L.A. SIGGRAPH

Los Angeles ACM / Special Interest Group on Computer GRAPHics

NOVEMBER
1984

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MEETING NOTICES
Peter Sørensen at Cal Tech

The November 13th meeting will be held at the California Institute of Technology's Baxter Lecture Hall, where the guest speaker will be **Peter Sørensen** of Second Genesis, Hollywood. Peter's presentation is entitled **"History of Computer Animation."** His talk will trace the evolution of computer graphics and imaging techniques from Sketch Pad to the likes of Cranston-Csuri. The presentation will include a demonstration on the Vectrix system, and video tapes showing the classics to the latest releases.

Peter is a freelance author of such articles as "FRACTALS, Exploring the Rough Edges between Dimensions", (Byte, September '84), and the forthcoming book Merlin's Camera (Scott Foreman & Co). He is also a computer graphics consultant who has designed and directed special effects for film and video.

A social hour will begin at 6:30 pm, and the program at 7:30 pm. There will be a $1 fee for members, and a $3 fee for non-members, payable at the door. Please bring the exact amount as we have a hard time making change for lots of $20 bills.

Caltech is located at 1201 East California Boulevard in Pasadena. Take the Hill Avenue exit south to Del Mar Boulevard if you are coming on the 210 Freeway. If you are coming up on the Pasadena Freeway, stay with it as it becomes Arroyo Parkway and go about a mile to Del Mar Boulevard where you should make a right. Caltech is about 2 miles further. The best parking lot to use is directly south of the intersection of Del Mar and Chester Avenue. Use the **south** entrance of the Baxter Hall of Humanities which is located on the east side of the lawn that is directly south of Beckman Auditorium (that big, white, round building). SEE MAP. Baxter Lecture Hall is at the top of the flight of stairs you will find just inside the entrance.

LA SIGGRAPH would like to thank Drs. Jim Kajiya and Al Barr of Caltech's Computer Science Department for making possible the use of this facility. Every other meeting, starting with this month and continuing thru 1985, will now be held in Caltech's Baxter Lecture Hall. They will occur as usual on the **second Tuesday of the month.** For the other months we will continue with our format of visiting vendor sites (with a few Special Events possibly sprinkled here and there).

ANNOUNCEMENTS

February at "The Palace"

On this past November 1st, Joan Collins hosted at Laser Media a preliminary planning session for our showcase meeting at "The Palace" in Hollywood. This event is scheduled for February 12, 1985. It is suggested that we will be co-hosts and producers with the Visual Music Alliance and the Independant Composers Association. Lasermedia will provide "The Palace" facility and laser equipment and technology. Tickets are proposed to be in the $8.50 - $10.00 range.

The purpose of this first meeting was to generate a feeling of direction and to explore the resources which will be brought to this endeavor. Some highlights: media discussed included chromatic music display, live dance and dance with real-time computer animated chroma-key display. Other performances could include contemporary state-of-the-art experimental music, live interative video, live as well as recorded computer video animation, and of course, lasers.

Should be quite an exhibit! We have drawn a number of volunteers from the creative fields mentioned above as well as film, video, and laserdisk production. Students, artists and engineers round out the group (hope I didn't leave anyone out).

Another meeting will be held November 8th, at Lasermedia. Information can be obtained from Joan Collins at (213) 820-3750. More help is always needed. Similar shows I produced for the Long Beach Grand Prix required a committee of 65-80 people. So, let's get out and support this meeting. Call Joan, she is assembling a list of personnel resources. Help will be appreciated, I am sure. You don't need to be an artist, you just need enthusiasm.

-- Randy Randall

More On "The Creative Computer"

"Remember the tantalizing item in the September LA SIGGRAPH Newsletter soliciting artists to demonstrate computer graphics systems at the California Museum of Science and Industry? Here's the latest update," reports Nancy Collier, our breathless reporter and resident social butterfly. The greatest need at this point is equipment. The only hardware available for demonstration is one AVL business graphics system. Dr. Jay Rounds, (213) 744-7403, needs more art oriented graphics systems before the "Creative Computer Classroom" can open successfully. Anyone who has a lead, or can supply equipment should call Dr. Rounds ASAP.

After equipment is in place, artist/teachers will be encouraged to provide a learning experience for students who attend the exhibit. Nancy says that "in exchange for this effort, participants will receive extensive hands-on equipment time and even a small honorarium. Organizers, runners, and other helpful folks should call Dr. Rounds for more information."

Sigsynopsis

An exercise in thought and analysis awaits participants of the **Greg Passmore Study Group**, which meets the second Thursday of each month at 24233 Hawthorne Blvd, Suite E, Torrance, California, 90505.

Interested potential members should call Greg at (213) 373-9651.

The group was formed to present synopses and discuss material published about computer graphics. Each month, participants present outlines of two articles they have read. A short discussion of the topic follows. All present receive copies of the material presented. Over a period of time, a valuable reference file can be generated. "I want to create an intense environment, where thoughts on computer graphics are amplified," explains Greg. "We share information to get more done; it's a classic paper chase."

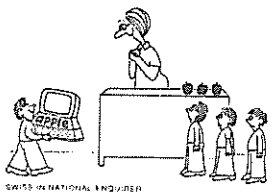
Members of the group enjoy many benefits. The organization of thoughts, sharpening of analytical skills, and improved oratory communication are personal gains from the experience of delineating material for other members of the group. This exchange experience offers an important divergence from the large gatherings offered at a general membership meeting. The study group can expound and explore a specific topic in much greater detail. For this reason, those who are interested and wish to attend should be dedicated. Their contributions are an important resource for all members of the **Greg Passmore Study Group.**

-- Nancy Collier

Science and Art Festival

The California Museum of Science and Industry, in Exposition Park, announces a **Spring Science and Art Festival**, from March 25 through April 13, 1985. The festival will offer programming for both middle and high school audiences with some evening events especially for adults. Exhibits, lectures, workshops, and performances will explore the meeting ground between art and science.

It is hoped that computer graphics exhibitions and hands-on workshops will be included. People who are interested in the educational aspects of computer graphics, and would like to submit a proposal for a workshop to be offered to children, should contact Philip Himberg at (213) 666-3554.



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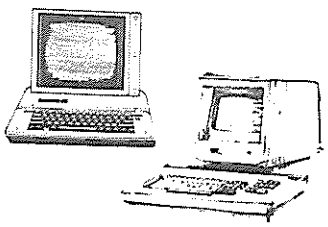
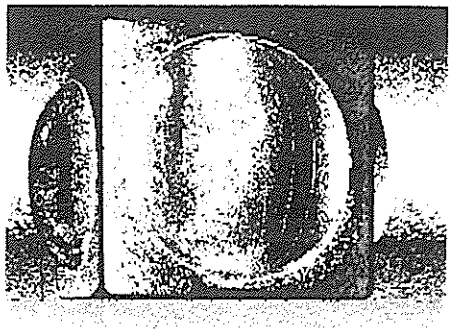


* **CONTRIBUTIONS TO NEWSLETTER:** We invite **all members to contribute** synopsis of magazine articles, event reviews or original material. We also encourage your comments about articles in the **L.A. SIGGRAPH.** You may have a follow-up opinion or be an expert in the field we are describing. **Can we talk?** If you don't have the time to write, give a call or send just a note suggesting an article, forum or subject that you think would be of interest to our members. Material may be submitted by mail, modem or we can "just talk." Remember, it's your newsletter! **Please contribute no later than the 3rd Monday of the month. Submit to RANDY RANDALL 320 Wilshire Blvd., Suite #3-B, Santa Monica, CA, (213) 394-7408 or call ERNIE SASAKI at (818) 577-2643.**

* **NEWSLETTER SPONSOR:** In order to provide a larger, informative newsletter, we are seeking sponsors for each issue. If you, your company or an organization you know would benifit from **exposure to SIGGRAPH members,** get in touch. This box will provide recognition for contributors in future issues.

THE MAGIC MINDSET



An upcoming meeting will feature the Mindset Personal Computer System. This new entry in the overcrowded "IBM-PC clone" field deserves our special interest because of the company's commitment to the goal of providing most of the graphics power of a CAD/CAM system for a personal computer price. Mindset's approach was to adapt CAD/CAM technology by using VLSI (very-large-scale-integration) chips. Mindset employees from companies such as Intel, Atari, and Zilog, worked with VLSI Technology, Inc. to develop two custom VLSI chips. One is for pixel-aligned graphics. The Mindset also features powerful custom graphics software to take advantage of this chip's capabilities. The other VLSI chip controls the display. This chip, along with a 32K double-buffer video display memory, allows the Mindset to produce rapid animation and interlaced video.

What does all of this mean? The graphics coprocessor chip takes the place of about 300 MSI (medium-scale-integration) chips. Its main function is **bitblt operations**, the bit-aligned block transfers of areas within the video-display memory. This allows the screen to be updated quickly, regardless of byte or word boundaries. Most personal computers have to do this using much slower routines in software. In the Mindset, this function occurs in the custom hardware, without tying up the main microprocessor.

In addition, the BIOS routines in the Mindset are a superset of the IBM-PC BIOS routines. That is they contain the calls of the IBM system, plus certain enhancements. For instance, there are graphics primitives to fill a rectangular region with a 16 bit pattern or draw a series of hollow or filled ellipses, circles or arcs. A number of these routines are made more powerful by the ability to specify repetition information. Given this capability a number of line segments could be drawn with one call.

After the display memory has been updated in a rapid fashion, Mindset offfers three forms of output to a monitor: Rf-modulated (for TVs with tuners), RGB and composite video. The composite output has several modes, some of which are interlaced video. This means that an artist can send artwork developed on, or adapted to, the Mindset directly to a video recorder for faithful reproduction. The machine also features genlock capability, which allows the Mindset to synchronize with another video source. Graphics can be fed to a TV switcher to be mixed with a live camera or prerecorded material. The output of the Mindset, however, is not of broadcast quality although it is satisfactory for industrial films. Conversely, areas of screen memory, which have been assigned a pre-selected value may display an incoming signal from an external source. This allows the mixing of graphics and video photography on the monitor.

Mindset has used VLSI technoloy to produce a powerful graphics tool at an affordable price; configurations are available from under $2000. To quote Gregg Williams, **Byte** Senior Technical Editor, "If Apple had put this product out (and done it as well as it did the Macintosh), this computer would have become the next Apple II and dominated the under-$5000 market." Those readers who would like a more in-depth review of the Mindset should refer to Mr. Williams' excellent article in the April 1984 issue of **Byte.**

If you have questions about the Mindset, forward them to me as soon as possible: Randy Randall, 320 Wilshire Blvd, Suite B-3, Santa Monica, CA 90401, (213) 394-7408. By modem, my ID on CompuServe is 72446.1151 and AAF914 on The Source. I will try to give our guests a chance to prepare a proper response to your questions. The following are questions already submitted:

1. The Mindset has a "closed architecture." What type of upgrades are anticipated?
2. In particular, what about a hard disk?
3. What user interface materials are available.
4. What is the extent of the BIOS enhancements.
5. What software is available to take advantage of the Mindset's graphic features. What new updates are coming?
6. What hardware and software aids are available for use in video production?

Editor's note: I will be trying, in future issues, to give our members an opportunity to participate more directly in the information we are provided by our guest speakers. Your questions and comments will benefit you, our guests, and all of the membership. So speak up!

SIGFUTURE

The above title doesn't really have anything to do with what follows. It's late and I needed something, so there it is. These are "Just Some Notes From the Secretary":

You may have noticed that the newsletter is arriving in your mailboxes quite close to the time of the meeting. Normally we try to get it to you one week before the monthly meeting, but recently that one week has slipped to only a few days. I apologize for this but must ask for your help if the situation is to improve. We need a few literate members to help with the editing and production tasks. A couple of selfless individuals willing to devote long hours to typing, phoning, and tracking down articles would be ideal, but I imagine Randy and myself would settle for a little less. Please call or talk to us at the next meeting. And as always we are looking for authors and sponsors.

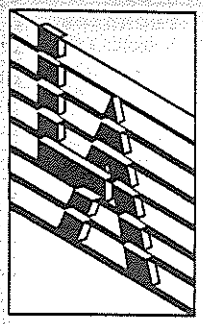
I know that some of you have been concerned about the speed with which changes to the membership list have been processed lately. The reason for the delay is that local ACM has recently installed a new set of officers, and also converted their mailing list system over to a microcomputer. While this was going on, there was a slight lag in updating our list. It now looks like the conversion process is complete and I expect that renewals, address changes, and new membership applications will now be handled in a timely manner.

-- Ernie Sasaki

Computer Videos

That right folks, computer graphics is going to join Michael Jackson and Prince on the cable video scene. Information is sketchy as this point, but a February introduction is planned for a local, 24 hour computer oriented cable television network feed. Founded by the same company which now operates the Financial News Network, this new enterprise is called the **"Discovery Computer Network."** A 1/2 hour daily computer graphics feature is planned, and we are informed by Ed Arroyo, our resident graphics producer, that he is in negotiation with the producers regarding participation in this series. The participation of other SIGGRAPH members may be encouraged in the future. We will certainly keep an eye out for any further developments.

-- Randy Randall



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Los Angeles Association for Computing Machinery

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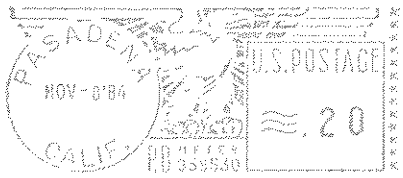

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exp. date 01/85

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