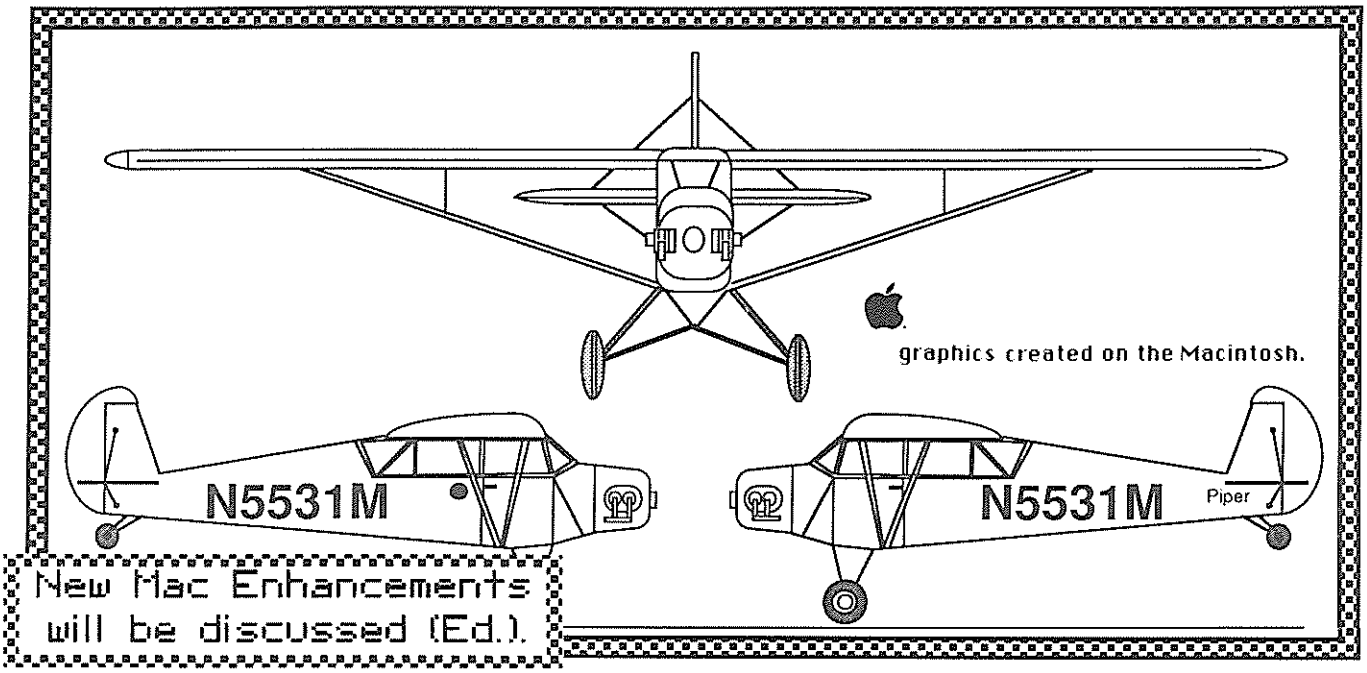
L.A. SIGGRAPH

Los Angeles ACM / Special Interest Group on Computer GRAPHics
P. O. Box 90698, World Way Postal Center, Los Angeles, CA 90009

JUNE 11th MEETING: APPLE COMPUTER CORP.



*** TO ASSURE SEATING, PLEASE TRY TO ARRIVE BY 7PM. YOU MAY RSVP BY CALLING (213) 665-3835. ***

On JUNE 11, 1985 we will return to UCLA, Moore Hall, Room 100 for a program featuring Apple Computer Corp. UCLA is just east of the San Diego Freeway, between Wilshire Blvd. and Sunset Blvd. SEE THE MAP ON THE LAST PAGE.

A social hour will begin at 6:30 pm, and the program starts at 7:30 pm. There will be a $1.00 fee for members, and $3.00 for non-members, payable at the door. Please bring correct change as we have a hard time making change for large bills.

We will have Richard Iredale, a Senior Sales Representative from Apple Computer, presenting the LaserWriter printer with MacDraw software running on a 512k Macintosh. The Apple LaserWriter is the latest in a generation of inexpensive laser marking engines. Combining a remarkably low per-workstation cost with a relatively high resolution of 300 dots per inch, the LaserWriter promises to revolutionize many aspects of the graphics industry. A single LaserWriter printer on the "AppleTalk" network allows it to be shared with as many as 31 Macintosh workstations. File servers, print spoolers, and gateways for the AppleTalk network have been announced for delivery beginning this summer.

The Macintosh has now been on the market for just over a year, and has made a major impact on the microcomputer industry with the "Quickdraw" graphics routines and mouse. More than 500 programs are now commercially available for the Macintosh, and most take advantage of the computer's strong graphics interface in order to minimize learning time and maximize productivity.

Perhaps the most interesting new application package for the Macintosh is "Macdraw," a general purpose drafting system. Documents up to a maximum size of 48" x 96" may be prepared with a drawing accuracy of .01" and printed (in sections) on the LaserWriter printer. Simple shapes (lines, arcs, squares) are used to create more complex forms, which in turn may be used to create elaborate drawings.

Richard Iredale has been with Apple for 3 years, serving in a sales capacity in both the National Account and University channels. He is a graduate of MIT (Electrical Engineering) and the MBA program at USC.

ANNOUNCEMENTS

* ELECTION REMINDER *

L.A. SIGGRAPH elections are underway! Every Voting Member should have received a ballot in the mail. Members may either vote by mail, according to the instructions in the mailing, or by bringing their ballot to the June Meeting. ERNIE SASAKI.

* NEXT EXECUTIVE COUNCIL MEETING, JUNE 22 *

Contact MOLLY MORGAN at (213) 320-5700 if you have something you wish to bring to the attention of the board, and would like to attend.

*** NO LOCAL CHAPTER MEETING IN JULY ***
*** NEXT LOCAL CHAPTER MEETING, AUGUST 13 ***

For our August meeting, at UCLA, our program will feature Evans and Sutherland.

* HOW TO SELECT A CAD/CAM SYSTEM *

Information on CAD/CAM systems will be presented by Bob Young in a program at the June 6th meeting of the NCGA, (National Computer Graphics Association. Bob will speak on "How To Select a CAD/CAM System." Bob has a related article in this issue. The NCGA meeting will be held at Loyola Marymount University, Pereira Hall, Engineering Bldg., Room 31. Social hour is at 6:30 pm, program at 7:30 pm. The fee is $2.00 for NCGA members and $4.00 for non-members. Contact RICHARD PFERDNER, (818) 3463410, X280 for more information.

* COMPUTER GRAPHICS SEMINARS *

Information Age Computer Graphics presents seminars dealing with computerized presentation graphics systems. These programs are usually held at a system user's facility so you get first hand installation experience, not just a vendor's sales pitch. The summer schedule includes: June 18, L.A., June 20, Orange County, July 9, Long Beach and July 11, Orange County. For information contact RANDY HARABIN, Information Age Computer Graphics, P.O. Box 84513, Los Angeles, CA 90073, (213) 826-4336.

* L.A. PROFESSIONAL VIDEO SHOW, REVIEW *

The L.A. Professional Video Show, held May 20-23 in Long Beach, offered an overview of current video technology for broadcast & industrial markets. SIGGRAPH was represented by Louise Etra ('85 Art Chair), Ed Kramer (Chair of 2 LA Video seminars), Joan Collins & Randy Randall. Louise showed SIGGRAPH tape which was presented at the recent conference in Japan and Ed showed "Dance Jam," from the Feb. event "On The Threshold," as well as his own tape demonstrating analog graphics techniques. A major CG development was the demonstration of Sony, Maciintosh and Mindset systems with frame grabber capabilities, capturing an incoming NTSC video signal and converting it to a data file for display or hard copy output. The Sony demo was VERY good, equal to the print quality from

* WHITNEY DEMOS WIN ACADEMY AWARD *

John Whitney, Jr. President, and Gary Demos, Executive Vice President, founders of Digital Productions, Los Angeles, won a Scientific and Engineering Award from the Academy of Motion Picture Arts and Sciences as part of the 57th Annual Academy Awards. An Academy plaque was presented for achieving "practical simulation of motion picture photography by means of computer-generated images."

Digital is also current holder of the advertising industry's most coveted award, the Clio, for Best Computer Animation.

Last month, D. P. announced its introduction of a broad range of graphics and super-computing services for the scientific, engineering and manufacturing communities. The company will market its technologies through 4 services: graphics, software licenses, consultation and Cray X-MP super-computer time sales, offering for license Digital's proprietary DP3D™ code, heart of the Digital Scene Simulation℠ process.

* BOSCH FGS 4000 TRAINING *

Courses are now forming in Salt Lake City to learn computer graphics on the Bosch FGS 4000 system. Send $20.00 for a sample video cassette and course outline to: Al Jensen, Robert Bosch Corp., PO Box 31816, Salt Lake City, Utah 84131.

L.A. SIGGRAPH NEWSLETTER, JUNE 1985

LOS ANGELES ACM
Special Interest Group on Computer **GRAPH**ics

Inquiries about **newsletter** articles or info may be sent to Editor, **RANDY RANDALL**, 9703 Washington Blvd, Culver City, CA 90232 (213) 665-3835.

Questions regarding **membership, voting** or **mail** changes and additions should be directed to the Secretary, **ERNIE SASAKI** at (818) 577-2643.

For information about **monthly meetings**, contact the Chairman, **MOLLY MORGAN** at (213) 320-5700.

For **SIGGRAPH '85 information**, contact **MOLLY MORGAN** or **ACM SIGGRAPH '85**, Conference Services Office, 111 East Wacker Drive #600, Chicago, IL 60601; (312) 644-6610.

* * * LISP ON THE MAC * * *

ExperTelligence has announced a complete implementation of the LISP programming language for the Apple Macintosh. Features of LISP dialects usually available only on much larger machines are included. ExperLisp provides access to the Macintosh "Tool Box," compiles directly to MC68000 machine code and has extensive graphics capabilities including 3-D and spherical. The 250 graphics primitives resemble turtle graphics, but are faster than LOGO.

A Mac 512K and a second disk drive is required. For more info contact Jim Giles at ExperTelligence, 559 San Ysidro Road, Santa Barbara, CA 93108; (805) 969-7874. RANDY RANDALL.

* * * GEM UPDATE * * *

Digital Research will be having a seminar on the GEM (Graphics Environment Manager) Programmer's Toolkit in L.A., near LAX, June 13-14th. Software developers or OEM's can call (213) 410-0410 for details. The latest word is that shipment of the Toolkit should have started at the end of May. Microsoft's long awaited Windows, a similar product, is now expected sometime this June. ERNIE SASAKI.

IMPLEMENTATION OF OF A C.G. SYSTEM .

The purpose of this article is to describe the process of introducing computer graphics into an organization. The process is one largely of education by the potential users: what do I need, what is available and what is the best cost-performance match between these two concepts. The process has three phases: the feasibility study, system selection, and implementation.

Phase I, Feasibility Study: The feasibility study defines the project in macro terms. It is a short, two day to two week analysis, which defines for the buyer the cost, the time involved and the major benefits. At this point, the potential buyer can determine if the project is worthwhile, and stop the project if the payback is not satisfactory before he has made a long term investment.

Phase II, System Selection: This phase starts by defining the requirements. What types of models and drawings, how large, how detailed, how many, how quickly, is color required and how about surfacing and shading? The answers determine the characteristics of the workstations, the peripherals and the computing power required.

Often system demonstrations are an effective method for the buyer to see and visualize for his/her firm those characteristics which are required, and those which would be useful but not required. The result of this process is an initial system design.

Next is the system specification. By writing a specificaton document the buyer is forced to organize his thoughts, and obtain agreement within the organization as to the purpose and use of the system. Without this document, opinions will differ as to the purpose of the system and its eventual success as seen by different groups within the buyer's company. It also provides a clear understanding for the vendor as to what must be delivered before payment is made.

The financial justification can be prepared simultaneously with the specification. It will take the proposed uses and indicate what their cost/benefits will be. It also forces manage- pare for them or postpone the project. The cost of the project over five years will be approximately five times the initial cost of the system. Once preliminary funding approval has been received, the specification can be sent to vendors as an RFP (Request For Proposal).

As the vendors are writing their proposals, the buyer should plan his facility. Lighting, air-conditioning, humidity control, noise, proximity to the users and door widths are among the facility considerations.

Proposals may take several weeks to prepare. During this time the vendors will want the buyer to see their systems, and they may want to visit the buyer's facility to understand his anticipated usage. This allows them to develop a rapport with the buyer, and configure their proposed system to best meet the buyer's needs. Frequently buyers are not able to specify their needs precisely enough for the vendors to optimize their proposed configuration to meet the long term requirements.

When the proposals are recieved, they must be analyzed to determine what needs are being satisfied, and which ones are not with the proposed configuration. The person reviewing the proposals must also be aware of the excess capabilities in some equipment/systems to determine what will not be useful, and also what other capabilities are inherent in what is being offered. Price is always a consideration. Occasionally less costly equipment can be substituted with little degradation in system performance. Occasionally upgrading an individual piece of hardware will enhance system performance to a much greater extent than the cost of the upgrade.

Understanding software as well as hardware is important in system evaluation. One without the other is useless. One may limit the other. And while software is more easily changed, and hence more easily modified to meet the requirements, it has become more costly than hardware. Benchmarking the system proves the system capabilities. It also gives the buyer a comparison between systems, and provides probably the best example to date of how the system can function doing his work. Vendors may also be more conservative in their claims during the proposal cycle if they know that the buyer is going to benchmark their system prior to purchase. The benchmark itself must closely match the typical work for which the system is being

* * GOOD NEWS FOR COMPUTER SPECIALISTS * *

ONLINE TODAY (Nov 1985) reports that a shortage of qualified computer specialists (systems analysts and programmers) is expected to develop by 1987, according to a report recently released by the National Science Foundation.
The report notes that the projected shortage of qualified computer workers will range from 15 to 30 percent of the available supply, or from 115,000 to 140,000 workers, by 1987. The study also predicts that there will be a shortage of adequately trained support personnel, including engineering technicians.

The study says that a serious worker shortage exists when industry demand exceeds supply of new graduates in the field by at least 5 percent. It also notes that these shortages may eventually be filled by persons from other fields, resulting in a possible problem in maintaining the quality of the nation's computer workforce.
Copies of the report, entitled "Projected Response of the Science, Engineering and Technical Labor Market to Defense and Non-Defense Needs: 1982-87," are available from the Division of Science Resources Studies, National Science Foundation, 1800 G St., NW, Washington, DC 20550; (202) 634-4622.

IMPLEMENTATION cont.

circuit boards, then a typical board should be used; if for mechanical, then a typical part used, etc. The benchmark, however, should not attempt to exercise every facet of every capability. That would be too time-consuming. All the systems must be honed, once installed, to optimize their capabilities to meet the requirements.

Benchmarking allows the buyer to determine which one will best meet his requirements, and therefore eliminate those with limited capabilities which cost as much or more than others. It also aids in determining the exact configuration needed, both of software and hardware.

Final configuration, negotiation of terms and conditions, and final pricing follow. The buyer must be able to commit to a purchase order when he goes into these final negotiation sessions.

Phase III, Implementation: The implementation phase commences by issuing the purchase order. Prior to that time, the buyer could stop the project with little financial exposure. However, once a PO has been issued, significant dollars have been committed. The probable delivery date has also been established, and the buyer must then prepare for implementation.

Developing the facility and preparing the operators are the two main activities. Once the vendor and the configuration have been determined, the facility plan can be finalized. The facility must then be constructed, or walls moved or installed, and lighting and air-conditioning installed. Operator productivity is largely dependent upon the facility; poor lighting, glare, heat or cold, breezes and uncomfortable chairs will degrade operator performance much more than the cost of curing the problem.

Operator training can take place prior to delivery at a training center, or on site after delivery. There are advantages to each which must be considered prior to deciding. In either case, formal classroom enviornment operator training is basically two weeks or less. Subsequent to training, operators will continue to grow in proficiency during the next 2000 hours of terminal time. At that point they are basically on a plateau based on their own capa-

Acceptance of the system, at the factory and on site, is the basis upon which the vendor can invoice the buyer. This will confirm that the hardware and software ordered are delivered. It does not confirm features of the system; that must be determined prior to issuing the purchase order. It does confirm functionality of the parts.

After acceptance, the buyer's operators start using the system and developing operational procedures to optimize its performance in their work enviornment. Three months after delivery, advanced operator training is useful. At that point they know the fundamentals of the system and can be instructed in the finer points of usage to optimize performance.

Summary: Purchase of the optimal computer graphics system is dependent on many factors. Inadequate analysis of the requirements, ineffective verification of the proposed system capabilities, and improper installation and training can seriously degrade its performance. Properly implemented, a computer graphics system will be an effective tool that people enjoy working with. It will enhance their job and their life. Coincidentally, it will allow them to produce more. It's a win-win situation. BOB YOUNG. (Bob has a Computer Graphics consulting business, Mission Computer Associates, he sits on the Executive Council of L.A. SIGGRAPH and he is Co-Chairman of the national SIGGRAPH '87, Ed.)

* * * Computer Graphics '85 West * * *

The National Computer Graphics Association (NCGA) is sponsoring Computer Graphics '85 West at the Los Angeles Convention Center from June 25-27, 1985. This is a regional version of the national NCGA conference.

Five program areas are offered: Business and Management Graphics, Human Factors and User Interfaces, Industry Standards, Visual Arts and Design as well as Statistical Graphics. Two Special Sessions are offered to provide a unique perspective on Business Graphics.

Vendor Exhibits will be open on Tuesday and Wednesday from 10:00 am to 6:00 pm and on

C.G. EDUCATION

For info regarding the following programs, call UCLA Extension at (213) 206-8503.

*** * * COMPUTER GRAPHICS EDUCATION * * ***

On June 9th the UCLA Extension is presenting: Graphic Design/Visual Communication Open House:

Location: 2160 E. Dickson Art Center.
Time: Computer Graphics Portion at 10:30 AM, Graphic Design/Visual Communication at Noon.

*** * * UCLA SUMMER CLASSES * * ***

UCLA offers summer courses geared toward Computer Graphics and Graphics Design during the summer quarter of 1985.

The following courses all apply toward the new UCLA extension Certificate Program In Computer Graphics. Some also may apply toward professional designation in Graphic Design / Visual Communication:

Computer Graphics III: 2 and 3-Dimensional Design and Animation, Mondays, June 24-Sept. 9, 7-10 PM. Instructor: Craig Upson, Research Technical Direction: Digital Production.

Drawing With Felt-Tip Markers For Beginners, Tuesdays, June25-Sept 10, 7-10 PM. Instructor: Helen McCarthy, Illustrator/Designer.

Computer Graphics II: Software Packages For The Graphic Designer, Tuesdays, June 25-Sept 10., 7-10 PM. Instructor: Steve Wright, Computer Graphics Specialist.

Quick Sketch Techniques With Felt-Tip Markers, Thursdays, June 27-Sept. 12, 7-10 PM. Instructor: Helen McCarthy.

CAD For Graphic Product and Industrial Design (A Hands-On Class), Tuesdays and Thursdays, June 25-Aug. 1, 7-10 PM. Instructors: Arthur Durinski, Omnibus Computer Graphics, and Larry Lichten, Director, CAD Laboratory, UCLA.

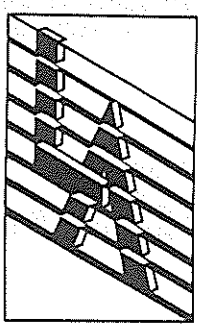
Computer Graphics I: An Introduction To The Use Of The Computer (hands-on), Wednesdays, June 26-Aug. 28. Instructors: Mary Elizabeth Gee, Prime Computers, and Lely Yashar, CG Artist.

*** UCLA - CAREERS IN COMPUTER GRAPHICS ***

On Sunday, July 28, from 9 AM to 5 PM, UCLA is sponsoring "Careers In Computer Graphics," outlining job opportunities in computer graphics.

Speakers will cover entry level, intermediate and advanced positions in advertising, entertainment, presentation graphics, graphic support and fine art.

Program coordinator is Steve Wright, formerly Director of Consumer Software for Atari, Inc. and Vice President of Development for Sega Enterprises.



SIGGRAPH

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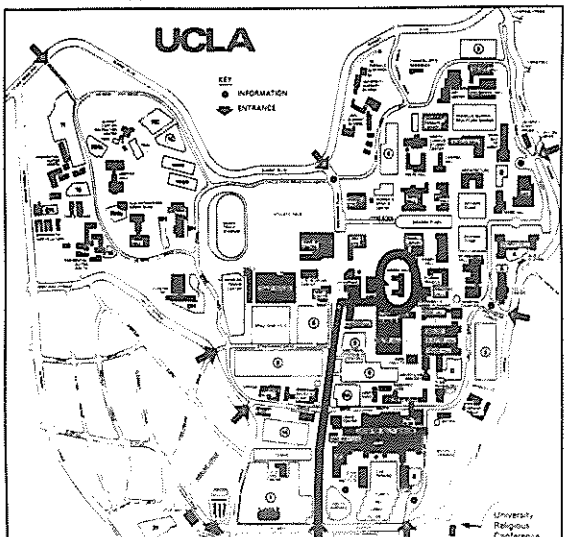

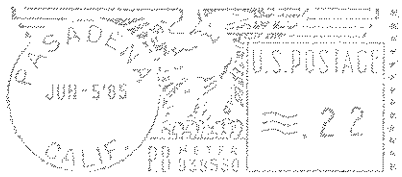

FIRST CLASS MAIL

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