

The Advisor

Newsletter of the IEEE Phoenix Area Consultants Network

June 2000, Volume 7, Number 6

IEEE PHOENIX AREA CONSULTANTS NETWORK MEETING NOTICE

WHEN:

Thursday, June 8th, 2000
Social and check in at 6:30 PM
Dinner at 7 PM (Choice of six seafood dinners plus filet mignon and char-broiled chicken)
Business meeting starts about 8 PM

WHERE:

Pier d' Orleans Restaurant, 61 East University Dr., Mesa, AZ 85201
(On the south side of University, between Country Club and Mesa Drive.)
Phone: (480) 844 0666

COST:

There are two menu choices. Meal cost will be \$14 or \$17 per person. If you come at 7:30 or so and do not eat, there is no charge. **NOTE:** As of January 2000, each visitor will be allowed three "free" meetings (that is, the same cost as members), after which there will be a \$10.00 surcharge.

PROGRAM:

ACCOUNTING INSIGHTS FOR CONSULTANTS: Al Tobin is a founding member of the Consultant's Network who recently went back to college and changed professions. Having been in both worlds, we're sure he has a interesting perspective. Al has indicated that this will be an informal presentation with a question and answer format. If you think of some good questions, write them down and bring them to the meeting.

RESERVATIONS APPRECIATED:

We need to make proper arrangements with the management at Pier d'Orleans. Therefore, *please call Bruce Johnson at 480-759-2826* (or e-mail bruce.johnson@ieee.org) *if you know you will attend.*
If you decide to come at the last minute, please do so. Any restaurant can always serve one more meal.

Member Poll on Meeting Places

We have had a good deal of positive feedback on our new meeting location at Pier d'Orleans. There are several menu choices, so almost everyone can find something they like. Also, the prices are reasonable considering the quality of the food. But several members have expressed the opinion that the downtown Mesa location is a bit too far for them. Another concern is that with the meeting room being open, it can get a bit noisy. The Executive Committee is planning to search out a few alternative meeting places and conduct a poll of member preferences. Hopefully we will have a list in next month's *Advisor*. We welcome additional suggestions. Preferably, it would be a centrally-located restaurant with good food at reasonable prices, available meeting rooms and (hopefully) no minimum attendance requirements. Please send suggestions to the editor at v.treude@ieee.org.

MESSAGE FROM THE PRESIDENT

C B Johnson

We had 20-22 people, depending upon when the count was made, at our annual PACN picnic at Lane and Ursula Garrett's home on Saturday afternoon, May 20th, 2000. The weather was great for a picnic, and the food was delicious and plentiful. It was good to see so many spouses, drop-ins, and even grandchildren in attendance. Lane did his usual professional job of cooking the hamburgers and bratwurst.

Our June eighth meeting will feature Al Tobin who will share his accounting expertise with us and speak on "Accounting Insights for Consultants." Al is one of the founding fathers of the PACN, and he has extensive experience not only as a professional consultant and advisor, but as an educator as well. This dinner meeting will be held, starting at 6:30 PM, at **Pier d' Orleans Restaurant, 61 East University Dr., Mesa, AZ 85201.**

I hope that some of you were able to register with Teltech's "expert marketplace." It is partly a way to obtain a free listing for your practice, and it facilitates selling your consulting expertise. If you haven't looked into what Teltech has to offer, more information is available on their website at www.teltech.com/expertmarket/default.asp. Teltech is a well regarded and relatively old expert consultant organization that is now making use of the web to a greater extent.

Your executive committee works to offer presentations and develop programs of general interest and usefulness to our members. Somehow we also need to find ways to make our practices more successful. With this in mind, please attend our meetings as an active member, whenever possible, and bring your practice improvement ideas and comments with you to share with the network. To advertise our practices we do have a local web page, with individual member listings. Our member listings in the IEEE USA Directory of Electrotechnology & Information Technology Consultants were not continued this year, primarily because this has not generated any consulting work for our members. However, members are encouraged to consider this listing service on an individual basis. Please come to our meetings prepared to discuss ideas and approaches for improving the consulting activity for our members

As always, all members are encouraged to submit newsworthy items to Vaughn Treude, for inclusion in our newsletter, so please be on the lookout. Humor is welcome as well, especially if it relates to consulting. [Note: Executive Board meetings are usually held at 8:30 am on Saturday mornings twelve days prior to each monthly meeting. These meetings are open to all members. Please contact Bruce Johnson if you wish to attend.]

Our informal meetings are designed for networking, to communicate with each other on a personal and professional level, and to enjoy a program and a meal together as a group with a common interest and dedication to the enterprise of consulting. Summaries of the next few monthly meeting programs are listed separately in this newsletter. Be sure to mark your calendars now for the next regular PACN meeting on **Thursday, June 8th at Pier d' Orleans, in Mesa**.

URL's Of Possible Interest

The home of the IEEE's Consultant's Networks, plus resources for entrepreneurs, researchers, and others seeking information on grant and business opportunities: www.ieeeusa.org/business

A web page for consultants is located at www.consultme.com. Services are listed by skill, specialty, name company name or professional title, and by location and availability. There is a fee for this service.

IEEE-USA's Web Employment Services Offered Worldwide: IEEE-USA's benchmark Web-based employment services are being made available and promoted to IEEE members worldwide. A new global employment services Web page describes how job seekers and employers outside the United States can avail themselves of the organization's Job Listing Service, Resume Referral service and consultants database. The site, located at www.ieeeusa.org/employment/global, also contains an invitation for non-U.S. regions and sections to contact IEEE-USA for assistance in promoting these services to their members.

EDITOR'S NOTES

OS Adventures Revisited

I recently bought two used tower computers (and an inkjet printer) from a colleague. I didn't really need them, but at the price I couldn't pass them up. The printer and the older PC went to my sister's family, who didn't have one at home. The other PC gave me the opportunity for a project. I'd wanted to try Windows 2000, but I didn't want to risk messing up my desktop or my laptop, both of which I use extensively. Now I had something to play with.

So I purchased an upgrade version of Windows 2000 Professional at Fry's Electronics for \$200. I'd planned to upgrade from the Windows 3.1 I'd gotten with a now-obsolete laptop, but unlike Windows 98, 2000 won't upgrade from 3.1. Luckily, I also had a copy of NT 3.5 I wasn't using, which qualified for the upgrade and an additional \$70 NT-only rebate.

Continued, page 3

Editor's Notes - Continued from page 2

There wasn't any operating system on the PC, but the upgrade didn't require Windows to actually be installed. It did prompt for an installation CD to verify the upgrade. (There should have been a floppy disk option, because that's what my NT 3.5 media was. I used a Windows 98 CD instead.)

The installation went surprisingly smoothly, even though I'd added an odd mix of hardware to the system. (It now has two hard drives and two CD's; an IDE version and a SCSI version of each.) The new Plug and Play had no problem with this configuration. It even recognized my old Tandberg SCSI tape drive (though I need to add software to access it.) The LAN card was the most trouble; it's a pre-Plug-and-Play ISA card that requires its IRQ and I/O address to be set using a DOS utility. After I changed its IRQ to an available one, and entered the resource specs manually in Windows, it worked—but surprisingly, not with the manufacturer's NT 3.5 driver. Windows 2000 accepted the Windows 95 driver instead!

There were problems, of course. Windows 2000 definitely is a disk hog, occupying about 750 megabytes for the standard install. The Control Panel has been rearranged significantly, making things hard to find. (But on the good side, it now has a 98-like device manager.) Unlike NT 4.0, 2000 allows you to bypass the password entry dialog (which is nice for home systems) but that's apparently the default mode of operation, which I don't think is a good idea. Strangely, when I tried booting it with an audio CD in the drive, it took forever (it must have been scanning that CD.) Another aggravation: though it can see the other PC's on my LAN, I haven't figured out how to give the other systems access to it.

As usual, I got carried away and decided to use the second hard drive to try yet another version of Linux. So I bought the latest version of V Communications' boot management program, aptly named System Commander 2000. Besides having been tested with Windows 2000, it includes a "free" copy of Turbo Linux and Star Office. It also claims that its disk-partitioning utility can actually move and resize Linux partitions. This is something that its rival Powerquest's product Partition Magic can't do. (It can move and resize only MS-type partitions.)

I've used two previous versions of System Commander and I've had nothing but praise for them both. This time, things went differently. The installation media had changed from a floppy to a CD. It has an attractive install dialog, but I couldn't use it. An error message said it couldn't be installed from NT or 2000 because they don't allow direct access to the disk. I had to reboot in DOS and install from there. But they apparently didn't test the DOS install, because it wouldn't run from the CD! The program expected all files to be in the root directory (which is where they were on the previous floppy-based installs.) I copied its install files to the root directory of one of my drives and tried again. This took several attempts, because the necessary files were in more than one place on the CD!

Finally it installed, and on rebooting it created a boot menu with Windows 2000 and DOS on it. From DOS, I tried to reformat my SCSI drive for Linux. For some bizarre reason (the error message implied that it couldn't run from a FAT32 partition,) System Commander's partitioning utility wouldn't run at all! I had to use my old reliable Partition Magic. Then I was ready to try Turbo Linux.

Turbo Linux has one of the easier installation programs I've tried in the Linux arena. It definitely rivals Caldera's distribution, which was the most automated I'd seen so far. The questions were simple. It presented several install choices (including minimal, development, and full) and gave disk space numbers for all of them. The X Windows system (the foundation of all Linux-based GUI's) was part of the main install (in some systems, it's an extra install.) The graphical login option (where you can log in from a dialog like Windows, rather than from the command line) was also set up automatically. Once the desktop was up and running, there were utilities, launchable from icons in the program menu, to configure additional hardware, like sound cards and modems.

There were definitely problems. The network configuration was done in the main install (a good idea, since so many systems are on networks.) But because the LAN card wasn't Plug and Play, Turbo Linux couldn't read its settings. I had to skip this part, because I'd neglected to write down its IRQ and I/O settings. After getting these in DOS and rebooting in Linux, I couldn't find out how to configure the card without re-running the install. The sound card still isn't working. Although they had an entry for my sound card (Ensoniq) in the install utility, it must have been a different version, because the setup failed. This proves that a good all-purpose system-management utility (such as SuSE Linux's "YaST" program) is worth its bytes in gold.

As for other features, there were several desktop options, but I don't recall the standard KDE desktop being among them. These included several versions of FVWM, and Turbo Linux's own desktop. I set the Turbo Linux desktop as the default, since I hadn't tried it. Other than being gratuitously weird (program menu bar on the upper right instead of the lower left) it was OK. The nicest thing was that it was easy to switch between window managers on the fly (it just exits the current section and when you log in, it comes up in a different one.)

So far, I haven't done a lot with Turbo Linux. It didn't come with a paper manual (a real help with Linux, since online documentation is often poorly organized.) I'll need to resort to the various third-party Linux books I've acquired.

My conclusion? From what I've seen so far, Windows 2000 seems to be a significant improvement over NT. But I don't think it's going to be a "Linux killer", because the two systems have such different niches and user communities. As for Turbo Linux, though it has many nice features, it certainly didn't displace my current favorite, SuSE Linux. If I could combine the best features of Turbo Linux (especially its easy installation) with SuSE's better documentation and management, you'd have a Linux that would be almost ready for prime time. But it wouldn't be a Windows killer, either.

Vaughn L. Treude, Editor

EXECUTIVE BOARD MEETING HIGHLIGHTS

The May Executive Board meeting was held on Saturday, May 27th, at Bruce Johnson's residence. We discussed several issues, including the question of whether or not to continue the category of associated membership, and if so, what should be the perks of full membership. (Currently there are two: a listing on the PACN web site, and the right to vote at meetings. No decision was made.) We talked about future meeting topics and alternative meeting places, and discussed the possibility of doing the newsletter in PDF format instead of RTF.

Note: These meetings are open to all members. Please contact Bruce Johnson if you wish to attend.

MEETING NOTICES

JUNE 8th MEETING

Al Tobin will speak on "Accounting Insights for Consultants." Al is a founding member of the Consultant's Network who recently went back to college and changed professions. Having been in both worlds, we're sure he has an interesting perspective.

JULY 13th MEETING

We will view the sixth tape in the Entrepreneurial Seminar Series. The tape is entitled, "Retraining and Revitalizing the Mature Engineer." (All engineers are welcome, even immature ones.)

AUGUST 10th MEETING

We have tentatively scheduled a roundtable discussion on the new high-speed options in Internet access, their pros, cons, and costs. Lane Garret has agreed to moderate the discussion.

SEPTEMBER 14th MEETING

The topic is consulting opportunities in Linux. We are hoping to find a speaker who is currently making money in the Linux field.

OCTOBER 12th MEETING

Consultants' Network member (and alternative energy expert) Lane Garret will speak on exciting new opportunities for consultants due to utility deregulation.

NOVEMBER 9th MEETING

The topic for this meeting will be the Palm Pilot and other Personal Digital Assistants. No speaker has yet been assigned; a round table discussion is a possibility.

DECEMBER 14th MEETING

As always, we will have our annual business meeting in December. Members will vote to select executive committee members for the following years, and accept or reject changes to the by-laws (if any.) There will be other program or guest speaker, but non-members are still welcome to attend.

OTHER MEETINGS OF INTEREST

We will gladly list other meetings of interest in this space. Contact the editor of this newsletter. We only ask that the meetings be of professional interest to our members. They do not have to be IEEE meetings.

The IEEE Phoenix Section Executive Committee usually meets on the first Monday of each month at 6 PM, and all IEEE members are welcome to attend. These meetings are currently being held at the SRP facility on Priest Road, between Washington and Van Buren.

The Phoenix Chapter of the **Independent Computer Consultants Association (ICCA)** meets the second Tuesday of each month with programs of interest to computer consultants, programming contractors, and others in the computer industry. Meetings are held at the West Coast Executive Park Hotel, 1100 North Central Avenue (just south of the Deck Park over I-10.) Meetings start at 6 PM for cocktails, 6:45 for dinner and 7:15 for the program (usually a guest speaker.) The cost of dinner is \$20 for members and \$25 for guests. Attending the meeting only is free for members and \$5 for guests. Call the ICCA hotline at 942-0667 for more information.

INTERNET TOPICS

The IEEE Phoenix Area Consultants Network maintains a web site with resumes of all members who wish to post one. It is a member benefit that is paid for in your membership fees. In addition there is a national directory of consultants and a national web site maintained by IEEE. The Phoenix network web site is:

www.amug.org/~lanegarr/ieeephx.html
www.etaengineering.com/ieeephx.html
www.accessarizona.com (select from groups menu)

MEMBER WEB SITES

Several members have given us their URL's. If we have omitted anyone, please let us know.

Paul M. Everett	www.everettinfrared.com
Lane S. Garret	www.amug.org/~lanegarr
Daryl Gerke	www.emiguru.com
Mark A. Goldstein	www.researchedge.com
C. Bruce Johnson	ourworld.compuserve.com/homepages/CBJOHNSON
William D. Morgan	www.amug.org/~bmorgan
Robert C. Rose	www.gshelp4u.com
Arthur H. M. Ross	www.cdg.org/a_ross
Richard L. Tannehill	members.abilnet.com/rickw7rt
Vaughn L. Treude	www.nakota-software.com (construction begins soon)
Stan Vollertsen	www.stantronix.com

The Advisor

Editor: Vaughn Treude (602) 750-3662

Executive Board

President:	C. Bruce Johnson	(480) 759-2826
Vice President:	Lane Garrett	(480) 966-1380
Secretary:	Russell Johnson	(480) 991-3787
Treasurer:	Gene Baxter	(480) 832-7744
Member:	Paul Everett	(480) 706-4753
Member:	Vaughn Treude	(602) 750-3662

ADVISOR MEMBER LIST**June 2000**

Name	Phone	FAX	email	Area of Expertise
Baxter, Dr. Gene K., PE	480-832-7744	480-832-7744	baxter@forensicgroup.com	Forensic mech. eng., stress, dynamics, kinematics
Beyeler, Bruce	623-876-2076	623-876-9463	bruceb@appliedminds.com	
Brown, Dr. Alexander C. Jr	602-866-9333		abrownj@hotmail.com	Electromagnetics, Reflector antennas, Tensegric struct.
Caplan, Regina R., CPA	480-838-7629		gina@ben-david.com	Accounting, income taxes
Craig, Howard	480-964-7996		howardcraig@earthlink.net	Labview programming, test engineering
Crane, Milton	602-840-1171		macrane@uswest.net	Microwave & RF syst. eng.for comm., wireless, radar
Dwight, Robert H.	480-563-0605		dwightdesigns@compuserve.com	Software, embedded systems
Everett, Paul M.	480-706-4753	480-706-4753	peverett@everettinfrared.com	Electro-optics / Infrared technology
Fry, George	623-825-1645	623-825-6624	gfry@primenet.com	Semiconductor process, facilities, market research
Garrett, Lane S., PE, CEM	480-966-1380	480-966-1516	lanegarret@aol.com	New product development, alternative energy
Gerke, Daryl, PE	888-364-4878	480-838-9605	dgerke@emiguru.com	Electromagnetic interference and compatibility
Glenner, Edward J.	623-580-9380	602-943-8448	rhodesjen@aol.com	Stds. comm. TI-telecom, manufacturer's rep
Goldstein, Mark A.	602-470-0389	602-470-0389	markg@xroads.com	Information brokering, market research
Ingle, Arthur J.	480-899-9384		art_ingle@hotmail.com	
Johnson, Dr. C. Bruce	480-759-2826	480-759-2826	bruce.johnson@ieee.org	New product development, night vision, optical sensors
Johnson, Russell R.	480-991-3787		rjohnkozar@aol.com	Program / project and quality management
Jones, Clark	480-345-3638	480-345-8793	jones@tempe.tt.slb.com	
Kilcullen, William J., PE	480-969-7606	480-969-7612	kokali@primenet.com	Industrial facilities design
Koch, Edward, Jr.	602-953-2111	602-953-2111	ekochjr@worldnet.att.net	SW Project / program mgmt, embedded systems
Leverance, Neil C.	480-981-8883	480-981-5117	nLever@ieee.org	Control sys., meas. & test, automation, PLC's
Maloney, Chris	480-283-0025		cmaloney@stpaz.com	
Mischen, Edward J.	480-897-9405		emission@worldnet.att.net	
Morgan, William D.	480-921-4094	480-921-4094	bmorgan@amug.org	Software design and development- Macintosh
Narud, Dr. J. A.	480-949-1748			Computer hardware, semiconductor technology
Polischuk, Andre	602-482-0890	602-482-3979	apolischuk@aol.com	
Pyska, Michael S.	480-283-6286		m.pyska@ieee.org	Microelectronics and embedded systems
Ritchey, Robert R.	480-460-2652	480-460-2653	rrritchey@acm.org	FPGA devel., Mac/PC specialty cards, networking
Rose, Robert C.	480-595-1187		bob.rose@ieee.org	
Ross, Dr. Arthur H. M.	602-371-9708	602-336-7174	a.ross@ieee.org	CDMA, wireless communications
Sprague, Ronald L., PE	480-962-8183	480-962-8183	r.sprague@ieee.org	Power Engineer
Sullivan, Robert M.	480-948-3242	480-948-3242	sully@goodnet.com	Product development: high perform. tech. computer pkg
Tannehill, Richard L., PE	623-435-9584	623-435-9584	rickw7rt@firstinter.net	Telecommunications
Trask, Chris	480-966-7395		ctrask@primenet.com	
Trelewicz, Jennifer Q.	480-832-7422		trelewicz@asu.edu	Embedded systems, DSP, Unix device drivers & nets
Treude, Vaughn L.	602-750-3662	623-412-0916	v.treude@ieee.org	Software design & develop., SECS/GEM, industrial
Vollertsen, Stanley A.	480-774-0803	480-774-0809	stan@stantronix.com	Power conversion and prototyping
White, Walt	602-791-8029	602-494-3585	walt_white@ieee.org	
