



**CALIFORNIA  
EDUCATIONAL  
DATA  
PROCESSING  
ASSOCIATION**

**THE  
DATABUS**

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Conference Election Results

**CEDPA 1992-93 Officers Announced**

The CEDPA 1992-93 officers were elected at the business meeting conducted at the conclusion of the annual conference in San Diego. Due to the unprecedented departure of several CEDPA officers and directors because of other commitments, CEDPA's nominating committee proposed that Judy Acosta continue as president for another year (also resulting in Addison Ching continuing as past-president and Perry Polk as president-elect). It was felt that this alternative would provide continuity to the association while allowing the newly-elected board of directors to develop with the organization.

Departing CEDPA's board of directors with several years of experience are directors Stephen Rowe (Arcadia Unified School District), L. Russ Brawn (formerly of San Jose Unified School District), and John McBrearty (formerly of Fairfield-Suisun Unified School District, now at Contra Costa County Superintendent of Schools). Also leaving the board are SIG chairpersons Robert A. Jones (Los Angeles County Office of Education), Jeff Hare (Elk Grove Unified School District) and Management Academy liaison Harry Bloom (San Diego County Office of Education). Also leaving the organization is John Crane (formerly of Grossmont Union High School District) after many years of dedicated service. John previously held the positions of director and president, and most recently served as the organization's treasurer and editor of *The Databus*, CEDPA's newsletter. The association expresses its appreciation for the many years of service these individuals have provided, both to CEDPA and to public education,

and wishes them well in their new endeavors.

New directors include Ken Jones, former SISNET SIG chairperson (Elk Grove Unified School District), Ken Miller (Sacramento County Office of Education) and Harry "Skip" Sharp (San Diego County Office of Education). CEDPA welcomes these new directors to the association. Rounding out the 1992-93 board of directors are secretary Jane Kauble (Los Angeles County Office of Education) and treasurer Mike Caskey, former MIS Managers SIG chairperson (Stanislaus County Superintendent of Schools). At the SIG breakouts, Greg Lindner (Yolo County Office of Education) was elected SISNET SIG chairperson and Art Perez (Rialto Unified School District) was elected MIS Managers SIG chairperson. The Microcomputer SIG failed to elect a chairperson and one will be appointed by the CEDPA board of directors.

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# **CEDPA Information**

CEDPA is an association of Educational Data Processing Professionals within the State of California. Founded in 1960, the major emphasis of the association's activities are directed towards improving Administrative Information Processing in public education within the State of California.

CEDPA is a California non-profit corporation, as recognized by the Internal Revenue Service.

As cited in CEDPA's bylaws, the purpose of this organization shall be:

(a) To provide information to the California public educational community concerning educational data processing via dissemination at an annual conference and through periodicals and special interest seminars.

(b) To foster the exchange of knowledge of educational data processing concepts, systems and experiences between educational data processing installations and other associations both at the state and national level.

(c) To inform the association membership of important information concerning educational data processing.

(d) To provide recommendations to the State Department of Education, State Legislature, school districts, County Offices of Education and other public educational organizations concerning educational data processing.

(e) To develop professional standards for the Educational Information Systems Community within the State of California.

Yearly membership in CEDPA is granted to attendees of the Association's annual conference. Individuals interested in the Association's mailings may request to be added to CEDPA's mailing list by writing to the address below.

The Databus is published bimonthly by the California Educational Data Processing Association and is distributed without charge to all members of the association and to other selected individuals within the State of California that are interested in information systems processing in education. Correspondence and address changes should be sent to:

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**Microcomputer SIG Chairperson**  
vacant - to be appointed by CEDPA board

# 1992 Annual Conference Recap

By Judy Acosta, Ventura County Office of Education

If you missed the 1992 CEDPA Conference at the Hotel del Coronado, you really missed a good time.

The session was off to a great start on Wednesday with our keynote speaker, Dave Masters, IBM's Technology Teacher of the Year. His talk was so popular, that the question and answer period had to be cut short in order for attendees to get to the breakout sessions. After the morning breakout sessions, we all got back together again for lunch. Several people were recognized and rewarded as having attended five CEDPA Conferences in a row. Those receiving awards were Gary Nofziger of Long Beach Unified, Art Perez, Rialto Unified, Tony Bellacera, San Juan Unified, Dave Clifford, Whittier Union HSD, Mike Davidson, San Juan Unified, Richard Dixon, Fresno Unified, Dave Maroni, Orange County Office of Education, Richard Moynahan, Tulare County Office of Education and Neil Strecker, Saddleback Valley Unified. Incidentally, Gary Nofziger should have received his award last year. We do appreciate all who attend, but especially those who support the organization year after year.

Wednesday afternoon was filled with more breakout sessions and the day was topped off with the President's Reception which was held in the Garden Patio of the "del". It was truly a picturesque setting.

Thursday started bright and early with a continental breakfast and the balance of the day was devoted to vendors. There were breakout sessions put on by vendors and a huge exhibit show. This day ended with vendor hosted hospitality suites. We do appreciate all the vendors who support CEDPA, but like conference attendees, some go that extra mile. We thank NCS and Scantron for hosting hospitality suites; Supply Tech for sponsoring a coffee break and providing Thursday's luncheon speaker, Jesse Alderson; Unisys for providing notebooks; Ascom Timeplex for coffee mugs; IBM for providing the keynote speaker, Dave Masters; Data Blocks and Hewlett Packard for co-sponsoring a luncheon; and

Apple for providing video tapes. Without the help and support of each and every vendor who participates in the Conference, we would not be able to have as fine a Conference as we do. (Of course, I could be prejudiced!)

The final day of the Conference began with a buffet breakfast followed by a panel discussion on the economics of EDP. The panel was made up of three of the most infamous MIS Directors in the state—John McBrearty, Perry Polk, and Phil Branstetter. You guys really did a good job. The panel discussion was followed by more breakout sessions and then Dave Crimmins of San Diego Unified wrapped up the Conference for us.

The Board heaved a large sigh of relief, patted ourselves on the back, discussed what went wrong (and how to fix it) and what went right, and proceeded to discuss how we could make next year's Conference even better.

San Jose is the location of the 1993 Conference. Put these dates on your calendar—October 20-22, 1993. We hope that you will all plan on attending.


## COMING EVENTS

- SISNET SIG Meeting (North)  
April 13, 1993  
Sacramento
- Microcomputer SIG Meeting (North & South)  
Date TBA  
Location TBA
- SISNET SIG Meeting (South)  
Date TBA  
Location TBA
- MIS Managers SIG Meeting (South)  
July 16, 1993  
Location TBA
- Annual Conference  
October 20-22, 1993  
Red Lion Hotel, San Jose

# COMDEX/Fall Previews 1993 Technology

By Addison Ching, Newport Mesa Unified School District

The annual COMDEX/Fall computer technology showcase was held last November in Las Vegas. An estimated 145,000 attendees ate COMDEX hot dogs and previewed the latest in hardware and software at seven exhibit venues.

In the software arena, Microsoft emphasized its **Windows** presence with its  mini-showcase featuring Windows platform products. OS/2 platform products were showcased by IBM. WordPerfect previewed version 5.2 for Windows, an interim release that precedes version 6.0 that is scheduled for the second quarter of this year for both Windows and DOS platforms. WordPerfect also demonstrated **WordPerfect Presentations 2.0** (formerly DrawPerfect) with its DOS version appearing to be a cloned Windows look-alike. Microsoft used COMDEX to release **ACCESS**, its long-awaited Windows database product whose suggested retail price was dramatically dropped by \$200 upon its introduction, and demonstrate **Video for Windows**, an exciting product that is full-motion-video (30 frames/second) capable and supported by many hardware video products also unveiled at COMDEX such as Intel's **indeo** video technology and Creative Labs, Inc.'s **VideoBlaster**. New versions of **Stacker** and **Lotus 1-2-3 for Windows** were also demonstrated by their publishers.

The portable computer was again redefined, with numerous offerings of miniaturized lightweight (less than 5 pounds) notebooks and **PDAs** (personal digital assistants, a hand-held data recording devices with cellular and input device capabilities), pen-based computers, and cellular laptops. Several vendors showed off their 80486-based notebook computers with high-resolution active-matrix VGA displays. Some manufacturers also previewed development models using Intel's new **Pentium** (a.k.a. **80586**) processor. Vendor creativity was evident in

the many **PCMCIA** standard-based products including modems, memory expansions and other accessories that will plug into slots in portable computing devices.

This year's exhibits were located strategically, with networking products exhibited in a **Networking showcase** located in the newly-completed Las Vegas Convention Center North hall (and a portion of the South Hall). Multimedia products were likewise grouped together in a somewhat noisy **Multimedia showcase** located in Bally's convention exhibit hall.

CorelDraw featured an **Elvis** impersonator in their presentation. The significance of this was apparent to those who witnessed the skydiving Elvises (from the movie "Honeymoon in Vegas") descending from the CorelDraw hot air balloon. Berkeley Software (After Dark) showed off their new **Star Trek** multimedia screen blanker by using "Star Trek: The New Generation" character actors to lure attendees to their booth. The Toshiba hard disk assembly cleanroom was again demonstrating the assembly of hard disk units, this time packaging souvenir lucite desk calendar/clocks (last year they produced cookies). One publishing company offered popcorn to attendees lined up to meet author **Dan Gookin** and obtain a copy of his new *STACKER An Illustrated Tutorial*, then followed up with chilled bottles of **Evian**. Adjacent to that booth was another line of attendees waiting to meet columnist and author **John Dvorak** autograph complementary copies of his *PC Guide to Telecommunications, 2nd Edition*.

In addition to the enjoyment of souvenir collecting and the healthful exercise, COMDEX offers attendees the opportunity of witnessing the evolution of computing technology by previewing products that will be marketed during the following year. Where else can you have the opportunity to win a \$60,000 **Corvette** or a Mazda **Miata**, watch live demonstrations of your favorite computer products, and eat expensive **sushi**?

## **“So You’re Going to Install a LAN”**

**By Perry Polk, Mt. Diablo Unified School District**

This time of the year three years ago Mt. Diablo embarked on a new data processing venture. While the move was not particularly radical in the industry, for us it was revolutionary. For nine years we had operated a full centralized student information system. We in data processing were especially proud of the system we had built, but some of our customers preferred another approach. After a three year examination of our needs, we purchased a school-based student system which would run on networks in our secondary schools.

Over a six month period from December to June, we installed eighteen LANs in sixteen sites. Fourteen of the LANs went into our secondaries, one to DP, one to our continuation school and one was installed in a training center in one of our adult education centers. It was subsequently moved to a middle school. We installed our choice of office automation products and the student system.

The installation involved the proper queuing and delivery of computers by our supplier. The company was responsible for the physical installation. Our wiring company installed, or otherwise made ready, the twisted pair cables. My team physically connected the workstation to the cable and hubs, and a LAN consultant configured the Novell Operating System. The consultant was also to train my team, on-the-job, on Novell configuration.

Training of the school personnel involved all administrative and clerical people at each site. The training was done by the student system software company at the training site. Training was provided in units by grouping like job responsibilities together, e.g., attendance secretaries and counselors (when we had them.) Training was timed to enable each school to operate the systems within a week or two after training. The DP support staff received training (including center site support training) at our DP site, ahead of schools.

Database downloads from our main computer to

initialize the systems was planned for a period shortly after the school completed training.

That was the plan. The reality was different.

Almost everything that can happen did happen. Now that three years have passed we can more objectively see where things went wrong.

Our school people did not take the training seriously. They had almost no vision of how the systems were to change their jobs. Site Administrators were selected to be the systems experts and received special training. While this involved volunteers, the real site specialist emerged during the day-to-day work. Presently some administrators have the “job” in name only.

Our school people did not take ownership and responsibility for the data they were processing. Only after two full years of operation have people begun to realize that what they input is what they get back.

Converting our DP staff to a microcomputer and LAN support shop has not worked well. Once again aptitude and interest seem to be the guides. We did not do a good job of preparing our people for the transition. In DP we are still transitioning from our “mainframe” ideas and yet we are the people who live with change all of the time. As problems occurred we did less well in dealing with them to the point where we frequently were overwhelmed with the number of problems at each site. Some sites had truly knotty problems that required many days of experimentation and reconfigurations.

The budget cuts of 1991-92 hit us at the wrong time. DP lost 20% of our people including the youngest and most capable LAN support people. Schools lost all Counselors who were among the biggest customers of the systems.

We found that real training begins with the first

*(see "Mt. Diablo LAN" on Page 6)*

## Exhibitors Review

By Phil Branstetter  
Riverside County Office of Education

The 1992 Exhibit show demonstrated again the support vendors have for the CEDPA conference. In the current economic climate all vendors are carefully selecting shows to participate in, we felt very fortunate to have vendors sign up for 52 booths. We also got very positive survey responses from the vendors about the show—the biggest complaint being that it was such a beautiful day that a large number of conference attendees spent the afternoon soaking up sun at the Hotel Del Coronado.

This year's exhibit was a veritable smorgasbord of hardware, software, and services. It was a particularly strong show with respect to computer networking and EDI—underscoring events developing in both the computer industry and California's educational community. Several EDI and communication-related vendors presented at CEDPA in breakout sessions and pre-conference workshops.

Other products of particular interest which were well represented included purchasing systems, financial packages, student systems, and a host of items related to scanning. We had prominent database vendors (ORACLE and Informix), PC software vendors, and a number of companies displaying Open Systems products and services.

We also received vendor support for many conference needs. Apple provided a video tape which demonstrated the power of client-server computing; Ascom Timeplex donated coffee mugs; Supply Tech, Inc. donated the coffee at registration; Unisys donated notepads; Data Blocks and HP helped defray lunch costs. We would like to also thank the vendors who donated door prizes: Bi-Tech, NCS, Patrick Frantz, Scanning Systems, and Digital.

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## Mt. Diablo LAN

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“live” keystroke. Also we found that unless you plan a training session specifically tailored to the way your school district will be operating, the participants will ignore the training. While the company trainers were very, very good, the canned comprehensive training was not effective. Our people did not want to know capabilities; they wanted to know exactly what their job needed and not one item more. More training is not enough either.

As turnover occurs among our school personnel, the learning processes starts over again. We continue to experience the same training problems, but at least now we know about them and can deal with them.

I guess I can handle people problems because they talk back, but I found the binary world of the machines to be the most frustrating. Basically, we found that the equipment problems were the most annoying. We found multiple problems with incompatible boards. Many of the faulty boards were supplied by the major hardware vendor. For example we found three different types of serial boards among our 160 microcomputers. Each had its own set of problems including an XT board in an AT machine with the serial board address the same as the monitor address.

We had delays in the delivery of key components such as the hubs for our LAN communications, and many component failures occurred especially in monitors.

In the software area, we experienced some technical problems installing our office automation software. Naturally the manuals didn't match the experience of our installation team. After successful installation, we have had difficulty learning to use LAN software and applications under a LAN operating system especially in printing from the word processor.

The impact on the DP budget of LANs has been heavy. Supporting the decentralized operation has increased costs at the central site. We cannot control costs in the same way we did, and high equipment

*(see "Mt. Diablo LAN" on Page 8)*

# Beware the Floor Heater!

By Addison Ching, Newport-Mesa Unified School District

Cooler seasonal weather means that electric floor heaters will be dragged out of the closet, dusted off, and placed into service. This appliance of comfort is potential trouble for desktop computers, however. Several years ago this column described a situation where the periodic cycling of an electric floor heater caused scrambling of the hard disk's main directory. The end result is that the file structure is permanently destroyed, making data and programs irretrievable.

Since that column appeared, several more occurrences of hard disk directory scrambling have been experienced in Newport-Mesa Unified School District offices, and each has been directly attributable to power fluctuations caused by electric appliances. In most cases, electric floor heaters were the direct cause, and in one instance, a copying machine was the culprit.

How does this scrambling take place?

The information on a hard disk is arranged in a prescribed manner that is understood by the operating system. Some of this data is stored in tables that are updated each time a file is modified or added to. Proper updating of this disk information is dependent on the disk spinning at a constant speed. Severe power fluctuations, such as those that might be caused by the cycling of electric floor heaters or copiers, will cause the disk to temporarily spin at a lower speed until the power dip is equalized. Reading a disk when this fluctuation occurs will usually cause a read-error condition that will be automatically corrected by the operating system through automatic re-reading operations (assuming the power dip has been equalized before the read error correction procedure has been completed.) However, if a disk is written during the power dip, the data will be written incorrectly. Since disk writes aren't normally verified, this error won't be caught until the next time that data is accessed. If the data that was written out during the power dip was the main directory--which is updated each time a file is created or

updated--the results will be disastrous; your hard disk's main directory will be scrambled beyond repair.

What can be done to prevent this? Look around in your computing environment. If there is any electrical appliance that draws a lot of current (such as an electric floor heater, coffee pot, or copying machine) in the immediate area? If so, it should be plugged into an electrical outlet as far away from the computer's outlet as possible (don't use extension cords for this, since "permanent" extension cords are in violation of most fire codes.) If you can afford it, use a power conditioner that compensates for power dips to condition the power for your computer. If a power conditioner is out of the question, a power strip with surge protection might help. You should expect to spend about \$50-75 for these; the inexpensive ones you find in hardware stores won't do the job since the 25-cent MOV they're equipped with can't offer the protection that's required. No matter what alternative is selected to electrically protect your hardware, however, nothing can take the place of prudent and timely data backup.

What happens if you fall victim to a scrambled disk? The most time-efficient solution is to reformat the disk and restore the information from your last backup. In this case, the integrity of your data structure will be guaranteed since you are rebuilding it from scratch.

"But I have critical data on that disk that I didn't have time to back up! Can't something be done to recover it?"

Possibly. The procedure is not for the faint-of-heart and is contingent on having a recent copy of your main (root) directory, and also depends on how much damage was done to your disk structure during the power dip. The procedure involves manually rebuilding your root directory using a disk editing utility such as The Norton Utilities. This requires

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## Mt. Diablo LAN

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maintenance costs have put a crimp in the equipment budget. Naturally we don't have enough people with screwdrivers to handle the problems. We are able to service the emergency problem (file server failures) but routine problems (print head replacements) go begging. Of course no one ever has a routine problem.

I am still smarting over the inability of vendors to deliver product information for the bid process and the general lack of product quality from hardware vendors. The competitive market has resulted in low prices, but the rapid changes in equipment and product lines have lowered product quality and maintainability.

Finally, my advice after three years is simple: plan, plan, plan. The move to LANs will cost lots of money and time. Personnel costs, supply costs and maintenance costs must be examined and forecast better than we did.

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## TechTalk

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manual entries of the files and subdirectories that formerly comprised the root directory, then connecting each of these with their starting blocks and updating corresponding entries in the disk's File Allocation Table. In other words, you would be rebuilding the disk's directory structure block-by-block, a process that's very tedious and time consuming. Even if the structure is successfully rebuilt, there is no guarantee that the *data* will be readable, since the writing out of the data may have been also compromised during the power dip. Usually if this alternative is chosen, only that data which is absolutely necessary is recovered, and just enough of it to allow it to be backed up before the disk structure is rebuilt by reformatting and reloading.

In this situation, an ounce of prevention is worth many pounds of cure. Use preventive measures to eliminate the possibility of your critical data becoming corrupted: back up your data frequently, and use extreme caution when installing electrical devices in the vicinity of your computer that may compromise its performance integrity.

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