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IEEE Professional Communication Society NEWSLETTER

Volume 36, Number 1, January 1992

Public Speaking and *THEM*

by Bruce Brocka

As an instructor I cannot avoid public speaking. As an engineer, I did not have to take any courses on public speaking (I suppose they presumed there was no speaking involved in engineering), although I did take a speech class anyway (because my future wife was taking it, too). But while they taught me how to speak, they didn't tell me what to do about the audience. In the midwest, many people have a saying about winter driving: It's not my driving I worry about, it's everyone else's. The same is true about speaking. I can speak, it's that darned audience I worry about. Specifically, what if someone wants to embarrass or otherwise harass me? I'd like to offer some suggestions in dealing with this all too common situation.

Heckling generally requires a response to work well. If the audience and speaker ignore the heckler, chances are they'll stop.

1. Be prepared. Know your subject matter. Ask Who, How, What, Why, When, and Where. Anticipate likely questions. Present the material first to a "friendly" audience and have them ask questions, or point out logical holes in the material.

2. Have an accordion. An accordion is a topic that can take a little time or a lot of time. Have extra presentation materials ready, just in case. Actually, people usually far under-
estimate the time it will take them to present material. But having that extra insurance of added material can take the edge off of a timed presentation. Know how to collapse material and still get the message across if the presentation needs to be shortened.

3. Keep cool. Don't let the audience know you're upset over a question or a reaction. Blowing your cool may have been the only objective of the heckler's question or comment. Take your frustration elsewhere, but don't cheat the members of your audience who are attentively listening. Letting the one or two hecklers command an audience of 5, 10, 30, or 100 people is wasting a monumental amount of time in total. Heckling generally requires a response to work well. If the audience and the speaker ignore the heckler, chances are they'll stop.

4. Defuse the situation with humor, but . . . A humorous response to a heckler can suddenly turn the tables. However, you need to be very certain that your response is humorous, and that you display extraordinary calm. This tactic really belongs to experienced speakers. It can be gratifying to deflate a heckler, however, bear in mind you may have made an enemy for life!

5. It's O.K. to say I Don't Know. An audience seems to sense when they are being fed rubbish. Honesty is the best policy—admit that you don't know, and find out the answer as soon as possible. If you're

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INSIDE

From the Editor

by Bruce Brocka

Some recent news items and items from the last PCS AdCom (Administrative Committee) meeting:

- Congratulations to Terry Bahill of the University of Arizona, PCS member, for his recent selection as a fellow of IEEE. Mr. Bahill's citation reads: For contributions to systems engineering and biological cybernetics.
- The 1992 conference proceedings will be electronically published.
- Cheryl Reimhold's book proposal, *Writing for Engineers: The Basics,* was accepted, as was the proposal of Peter Reimbold, *English as a Second Language: Survival Kit for Foreign Born Engineers.*
- David Dobson's research seems to indicate that PCS was started in 1953, and not in 1957, as previously thought.
- Rudy Joenk emphasized the need for a planning committee, and pointed out the need to look into page charges for the *Transactions,* as IEEE may unbundle the all-*Transactions* package (a special deal for libraries), and accentuated the need for more commercially oriented projects such as CommuGuides, IEEE Press books, and videos to balance the more academic *Transactions.* ◄

Public Speaking

(continued from page 1)

worried about public image, try to answer the question in front of the audience (if possible).

6. Maintain control. Go into the room early, make sure everything works, there is water if there's supposed to be, make sure the chairs are arranged properly, and so on. While you have the floor, maintain control of the room.

7. Don't apologize for anything. This is a corollary of the above. Viewgraph machine not working? Light bulb not working? The chalk breaks or squeaks? The presentation board falls over? Don't apologize. Explain, but don't say you're sorry—always maintain control of the room while you're speaking.

8. Answer to the point. Don't belabor the point, possibly giving the heckler more ammo.

9. Involve *THEM*. Some members of the audience may simply be pests rather than hecklers with destructive motives. This sort of audience member asks non sequiturs, overly complex questions, and questions that were appropriate 15 minutes ago, but not now. The best approach may be to involve the person somehow: referring to them, asking them questions, commenting on how good the question is (generally avoid this—it infers that other questions may not be good). This approach is difficult to implement, but can defuse hecklers (they wonder when you're going to strike next) and may help pests to stay with the program.

10. Determine the hidden agenda. Hecklers and pests are that way because they'd rather be somewhere else. Find out why they are acting that way. Perhaps the discussion can be directed to subtly defuse or head off questions.

I hope you never have to face rude audience members, but it can happen from time to time, and I hope these suggestions are useful. ◄

Newsletter Schedule

The *Newsletter* publication and deadline schedule is as follows:

DEADLINE	ISSUE
February 14	March
April 17	May

Please send your contributions to the following address:

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Estimating Costs of Writing Projects

by Robert Greenly

Abstract

Managers must quickly assess cost competitiveness to decide if their company should pursue each business opportunity. The cost of preparing estimates for new business is ever increasing. Spreadsheets are being used more, and probably should be used a lot more in this decision process. Spreadsheets make the job easier than traditional estimating devices such as the adding machine. A spreadsheet summarizes. It aids visualizing a project and facilitates "what if" adjustments to cost and time estimates—especially for complex projects requring hundreds of entries and many revisions. Estimators who use spreadsheets make accurate estimates, typically within five percent or closer.

A "3T" is a spreadsheet estimating format that includes tasks, time and talent (resources) needed for a project. The 3T shows the whole project, a macro view, showing all cells in relation to each other and to the whole. Such visibility makes unwanted anomalies stand out, over- and under-estimates for example. The 3T process is an effective mechanism for making "what if" adjustments, working toward a cost or price goal. Recalculated extensions immediately show the effects of changes to individual cells.

Introduction

Cost estimating models are of two types, top-down or bottom-up. Estimators use the top-down process in making quick, rough-order-of-magnitude (ROM) estimates whose accuracy is typically no better than about 20 percent. Estimators use the bottom-up process for more formal cost determination, especially those that must be within five percent or so, and withstand the rigors of an audit. In practice, both techniques are useful.

In top-down modeling, estimators decide on a target cost and apportion a judgmental amount to each task making up the total project. Target cost might be the amount of money available or budgeted. It may simply be the amount of money a customer is willing to spend.

Estimators divide projects into tasks. For example, writing, word processing, editing, printing, and reproductions designate the tasks of a writing project. Top-down is by far the most inexpensive estimating process because costs are quickly apportioned as percentages

Spreadsheets Extend the Efficiency of Computers to Cost Estimating.

of total effort. Unfortunately, a top-down estimates is little more than an expert's opinion, sometimes having no factual basis. It doesn't include *proof* that the estimate is accurate. True, one or two expert estimators using the top-down process can often match the performance of larger groups of specialists who estimate using the labor-intensive bottom-up process. But the accuracy of top-down estimates depends heavily upon the experience and judgments of only a few.

Industries dealing with new technologies, for example, the aerospace industry, require highly experienced estimators, those who can make inferential judgments when data regarding time and resources to complete similar previous projects are missing. Aerospace estimators must frequently rely on instinct rather than facts and numbers to create estimates. If historical data is lacking, a "best guess" is the only option. Therefore, where new technology is the norm, estimators often use the top-down process.

In bottom-up estimates, estimators systematically take the project apart, but add costs bottom up, that is, from the smallest piece upward to subtotals, then to the total. When the project has many pieces, it usually has many bottom-up estimators. Estimating tasks bottom up is easiest and most accurate when historical data concerning similar, already completed tasks exist. Historical data can consist of timecard and material records that enable estimators to reference already completed tasks as the bases of their estimates. A "complexity factor" can normalize estimates for tasks that are only approximately the same. Example: In Project A, 140 pages were written, edited, printed, and reproduced. Project B requires 300 pages. Therefore, 300 divided by 140 = 2.14, or approximately twice the pages will be created for Project B as for Project A. Using figures from Project A, 350 hours × 2 = 700 hours are estimated to do Project B. Using the complexity factor of 2 changes "similar-to" historical data into "same-as" cost data.

Cost estimating relationships (CERs) are tasks indirectly tied to other tasks. Quality assurance to production is an example CER. Quality assurance costs, based on historical records, are typically a fixed percentage of manufacturing costs, therefore, estimating one fixes the estimate for the other.

Bottom-up estimators sum costs bottom-up, summing to subtotals, then to the whole. Several (more than two) experts usually prepare bottom-up estimates. The bottom-up process, therefore, is labor-intensive and expensive. In large

publication projects there can be experts for writing, editing, word processing, proofreading, printing, and reproduction. Although more expensive to prepare, managers place more confidence in costs determined bottom-up.

Estimates Using Spreadsheets

The spreadsheet is an effective tool in both top-down and bottom-up processes. The 3T puts a temporal breakdown and time scale for the estimate on the left crossbar of the "T." The 3T put talent (personnel resources) on the right, showing a breakdown of needed skills. The 3T puts tasks down the center. Summing rows gives labor hours for each task. Extensions of this data, expressed as percentages of the total effort, show the relative efforts for all tasks. Summing columns downward gives labor hours per month and total hours for each type of resource. Estimators apply an appropriate factor, e.g., 151 hours per month (a standard bidding convention), to figure out the number of people needed each month. From this data, the spreadsheet shows the number of people needed for the project. Finally, summing all the talent hours and applying an hourly rate yields the total cost for the project. Figure 1 illustrates the 3T spreadsheet format.

Estimators will fill spreadsheets with lowest, highest, and target estimates can predict lowest, highest, and target costs for the total project. If a change is necessary, an appendix to the writing project, for example, the estimator makes the addition on-screen in seconds, the spreadsheet program calculates changes to all affected cells, updating the project's cost.

Startling outcomes aren't what spreadsheets typically show. But critical tasks, those that have highest costs, and unwanted anomalies, over rosy or too bleak estimates, for example, are made to stand out. Continually updating

Figure 1
(Time, Task, Talent) Summary Estimate Format

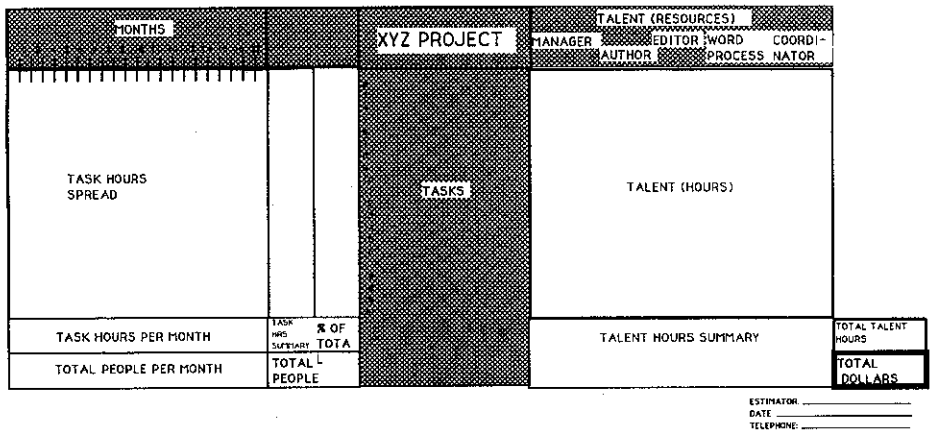

Figure 2
3T Spreadsheet Estimate for Preparing a Major Proposal to the Government.
("Resource cost" and "Lead author" entries are fake data.)

	JAN 1992	FEB 1992	MAR 1992	APR 1992	MAY 1992	JUN 1992	JUL 1992	AUG 1992	SEP 1992	OCT 1992	NOV 1992	DEC 1992	TOTAL PERSON-HOURS	% OF PERSON-HOURS	ESTIMATE TO COMPLETE	EST. PAGES	EST. PEOPLE	EST. DURATION (MONTHS)	PERS-MOS	RESOURCE COST* $/PER-MO	TOTAL 1990 DOLLARS	LEAD AUTHOR*
															PROPOSAL PRODUCTS/SERVICES							
PERSON-HOURS/MONTH:								302	302	302	302		1208	1	EXECUTIVE SUMMARY	25	2	4	8	12000	96000	JONES
			1510	1510	1510	1510	1510	1510	1510	1510	1510	1510	15100	15	TECHNICAL VOLUME	150	10	10	100	10000	1000000	SMITH
		302	604	604	604	604	604	604	604	604	604	604	6342	6	MANAGEMENT VOLUME	100	4	10.5	42	10000	420000	DUNLAP
							151	151	151	151	151		755	1.0	RELATED EXPERIENCE VOLUME	25	1	5	5	10000	50000	GRAVES
	1721	2869	2869	2869	2869	2869	2869	2869	2869	2869	2869	2869	33280	33	BOTTOM-UP COST ESTIMATING		19	11.6	220.4	10000	2204000	BATES
		453	755	755	755	755	755	755	755	755	755	755	8003	8	COST VOLUME	300	5	10.6	53	10000	530000	LOGAN
			1963	2869	2869	2869	2869	2869	2869	2869	2869	2869	27784	27	WORD AND GRAPHICS PROCESSING		19	9.7	184.3	7000	1291000	MASTERS
		604	906	906	906	906	906	906	906	906	906	906	9664	9	EDITING		6	10.7	64	10000	640200	JOHNSON
												TOTALS:	102136	100								
	1721	4228	8607	9513	9513	9513	9664	9966	9966	9966	9966	9513			< PERSON-HOURS/MONTH					TOTAL DOLLARS	6230300	
	11	28	57	63	63	63	64	66	66	66	66	63			< PEOPLE/MONTH							

=sum(A17..L17)
=sum(S17*T17)
=sum(Q24*R24)
=sum(G26/151)
=sum(I17..I24)
=sum(M17..M24)
=sum(M11/M13*100)
=sum(N17..N24)
=sum(U17..U24)

the spreadsheet during the project gives the project manager better views of the relationships between estimated and real completion dates and costs for individual tasks and entire projects.

Figure 2 is an estimate for an actual project using artificial labor rates. The project is to prepare a major proposal to the Government. The completed estimate shows that over 100,000 person-hours will be required to do the job and the total cost will be over $6 million. The estimate also shows that developing bottom-up costs is the most expensive task within the project (33 percent of total costs). Word and graphics processing is the second most expensive task (27 percent of total costs).[1] The estimate further shows that the proposal staff must "ramp up " until 63 people will be actively working on the proposal four months after starting the effort. Then in the final four months, the proposal team will peak at 66 people. Therefore, this single spreadsheet gives a macro view of the proposal's tasks, time, and talent requirements. This kind of visibility is vital to the manager who must decide whether to make the investment, that is, whether to bid or not bid.

The author created figure 2 using Microsoft Excel® on a Macintosh IICX computer. Alternatively, a PC using Lotus 123® or similar spreadsheet program could produce similar results. Computers used to display large spreadsheets should have a full-page or two-page display. Otherwise, estimators must do much scrolling and lose the advantage of a macro view.

Conclusions

Spreadsheets should be used a lot more to predict costs of writing projects. Spreadsheets are effective in preparing both top-down and bottom-up estimates. Accurate estimates are essential ingredients of competitiveness.

References

1. R.B. Greenly: *How to Win Government Contracts,* Van Nostrand Reinhold Company. pp. 95, 104-105, 1983.
2. Microsoft Excel® Reference, Document Number AB0202-200-R00-0289, Part Number 05618.

About the Author

Robert Greenly, a graduate of the Pennsylvania State University, is a Program Acquisition Leader at the Lockheed Missiles & Space Company, Inc., Sunnyvale, California. In this capacity, he organizes and directs proposals teams in preparing major proposals to the government. He is the author of How to Win Government Contracts, *a business text published by Van Nostrand Reinhold Company, Incorporated.* ◄

[1] *Note that printing and reproduction costs are not itemized on the spreadsheet. In my company printing and copying are "indirect" costs not charged to individual projects, but are, instead, apportioned across all projects within the company. Other companies may account for these charges differently.*

Institute Elects First Woman President

by IEEE News Service

Martha Sloan, a professor of electrical engineering at Michigan Technological University in Houghton, Michigan, has been elected 1992 president-elect of The Institute of Electrical and Electronics Engineers, Inc. (IEEE). Sloan will become the Institute's first woman president on January 1, 1993.

There were four candidates for the office of president-elect. Sloan was a petition candidate, and Robert T. H. Alden, H. Troy Nagle and Wallace S. Read were nominated by the IEEE Board of Directors.

When Sloan assumed the office of president-elect on January 1, 1992, Merrill W. Buckley, Jr., 1991 president-elect, became 1992 IEEE president.

Sloan, who joined the IEEE in 1959, was named an IEEE Fellow in 1991. She served as executive vice president of the Institute in 1990, and she was president of the IEEE Computer Society in 1984-85. She is the first officer of the Computer Society to be chosen IEEE president-elect.

Martha Sloan received B.S.E.E., M.S.E.E. and Ph.D. degrees from Stanford University in 1961, 1963, and 1973. From 1961-63, she worked at the Palo Alto Research Laboratories of the Lockheed Missile and Space Company in communications research. Following that, she taught for two years at the Frankfurt International School in Oberursel, Germany.

A professor in the department of electrical engineering at Michigan Technological University since 1969, Sloan is currently concentrating on the areas of computer networks, graphics and fault tolerance.

Sloan has published three textbooks and more than 50 technical papers. She has been awarded a National Merit Scholarship, an IEEE Centennial Medal, the Frederick Emmons Terman Outstanding Young Electrical Engineering Educator Award, and the IEEE Computer Society's Richard E. Merwin Award for distinguished service. ◄

TOOLS OF THE TRADE

by Cheryl Reimold

Communication—A Key to Quality Control

Part 2: Managers—Think Before You Edit

"He who writes carelessly confesses thereby at the very outset that he does not attach much importance to his own thoughts . . . A man convinced of the truth and importance of his thoughts feels the enthusiasm necessary for an untiring and assiduous effort to find the clearest, finest, strongest expression for them . . ."

—Arthur Schopenhauer
On Style

Each person's writing is an expression of his or her thoughts. We all know that. Right? Well—if we do know it, we certainly don't behave as if we do. And the results of this neglect are deeply damaging to motivation and, by extension, high-quality work.

Let me explain.

As most of you know, I teach in-house writing courses to corporations. A recent comment by a research scientist in a paper company crystallized a concern I had been hearing over and over in the classes:

"I don't understand why the company sent me to this course. They're not interested in what I write."

When I asked him to elaborate, he went on to tell me that his manager edits everything he writes so heavily that nothing of his original work remains. He feels resentful about this—but, even worse, he feels that his thoughts are considered unimportant.

Can you imagine what this feeling does to this scientist's motivation? Yet I hear the comment over and over again:

"My boss edits me out of my reports."

Remember: writing is the expression of a person's thoughts.

I went to see the manager of the research scientist and told him that this man felt somehow undervalued because everything he wrote was so heavily edited. The manager expressed surprise at this reaction. It turned out that he considered the scientist quite a good writer; his only complaint was that the man "wrote too much."

He added that the man was "one of our better scientists."

"Then you do value his thoughts?" I pressed.

"Of course."

"You wouldn't think of reaching into his brain and twisting them around to fit another pattern?"

"Of course not. What sort of question is that?" He was starting to look at me strangely.

"A reasonable one," I said, playing my trump card. "Because that's what you're doing when you edit his expressions of his ideas out of his writing." Bringing out the heavy artillery, I quoted Schopenhauer to him. I asked him how he would feel if he had carefully written down his interpretation of an event, only to have it summarily dismissed with a slash of red pencil.

He nodded. "I understand. But—he does write too much."

I told him we would be working on tightening up the man's writing in the writing course. But I asked him to consider one question. Which was more important: to show this bright man respect for his ideas, thereby encouraging him to do his best work—or to cut his three pages down to two? The manager understood.

A Company's Greatest "Quality Asset:" Its People's Thoughts

When we think of "quality" in the workplace, we tend to think of objects (the products and their components) and actions (the work done on the job). There is a lot of talk about improving the quality of service and production and teamwork. But these actions, critical as they are, are not the roots of the company effort.

To improve the quality of our products and services . . . we must foster creative, problem-solving thinking on the job.

Thoughts—ideas, plans, visions, solutions to problems—are the source of the actions, which in turn lead to the product itself.

To improve the quality of our products and services, we must go back to their roots: the thinking that developed them. We must foster creative, problem-solving thinking on the job. One way to do this is to respect people's expression of their thoughts.

Managers—Hold the Red Pencil

Of course you have to edit your people's reports. But the editing you do should be strictly limited as much as possible to correcting errors. Fix mistakes in content or grammar. Then stop. Don't slash

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CURMUDGEON'S CORNER

by Joan G. Nagle

Dinner-Table Topics

God, it is said, setteth the solitary together in families, and a good thing it is for curmudgeons, since they tend not to have a lot of friends. And he giveth families, if they are of a verbalistic (there is too such a word) bent, a lot to talk about.

Things we talk about in our family (besides food, which is topic 1), include the following:

- The dumb use of *myself* to substitute for *I* or *me,* when the speaker/writer doesn't know which one is correct . . . or knows, but thinks "for George and me" sounds illiterate. It isn't.
- The difference between *let* and *leave.* I always thought this was a simple matter, and one that most native speakers of English resolved intuitively, until one family member suddenly (I swear this happened overnight) adopted precisely the reverse usage. I don't know what caused his synapses to malfunction like this, but there seems to be no cure.

  He says, "You let the milk out after breakfast." I say, "No, I *let* the dog out. I *left* the milk out." He says "What's the difference?" Now he has me confused, and anyway the milk is sour. So what, indeed, is the difference?
- Why one child in a family will grow up with excellent spelling and grammar skills, and another can't produce a readable grocery list, when both partook of a common gene pool, grew up in the same household, and attended the same schools. Even more strange . . . in a previous generation, one of two siblings spoke excellent English and another . . . well, didn't.
- The meaning of *spindle.* Really. Isn't it that thing on your desk onto which you jam unpaid bills, telephone messages you don't want to return and, occasionally, the palm of your hand? Got into an argument about this one day, with a loved one who is sure it was a verb, *to spindle,* meaning the process of jamming one's bills, messages, or hand onto a vertical needle-like structure.

The correct spelling of the thing you hit a tennis ball with . . . is it racket *or* racquet?

Funny . . . I never thought of this despite frequent adjurations not to fold, spindle, or mutilate. Actually, either is correct, as you may have guessed/already known. A spindle was originally some sort of bobbin used in the spinning biz. (By spinsters, probably, who don't have loved ones to question their word choices.)

- The correct spelling of the thing you hit a tennis ball with . . . *racket* or *racquet?* This discussion, actually was not with a family member but with a suitor of a family member. I insisted strongly on the former, being of an Anglo-Saxon bent. He countered with the argument that, since I don't play tennis, how would I know? Fortunately, he turned out to be without redeeming social value in other ways as well, and did not become an inlaw. Outlaw, perhaps.
- The neat choice of *ecu* as the name of the forthcoming European Community Unit of currency. Besides being an obvious acronym, the word ecu has been known to crossword puzzle freaks for years as an old French coin. Don't you love it when things work out this way?
- The difference between *Fewer* and *less.* I tell everyone who will listen that fewer should be used with things you can count and less with things you can't (as in "fewer baked potatoes" and "less mashed potatoes"), but the number of people who will listen in now very small. See above on curmudgeons' circles of friends.
- The pronunciation of *applicable.* All my life I've said AP-plicable; suddenly all I hear is ap-PLIC-able. Where was I when this changed, and why was I not consulted?

"He says to-MAY-to and she says to-MAH-to," the song goes. In the song, they called the whole thing off. I'm glad we didn't; I like having a family to toss these things around with.

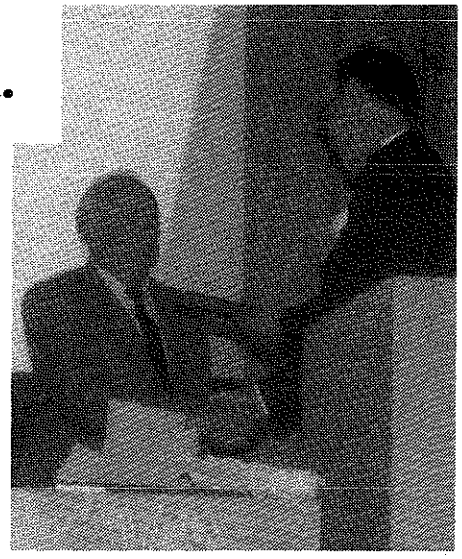
If your family plays games with words too, you might like this:

Q: What does an agnostic dyslexic insomniac do at night?

A: Lie awake and wonder if there is a god. ◄

1991 International Colloquium on New Information Technology, U.S.S.R.

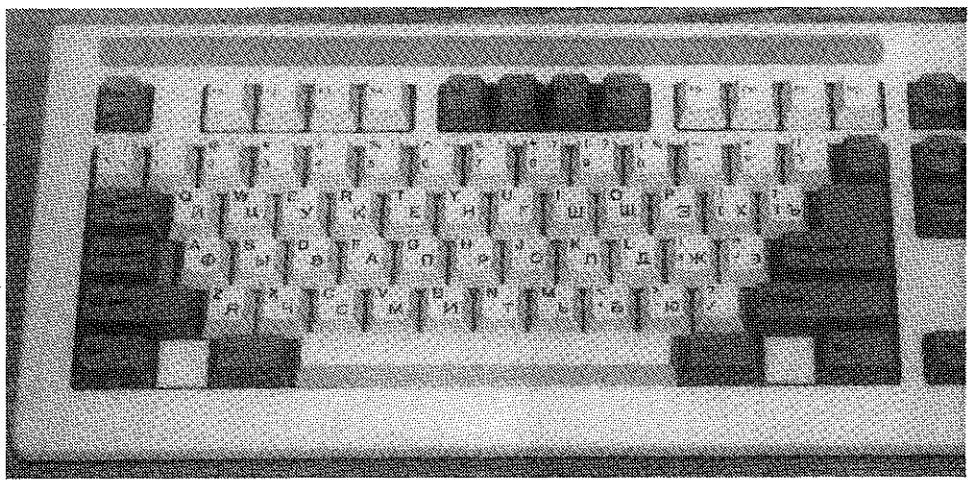
PCS AdCom delegation near their hotel, Moscow. (left to right: George Martin, Patricia Carlson, Janet Rochester, Paul Rrummel, Rudy Joenk, Lisa Moretto, Nancy Corbin, Kimberly Manthey, Alexander "Sasha" Khatkin (interpreter and guide provided by International Centre for Scientific and Technical Information), and Ron Blicq.



Rudy Joenk of PCS AdCom presents plaque to Dr. Henrich S. Lantsberg (Head, Science Information Department of Inst. of Radio Engineering and Electronics) recognizing "his contribution in promoting the goals of IEEE-PCS in the U.S.S.R."

Dr. Lantsberg presents award for best presentation from the PCS delegation to Dr. Patricia Carlson.

Scene from cocktail party at Institute of Radio Engineering and Electronics. At right in picture is Dr. Henrich S. Lantsberg, host of the PCS AdCom delegation.

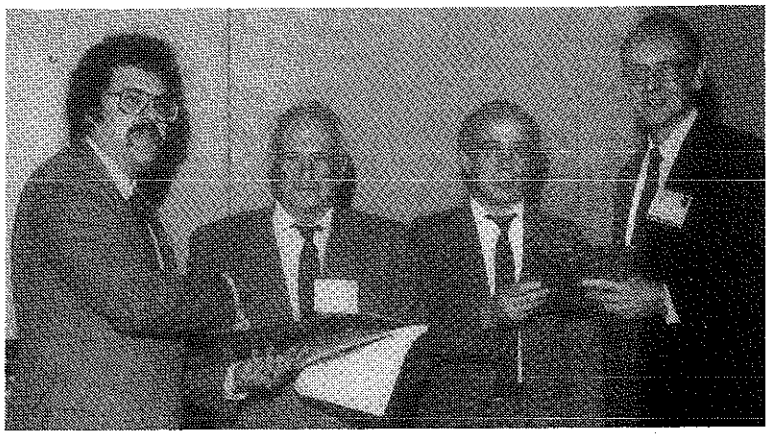


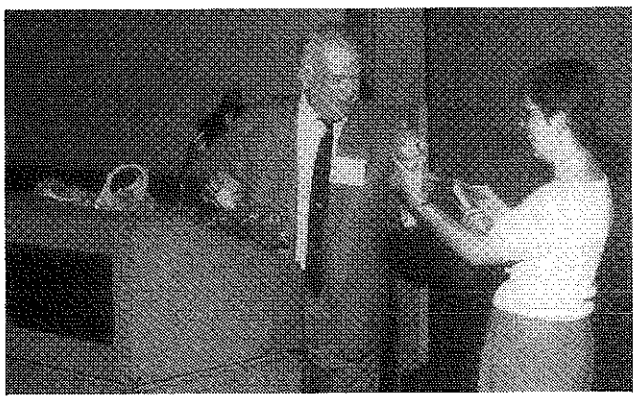
PC-style keyboard with added Cyrillic characters.

IPCC '91, Orlando, Florida

Right: Dr. Henrich Lantsberg presenting Keynote address.

Below: Dan Plung (left) Rudy Joenk (right) receive recognition greetings from the two Russian invitees – Dr. Lantsberg and Youri Gornostaev.





Above: Debbie Kizer receives a gift from Dr. Lantsberg for her new baby.

Below: A trick or treating event was organized for the children.

Above: Registration area.

Right: Tracy Montgomery, Idaho State University – the presenter at Luau.

Below: Rudy presents Henrich Lantsberg with an award for promoting international communication.

ПЕТЕРБУРГА*

The Two-day PCS Siege of Leningrad

by Paul Trummel

It was just before midnight on a crisp, clear Friday night when the eighteen-coach train swiftly gathered speed passing between the grotesque, multistory buildings of the Moscow suburbs. This journey was the beginning of the two-day excursion to St. Petersburg (Leningrad) by eight of the IEEE PCS delegates to the 1991 International Colloquium on New Information Technology.

The group had been transported to Komsomolskaya Ploshchad railway station, the oldest of the nine main-line terminal serving Moscow. This station is a fine example of nineteenth century railway architecture, built in 1851 for the new Moscow/St. Petersburg line, from a design by the architect Konstantin A. Thon.

The train, hauled by an electric locomotive, gathered speed for the 400 km, eight-hour, journey to St. Petersburg by moving smoothly and quietly along the welded track. The spacious compartments were superior compared to most European trains, although the lack of toilet accouterment tended to be embarrassing. In the galley there was an American insinuation—a single teabag—the hot water for which was obtained from a traditional railway samovar. How *non de rigueur!*

We arrived in St. Petersburg on a misty Saturday morning and were immediately transported, in a luxury Mercedes tour bus, to our accommodations at the Hotel Sovetskaya, situated in the central area. After breakfast we returned to the bus and were taken to Zlatoust—a school which offers "a unique opportunity to master the Russian language and see the country in a short time [4-6 weeks]." The representative demonstrated an interesting computerized program, that requires 20 contact hours per week, is designed to improve speech skills, and acquaints one with the phonetic and grammatical peculiarities of Russian spoken language. The software for the computer aided instruction was of high quality and we were given assurances that the courses would be taught by fully qualified Russian language professors—one group member commented that the salesperson had to use an English speaking interpreter to make his pitch! However, I have a positive impression of this [immersion] course and I shall certainly take advantage of the arrangements presently being made by PCS to sponsor a group to attend these courses late in 1992. I intend to learn the Cyrillic alphabet before I take the course as I experienced difficulty with the transliteration of alphabets—so much for 44 years spent as a typographer! I was surprised at how competent Ron Blicq is at speaking Russian after only three months of part-time self-teaching. He has designed a system of flash cards for alphabet recognition. I hope that he will make them available to participants in the proposed Russian courses. The Russians with whom I came in contact were mostly bilingual, German being the second language. A result no doubt of the political connections with Germany during the past 70 years. This helped me to communicate in what I thought would be a difficult environment.

After the visit to the language school we returned to the bus for an orientation tour of the city. We visited too many places for me to mention them individually. Generally, St. Petersburg is known as the "Venice of the North"—it is built on islands in the delta of the Neva River and also has many canals. Peter the Great (1672-1725), secretly spend about two years in Holland studying the culture and architecture before he designed St. Petersburg and used several Dutch cities as a model. The architecture, which is being preserved (developers *verboten!*), has a distinctly Dutch flavor.

On Saturday evening we attended a modest performance of Tchaikovsky's ballet *Swan Lake* (1876). It was the first time that I had attended a ballet with taped music—somewhat disconcerting for a traditionalist. However, I ended the evening marvelling at the acoustical coordination and clarity of sound—a sort of hypermedia simulation. It is unfortunate that the dancers were not also part of such a simulation. The building

PETERSBURG

*The transliteration from Cyrillic to English is:

Cyrillic	П	Е	Т	Е	Р	Б	У	Р	Г	А
Phonetic	P	E	T	E	R	BE	OO	R	GE	A
Roman	P	E	T	E	R	B	U	R	G	A
English	P	E	T	E	R	S	B	U	R	G

A Motley Crew!

in which the performance took place was designated a "club." To me it was reminiscent of the old-time music halls in London during the 1940s.

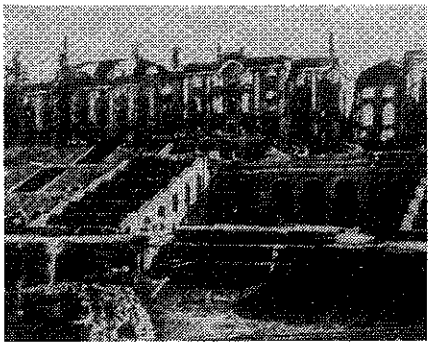
Before, during and after the ballet, occurred the transportation trials and tribulations of Kimberley Manthy—her Aeroflot experience, her 45' long, personal limousine, her return by train to Moscow, and her journey back to the United States. Ah, but that is another story: possibly a book!

I have a positive impression of the Russian language course and I shall certainly take advantage of the arrangements presently being made by PCS to sponsor a group to attend these courses late in 1992.

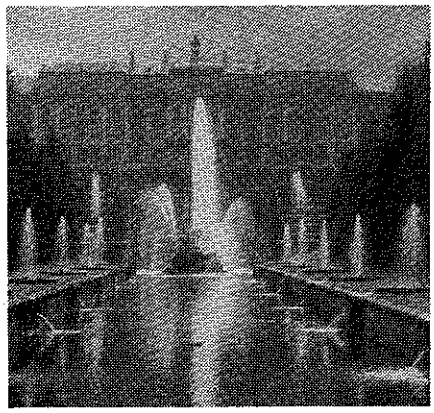
Sunday morning was, for me, the *pièce de résistance* of the trip—the Hermitage Museum. The Hermitage is one of the world's largest and most famous museums and consists of four buildings. Vallen de la Mothe was commissioned by Catherine the Great (1729-96) to build the first of these buildings, the Small Hermitage. She arranged for the walls to be hung with a collection of paintings—it seems that she cornered the market in the works of Peter Paul Rubens (1577-1640) before others appreciated his work and made him famous. When I return to St. Petersburg I intend to spend several days exploring the Hermitage—a tourist incursion cannot possibly do it justice.

Sunday afternoon we visited the Peterhof (Petrodvorets), some 30 km west of St. Petersburg, which was primarily designed by the architects Braunstein and Leblond, and ceremonially inaugurated in 1723. During the second world war, the Nazis used the palace as a general headquarters during the 900-day siege of Leningrad and stole many of the art treasures. On leaving, they virtually razed the buildings to the ground. What we saw was a painstaking reconstruction of the original palace and gardens to specifications produced from old photographs, scraps of wallpaper, and other materials. Each one of us was supplied with special felt slippers so as not to damage the beautifully finished floors. I treated our visit to Peterhof as an orientation and I would like to return and spend at least a full day there.

A Canal in St. Petersburg *(with apologies to photographer Hayden Rochester, Jr.)*



1946 – Great Palace and the Grand Cascade after the Razing by the Nazis.



1955 – Great Cascade Restored.

1958 – Great Palace Facades Restored.

1964 – First Halls Restored.

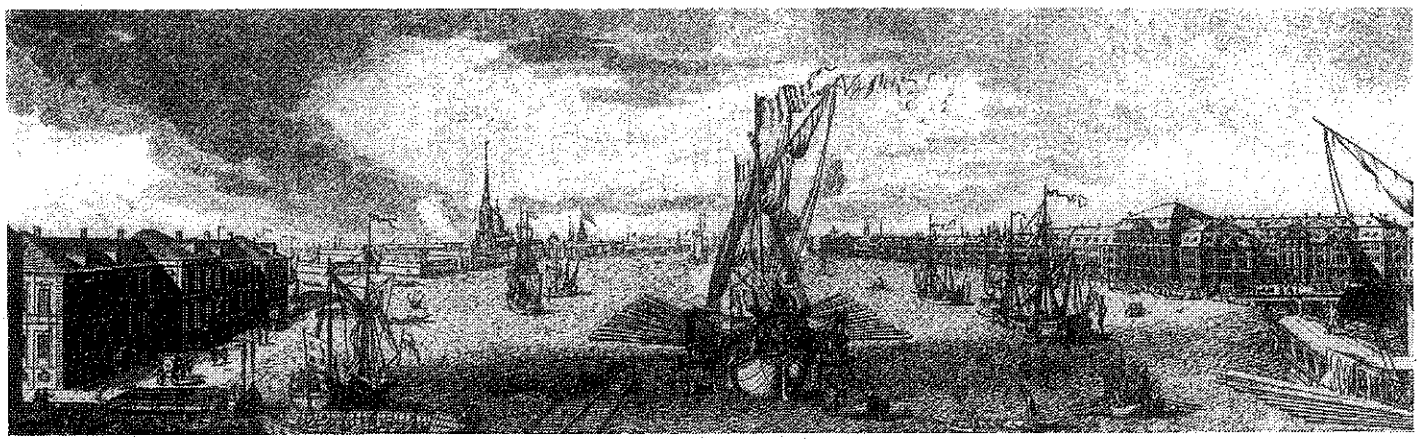
The but ride back to St. Petersburg was a nightmare. The driver of the Mercedes tour bus was a cowboy of the first order. He broke every rule of the road, if any exist in Russia, and spent most of the journey either careening and overtaking weekend traffic on the soft shoulder, or bluffing oncoming traffic in the dusk-light. We survived!

Now, three observations derived from first-hand, personal experience:

1. Children, attending the museums in groups, appeared to be unregulated, attentive, questioning, and disciplined. There was no horseplay. Such attentiveness and discipline may contribute to 90% literacy in Russia compared with 50% literacy in the United States. Surely an indictment of both the family and educational systems in the U.S. The U.S. may have the edge on communications technology, but does it adequately address the learning of communication skills?
2. The Russian economic climate was similar to that which I experienced in London during the second world war. A survival type of situation. There seems to be enough staple food for most of the population—of poor quality by U.S. standards—which seems to constitute a palatable and nutritious diet. Consumer goods are virtually non-existent. I found, by personal contact, the Russian poor (working class) to be adequately fed and housed, clean, and neatly dressed. A result, it appears, of knowing how to cook and sew, probably the result of family nurturing and vocational or domestic science education.
3. The craftsmanship in the reconstructed museums is superb, but craftsmanship at the consumer level is virtually extinct. The master/apprentice relationship, so important to the crafts of Europe, seems to have completely disintegrated under the Marxist maxim of "from each according to his ability, to each according to his need." This policy has resulted in a lack of incentive for quality work and craft initiative.

It was just before midnight on a crisp, clear Sunday night when the eighteen-coach train swiftly gathered speed passing between the grotesque, multistory buildings of the St. Petersburg suburbs. This journey was the end of the two-day excursion to St. Petersburg . . . a memorable experience.

Paul Trummel is resident at the University of Washington, Seattle. He is an Associate Professor and a Consultant in Visual and Verbal Communication. ◄



Spandau: The Secret Diaries— Albert Speer

(New York: Macmillan, 1976, 464 pp., $21.95.)

Review by Tim Whalen

There is, in any profession, a moment in which a professional person sees some chaotic flash in time when a career, or company reputation, or a nation's fortune is engaged in a struggle that, for some moral error or oversight, will leave that person to pay the proverbial piper. Of the better known industrial writers of the 20th Century, Albert Speer falls into such a category. A subtitle to this book could well be "The Industrial Writer in Prison: Albert Speer and the Ethics of Technology." His is the ultimate vision of the writer-planner-architect-technician whose skills, talents and energies were devoted without reservation to his employer, solely and without the faintest tinge of compromise. An architect by education, Speer got out of college just in time to appreciate the great international depression of 1929. As he described in *Inside the Third Reich,* his career started as a stadium designer for Nuremberg, then as city planner for occupied Europe. In 1942, Speer's efficiency (and the death of his boss) earned him the job of Germany's Minister of Armaments, responsible for all new weapons, war production, multinational planning and economics. For performing these tasks very well, Speer was tried by the Allied War Crimes Tribunal at Nuremberg in 1946. The charge—slave labor; the findings—guilty; the sentence—jail, from 1946 until 1966, to be served at the Spandau Prison where Speer and others convicted of war crimes were perpetually guarded by U.S., British, French and Soviet soldiers. See Figure 1, Spandau Prison.

What aspect of his work put Speer into a posture in which his planning efforts equated to 20 years in prison? Speer acknowledges with Faustean introspection his culpability in *Spandau: The Secret Diaries,* as well as expressing how and why ethics and technology are always in perilous balance.

We see in the imprisoned Speer an uneasy technical person with an engrossing curiosity for the humanities, listening incessantly to Chopin and Beethoven, reading Plato, Aeschylus, Caesar, Horace, Juvenal, Petronious and Martial as steadfastly as Dante, Cervantes,

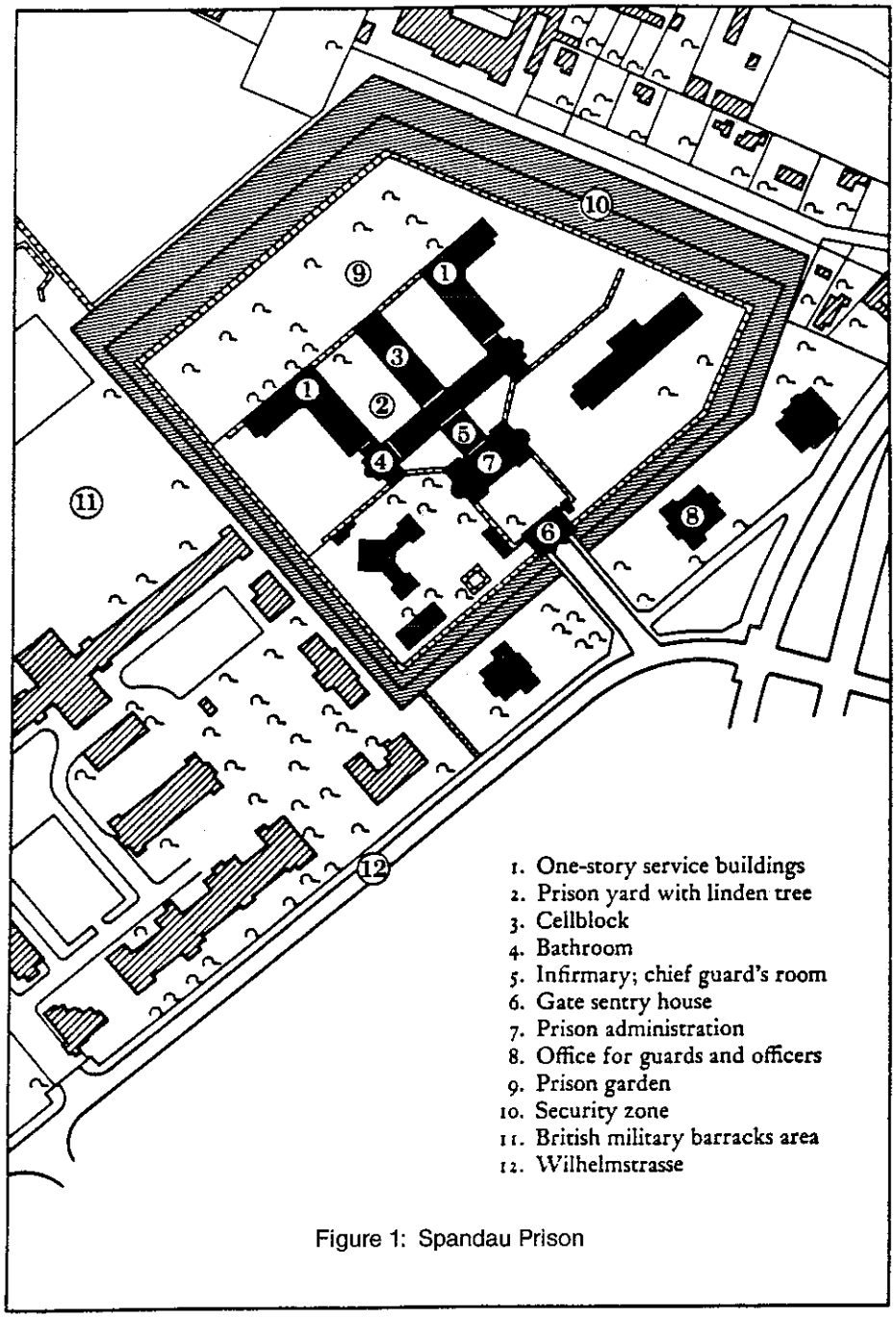


Figure 1: Spandau Prison

Goethe, Swift, Gogol, Tolstoy, Dostoyevsky, Hemingway, Hesse, Sartre and Boll. Advances in architecture, its plans, methods and materials also captivated his postwar jail days. Here is a man whose pastimes lean heavily to the humane arts and sciences, even to the brooding melancholy of German technical people reflected by Thomas Pyncheon in *Gravity's Rainbow.*

Speer also shows his broken pride, harassed by low-ranking Russian officers to deliver proper military salutes to them, only to lose his prison job as janitor to a Waffen S.S. prisoner in better physical condition. As the BBC showed in its 1986 version of *Spandau,* Speer kept his sanity by devising a fantasy hiking route (across the globe, continent by continent) and by writing his memoirs in secret.

Speer acknowledges with Faustean introspection his culpability as well as expressing how and why ethics and technology are always in perilous balance.

In *Spandau: The Secret Diaries* Speer reflects upon his deeds in unquestioning support of a totalitarian regime, but in infinitely personal terms: "I am reading in Martin Buber that a person obtains power over nightmare by calling it by its real name." These nightmares are the personal responsibilities the technocrat cannot evade much less escape, the nightmares that both accompany and transcend prison. In Speer's words, "This is the torment of Hell that Dante forgot." Lying in his freezing cell, wrapped in a standard issue overcoat that he approved personnally—and knowing that many of his countrymen froze from that coat design was one such torment. The ghastly specter of clouds of ignited liquid oxygen at V-2 test centers preyed on him too, along with the many crews lost to other rocket safety problems. Of his new tanks, the Tiger and Panther, one was too heavy to evade Allied hunters, while the other suffered from a faulty transmission. Legions of ghosts attended Speer in Spandau.

The aerial detonation of Dresden and other German cities by Allied air raids was yet another horror to a city builder. When it came to clearing the rubble, providing other labor for armament, and workers for fortification, Speer simply looked the other way. He approved captive labor. In fact, he recognized that a slave work force of some two million people had wartime advantages. The end product of his strategy, however, was that Speer spent twice as long in prison as Grand Admiral Donitz, whose U-boats sank hundreds of Allied ships and who was acting Head of the Nazi State when the war ended. Speer was not freed until 1966. His diaries were not published until 1975. He is still classified as a war criminal.

In contemplation of the imprisoned writer, it is significant to see that tyranny and ingenuity can go hand in hand, and that pragmaticism can go berserk in a world ruled at one moment by a Caligula and at another moment by a Marcus Aurelius. The ultimate irony of *Spandau: The Secret Diaries* is that these agonizing remembrances were smuggled out, a few sheets at a time, by a pair of sympathetic guards, one an American, one a Frenchman, who felt that, privately speaking, Speer appeared to be a decent fellow who, whatever his crimes, did not deserve to be sentenced to silence. ◄

Student Awards

by Dave Kemp, Chapter Coordinator

The Professional Communication Society makes award funding available for student writing competitions in it's chapters. Up to $300 is available for prizes plus $100 for administrative expense. Awards of 1st—$150, 2nd—$100, 3rd—$50 are suggested.

Winnipeg

Red River Community College in Winnipeg was the first to use the award funds for their May 1991 competition. Judging is based on both a written paper as well as a formal presentation before an audience of IEEE members, per students, family, and college instructors and officials. Winners were:

1st: *Reflecting Tape Tracking Robot,* by Phil Zuk and Brad Woodfine.

*2nd: *Rail Transportation Controller*, by Mark Scott and Ashley Hole.

*2nd: *Distance Monitoring Cruise Control System,* by Michael Hurst and Karl Isaak.

*2nd: *Fitness Monitor with Speech Output,* by Audrey Kocay and Andre Jarvis.

*Three-way tie for second place.

Red River Community College takes pride in seeing many of the winners of these competitions subsequently win national and international competitions. Councillor Patrick Sheedy advises the college will once again conduct a competition in May 1992.

Philadelphia

The Philadelphia section is conducting their student papers competition in March.

Chicago
Student activities chair Mary Hart is planning a student papers competition for the student branches in the Chicago section with the awards to be presented at the Annual Section Recognition dinner. ◄

Professional Communication Society Plans Russian Language Courses

During a recent visit to the International Centre for Scientific and Technical Information (ICSTI) in Moscow, Ron Blicq (the Professional Communication Society's Education Chairman) met Dr. Vladislav M. Pavlov, Chief of ICSTI's Protocol Department to discuss holding a series of Russian language courses for IEEE members. The courses will combine educational and cultural events, all on Russian soil.

The courses will bring participants up to a "comfortable conversational level," that is, with sufficient capability to take part in business meetings and associated events conducted entirely in Russian.

Now Ron is soliciting interest, both within and outside the IEEE, to determine whether to continue with the negotiations, and is asking interested IEEE members to contact him.

Details about the proposed courses are:

- *Course length:* 4 weeks.
- *Course location:* Moscow (at ICSTI) and in other cities such as St. Petersburg, at one week intervals, to provide a varied learning environment.
- *Group size:* 15 maximum.
- *Formal tuition time:* Five hours per day, five days per week, for four weeks.
- *Cost:* Approximately $1800 to $2000. The cost includes tuition, materials, and all expenses on former Soviet soil (e.g., hotel, accommodations, meals, travel, and visits to cultural sites and to events such as the ballet and circus). Air travel to Moscow and return will be extra. (NOTE: the cost will depend on the exchange rate between the ruble and dollar at the time each course is scheduled.)
- *Time of first course:* Probably late fall 1992 or early 1993.

If you are interested, send Ron a letter or Fax indicating:

- Your degree of interest (expressed as very high, high, moderate, or low).
- Your preferred time of year (please give alternatives).
- Your name, address, telephone number, and Fax number.

Although PCS's Education Committee will be coordinating the courses, places will also be opened to people outside the PCS and IEEE. So if you know of others who may be interested, please copy this announcement to them and ask them to contact Ron. He can be contacted at:

Ron Blicq
Education Committee Chairman, IEEE/PCS
569 Oxford Street
Winnipeg, Manitoba
Canada R3M 3J2
Phone: (204) 488-7060
Fax: (204) 488-7294 ◄

Rochester Chapter To Hold Annual Seminar

The Society for Technical Communication, Rochester Chapter will hold its annual seminar, *Spectrum '92,* at the Holiday Inn Holidome in Rochester, N.Y. on Thursday and Friday, March 5 and 6, 1992. The featured speaker will be William Horton, noted lecturer and author of several publications about on-line documentation, who is appearing courtesy of the Eastman Kodak Company. Program sessions will explore topics such as Training and Tutorials, Human Factors, Hypermedia, Printing and Publishing, On-line Documentation, and New Technologies.

Contact:
Mary C. Boyd
Eastman Kodak Company
343 State Street
Rochester, NY 14650-0708
(716) 781-1880 ◄

WANTED

The DC Chapter of the Professional Communications Society is urgently in need of a leader. Ronnie Rawls has headed this chapter and has done a tremendous job in the Washington, D.C. area. PCS needs someone who can carry on Ronnie's good work.

If you are interested in heading this chapter or serving in a leadership capacity, please contact PCS President, Rudy Joenk, at the IBM Corporation in Boulder, Colorado at (303) 924-5867.

IEEE Technical Report Writing Awards Winners

Once again two of our students have won a technical report writing award given by the Western Canada Council of the IEEE. This time however, it is the most prestigious Life Member Award.

One Life Member Award is given in each of three Canadian Councils to the student(s), from either a university or college, submitting the best technical report. A cash prize accompanies the award, and the three papers will be published in the IEEE 1991 Student Papers Collection.

Brad Woodfine and *Phil Zuk*, two 1991 Electronic Technology graduates, are the winners of the Life Member Award. Both Brad and Phil will attend the IEEE's International High Tech show (all expenses paid by IEEE) on October 31st to present their paper.

Brad's and Phil's instructors for their project were: *Bryan Crandell*—Technical and *Tom Mohammed*—Report Writing. ◄

Tools of the Trade

(continued from page 6)

through the piece. If it is wordy or confusing or badly organized, please *resist* the temptation to delete paragraphs or rewrite the whole thing. Instead, make suggestions to the author. Circle areas you think are unnecessary and ask if they might be dropped. Ask for clarification of a confusing passage. Underline points you think are important and suggest that the author move them up.

Remember, you're dealing with one person's most sensitive and important asset to the company: his or her thoughts don't take kindly to mutilating, even on paper.

Cheryl Reimold is author of more than 100 articles and several books, including How To Write a Million-Dollar Memo *and* Being a Boss. *Her firm, PERC Communications (6A Dickel Rd., Scarsdale, NY 10583, telephone 914-725-1024), offers businesses in-house workshops and courses in communication, writing, negotiation, and creative problem solving.* ◄

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