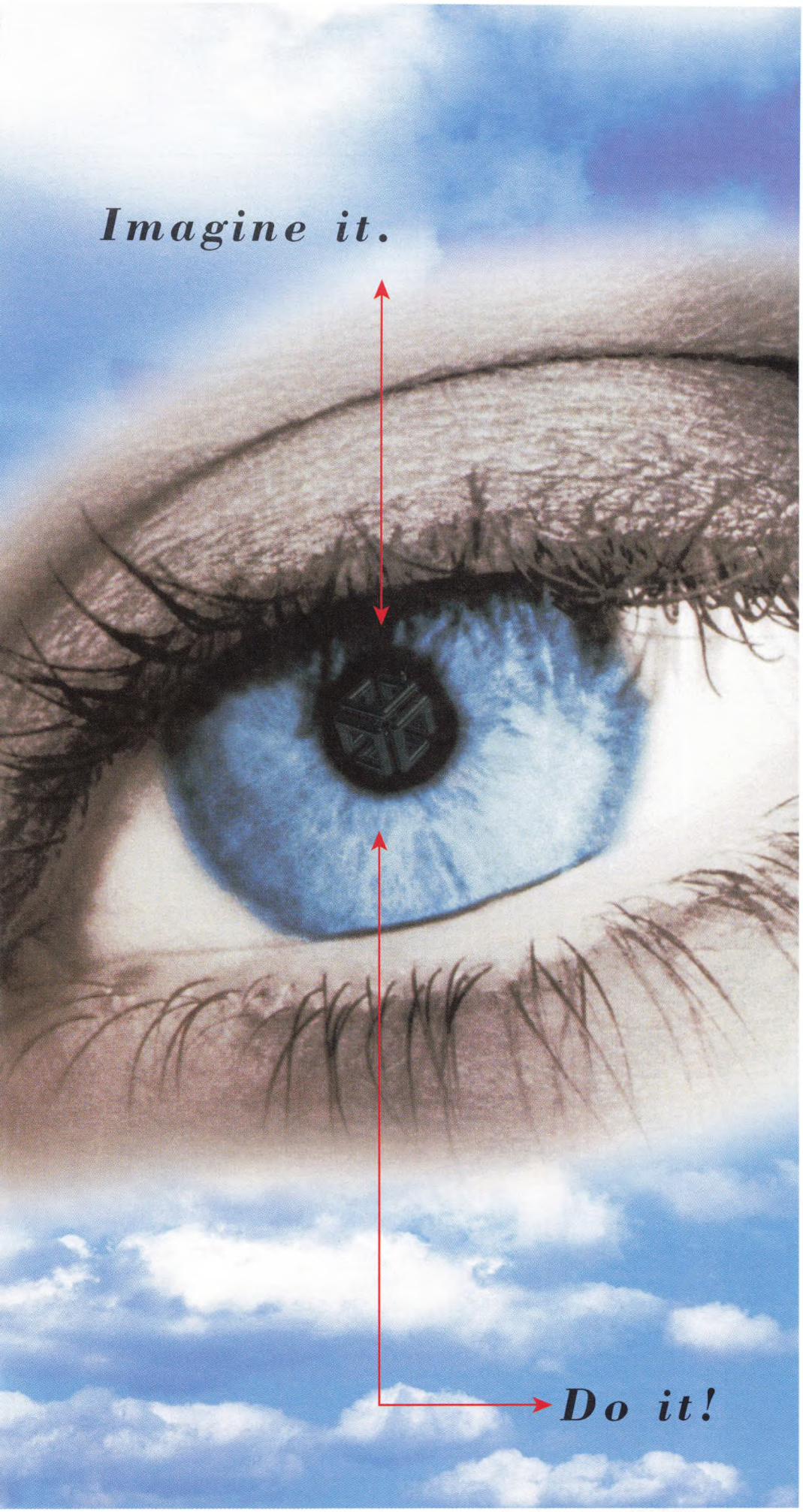
Takayuki Kawauchi
Publisher

Super Media is a network-based publisher in Tokyo. We feature an epoch-making realtime/online magazine, PIXEL (Japan), dedicated to computer graphics, multimedia, and CAD. Our demonstration sends actual articles about SIGGRAPH 95 to PIXEL's Japanese audience via the Internet. We also have a consulting division that offers the latest information on the Japanese online market.



If you were an actor, you'd be in Hollywood. If you're serious about computer graphics, you should be with us! Because all the neat things you've heard about us are true! The renaissance culture, the aesthetic surroundings, the esteemed technical environment, the stimulating co-workers, the excitement!

If you're serious about becoming a member of a team whose solutions are helping many industries evolve, please do not hesitate to apply.

Find out why Silicon Graphics has become "the technical mecca" of businesses involved in architecture, entertainment, electronics, scientific supercomputing and every kind of product design.

We currently have openings in the following disciplines:

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3D Graphics
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Visual Simulation
Image Processing
Virtual Reality
Video Compression
CAD Walkthrough
Open GL™
GUI Design
3D Graphics Toolkits
Virtual Reality Modelling Languages

Hardware Engineering

Graphics ASICs Design
Video Hardware
Graphics Board Design

Applications

Video Post-Production Software
Virtual Reality/Virtual Prototyping

Marketing

VR Technology Marketing
Channel Marketing
Product Marketing

- **Film/Video/Audio**
- **Software**
- **World Wide Web**
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- **Education**
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Here's How to Apply

See Silicon Surf™ on the Web at: http://www.sgi.com. Click on the Surf Zone icon for other detailed job descriptions and qualifications. Then, send your resume in ASCII to resumix@resumix.corp.sgi.com. Or, mail a letter-quality copy to Silicon Graphics, Inc. Professional Staffing, P.O.Box 7313, Mountain View, CA 94039-7313. Fax: (415) 390-4666.

Please check in with us after our managers have had at least one week to review your background qualifications—you may call (415) 390-2200. Principals only. We support and value workforce diversity. EEO/AA employer.

SiliconGraphics
Computer Systems

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Pixibox
BOOTH 831

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94110 Arcueil
FRANCE
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+33.1.49.85.16.96 fax

Jean-Michel Spiner
Product Manager

PEGS is cartoon software designed to offer animation studios more efficiency in the production of cartoon series, from the drawing input stage to video or 35mm output. It offers automatic scanning, assisted painting, 255 independent layers, all camera motions, special effects, and production follow-up.

Pixo Arts Corporation
BOOTH 945

2570 West El Camino Real, Suite 105
Mountain View, California 94040
USA
+1.415.949.2578
+1.415.949.1359 fax

K. Clive Liu
Vice President

Pixo Arts develops and markets a complete software product line for large-format color printing. We also produce the Picaxo System, the fastest PostScript RIP and Imaging System available for large-format electrostatic/inkjet plotters and high-resolution film recorders. These powerful image composition and Post-Script Level 2 RIP for graphic design, sign, reprographic, and screen-printing applications are on display at SIGGRAPH 95.

Polhemus
BOOTH 1415

1 Hercules Drive
Colchester, Vermont 05446
USA
+1.802.655.3159
+1.802.655.1439 fax

Ed Costello
VP of Marketing and Sales

The pioneer in 3D position/orientation measuring demonstrates its Academy Award-winning technology. The revolutionary new ULTRATRAK Motion Capture System and the award-winning FASTRAK are shown performing real-time animation of 3D objects in an interactive demonstration. INSIDETRAK, the world's first 6 DoF tracker is also on display.

Portable Graphics, Inc.
BOOTH 2151

One Technology Center
2201 Donley Drive, Suite 365
Austin, Texas 78758
USA
+1.512.719.8000
+1.512.832.0752 fax
glware@portable.com

Debbie Herrington
V.P. Marketing

Portable Graphics demonstrates a suite of powerful GL-based 3D graphics development and porting tools for high-performance workstations and PCs. New for 1995: Open Inventor for Windows NT and Linux, and Digital, IBM, HP, and Sun workstations; OpenGL for Sun workstations and Linux; and EDISON geometric modeling extensions to Open Inventor.

PowerProduction Software
BOOTH 834

1233 Hermosa Avenue, Suite 302
Hermosa Beach, California 90254
USA
+1.310.937.4411
+1.310.937.4416 fax

Lori Lewis

From the makers of StoryBoard Quick!, StoryBoard Artist features sophisticated options for the artistically challenged. It's the new tool for planning multimedia projects and creating presentation storyboards. Includes drawing tools to modify built-in and imported art, or create your own images. Print boards in preset or custom storyboard forms or run slideshow with sound-to-pitch ideas. Linking buttons make non-linear boarding a snap.

Professional Marketing Services, Inc.
BOOTH 939

4802 East Ray Road, Suite 2328
Phoenix, Arizona 85044
USA
+1.602.940.5400
+1.602.940.5488 fax

Ted C. Williams
President

Services include integration of new and used digital imaging and graphics equipment. VAR's/dealers/brokers of drum, slide, and flatbed scanners, high-resolution film recorders, color laser copiers, electrostatic/ink jet plotters, dye sublimation/ink jet printers, optical/duping cameras, slide mounters, image-setters, photo retouching and restoration workstations, software, and, for the first time, our DigiPro and ImaPro complete digital retouching systems.

ProMax Technology
BOOTH 2465

16 Technology Drive #106
Irvine, California 92718
USA
+1.714.727.3977
+1.714.727.3546
PROMAX TEC@aol.com

Charles F. McConathy
President

ProMax Technology demonstrates their new 4 GB high-performance removable cartridge SCSI-2 video disk array that employs the Iomega Jaz drives. Also featured is a family of Wide SCSI-2 disk arrays compatible with Power Macintosh computers with storage capacity from 4 GB to 54 GB. The arrays are designed for digital video applications and deliver uninterrupted data at rates suitable for high-quality non-linear editing.

Proxima Corporation
BOOTH 1558

9440 Carroll Park Drive
San Diego, California 92121
USA
+1.619.457.5500
+1.619.457.9647 fax

Customer Service

Proxima displays the high-resolution Ovation+920 LCD projection panel, which can display full-screen images up to 1280 x 1024 for compatibility with engineering workstations, including SUN, HP, IBM, DEC, and Silicon Graphics. Proxima also manu-factures the Desktop Projectors, a family of self-contained multimedia projectors for all PC and Macintosh applications.

Publications & Communications Inc. (PCI)
BOOTH 1974

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Austin, Texas 78750
USA
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sgi@pcinews.com

Michael McKee
Account Manager

Silicon Graphics World remains the industry's only publication that targets users specifically from the Silicon Graphics community. *Silicon Graphics World,* which started publishing in July 1991, has chronicled the growth of the SGI market since the introduction of the Iris Indigo. Since that time, the Silicon Graphics market has exploded with new systems and software for markets such as scientific, engineering, animation, entertainment, and digital media.

Quantel, Inc.
BOOTH 2155

85 Old King's Highway North
Darien, Connecticut 06820
USA
+1.203.656.3100
+1.203.656.3459 fax

Renee Leone
Marketing Logistics Manager

HAL Express is a uniquely powerful, totally integrated graphics production center, where multi-layer compositing, keying, and effects with moving pictures and graphics all come together in a single, dedicated system. PRINTBOX is a dedicated Quantel pre-press solution to bring production in-house, featuring scanning, image manipulation, and high-resolution image placement. DOMINO is a complete range of film opticals products designed and built for the film industry.

Radiosity Software
BOOTH 2533

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Shoreview, Minnesota 55126
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+1.612.787.0855
+1.612.787.0856 fax

Andrew W. Hills
President

Radiosity is an up-and-coming software publisher. Our sights are set on the future.

Radius Inc.
BOOTH 2265

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USA
+1.408.541.6100
+1.408.541.6150 fax

Louise R. Ledeen
Senior Product Marketing Manager

Radius, the leading manufacturer of Mac OS products and systems for creative professionals, demonstrates their line of digital video, color publishing, display and printer products, and the expanded line of Radius CPUs. Featured products and technologies include: Radius Telecast and VideoVision Studio, Cinepak Tool Kit, PressView and PrecisionView monitors, Thunder graphics cards, and networked Splash color laser printers.

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VR WORLD MAGAZINE Industry Award Mecklermedia 1995

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TELEOS requires a Silicon Graphics workstation (call for minimum system requirements).

Place your order by August 30th for pre-release special pricing!

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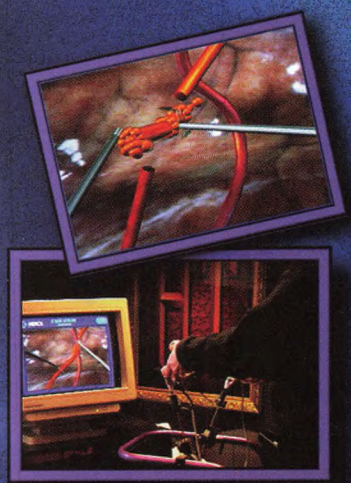

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Internet: teleos@ht.com

TELEOS is a trademark of High Techsplanations, Inc. Virtual reality laparoscopic and torso programs sponsored in part by Merck & Co., Inc. Endoscopic simulation sponsored by Karl Storz Endoscopy.

Ray Dream, Inc.
BOOTH 2370

1804 North Shoreline Boulevard
Mountain View, California 94022
USA
+1.415.960.0768
+1.415.960.1198 fax
raydream@aol.com

Kathy Englar
Vice President of Marketing

Ray Dream, Inc., the leading vendor of 3D illustration software, premiers the new Ray Dream Studio for Macintosh and Windows. Ray Dream Studio is a full-featured 3D imaging suite that includes all the tools necessary to create high-quality 3D illustrations and animations at an affordable price.

Research Triangle Institute
BOOTH 2073

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North Carolina 27709
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mead@rti.org

Karen Mead
Marketing Representative

Research Triangle Institute is a full service system integrator, providing unique computer solutions. We develop and deliver virtual environments for applications such as training, marketing, architectural and interior design, and transportation. Founded in 1958, RTI is a contract R&D organization located in the center of North Carolina's Research Triangle Park.

RGB Spectrum
BOOTH 1649

950 Marina Village Parkway
Alameda, CA 94501
USA
+1.510.814.7000
+1.510.814.7026 fax

RGB Spectrum demonstrates a display wall made of four 21-inch flat panel gas plasma displays driven by RGB's ComputerWall multi-screen processor. Also shown: the RGB/Videolink 1700D1, which features digital component video output, and the latest in RGB's popular SuperView line of multiple video windowing systems.

San Francisco Medical Research Foundation
BOOTH 2608

20 Sunnyside Avenue, Suite A-156
Mill Valley, California 94941
USA
+1.415.381.4061
+1.415.381.2645 fax
75127,1231@compuserve.com

Da Vid
Medical Director

Da Vid, Medical Director of The San Francisco Medical Research Foundation, presents Artainment - The Next Step In Global Communications. Artainment music/video programs are designed to "inspire, delight, heal, and enlighten." They are a magnificent and definitive demonstration of the conscious use of technology for the advancement of human evolution.

Sanyo Fisher (USA) Corporation
BOOTH 1013

21350 Lassen Street
Chatsworth, California 91311
USA
+1.818.998.7322
+1.818.717.2719 fax

Eric Kamayatsu
National Sales Manager - GAP Products

Sanyo displays and demonstrates its full line-up of color LCD multimedia projectors, its computer-controlled edit-pro editing system, and its newly introduced Edimator, a complete, single-board non-linear solution satisfying all the requirements of a digital video recorder system.

Schreiber Instruments, Inc.
BOOTH 2378

4800 Happy Canyon Road, Suite 250
Denver, Colorado 80237
USA
+1.303.759.1024
+1.303.759.0928 fax
corp@schreiber.com

Scot Susmann
Vice President

Schreiber is showing a vast array of plug-in software for Autodesk's 3D Studio. Products include the following categories: motion capture, physics, metaballs, modeling tools, image processing, textures, pre-built geometry, and particle systems. Schreiber is introducing a new frame-based editing system for animation, digital video, and film on standard PC hardware.

Scientific Computing & Automation
BOOTH 1237

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Morris Plains, New Jersey 07950
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+1.201.292.0783 fax

Jack Martin
Publisher

SC&A is written for scientists and engineers using computers and automated instruments in their R&D and analytical labs. It is distributed free of charge.

Screen Actors Guild
BOOTH 2623

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Los Angeles, California 90036
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+1.213.549.6847
+1.213.549.6801 fax

Michael Prohaska
Senior Administrator

The Screen Actors Guild represents more than 90,000 professional performers nationwide who are dedicated to performing in motion pictures, television, and multimedia development. They excel in on-camera performance and voice-over animators.

SEEK Systems Inc.
BOOTH 2084

11014 120th Avenue NE
Kirkland, Washington 98033
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+1.206.822.7400
+1.206.822.3898 fax
seekmar@seekmar.seanet.com

Lee Huffman
Trade Show Coordinator

SEEK Systems designs and manufactures leading-edge I/O performance-enhancement and RAID solutions. Product offerings include: The XCelerator, a configurable caching disk controller/solid state disk, which maximizes performance for I/O-bound applications. It utilizes up to 1GB of write-back cache to process your most frequently accessed data or hot files. The SEEK Array is a family of high performance, scaleable RAID systems with up to 128MB of write-back controller cache for unmatched performance.

Seiko Instruments USA Inc.
BOOTH 2139

1130 Ringwood Court
San Jose, California 95131
USA
800.888.0817
+1.408.922.5835 fax

Cheryl Landman
Senior Marketing Communications Manager

Seiko Instruments will display the Professional ColorPoint 2 which produces thermal transfer and dye sublimation 300 dpi color prints. Available in both letter and tabloid sizes, the dual technology ColorPoint 2 offers a variety of interfaces: Adobe PostScript Level 2, video, and raster. Compatible across all PC, Macintosh, and Unix-based workstations.

SensAble Devices Inc.
BOOTH 949

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Cambridge, Massachusetts 02139
USA
+1.617.621.0150
+1.617.621.0135 fax
SensAble@aol.com

Anthony Cirurgiao
VP, Marketing

The PHANToM Haptic Interface is the world's first desktop device that allows users to feel and manipulate computer-generated models. Representing the next generation of computer interfaces, the PHANToM provides precise force feedback. Users can experience smooth spheres, flat walls, sharp corners, compliant surfaces, rough textures, and even sticky friction.

Sense8 Corporation
BOOTH 2331

100 Shoreline Highway, Suite 282
Mill Valley, California 94941
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+1.415.331.6318
+1.415.331.9148 fax
info@sense8.com

Mark Kettering
Vice President, Sales and Marketing

At SIGGRAPH 95, Sense8 Corporation announces its dynamic new-generation product designed to appeal to a wider group of customers. Sense8 is the world's leading provider of virtual reality and 3D graphic software and systems. Our WorldToolKit products are powerful development tools that support the leading graphics platforms and input/output devices.

SHOOT
BOOTH 1162

1515 Broadway
New York, New York 10036
USA
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+1.212.536.5321 fax

Adam Bank
Marketing Manager

SHOOT is the leading newsweekly for commercial production and post production.

Side Effects
BOOTH 2445

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Toronto, Ontario M5V 3E7
CANADA
+1.416.504.9876
+1.416.504.6648 fax
info@sidefx.com

Janet Fraser
Sales and Marketing

Side Effects unveils Houdini, its next-generation animation system. Side Effects has engineered its new product from the ground up as a foundation for a series of significant innovations. Houdini has organic modelling with L-systems, 3D attribute painting, MIDI output, general simulation, wrapping, flocking, embedded raytracing, and real-time performance. Houdini elegantly combines NURBS, polygons, metaballs, particles, materials, and compositing under a new user interface.

Sigma Electronics, Inc.
BOOTH 2072

1184 Enterprise Road
East Petersburg, Pennsylvania 17520
USA
+1.717.569.2681
+1.717.569.4056 fax

Kent Porter

Switching, distribution, timing, and signal processing for all formats: graphics, component, S-VHS, NTSC, and PAL.

Silicon Grail Corporation
BOOTH 2131

710 Seward Street
Hollywood, California 90038
USA
+1.213.962.7400
+1.213.962.7444 fax
alicia@rfx.com

Alicia Tamulevicz
Marketing Director

Silicon Grail Corporation is making its debut appearance at SIGGRAPH 95 in Los Angeles. Introducing "storm," a high-end 2D software product aimed at providing the film, broadcast, and gaming industries with a complete 2D solution in one package. Storm's features include image manipulation, color correction, compositing, and tracking. Look to Silicon Grail to provide you with the cutting-edge tools necessary to create the visual effects of tomorrow. Web site: http://www.rfx.com

Silicon Graphics
BOOTHS 2004/2005

2011 North Shoreline Boulevard
Mountain View, California 94043
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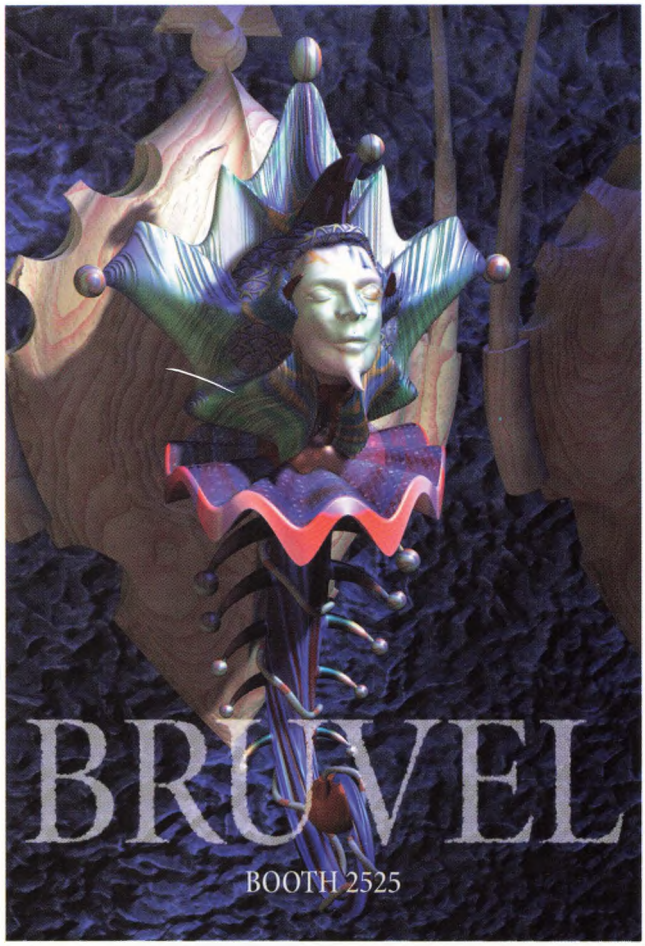
crystalv@corp.sgi.com

Crystal VanBrug
Manager, Trade Shows and Events

Silicon Graphics showcases its latest interactive 3D graphics, digital media, and supercomputing technologies on its Indy and Indigo workstations, Onyx graphics supercomputers, Challenge media servers, and POWER CHALLENGE Supercomputing systems. Interactive entertainment, virtual reality, and new visualization applications are featured in Silicon Graphics' booths and throughout the show floor.



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BOOTH 2541

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beau@silicon.com

Beau Beaumont
President

Silicon Solutions is a premier Silicon Graphics dealer/system integrator serving the southwest states of Arizona, Nevada, and New Mexico. We specialize in 3D and 2D graphic systems for television, film, and video production; electronic prepress; and innovative Web gear for the Internet. In addition, we provide a complete line of peripherals and software to complement your Silicon Graphics workstation.

SimGraphics Engineering
BOOTH 849

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Davev@simg.com

Dave Verso

SimGraphics is the world's leading provider of interactive 3D characters and systems. Its VActor system embodies world-leading facial capture and processing technologies. VActor Performer is a real-time character animation system designed for live performance applications. VActor Xpression converts raw motion data created from a facial capture session into usable motion data for animating facial expressions.

S-MOS Systems, Inc.
BOOTH 913

2460 North First Street
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+1.408.922.0200
+1.408.922.0238 fax
oliver@smos.com

Gerry Oliver
Tradeshow Coordinator

S-MOS Systems is exhibiting the SPC1500, first in a family of 3D graphics accelerators. The SPC1500 is a 3D geometry accelerator for the PC market. Demos include SPC1500-based boards running under Windows NT/OpenGL providing 300K lighted tri/sec. The SPC1500 offers interoperability with all rendering accelerators that run under OpenGL/Rendermorphics/3D DDI.

Society of Motion Picture and Television Engineers (SMPTE)
BOOTH 1200

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White Plains, New York 10607
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+1.914.761.3115 fax
71263.335@compuserve.com

John Izzo, Jr.
Director of Marketing

The SMPTE is the leading association for professionals in motion pictures, television, electronic imaging, multimedia, and the related arts and sciences. The SMPTE disseminates technical information, publishes the *SMPTE Journal,* and provides educational opportunities. It is the industry source for developing standards, recommended practices, and engineering guidelines recognized worldwide. Web site: http://www.smpte.org/smpte/

Softimage
BOOTH 1207

Softimage Corporate Sales and Marketing
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Laura Malone
Marketing Communications Manager

Softimage software products offer film and video professionals, animators, and game developers a complete, fully-integrated solution for 3D animation, 2D cel animation, digital compositing, paint, and special effects. Product line: Softimage 3D, Softimage Toonz, and Softimage Eddie. Softimage is a fully-owned subsidiary of Microsoft Corporation.

Solomon Volumetric Imaging, Inc.
BOOTH 1870

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+1.508.394.9221 fax
volumetric@aol.com

Dennis J. Solomon
President

Presenting SVI's 3D Volumetric Imager & 3D Holobeam Television – the centerpiece in Intel Artist Jenny Holzer's 1994-95 exhibits, the Crystal Airspace – and SGI-assisted Volumetric Workstation, n-dimensional spherical graphics, SVI offers imagination and solutions for 3D visualization, analysis, and interaction in Windows, Unix, and Open GL.

Solsource Computers
BOOTH 2521

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+1.619.929.7800
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sales@solsource.com

Gary Gwin
Vice President, Marketing

Solsource is the world's leading value-added reseller of portable Unix computers and presentation products. Our product line includes high-performance notebook workstations, high-resolution LCD projection systems, remote pointing systems, and other mobile software and hardware tools. These products provide Unix users with a complete, easy-to-use work and multimedia presentation environment for the road and remote offices.

Sony Electronics Inc.
BOOTH 1621

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inanchyl@ccmail.nhq.sony.com

Les Inanchy
Business Development/Marketing Communications Manager

Sony Electronics features its new Storage by Sony solutions, which include a range of high-performance optical storage devices. Sony Pictures High Definition Center showcases digital-tape-to-35mm film output via Electron Beam Recorder, HD optical effects, and film restoration services. Also featured: Sony ImageWorks, the film special effects division.

Spaceward Graphics Limited
BOOTH 2384

The Old School
22 High Street
Haddenham, Ely
Cambridge CB6 3XA
UNITED KINGDOM
+44.0.1353.741222
+44.0.1353.741216 fax
CompuServe 100443,312

Mark Lister
Sales & Marketing Director

Introducing revolutionary ultra-high-performance paint and 2D graphics software for 32-bit windows; full resolution 32-bit broadcast videographics, image digitizers, and linear key cards; real-time 2D captions and titling; broadcast 3D studio rendering; VIR remote-control and real-time animation recording; and networking and graphics exchange.

Springer-Verlag
BOOTH 1715

175 Fifth Avenue
New York, New York 10010
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+1.212.460.1598
+1.212.533.5587 fax
wborden@springer-ny.com

Walter Borden
Product Manager

Springer-Verlag continues its tradition of excellence in computer graphics books and software with a full range of material from applications to programming to general interest. Stop by this year and take advantage of your 20% discount. New books include: *Interactive 3-D Graphics in Windows* and *The Nurbs Book.*

Square Company, Limited
BOOTH 923

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+1.206.861.0505 fax
square@halcyon.com

9F, Arco Tower, 1-8-1 Shimemegure
Meguro-ku, Tokyo 153
JAPAN
office@square.co.jp

Junichi Yanagihara

Square Co., Ltd., is renowned as the developer and publisher of the Final Fantasy, Romancing Sa.ga, and Secret of Mana video game series. In order to attain the goal of continuously creating "million sellers." Square is investing in next-generation technology to create works on the cutting edge.

StereoGraphics Corporation
BOOTH 1331

2171 East Francisco Boulevard
San Rafael, California 94901
USA
+1.415.459.4500
+1.415.459.3020 fax
sales@crystaleye.com

StereoGraphics manufactures an entire line of stereo (3D) hardware producing flickerless professional-quality computer or video-generated 3D images for viewing on virtually any platform. StereoGraphics' flagship product is CrystalEyes, a comfortable, lightweight, set of untethered active eyewear that uses the fastest liquid-crystal shuttering technology available.

Storage Concepts, Inc.
BOOTH 1164

2652 McGaw Avenue
Irvine, California 92714
USA
+1.714.852.8511
+1.714.852.8930 fax
linda@storcon.com

Linda Turner
Marketing Associate

Storage Concepts Inc. (SC) manufactures a complete line of high-performance real-time and multi-gigabyte storage solutions for "true" bandwidth on demand performance. SC incorporates real-time RAID technology and industry-standard interfaces with SC's unique dual-bus architecture for data integrity and guaranteed performance. SC storage solutions are satisfying the most demanding digital video applications including video on demand, data acquisition/transmission, digital video servers, and real-time imaging applications.

StorageTek
BOOTH 2064

2270 South 88th Street
Louisville, Colorado 80028-4341
USA
+1.303.673.5151
+1.303.673.2640 fax

Jill Appleby
Marketing Services Representative

StorageTek is a leader in the design and manufacture of information storage and retrieval solutions. Among other innovations, StorageTek displays new high-performance tape drives and robotic libraries, bringing the benefits of Nearline automated tape management to the computer graphics and visualization industry.

Strata, Inc.
BOOTH 1551

2 West St. George Boulevard, Suite 2100
St. George, Utah 84770
USA
+1.801.628.5218
+1.801.628.9756 fax

Sheila Dye
Public Relations Coordinator

Strata, Inc. is a leading developer of innovative software tools for design, multimedia, and digital video professionals who use Macintosh, Power Macintosh, and Windows computers. Artists working in science, business, education, and entertainment can maximize impact with Strata tools that create astounding 3D modeling, rendering, animation, and much more.

Strategic Alliance for Technology Support (SATS)
BOOTH 2278

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+1.813.925.4194 fax

Larry Gashi
Director of Marketing

SATS provides worldwide maintenance and support services for workstation and related technology market niches. The Alliance group offers system sales and integration, upgrades, help desk support, maintenance training, maintenance planning and implementation, advance exchange spares, full depot repair capabilities, and technical support documentation.

Sun Microsystems Computer Company
BOOTH 2031

2550 Garcia Avenue
Mountain View, California 94043
USA
+1.415.960.1300

Sun Microsystems Computer Company is the world leader in design, manufacture, and sale of network computing systems. Sun's SPARCstations and multiprocessing servers hold the No. 1 UNIX marketshare position. See the SPARCstation TurboZX, the hottest graphics performance desktop around; demo Java, the object-oriented programming language, and HotJava, our dynamic web browser.

SUPERCOMPUTING '95-ACM/IEEE
BOOTH 1525

c/o DC Expositions, Inc.
555 Republic Drive, Suite 316
Plano, Texas 75074
USA
+1.214.423.4286
+1.214.423.4323 fax
dcexpo@aol.com

Don Collier
Exhibition Management

SUPERCOMPUTING '95 (SC '95), sponsored jointly by ACM and IEEE Computer Society, is scheduled for 4-8 December1995 at the San Diego Convention Center, San Diego, California. SC '95 is the eighth in a series of highly successful and well-attended conferences. It is the premier conference for presentation and discussion of research in high-performance computing and communications. SC '95 fully integrates the capabilities of high-performance computing and communications and the national information infrastructure.

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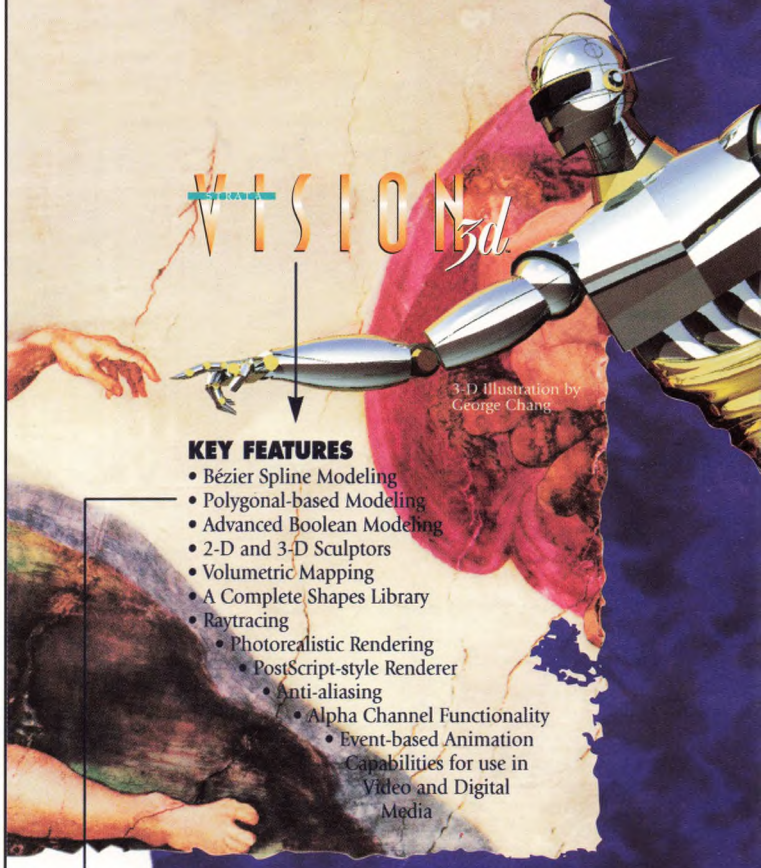

3-D Illustration by George Chang

KEY FEATURES
- Bézier Spline Modeling
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Superscape
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Palo Alto, California 94303
USA
+1.415.812.9380
+1.415.812.9390 fax

Annette Stransky
Marketing Communications Manager

Superscape is the leading virtual reality company addressing market requirements for a powerful, affordable application-building software package that runs on personal computers. Typical applications include training, data analysis, facilities planning, presentations, and simulations.

SWS Corporation/Storagepath
BOOTH 2281

917 Lawrence Drive
Newbury Park, California 91320
USA
+1.805.498.6727
+1.805.498.8834 fax

Floyd G. Penland
President

SWS Corporation/Storagepath carries a complete line of open-platform, fault-tolerant RAID (Redundant Array of Independent Drives) mass storage products, and rack-mounted servers.

Syndesis Corporation
BOOTH 2537

235 South Main Street
Jefferson, Wisconsin 53549
USA
+1.414.674.5200
+1.414.674.6363 fax
syndesis@beta.inc.net

John Foust
President

Syndesis's InterChange translates between more than 30 3D file formats, including 3D Studio, Wavefront, VRML, QuickDraw 3D, LightWave, and DXF. Two new CD-ROMs demonstrate InterChange. Syndesis 3D-ROM Volume III contains hundreds of 3D models in several formats. Syndesis Avalon is a snapshot of the Internet's most popular 3D repository.

Synthonics Incorporated
BOOTH 1971

31368 Via Colinas, Suite 106
Westlake Village, California 91362
USA
+1.818.707.6000
+1.818.707.6016 fax
75057.1445 CompuServe

Alba Arboleda
Program Manager

The VR image generation Wireframe Express is the perfect tool for measurements of photographed/rendered objects. Generates 3D wireframes as DXF. Now includes Quick Look Lite! See image mapped onto Wireframe! 3D Maker: multi-color true stereo 3D images from stereo images/photos. 3D Animator provides 3D in animation (3D Studio IPAS).

SysTrek Technologies, Inc.
BOOTH 1756

300 Torrano Common
Fremont, California 94536
USA
+1.510.790.1133
+1.510.790.3039 fax
marvink@whittaker.com

Marvin R. Katich
President

SysTrek Technologies, a virtual reality systems integrator and applications developer, is demonstrating REALITY+, a new and exciting API and GUI for developing virtual world applications. Demos include Dental Byte, a VR dental application; ShipSim, a ship, submarine, and aircraft simulation application; and VRKnights, in which armored knights engage in mortal combat.

TDC Interactive
BOOTH 937

2716 Ocean Park Boulevard, Suite 3085
Santa Monica, California 90405
USA
+1.310.452.6720
+1.310.452.6722 fax
LBerzins@aol.com

Lauren Berzins
Vice President, Distribution

TDC Interactive offers graphic designers and multimedia developers the ultimate digital image library: ImageKit, a 10 CD-ROM high-resolution royalty-free collection of professional photography and illustrations with almost 1600 images. It offers the elements needed to create art with a cataloguing and keywording system that allows instant image access. ScreenRez offers the same images in screen resolution for comping and multimedia.

Techexport, Inc.
BOOTH 1201

One North Avenue
Burlington, Massachusetts 01803
USA
+1.617.229.6900
+1.617.229.7706 fax
jiannaco@txport-b.mhs.compuserve.com

Juliane Iannaco
Marketing Communications

Techexport, Inc. provides international distribution and support for a comprehensive range of computer graphics and video products. The company serves the videographics, 3D modeling and animation, presentation graphics, pre-press, video editing, and industrial display markets with hardware, application software, and peripherals. Techexport operates through subsidiary offices in Europe as well as sales offices in Spain, Argentina, and Hong Kong.

Tech-Source Inc.
BOOTH 2320

442 South North Lake Boulevard
Altamonte Springs, Florida 32701
USA
+1.407.262.7100
+1.407.339.2554 fax
tina@techsource.com

Tina DeVan
Marketing Assistant

Tech-Source Inc. is showing both color and greyscale SBus display controller boards and subsystems capable of resolutions from 640 x 480 up to 2048 x 2560. Options for color, overlay planes, flat-panel display, double buffering, and stereoscopic viewing are also available on various Tech-Source SBus products.

Tektronix Inc.
BOOTH 2227

26600 SW Parkway Avenue
Wilsonville, Oregon 97070
USA
800.835.6100
+1.503.682.7377 fax

Displayed is a full line of Tektronix Phaser color printers for home and business use. All printers feature Adobe PostScript Level 2; internal network interfaces and full-color output up to 4 PPM. Media ranges from letter to tabloid bleeds on paper or transparency.

TELOS, The Electronic Library of Science
BOOTH 1715

3600 Pruneridge Avenue, Suite 200
Santa Clara, California 95051-2595
USA
+1.408.249.9314
+1.408.249.2595 fax
info@telospub.com

Allen Wylde
Publisher

TELOS is an imprint of Springer-Verlag New York. Its primary publishing strategy is to wed the traditional print medium with the emerging new electronic media in order to provide a truly interactive multi-media information environment. TELOS' publishing program encompasses the natural and physical sciences, computer science, mathematics, and engineering.

Template Graphics Software Inc.
BOOTH 1527

9920 Pacific Heights Boulevard
Suite 200
San Diego, California 92121
USA
+1.619.457.5359
+1.619.452.2547 fax
info@tgs.com

Diane Connolly
Marketing Coordinator

TGS is demonstrating OpenGL for Sun Solaris, Apple, and Windows 3.1, as well as Open Inventor for all UNIX, Windows (3.1, NT, 95), Apple, and OS/2 systems. TGS is the world-leading 2D/3D graphics tools vendor, providing standards-based solutions to professional graphics developers since 1982. TGS was a major contributor to the 3D Internet graphics standard VRML and co-developed the first VRML browser, WebSpace, with Silicon Graphics Inc. WebSpace demonstrations are available at the TGS booth. Web site: http://www.sd.tgs.com/template

Texas Memory Systems, Inc.
BOOTH 1702

11200 Westheimer Road, Suite 1000
Houston, Texas 77042
USA
+1.713.266.3200
+1.713.266.0332 fax

Texas Memory Systems, Inc. is the leading supplier of high-performance, solid-state memory systems aimed at high-end data acquisition, signal, and image processing and shared memory applications. Our multiported Shared Access Memory (SAM) systems feature 256 megabytes to eight gigabytes of memory, up to eight high-speed I/O ports, and an aggregate bandwidth up to 1000 megabytes/second.

TimeLine, Inc.
BOOTH 838

2401 Dogwood Way
Vista, California 92083
USA
+1.619.727.3300
+1.619.727.3620 fax
timeline@cerf.net

Cynthia Jones
Marketing Communications Manager

Mediasound provides a multi-channel, synchronized audio production solution for multimedia and audio-for-video applications on the Silicon Graphics platform. Mediasound offers single-screen operation, eight channels of digital audio editing and recording capability, panning, and the ability to have up to 10 sessions open, with cut and paste between sessions.

Toon Boom Technology Inc.
BOOTH 2604

1755 Rene-Levesque est, Suite 001
Montréal, Quebec H2K 4P6
CANADA
+1.514.522.5142
+1.514.522.5971 fax
mile@toonboom.com

Michel Leroux
Vice President, Research & Development

Toon Boom Technology Inc. develops and distributes revolutionary software for the animation industry: Tic Tac Toon, a full resolution independent process, 100-percent vector-based, 100 percent computerized, multi-tasking cartoon animation system. Tic Tac Toon is a new generation of animation software dedicated to the artist's creativity and to the studios' flexibility and efficiency.

Truevision
BOOTH 2045

2500 Walsh Avenue
Santa Clara, California 95051
USA
+1.408.562.4200
+1.408.562.4065 fax
support@truevision.com

Karen Graver
Marketing Communications Manager

Truevision, the leader in desktop video, is showing TARGA 2000, the latest in digital video technology. The Truevision TARGA 2000 videographics line provides a cross-platform, open systems solution for professional desktop non-linear video editing and multimedia authoring applications. The TARGA 2000 digitally records high-quality video and audio to disk.

The VALIS Group
BOOTH 955

2346 Mar East Street, Suite B
Tiburon, California 94920
USA
+1.415.435.5404
+1.415.435.9862 fax
AOL: Valisgroup

RoseAnn Alspektor
President, CEO

The VALIS Group demonstrates: the newest version of Pixel/Putty Solo – organic 3D modeling and animation software for Macintosh and MovieFlo. Warping and special effects software for Macintosh and Windows 95. Flo and Metaflo are also on display.

Vangard Technology, Inc.
BOOTH 1757

11211 East Arapahoe Road
Englewood, Colorado 80112
USA
+1.303.790.6090
+1.303.799.9297 fax
inquire@vangard.com

Mike Hardy
Mass Storage Product Manager

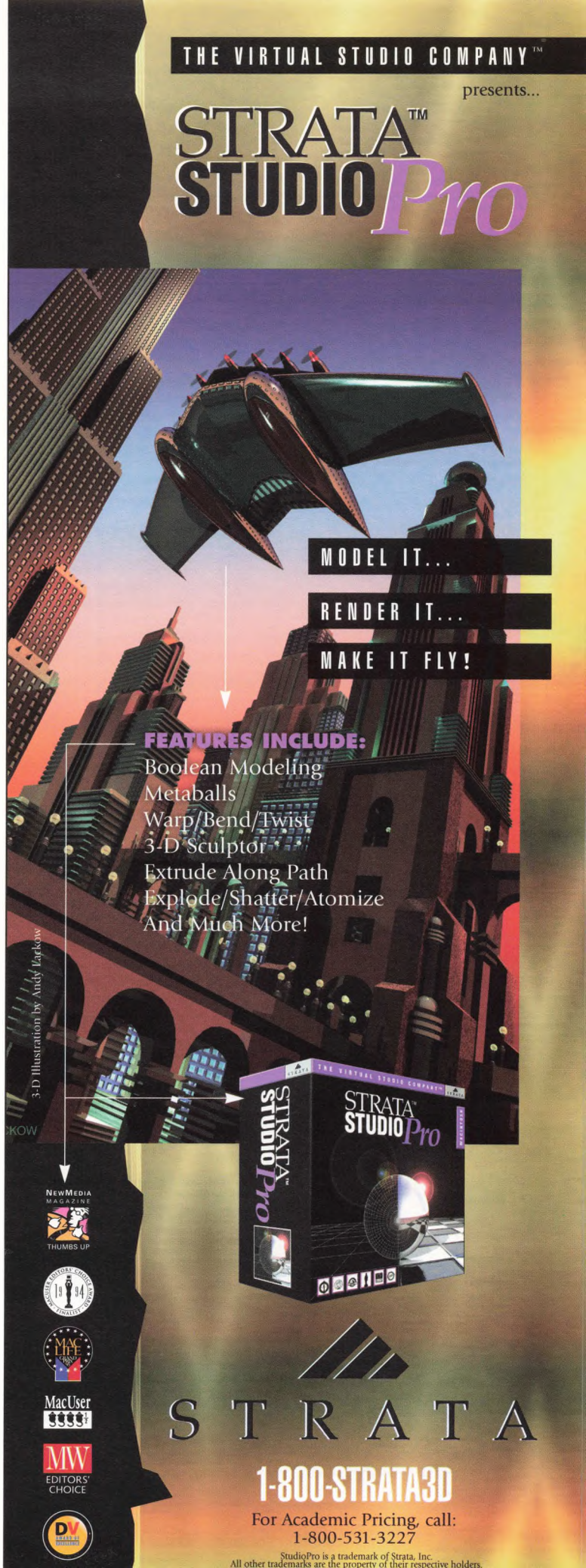
Vangard Technology provides integrated and automated storage management solutions, including data archiving, backup and restore, and CD-ROM access particularly on SGI, HP, and SUN platforms. Our networking solutions include leading-edge technologies and state-of-the-art performance. Vangard Technology's services include system design, installation, training, and customer support.

Vertigo Technology Inc.
BOOTH 1721

842 Thurlow Street, Suite 300
Vancouver, British Columbia V6E 1W2
CANADA
+1.604.684.2113
+1.604.684.2108 fax
info@vertigo.bc.ca

Linda Fawcus
Senior Vice President

Vertigo Technology Inc. launches Vertigo Version 9.6 3D software featuring fully-integrated RenderMan, Enviromatic for fast raytrace-like images, Mechanix for realistic physical motion, UltraFlip for superfast hardware rendering, Frame Procedures for interactive utility operation, and VCommand for dynamic data-sharing in multi-platform studios.



ViaGrafix
BOOTH 2600

5 South Vann
Pryor, Oklahoma 74361
USA
+1.918.825.6700
+1.918.825.6744 fax

Jason Goodson
Marketing and Exhibits

ViaGrafix exhibits their entire library of computer-training videos and interactive CD-ROMS: more than 380 software training titles teaching you today's most popular software. New training on Windows 95 is on display with actual samples running for public view.

Vicom Multimedia Inc.
BOOTH 941

#200, 838-11 Avenue S.W.
Calgary, Alberta T2R 0E5
CANADA
SmartCatalog@ccinet.ab.ca

Dan Cloutier
Vice President Marketing

Vicom Multimedia features Smart Catalog: Electronic Catalog Creation Software.

Video Authoring Systems Group Inc.
BOOTH 2172

4531 Empire Avenue
Burbank, California 91505
USA
+1.818.843.4831
+1.818.843.6544 fax
vasgroup@directnet.com

Tim Ready
President

V.A.S. Group markets and engineers professional-quality video animation and conversion products. V.A.S. Group's RTC real-time scan converter's ability to handle small text and complex graphics has made it the choice of leading corporations worldwide. The ENC-7 is a broadcast quality (RS-170A) encoder/sync generator that outputs to all analog video formats. The popular Minivas-2 animation controller facilitates output of uncompressed animation to video.

Video Systems Magazine
BOOTH 1754

9800 Metcalf
Overland Park, Kansas 66212
USA
+1.913.341.1300
+1.913.967.1898 fax

Angela Hale
Marketing Services Supervisor

Video Systems, the product magazine for video professionals, takes a hands-on approach to editorial coverage. It focuses on the tasks and objectives readers face, and serves decision-makers in business and industry, independent production facilities, and independent producers. The official publication of the International Television Association (ITVA).

Videomedia, Inc.
BOOTH 1501

175 Lewis Road
San Jose, California 95111
USA
+1.408.227.9977
+1.408.227.6707 fax
CompuServe: Go Videomedia

Ian Weingold
Sales Manager

New VLX-i V-LAN hardware for all computer applications to control digital and analog video devices including animation recording and digitizing. OZ PCE Production Control Environment with Virtual Device Interface for integrated control of Pinnacle's Alladin. The V-LAN HUB Network Router for remote assignment and control of devices to multiple workstations. Web site: http:/www.videomedia.com

Viewpoint DataLabs International Inc.
BOOTH 1421

625 South State Street
Orem, Utah 84058
USA
800.DATASET; +1.801.229.3000
+1.801.229.3300 fax

Viewpoint is the worldwide leader of 3D modeling and data distribution. In addition to offering a library of thousands of technically accurate 3D models, available in more than 70 file formats crossing all hardware platforms, Viewpoint is also the world's largest supplier of custom 3D modeling, scanning, and motion capture services. Web site: http://www.viewpoint.com

Virtual I/O
BOOTH 2515

1000 Lenora Street, Suite 600
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USA
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+1.206.382.8810 fax
vio@vio.com

Linden Rhoads
President and Co-Founder

Virtual I/O manufactures and sells a line of personal display systems, including the lightweight i-glasses. These head-mounted video systems use see-through optical technology and provide high-quality video and computer images.

Visual Numerics, Inc.
BOOTH 1545

9990 Richmond Avenue, Suite 400
Houston, Texas 77042
USA
+1.713.784.3131
+1.713.781.9260 fax
marketing@houston.vni.com

Lisa Parker
Senior Marketing Specialist

Visual Numerics, Inc. is the world leader in IMSL numerical analysis and graphics software for C/C++, FORTRAN, and X application developers, and is the visualization market leader with its widely-used PV-WAVE family of products. Visual Numerics provides industry-leading technical solutions to business professionals in engineering, finance, research, and education.

Visual Software
BOOTH 1261

21731 Ventura Boulevard, Suite 310
Woodland Hills, California 91364
USA
+1.818.883.7900
+1.818.593.3737 fax
Kbvisual@aol.com

Kevin Bromber
National Sales Director

Visual Software is a leading developer of 3D graphics and animation software for Windows. Visual Software will be demonstrating their 3D modeling, rendering, and animation software products, the most productive 3D software available for use in print, video, or desktop presentations.

Vivid Technologies
BOOTH 2535

13000 West Bluemound Road
Elm Grove, Wisconsin 53122
USA
+1.414.641.0520
+1.414.641.0524 fax

Jim Dorman
Scot Thede

PolyForm is the most powerful 3D object utility available for your Windows PC. Use PolyForm to convert bitmap pictures of logos and shapes to 3D with unrivaled speed and quality. Smooth, extrude, and bevel your bitmaps with precise control. Use PolyForm to load, save, and convert 17 3D file formats, including 3D Studio, DXF, and Wavefront.

Wacom Technology
BOOTH 2439

501 SE Columbia Shores Boulevard
Suite 300
Vancouver, Washington 98661
USA
+1.360.750.8882
+1.360.750.8924 fax
gary@wacom.com

Gary McKenzie
Marketing Manager

Wacom is exhibiting its new line of graphic tablets that provide artists, illustrators, and design professionals the ultimate way to illustrate, paint, or manipulate imagery on a computer. The new cordless, batteryless, and pressure-sensitive ERASING Ultrapen included with every Wacom tablet provides the user the most natural, sensitive, and responsive feel and control.

Alias/Wavefront
BOOTHS 1221/2019

110 Richmond Street East
Toronto, Ontario M5C 1P1
CANADA
+1.416.362.9181
+1.416.362.0630 fax
thanson@alias.com

Marketing Department

Alias/Wavefront is demonstrating its industry-leading 2D and 3D digital creation software for entertainment (film and video, interactive media and games, location-based entertainment), industrial design, visualization, and automotive styling, and graphic arts.

Western Scientific, Inc.
BOOTH 2564

4631 Viewridge Avenue
San Diego, California 92123-1639
USA
+1.619.565.6699
+1.619.565.6938 fax
info@wsm.com

Sales Department

Western Scientific provides high-performance data storage peripherals for the Unix workstation market. We build and sell disk subsystems, RAIDs, 4mm, 8mm, and DLT subsystems, 9-track tape drives, optical drives, autoloader, jukebox subsystems, networking products, and software. We use quality components from premier suppliers to provide premium Unix workstation upgrades and storage solutions.

John Wiley & Sons, Inc.
BOOTH 2402

605 Third Avenue
New York, New York 10158
USA
800.225.5945
+1.212.850.6088 fax
compbks@jwiley.com

Ellen Reavis
Marketing Manager

John Wiley & Sons feature the latest publications in the areas of documentation, design, graphics, and multimedia. Stop by the booth to review recent releases such as *Photographic Imaging Techniques in C++ for Windows* and *Windows NT* by Craig Lindley, *Building a 3D Game Engine* by Brian Hook, and *Photo-Based 3D Graphics in C++* by Tim Whittenberg. You can also look forward to the *Web Page Design Cookbook* by Bill Horton.

Winsted Corporation
BOOTH 1413

10901 Hampshire Avenue South
Minneapolis, Minnesota 55438-2385
USA
+1.612.944.9050
+1.612.944.1546 fax

Randy R. Smith
Marketing Manager

Featured: an all new line of digital desks for multimedia editing and production. Appropriate for both linear and non-linear systems, these multi-function workstations are ergonomically designed around the user, providing a comfortable and efficient work environment. Also, Winsted is showing a new line of low-cost, flat pack, vertical rack cabinets.

Wright Line Inc.
BOOTH 1262

160 Gold Star Boulevard
Worcester, Massachusetts 01606
USA
+1.508.852.4300
+1.508.853.8904 fax

Barbi LaGrenade
Trade Show Coordinator

Wright Line presents MediaLinx, a modular furniture system designed for multimedia, video, publishing, graphics, and other highly technical environments. MediaLinx features a steel framework combined with a variety of work surface and equipment management components. In addition to this innovative workstation system, Wright Line also offers the Optimedia multimedia cabinet system, a modular storage cabinet designed to store a variety of media and supplies, including CDs, tapes, and diskettes.

Xaos Tools
BOOTH 1007

600 Townsend, Suite 270E
San Francisco, California 94103
USA
+1.415.487.7000
+1.415.558.9886 fax
sgisales@xaostools.com

Hans Hartman
Business Unit Manager, SGI Products

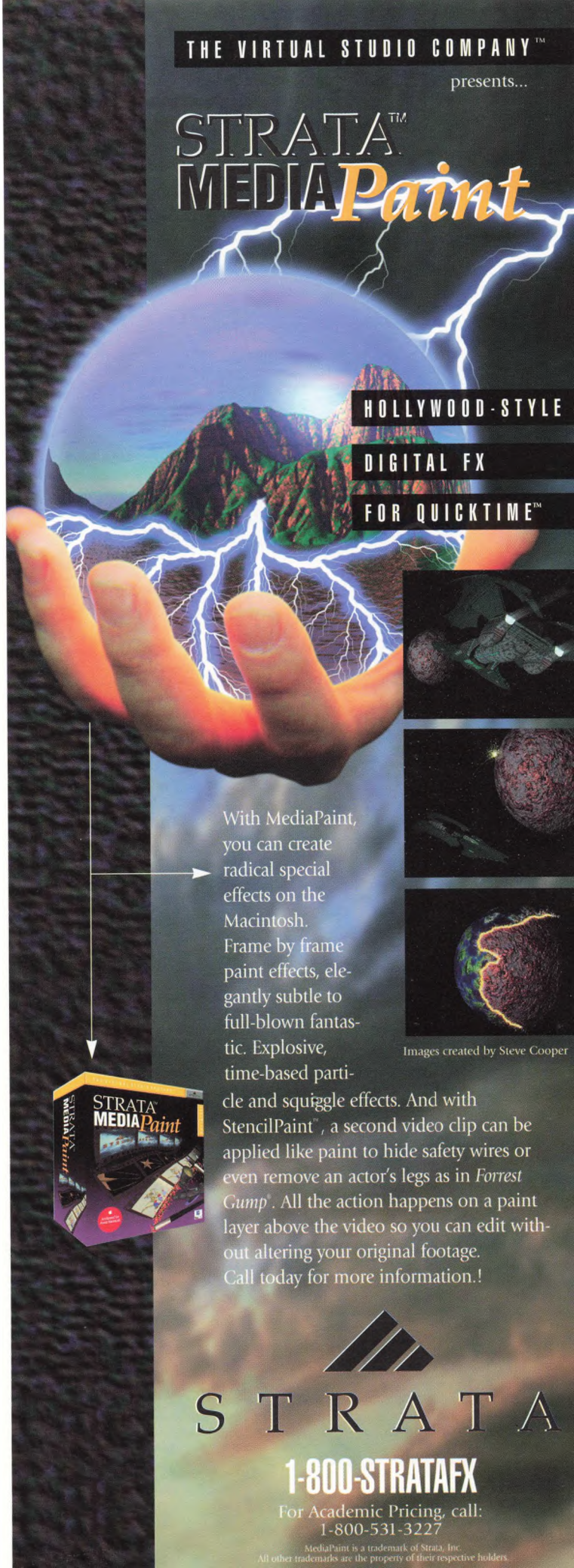
Xaos Tools is the world leader in high-end image processing applications. On the SGI, Xaos Tools sells Pandemonium, nTitle, and LightWave 3D SGI – with more to come. Xaos Tools' product line also includes Photoshop plug-ins for the Macintosh, as well as plug-ins for LightWave 3D and 3D Studio on the PC.

Yonowat Inc.
BOOTH 2614

1203 Union Street
San Francisco, California 94109
USA
+1.415.775.6926
+1.415.923.1205 fax

Mieczyslaw Boryslawski
Vice President Marketing

Amapi offers a new approach to 3D modeling that eases the design and editing of complex geometrical creations. Its revolutionary interface simplifies and improves the modeling process. No more tedious hunting through menus. No more dialog boxes obscuring the workspace. Access any function by clicking on icons. Work in a direct perspective view of your workpiece. Runs on all platforms.



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Architecture/Engineering/Construction

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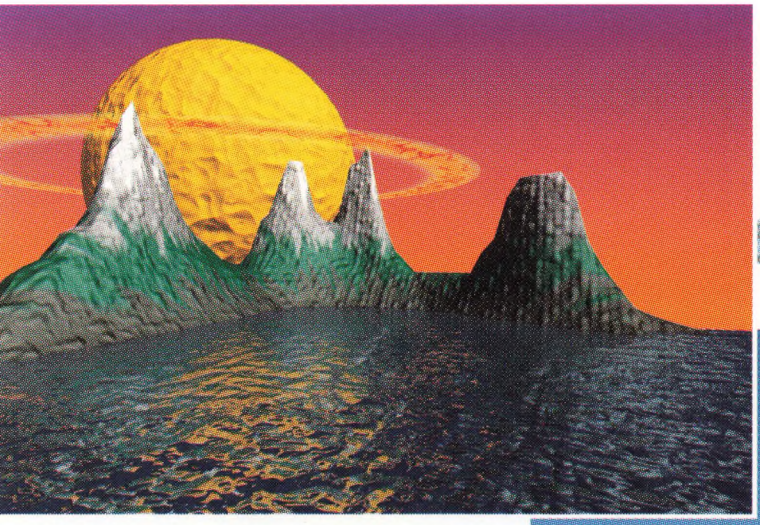

Credits: Demonstration models and renderings by auto•des•sys designers Markus Bonn, Volker Mueller, Michael Del Grosso, and Mark Niemi.

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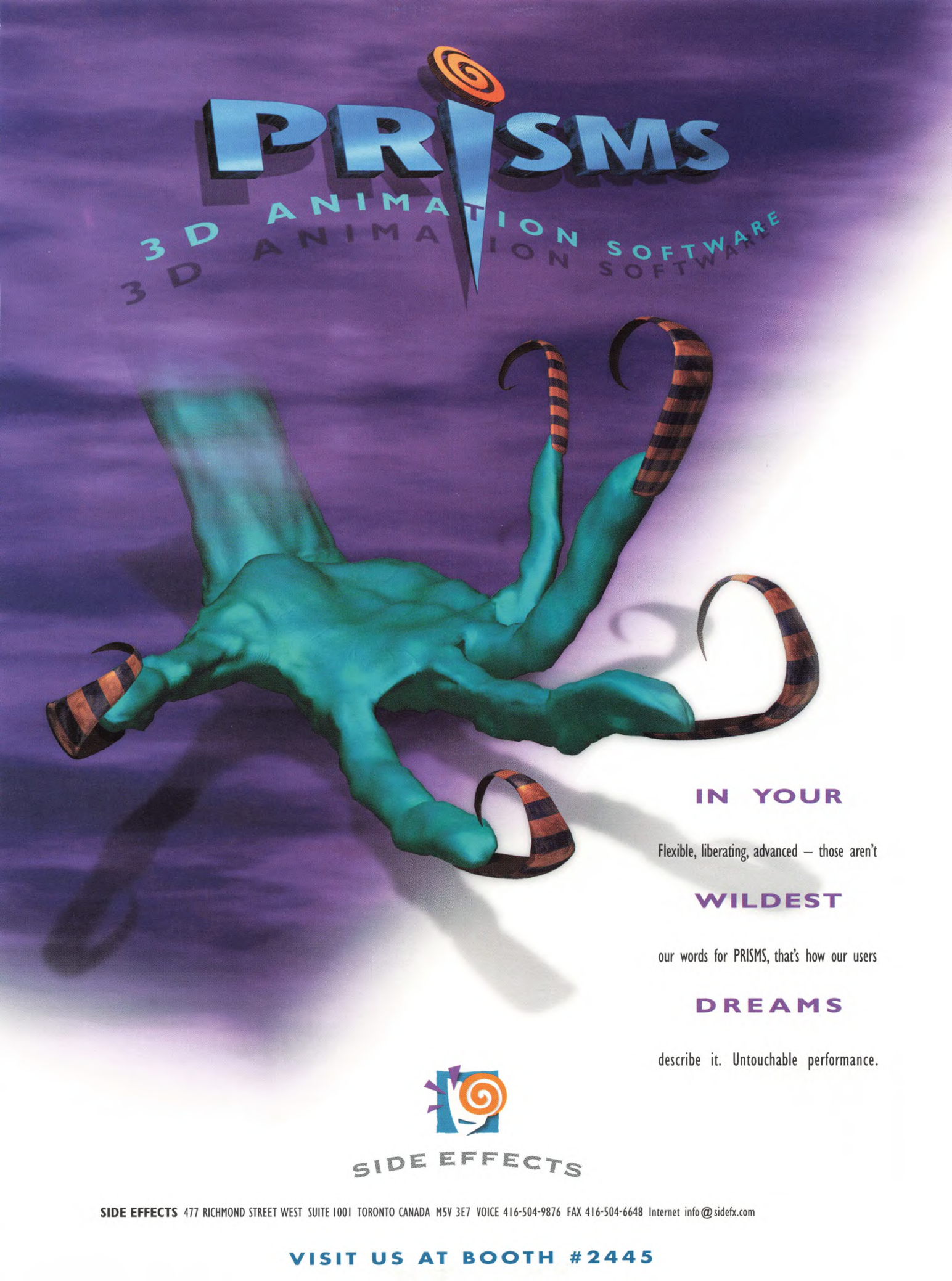

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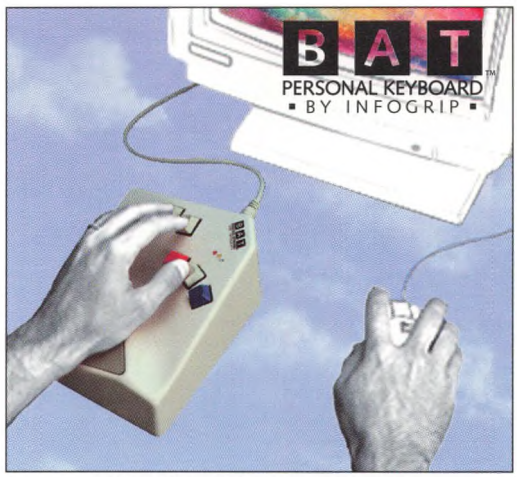

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2082	NVision, Inc.
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949	SensAble Devices Inc.
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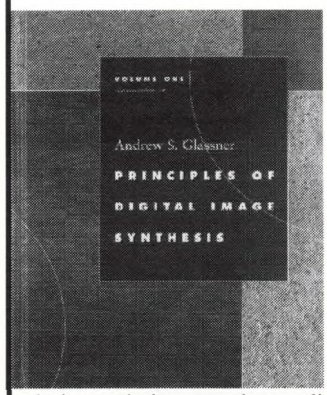

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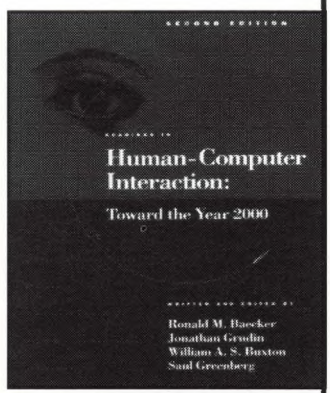

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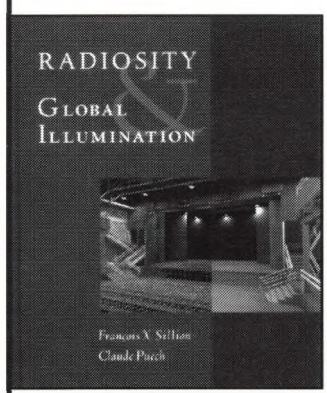

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1024 Adaptive Optics Associates
1145 Autometric Inc.
1505 Avid Technology/Elastic Reality/Parallax Software
935 Coryphaeus Software, Inc.
1121 Discreet Logic
1505 Elastic Reality/Parallax Software/Avid Technology
2305 ElectroGIG USA, Inc.
1131 Evans & Sutherland Computer Corporation
1459 FARO Technologies, Inc.
844 Fast Forward Video
2161 FOR-A Corporation of America
1026 International Memory Products of Illinois, Inc.
951 Laser InSpeck inc.
1120 NC/Vision
2082 NVision, Inc.
1505 Parallax Software/Elastic Reality/Avid Technology
1875 Pivotal Graphics, Inc.
945 Pixo Arts Corporation
2155 Quantel, Inc.
2265 Radius, Inc.
2541 Silicon Solutions
2384 Spaceward Graphics Limited

User Interface

Booth
2030 Apple Computer, Inc.
2380 Chromatek Inc.
2625 General Reality Company
2315 Hewlett-Packard Company
1244 HSC Software
949 SensAble Devices Inc.
2004/2005 Silicon Graphics
2604 Toon Boom Technology Inc.
2402 John Wiley & Sons, Inc.

Video Technology

Booth
1105 Abekas Video Systems, Inc.
1745 Accom, Inc.
1024 Adaptive Optics Associates
1256 Adobe Systems, Inc.
1012 Advanced Digital Imaging
1563 Advanced Media Production Center, CSULB
2019/1221 Alias/Wavefront
2030 Apple Computer, Inc.
1505 Avid Technology/Elastic Reality/Parallax Software
2400 Bit 3 Computer Corporation
1655 CADalyst/PC Graphics & Video Magazines
2380 Chromatek Inc.
2054 Chyron Corporation
2620 Cirrus Logic, Inc.
2605 Daewoo International America Corporation
1521 Diaquest Inc.
2065 Digital Processing Systems Inc.
1505 Elastic Reality/Parallax Software/Avid Technology
2305 ElectroGIG USA, Inc.
2284 Ensemble Designs Inc.
1020 Epson America, Inc.
1455 Equilibrium
844 Fast Forward Video
1645 Folsom Research
2161 FOR-A Corporation of America
2225 Genesis Microchip
1341 in:sync corporation
1557A Integrated Research
1026 International Memory Products of Illinois, Inc.
843 KUB Systems, Inc.
931 Leitch Incorporated
2523 Lightwave Communications
2341 Microsoft Corporation
2174 MMS Multi Media Systems GmbH
1120 NC/Vision
2075 Network Computing Devices (NCD)
1883 Optical Disc Corporation
1531 Parallax Graphics, Inc.
1505 Parallax Software/Elastic Reality/Avid Technology
1874 PC Video Conversion
2265 Radius, Inc.
2608 The San Francisco Medical Research Foundation
2072 Sigma Electronics, Inc.
2541 Silicon Solutions
1331 Stereographics Corporation
1164 Storage Concepts, Inc.
1551 Strata Inc.
2031 Sun Microsystems
1201 Techexport, Inc.
2604 Toon Boom Technology Inc.
2045 Truevision
2172 Video Authoring Systems Group Inc.
2515 Virtual I/O

Virtual Reality

Booth
1336 3D Construction Company
2083 3Name3D
1748 Academic Press
1745 Accom, Inc.
1024 Adaptive Optics Associates
1563 Advanced Media Production Center, CSULB
1231 Advanced Visual Systems Inc.
842 All Effects Company (Performance Capture Systems)
2030 Apple Computer, Inc.
1744 AP Professional
1040 (Art)^n Laboratory
1400 Ascension Technology Corporation
1631 Autodesk, Inc.
2610 BioVision
2400 Bit 3 Computer Corporation
1161 Brainstorm Multimedia
1663 CAD Institute
1655 CADalyst/PC Graphics & Video Magazines
1051 Caligari Corporation
2501 CGSD Corporation
2380 Chromatek Inc.
935 Coryphaeus Software, Inc.
2565 Crystal River Engineering
1039 Cyberware
2619 Depthography Inc.
2018 Digital Equipment Corporation
2563 Dimensional Visions Group, Ltd.
1355 Division, Inc.
2545 DV Magazine
2305 ElectroGIG USA, Inc.
2455 ENEL S.P.A.
1661 Eptron, S.A.
1131 Evans & Sutherland Computer Corporation
1459 FARO Technologies, Inc.
825 Fujitsu Microelectronics, Inc.
2625 General Reality Company
2315 Hewlett-Packard Company
830 High Techsplanations, Inc.
1441 Hyperspeed Technologies, Inc.
1239 IMAGINA-INA
2081 Immersion Corporation
840 Infogrip, Inc.
2280 Integrated Computing Engines, Inc. (ICE)
1965 Lightscape Technologies, Inc.
2341 Microsoft Corporation
1877 Motion Analysis Corporation
1664 MultiGen Inc.
1120 NC/Vision
2075 Network Computing Devices (NCD)
1057 NHK-HDTV Group
1054 Nissho Electronics Corporation (Nelco)
2555 Northern Digital Inc.
2082 NVision, Inc.
1972 Onyx Computing, Inc.
1882 Paradigm Simulation, Inc.
1464 Parity Systems Inc.
1415 Polhemus
2151 Portable Graphics, Inc.
2073 Research Triangle Institute
949 SensAble Devices Inc.
2331 Sense8 Corporation
2004/2005 Silicon Graphics
2541 Silicon Solutions
849 SimGraphics Engineering
1870 Solomon Volumetric Imaging, Inc.
1331 StereoGraphics Corporation
2031 Sun Microsystems
1564 Superscape
2537 Syndesis Corporation
1527 Template Graphics Software Inc.
955 The VALIS Group
1721 Vertigo Technology Inc.
1421 Viewpoint DataLabs International Inc.
2515 Virtual I/O
2402 John Wiley & Sons, Inc.

Visualization Software

Booth
2083 3Name3D
1563 Advanced Media Production Center, CSULB
1231 Advanced Visual Systems Inc.
2019/1221 Alias/Wavefront
2030 Apple Computer, Inc.
1040 (Art)^n Laboratory
1631 Autodesk, Inc.
1255 auto.des.sys, Inc.
1145 Autometric Inc.
2610 BioVision
1655 CADalyst/PC Graphics & Video Magazines
1051 Caligari Corporation
2501 CGSD Corporation
2380 Chromatek Inc.
2221 CIRAD
935 Coryphaeus Software, Inc.
2018 Digital Equipment Corporation
1121 Discreet Logic
2159 EarthWatch Communications
2305 ElectroGIG USA, Inc.

1445 Engineering Animation, Inc.
2616 Fraunhofer Center for Research in Computer Graphics, Inc.
2315 Hewlett-Packard Company
2624 Hewlett-Packard Company
830 High Techsplanations, Inc.
2044 IBM Corporation
1026 International Memory Products of Illinois, Inc.
1965 Lightscape Technologies, Inc.
2341 Microsoft Corporation
1664 MultiGen Inc.
1120 NC/Vision
2075 Network Computing Devices (NCD)
2527 Numerical Algorithms Group, Inc.
1972 Onyx Computing, Inc.
1882 Paradigm Simulation, Inc.
2151 Portable Graphics, Inc.
834 PowerProduction Software
2370 Ray Dream, Inc.
2073 Research Triangle Institute
2378 Schreiber Instruments, Inc.
949 SensAble Devices Inc.
2331 Sense8 Corporation
2445 Side Effects
2541 Silicon Solutions
849 SimGraphics Engineering
1870 Solomon Volumetric Imaging, Inc.
1715 Springer-Verlag
1331 StereoGraphics Corporation
1551 Strata Inc.
1564 Superscape
2537 Syndesis Corporation
1527 Template Graphics Software Inc.
955 The VALIS Group
1721 Vertigo Technology Inc.
1421 Viewpoint DataLabs International Inc.
1545 Visual Numerics
1261 Visual Software
2614 Yonowat Inc.

Workstations

Booth

1563 Advanced Media Production Center, CSULB
2171 Anacapa Micro Products, Inc.
2030 Apple Computer, Inc.
2165 Apunix Computer Services
1040 (Art)^n Laboratory
1364 Balboa Capital Corporation
2400 Bit 3 Computer Corporation
1655 CADalyst/PC Graphics & Video Magazines
2611 DeskStation Technology, Inc.
2018 Digital Equipment Corporation
2079 Digital Semiconductor
1113 Eastman Kodak Company
2225 Genesis Microchip
2315 Hewlett-Packard Company
2044 IBM Corporation
1405 Intergraph Computer Systems
1026 International Memory Products of Illinois, Inc.
1537 Kingston Technology Corporation
2523 Lightwave Communications
1536 Minicomputer Exchange
1345 Mitsubishi Electronics America, Inc.
1120 NC/Vision
1464 Parity Systems Inc.
1875 Pivotal Graphics, Inc.
2155 Quantel, Inc.
2265 Radius, Inc.
2131 Silicon Grail Corporation
2004/2005 Silicon Graphics
2541 Silicon Solutions
1870 Solomon Volumetric Imaging, Inc.
2521 Solsource Computers
2031 Sun Microsystems
2604 Toon Boom Technology Inc.
2564 Western Scientific, Inc.
1413 Winsted Corporation
1262 Wright Line Inc.

Miscellaneous

Booth

3-D
2380 Chromatek Inc.

3D Design & Animation Software
1831 Macromedia

3D Digitizing
2081 Immersion Corporation

3D Graphics Developer's Toolkit
2151 Portable Graphics, Inc.

3D Hardware
1331 StereoGraphics Corporation

3D Imaging
2563 Dimensional Visions Group, Ltd.

3D Modeling
1336 3D Construction Company
2614 Yonowat Inc.

3D Portable Digitizer
1459 FARO Technologies, Inc.

3D Real-Time Graphics
935 Coryphaeus Software, Inc.

Application Development Tools
1545 Visual Numerics

Artist
2525 Bruvel, Gil

Audio Production
838 TimeLine, Inc.

Books
2170 Cambridge University Press

Broadcast, Online
1338 MAGELLAN Geographix

Cartoon Animation
831 Pixibox

Cartoon Software
2604 Toon Boom Technology Inc.

Collision Detection
1873 Dynamic Realities

Computer Peripherals
822 Logitech

Custom Models
2083 3Name3D

CD-ROM Imagery
957 Digital Wisdom Inc.

Data Servers
2627 Maximum Strategy, Inc.

Digital Autostereographic Hardcopy
1040 (Art)^n Laboratory

Digital Disk Recorders
1105 Abekas Video Systems, Inc.

Digital Editing/FX Systems
1121 Discreet Logic

Digital Film Recorders
1816 CELCO
1758 Cymbolic Sciences
1739 Management Graphics, Inc.

Digital Imagery
937 TDC Interactive

Digital Video Disk Recorders
2174 MMS Multi Media Systems GmbH

Digital Video Editing
1031 FAST Electronic U.S., Inc.
1341 in:sync corporation

Digital Video Recording
844 Fast Forward Video

Disk Recorders
1745 Accom, Inc.

Education & Training
1563 Advanced Media Production Center, CSULB
1663 CAD Institute
1362 Cogswell Polytechnical College
2372 ICARI Inc.

Engineering Visualization
1445 Engineering Animation, Inc.

Ergonomic Keyboards
840 Infogrip, Inc.

European Meeting
1239 IMAGINA-INA

Film
2155 Quantel, Inc.

Film Output Devices
1431 Oxberry

Force Feedback
949 SensAble Devices Inc.

Geometric Modeling
1421 Viewpoint DataLabs International Inc.

Industrial/Interactive Contracts
2623 Screen Actors Guild

I/O Performance Enhancement
2084 SEEK Systems Inc.

Laptop Peripherals
1340 Helios Systems/Piiceon

LCD Projection Panels (High Resolution)
1558 Proxima Corporation

Leasing and Financing
1364 Balboa Capital Corporation

Media Autochangers/Software
921 Herstal Automation

Medical Imaging Hardware
2320 Tech-Source Inc.

Memory Upgrades
1437 LegaSys International

Motion Capture Systems
1024 Adaptive Optics Associates
1877 Motion Analysis Corporation
1415 Polhemus

Multimedia Workstations
1413 Winsted Corporation

Non-contact Optical 3D Digitizers
951 Laser InSpeck inc.

Non-linear Editing and Compositing
2054 Chyron Corporation

Optical Disc Products & Services
1883 Optical Disc Corporation

pH and Conductivity Pocket Meters
2553 Hanna Instruments Inc.

Plant Modeling Software
2221 CIRAD

Processor Upgrades
1537 Kingston Technology Corporation

Professional Association
836 Eurographics

Professional Engineering Society
1200 Society of Motion Picture and Television Engineers (SMPTE)

RAID Systems
2281 SWS Corporation/Storagepath

Real-Time Animation Software and Services
1165 Intoons Entertainment Group

Real-Time Software Development Tools
1882 Paradigm Simulation, Inc.

Scalable Parallel Processing
2624 Hewlett-Packard Company

SCSI Accelerators
2174 FWB, Inc.

Signal Processing
1702 Texas Memory Systems, Inc.

Special Effects
1061 Camaleon Graphics Software
1621 Sony Electronics Inc.

State Development
1120 NC/Vision

Supercomputers
2280 Integrated Computing Engines, Inc. (ICE)

Technical Furniture
1262 Wright Line Inc.

Titling Software
1007 Xaos Tools

Training
821 ICARI Inc.
2600 ViaGrafix

Translation Software
2537 Syndesis Corporation

True 3D Displays
1870 Solomon Volumetric Imaging, Inc.

Used Computers
1536 Minicomputer Exchange

Video & CD-ROM Products
1503 Odyssey Productions

Video Compression
1531 Parallax Graphics, Inc.

Video Games
923 Square Company, Ltd.

Video Services/Storage Devices
1164 Storage Concepts, Inc.

Videos (Educational)
1624 A K Peters, Ltd.

Virtual Set Technology
2305 ElectroGIG USA, Inc.

Visual Effects
2131 Silicon Grail Corporation

VRML
1527 Template Graphics Software Inc.

Warping & Special Effects
955 The VALIS Group

Web Site Provider
2173 Mecklermedia

ACM SIGGRAPH

What is ACM SIGGRAPH?
ACM SIGGRAPH is the world's largest professional society for people working in computer graphics and interactive techniques, with members all over the world and in every facet of the computer graphics field. SIGGRAPH is one of over 30 Special Interest Groups of ACM, the First Society in Computing.

SIGGRAPH is dedicated to the advancement of computer graphics through activities that foster the exchange of information among graphics professionals of all kinds. The organization has a long tradition of bringing together a wide range of people – users, researchers, teachers, product developers, artists, designers, and media developers – in an exciting exchange of ideas that benefits our entire community. We are proud of the rich, interdisciplinary nature of SIGGRAPH, and we invite you to become an active part of it.

How can I get involved?
The heart of SIGGRAPH is its active, talented core of volunteers, and we are always looking for new people with new ideas to keep SIGGRAPH vibrant. The opportunities for involvement are as varied as our activities, some of which are described below.

It's easy to find us at SIGGRAPH 95. We're in the SIGGRAPH booth in the South Lobby of the Los Angeles Convention Center. To make it easy to find out how you can become involved in SIGGRAPH, we've organized a session called "How to Be a SIGGRAPH Volunteer." Come by and learn about our activities from senior volunteers. If you can't make it to the meeting, drop by the SIGGRAPH booth and leave your name and areas of interest.

How to be a SIGGRAPH volunteer
Opportunities for SIGGRAPH 97 and for other SIGGRAPH areas:
Tuesday, 8 August, 3 pm to 5 pm
Room 511B, LACC

Why should I join SIGGRAPH?
Being a member of SIGGRAPH demonstrates your involvement in the computer graphics community and your support for SIGGRAPH's goals and activities – activities that support this entire community. The strength of SIGGRAPH's voice in issues relevant to our field is dependent on the strength, activity, and numbers of our membership.

As a SIGGRAPH member, you receive the *Computer Graphics* newsletter, the *Conference Proceedings*, the *Visual Proceedings*, and the Proceedings CD-ROM from the annual conference; the opportunity to include additional conference proceedings in your membership at very substantial discounts; and discounts on other SIGGRAPH publications and conferences.

How do I join SIGGRAPH?
Join SIGGRAPH today at the ACM booth in the South Lobby of the Los Angeles Convention Center, or look for membership information at the online locations noted below.

What does SIGGRAPH do?
Besides sponsoring the annual conference, SIGGRAPH has activities which go on throughout the year and around the world. Many of the committees and groups mentioned below have open meetings during SIGGRAPH 95. Find an area that piques your interest, check the schedule on the next page, and join us.

Education
SIGGRAPH has a very active Education Committee that supports both computer graphics education and the use of computer graphics in education through the activities of its education committee. The committee currently involves over 50 volunteers working on over 20 projects in such areas as curriculum studies, resources for educators, and SIGGRAPH annual conference activities for educators.

Education is the word most often used to describe SIGGRAPH's overall mission. The eduation commmittee welcomes new ideas and new volunteers to help SIGGRAPH fulfill its educational mission. For information, contact Scott Owen, the SIGGRAPH Director for Education.

Publications
SIGGRAPH's Publications Committee is responsible for all of SIGGRAPH's publications in print, CD-ROM, and video. In addition, this committee oversees SIGGRAPH's growing online presence. The committee is made up of people with skills in editing, writing, and producing different media, and is a great place for someone with skills in these areas to help others learn about computer graphics and interactive techniques. For information, contact Stephen Spencer, the SIGGRAPH Director for Publications.

Small Conferences
SIGGRAPH sponsors and co-sponsors about a dozen small conferences each year, such as the Interactive 3-D Graphics Workshop, Computational Geometry, the Parallel Rendering Symposium, User Interface Software Technology, the Volume Visualization Symposium, and the ACM Multimedia Conference. This committee works with the organizers of small SIGGRAPH-sponsored conferences and coordinates relationships with other conferences. For information, contact Chuck Hansen, the SIGGRAPH Small Conference Coordinator.

Professional Chapters
The Professional Chapters of SIGGRAPH (formerly known as SIGGRAPH Local Groups) span the globe and form an international network of like-minded people who work throughout the year to develop, continue, and extend the work and achievements presented at the annual conference in ways that meet the needs of their local communities. Chapters meet regularly to explore a wide variety of program topics.

Each Professional Chapter draws its membership from a particular area or region where there are professionals in education, research, development, industry, art, design, and entertainment who are interested in the advancement of computer graphics, its related technologies, and its applications. Active Professional Chapters are listed in the back of the *Conference Proceedings* and the newsletter. For information, contact Scott Lang, the SIGGRAPH Director for Professional Chapters.

Public Policy
Public policy was identified in the 1995 Long Range Planning Report, SIGGRAPH: the 21st Century, as an area in which SIGGRAPH should become more active. SIGGRAPH's Public Policy Task Force is looking both at the use of computer graphics in setting public policy and at public policy that affects the advancement of computer graphics. For information, contact Judith R. Brown, who is coordinating the work of the task force.

Online
The Long Range Planning Report also emphasized the need for SIGGRAPH to become more involved in online communication and publication activities. SIGGRAPH's Online Task Force is working with the annual conference and with SIGGRAPH publications to expand our activities in this area. For information, contact Bob Judd or Bonnie Mitchell, the leaders of this task force.

Art and Design Forum
The Art and Design Forum is an online group that discusses issues related to SIGGRAPH and the arts and design. This forum ensures that SIGGRAPH hears the concerns of this part of the computer graphics community. For more information, contact Bonnie Mitchell, SIGGRAPH Director at Large, who is moderating this forum.

Want to get involved in SIGGRAPH?
Most SIGGRAPH committees and task forces are meeting in Los Angeles this week. Find a group that piques your interest and join us. If you don't find a meeting of the group that interests you, or if you are unable to attend the meeting of this group, come by the SIGGRAPH Booth in the South Lobby and leave a message for the appropriate person.

Business meetings
Contact: Steve Cunningham

ACM SIGGRAPH Annual Business Meeting
Thursday, 10 August
5:30 pm - 7 pm
Room 151, LACC

ACM SIGGRAPH Executive Committee Meeting
Saturday, 12 August
9 am - 4:30 pm
Westin Bonaventure Hotel: San Bernardino Room

Other committee meetings at the conference
How to Be a SIGGRAPH Volunteer
Tuesday, 8 August
3 pm - 5 pm
Room 511B, LACC
Contact: Steve Cunningham or Scott Owen

Education Committee – General Meeting
Wednesday, 9 August
2 pm - 3 pm
Westin Bonaventure Hotel: Santa Anita Room C
Contact: Scott Owen

Education Committee Curriculum Subcommittees:
Arts Curriculum
Wednesday, 9 August
3 pm - 4 pm
Westin Bonaventure Hotel: Palos Verdes Room
Contact: Barbara Mones-Hattal

K-12 Curriculum
Wednesday, 9 August
3 pm - 4 pm
Westin Bonaventure Hotel: San Fernando Room
Contact: Judy Sachter

Computer Science Curriculum
Wednesday, 9 August
3 pm - 4 pm
Westin Bonaventure Hotel: Los Cerritos Room
Contact: Maria Larrondo-Petrie

Public Policy Task Force
Wednesday, 9 August
4 pm - 5:30 pm
Room 508A, LACC
Contact: Judith R. Brown

Small Conferences
Wednesday, 9 August
Noon - 1 pm
Room 511A, LACC
Contact: Chuck Hansen

How to contact us
SIGGRAPH makes extensive use of email in conducting day-to-day business, and most of the contact people listed above can be reached by sending email to them at lastname@siggraph.org. To differentiate between SIGGRAPH has several volunteers who have the same last name (for example, Judith R. Brown and Maxine Brown), simply add the first initial to the last name. For example: jbrown@siggraph.org.

Those contact people who are mentioned above as Director are also members of the SIGGRAPH Executive Committee. You can find telephone numbers for these individuals on the inside cover of the annual *Conference Proceedings* or any issue of the *Computer Graphics* newsletter.

Exhibition Floor Plan

"Get some crawfish,
jambalaya,
red beans,
and fine pralines.
Get some lovin' that
goin' satisfy.
All in New Orleans."

DR. JOHN

"C'mon and realize
and digitize
with the latest
graphics tricks.
Let's all get down
and visualize
at SIGGRAPH 96."

SAMURAI JOHN

SIGGRAPH 96 Conference Management
Smith, Bucklin & Associates, Inc.
401 North Michigan Avenue
Chicago, Illinois 60611 USA
+1.312.321.6830
+1.312.321.6876 fax
siggraph96@siggraph.org

SIGGRAPH 96 Exhibition Management
Hall-Erickson, Inc.
150 Burlington Avenue
Clarendon Hills, Illinois 60514 USA
+1.708.850.7779
+1.708.850.7843 fax
halleric@siggraph.org

Applications
How digital technologies solve problems and exploit opportunities in engineering, business, science, medicine, education, and the arts.

Digital Bayou
The hottest, coolest, most provocative, and most entertaining interactive systems, 3D worlds, online graphical societies, and networked environments.

The Bridge: SIGGRAPH 96 Art Show
Computer-enhanced 2D and 3D works, interactive installations, and performances in a collaborative exhibit presented by SIGGRAPH 96 and the New Orleans Contemporary Art Center.

Artist/Designer Sketches
Works in progress, creative experiments, performance pieces, and digital approaches to new aesthetic issues.

Computer Animation Festival
The world's most accomplished digital artists present the year's best computer-generated animations, video, and film.

Animator Sketches
Obscure and/or unfinished works, creative problems and possible solutions, out-takes and bloopers, and visionary manifestos on the future of computer animation.

Educators Program
How computer graphics and interactive techniques are used and taught at all educational levels, from pre-school through post-graduate training.

The Exhibition
Over 300 exhibitors displaying, explaining, and demonstrating every significant product and service in the computer graphics industry.

Ping Amranand

"The music keeps drawing me back. It's a dangerously seductive city."
Bob Sacha, freelance photographer, New York

Ron Calamia

New Orleans

Where the mighty currents of a world-class river join the turbulent waters of a tropical sea.

"You can't eat anyplace else."
Ross Hennessey, firefighter, New Orleans

Ping Amranand

"The city of my dreams."
Paul Simon

14 February 1996
Final submissions:
Digital Bayou
The Bridge: SIGGRAPH 96 Art Show

13 March 1996
Student Volunteer applications
Pioneer Grant applications

5 April 1996
Artist/Designer Sketches submissions

12 April 1996
Animator Sketches submissions

19 April 1996
Applications submissions
Technical Sketches and Posters submissions

24 April 1996
Computer Animation Festival submissions

SIGGRAPH 96

23rd International Conference on Computer Graphics and Interactive Techniques

Conference
4-9 August 1996

Exhibition
6-8 August 1996

Ernest N. Morial Convention Center
New Orleans, Louisiana USA

The next generation

of digital graphics, scientific visualization, computer animation, human-machine collaboration, and advanced theoretical exploration.

Papers
The annual international forum for intellectual achievement at the leading edge of computer graphics.

Panels
Presentations, debate, and audience questions on the past, present, and future of computer graphics technologies.

Courses
Lectures, demonstrations, and seminars on every aspect of the field, from basic principles to multi-dimensional mathematics.

Technical Sketches and Posters
Works in progress, modest results, fresh ideas, interesting questions, and blue-sky speculations that just might define the next wave of research.

It's Your Conference

Prepare a proposal. Write a paper. Refine your best applications, images, and animations. Observe the submission deadlines and requirements.

SIGGRAPH 96 is looking for the best work in the world, especially from contributors who have not participated in a SIGGRAPH conference before.

If your work is accepted, the international computer graphics community will be celebrating your achievements next summer in New Orleans.

Call for Participation
http://www.siggraph.org/conferences/siggraph96/cfp/

Submission Timeline

4 October 1995
Early proposals for Panels, Courses, Technical Sketches and Posters, Applications, Digital Bayou, The Bridge: SIGGRAPH 96 Art Show, Artist/Designer Sketches, Animator Sketches

13 December 1995
Final course submissions

10 January 1996
Papers from North America
Panel submissions from North America

12 January 1996
Papers from outside North America
Panel submissions from outside North America

SIGGRAPH 96 Committee

CHAIR
John Fujii
Hewlett-Packard Company

CONFERENCE COORDINATOR
Molly Morgan

ASSISTANT CONFERENCE COORDINATOR
Robin Myran

ACCOUNTING
Smith, Bucklin & Associates, Inc.

APPLICATIONS
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Louisiana State University

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AVW Audio Visual, Inc.

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Savannah College of Art and Design

COMPUTER ANIMATION FESTIVAL
Linda Branagan
NCD Software, Inc.

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COPY COORDINATION
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Fujitsu Cultural Technologies

Brian Blau
Autodesk, Inc.

ELECTRONIC SUPPORT
David Spoelstra
MediaMachine

EXHIBITION MANAGEMENT
Hall-Erickson, Inc.

EXHIBITS
Tom Appolloni
U.S. Air Force Academy

GRAPHIC DESIGN/EDITING
Quorum Incorporated

INTERNATIONAL
Carolina Cruz-Neira
Iowa State University

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NETWORKING/TELECONFERENCING
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ONLINE PUBLICATIONS AND PROMOTION
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Simon Fraser University

ORGANIZATION DEVELOPMENT
Raoul Buron
Center for Creative Leadership

PANELS
Theresa-Marie Rhyne
Martin Marietta Technical Services
U.S. EPA Scientific Visualization Center

PAPERS
Holly Rushmeier
NIST

REGISTRATION
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SKETCHES
Ken Musgrave
The George Washington University

SIGGRAPH 95 CO-CHAIRS
Brian Herzog
Sun Microsystems Computer Company

Peter Meechan
Alias/Wavefront

SIGGRAPH 95 CONFERENCE COORDINATOR
Betsy Johnsmiller

SIGGRAPH 97 CHAIR
G. Scott Owen
Georgia State University

SERVICE CONTRACTOR
GES Exposition Services

SIGGRAPH DIRECTOR FOR CONFERENCES
Adele Newton
Newton Associates

SIGGRAPH DIRECTOR FOR PUBLICATIONS
Stephen Spencer
The Ohio State University

STUDENT VOLUNTEERS
Hank Driskill
Digital Domain

TRAVEL AGENT
ATI Travel Management, Inc.

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Sun Microsystems Computer Company
PETER MEECHAN
Alias/Wavefront

Conference Coordinator
BETSY JOHNSMILLER

Assistant Conference Coordinator
ROBIN MYRAN

Accounting
Smith, Bucklin & Associates, Inc.

Art Gallery Chair
KEN O'CONNELL
University of Oregon

Audio/Visual Support
AVW Audio Visual, Inc.

Computer Animation Festival/ Electronic Theatre Co-Chairs
JOAN COLLINS
Independent Producer
FRANK FOSTER
Sony Pictures Imageworks

Computer Systems Chair
TOM HUTTON
San Diego Supercomputer Center

Conference Management
Smith, Bucklin & Associates, Inc.

Copy Coordination
Smith, Bucklin & Associates, Inc.

Courses Chair
WAYNE CARLSON
The Ohio State University

Electronic Media Chair
JAMIE THOMPSON
Tivoli Systems, Inc.

Exhibition Management
Hall-Erickson, Inc.

Exhibits Development Chair
JOHN DILL
Simon Fraser University

Graphic Design/Editing
Quorum Incorporated

Interactive Communities Co-Chairs
COCO CONN
Digital Circus Productions
ANDY GOODRICH
Parallax Graphics
ROB HENNIGAR
Art Center College of Design

Interactive Entertainment Chair
ISAAC VICTOR KERLOW
Pratt Institute

International Chair
MIDORI KITAGAWA DE LEON
The Ohio State University

Marketing Chair
CAROLYN WILLIAMS
Williams/Keeler

Networking Chair
MARKE CLINGER
FORE Systems, Inc.

Organizational Development Consultant
RAOUL BURON
Center for Creative Leadership

Panels Chair
LEO HOURVITZ
Pixar

Papers Chair
ROB COOK
Light Source, Inc.

Public Relations/Marketing
Hi-Tech Communications

Service Contractor
GES Exposition Services

Director for Conferences
ADELE NEWTON
Newton Associates

SIGGRAPH 94 Conference Chair
DINO SCHWEITZER
Capstone Management Group

SIGGRAPH 94 Conference Coordinator
PATTI HARRISON

SIGGRAPH 96 Conference Chair
JOHN FUJII
Hewlett-Packard Company

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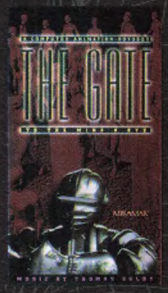

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