

Send Hardware QUERIES and REPLIES to Jim Beatty, Chemistry Department, Ripon College, Ripon, WI 54971, (414) 748-8123.

Software QUERIES and REPLIES should be sent to Ken Loach, SUNY at Plattsburgh, Plattsburgh, NY 12901, (518) 564-2230.

## WHO DONE IT?

WHO DONE IT? information should be sent to the appropriate section editor (Hardware or Software - see QUERIES above).

Jim Beatty (see address above) is interested in receiving WHO DONE IT? items or more extensive reviews from users of data acquisition systems such as the Keithley 500 Scientific workstation and the Keithley System 570 Data Acquisition workstation.

### WHO-167 (Sept. '86)

Consumer Reports, March 1986, 51 (3), 166-169 reviews the following IBM-compatible computers: Epson Equity I, Kaypro PC, Leading Edge Model D, and the Zenith Z-148.

October 1985, 50 (10), 576-580 reviews of IBM-compatible computers included the Compaq Portable, Kaypro 16, Leading Edge Model D, Panasonic Sr. Partner, Sanyo MBS-775, Tandy 1000, and the IBM-PC. (J.B.)

### WHO-168 (Sept. '86)

The Apple Macintosh is reviewed in Consumer Reports, January 1985, 50 (1), 28-31. (J.B.)

### WHO-169 (Sept. '86)

Two Apple II compatibles, the Franklin Ace 2000 and the Laser 128, are compared to the IIc and IIe in Apple+, June 1986 4 (6), 26-44. (J.B.)

### WHO-170 (Sept. '86)

Consumer Reports, August 1985, 50 (8), 467-471 gives a review of the Apple IIe Professional, TRS-80 Model 4P and Kaypro IIx. A comparison of these machines with the IBM-PC and the Apple Macintosh is given.

### WHO-171 (Sept. '86)

Consumer Reports, June 1985, 50 (6), 338-343 reviews the following Dot-matrix printers: Panasonic KX-P1081, Smith Corona D200, Apple Imagewriter, C. Itoh 8510 BPI, Diablo P12CQ1, Epson RX-80 F/T, IBM Graphics, Mannesman Tally Spirit 80, Okidata 92P, Radio Shack DMP-120, Star Delta-10, Star Gemini 10-X, Hewlett-Packard ThinkJet, Apple Scribe, and the Okidata 92S. Also, the following daisy-wheel printers are reviewed: Juki 6100, Brother HR 15, NEC 15LQ, Silver Reed EXP 400, and Smith Corona L1000.

### WHO-172 (Sept. '86)

Twenty-five monochrome and color computer monitors are reviewed in Consumer Reports, July 1985, 50 (7), 420-422.

### WHO-173 (Sept. '86)

Patricia Wirth and Lincoln Ford in Byte, July 1986, 11 (7), 303-310 review five laboratory interfacing packages to go with the interfacing boards, Techmar Lab Master and Data Translation DT2801, for the IBM PC. (J.B.)

### WHO-174 (Sept. '86)

Byte, May 1986, 11 (5), 215-224 includes a Rich Mallory review of current optical disk drives for those wishing increased storage for the IBM-PC. (J.B.)

### WHO-175 (Sept. '86)

There is a special issue on applications of expert systems (AI) to CAI in J. of Computer Based Instruction, Spring 1986, 13(2), 29-61: the eight articles cover principles and practice of the application of 'intelligent' teaching systems to Department of Defense training, but the techniques obviously could have wider applications. (K.L.)

### WHO-176 (Sept. '86)

T. Mirecki, PC Tech J., June 1986, 4(6), 52-75: this is a review of the new wave of 'enhanced-BASIC' interpreters now coming onto the market: BASICA, BetterBasic, BusinessBasic, MegaBasic, ProBasic, TrueBasic, and Whatcom Basic. (K.L.)

## WHO-177 (Sept. '86)

V. E. Wright, PC Tech J., June 1986, 4(6), 110-123: a review of Formula/One, an equation-solving system patterned after TKSolver! It can be used to solve complex systems of equations and for curve-fitting and regression analysis. (K.L.)

## WHO-178 (Sept. '86)

Byte, May 1986, 158-246: this is a group of seven articles on Mass Storage. All but one of them are on CD-ROM optical disk systems, which are beginning to come into educational and library use as data-base systems for full-text searching. (K.L.)

## WHO-179 (Sept. '86)

Users of the IBM-PC should consult the Fall 1986 Special Issue of Byte for a collection of articles on technical features of the IBM-PC. The following two articles should be of special interest:

D. E. Crabb, "Annotated Bibliography of Recent Books: Technical Topics for the IBM-PC Family", idem, 11-35.

J. R. Edwards, "Public Domain Utilities", idem, 39-54: this has information on many free software utilities for the IBM-PC, with sources. (K.L.)

## WHO-180 (Sept. '86)

R. E. Dessy has a continuing series of articles on instrument interfacing called "The PC Connection" in Analytical Chemistry. So far, three parts of this series have appeared: Part I, May 1986, 58 (6), 678A-690A; Part II, June 1986, idem, 793A-804A; Part III, July 1986, idem, 919A-925A. (K.L.)

## WHO-181 (Sept. '86)

The following papers and poster-computer hands-on sessions were presented at the 9th Biennial Conference on Chemical Education at Montana State University, Bozeman, Montana on July 28-30, 1986.

Stanley G. Smith and Loretta L. Jones (School of Chemical Sciences, University of Illinois, 601 S. Mathews, Urbana, IL 61801): "Computer-Assisted Videodisc Lessons in Chemistry."

H. Saltsburg, R. H. Heist, and T. Olsen, (Dept. of Chemical Engineering, University of Rochester, Rochester, NY 14627): "A New Way to Teach High School Chemistry Laboratory."

Joseph J. Lagowski, (Dept. of Chemistry, The University of Texas at Austin, Austin, TX 78712): "The Simulation of Laboratory Experiences."

Leonard J. Soltzberg, (Dept. of Chemistry, Simmons College, 300 The Fenway, Boston, MA 02115): "The Computer-Assisted Blackboard", "Far-From-Equilibrium Model Systems" and "Improving Student Attentiveness with a Classroom Computer."

William Torop (Dept. of Chemistry, West Chester University, West Chester, PA 19383): "Chemistry Laboratory Reports Using a Spreadsheet Computer Program."

David B. Shaw (Madison Area Technical College, 3550 Anderson Street, Madison, WI 53704): "Teaching the Concepts of Accuracy and Precision as You Introduce Your Computers."

Douglas A. Coe (Dept. of Chemistry and Geochemistry, Montana College of Mineral Science & Technology, Butte, MT 59701): "Numerical Methods on a Spreadsheet."

Gilbert Pollnow (Dept. of Chemistry, University of Wisconsin, Oshkosh, WI 54901): "Enjoying Chemical Data Processing with 'Minitab'."

Merlyn D. Schuh (Dept. of Chemistry, Davidson College, Davidson, NC 28036): "Biophysical Chemistry Experiment: Micro-Computer Analysed Initial Rate Kinetics of Benzene-Enhanced Unfolding of Myoglobin."

Daniel Cabrol and Claude Cachet (Universite de Nice, 06034 Nice, France), Richard Cornelius (Lebanon Valley College, Annville, PA 17003): "The Computer as a Problem-Solving Partner -- A Program Written in Prolog."

Allan L. Smith (Chemistry Dept., Drexel University, Philadelphia, PA 19104): "Undergraduate Use of Equation Solvers for Chemical Computations", "Computer-Based Molecular Graphics for Learning Molecular Structure", and "Two Computer Simulations for Learning Equilibrium and Kinetics."

Donald B. Stierle and Donald J. McBride (Dept. of Chemistry and Geochemistry, Montana College of Mineral Science and Technology, West Park Street, Butte, MT 59701): "Using Three Computer Assisted Instructional Programs in Teaching Organic Chemistry."

Edward A. Mottel (Dept. of Chemistry, Rose-Hulman Institute of Technology, Terre Haute, IN 47803-3999): "Dynamic Computer Programming: Allowing Students to Design and Solve Their Own Problems."

Robert M. Dreyfuss (Mercy College, Dobbs Ferry, NY 10522): "Tutorial Software for General Chemistry."

Dr. Donna Bogner (Box 51, Wichita State University, Wichita, KS 67208): "So, You Only Have One Computer."

R. W. Ramette (Carleton College, Northfield, MA 55057): "Some Useful Computer Programs."

George C. Lisensky (Chemistry Dept., Beloit College, Beloit, WI 53511): "Tuning an NMR Spectrometer: A Computer Simulation" and "Using Record/Recall: Event-Driven Data Acquisition with ADALAB, Followed by Plotter or Screen Comparison of Stored Spectra."

James T. Streator (Dept. of Chemistry, Manchester College, North Manchester, IN 46962): "Computer Use in the Classroom."

J. A. Weyh and J. R. Crook (Dept. of Chemistry, Western Washington University, Bellingham, WA 98225); L. Hauge (Spokane, WA 99223): "Reactions in Aqueous Solution."

David A. Wing (Dept. of Natural Sciences and Mathematics, Grand Canyon College, Box 11097, Phoenix, AZ 85061): "Using a Spreadsheet in Advanced Chemistry Courses."

John S. Martin (Dept. of Chemistry, University of Alberta, Edmonton, Alberta, Canada T6G 2G2): "Demystifying Bronsted: A Computer Course in Acid-Base Equilibrium."

F. J. Rowe (Northport High School, Northport, NY): "Classroom Usage of Computer Graphing."

J. I. Gelder and R. E. Snelling (Dept. of Chemistry, Oklahoma State University, Stillwater, OK 74078): "A Quantitative Microcomputer Lecture Demonstration of an Equilibrium Reaction."

Nancy Whiteside Brickhouse and Derek A. Davenport (Dept. of Chemistry, Purdue University, West Lafayette, IN 47907): "The Blue-Bottle and Your Basic Phenolphthalein-phase Reaction Revisited."

Bruce W. Gutzmann and John P. Walters (Dept. of Chemistry, St. Olaf College, Northfield, MA 55057): "Chemically Driven Interfacing in the Analytical Laboratory."

J. W. Beatty (Dept. of Chemistry, Ripon College, Ripon, WI 54971): "Interfacing of Chemistry Experiments at a Small Liberal Arts College."

D. T. Magnuson (Dept. of Chemistry, Texas A&M University, College Station, TX 77843): "Interfacing for Real-Time Data Acquisition and Analysis in an Undergraduate Potentiometric Titration Experiment."

John K. Estell (Dept. of Computer Science, University of Illinois, 1304 West Springfield Ave., Urbana, IL 61801): "The Operation and Modification of the Apple Paddle Input."

J. R. Amend, R. A. Howald and E. S. Hood (Chemistry Dept., Montana State University, Bozeman, MT 59717): "How Can One Spend Equipment Dollars Effectively to Bring Interfacing Into Undergraduate Labs?"

R. Roe, Jr. and W. W. Schulz (Highland Park High School, Dallas, TX 75205): "Making Computer Slide Shows."

Frank Rioux (Dept. of Chemistry, Saint John's University, Collegeville, MN 56321): "Microcomputer Graphics and Quantum Mechanics."

Bhairav D. Joshi (Dept. of Chemistry, State University College, Geneseo, NY 14454): "Electronic Spreadsheets - New Tools for Scientific Problem Solving."

W. A. Whitla (Dept. of Chemistry, Mount Allison University, Sackville, New Brunswick, Canada, E0A 3C0): "An Inexpensive A/D Interface for the Commodore C-64 Computer: An Automated Titration Experiment."

M. Lynn James (Dept. of Chemistry, University of Northern Colorado, Greeley, CO 80639): Symposium on "Implementing the Computer as an Integral Aid to the Chemistry Teacher."

Sherry Berman-Robinson and Lee Marek (Sandburg High School, Orland Park, IL 60462): "Computer Interfacing as Useful Tools in the Science Classroom."

R. Roe, Jr. (Highland Park High School, Dallas, TX 75205): "Making Computers and Related Technology in Integral Part of Your Classroom."

James W. Beatty and Thomas J. Oyster (Chemistry Dept., Ripon College, Ripon, WI 54971): "The First Decade of PC Usage in a Liberal Arts College Chemistry Department."

K. A. Hartman (Ames Senior High School, 20th and Ridgewood, Ames, IA 50010): "Chemical Education and the Computer: Marriage, Live-In Companion, or Peaceful Coexistence."

Howard P. Williams and J. Emory Howell (Dept. of Chemistry, University of Southern Mississippi, Hattiesburg, MS 39406-5043), Joseph L. Russell (Dept. of Chemistry and Physics, Alcorn State University, Lorman, MS 39096): "Structured Chemical Problem Solving and Basic."

R. G. Kooser (Knox College, Galesburg, IL 61401) and R. Ditchfield (Dartmouth College, Hanover, NH 03755): "Kinetic Mechanism Modeling on the Macintosh."

Dr. Larry M. Julien (Dept. of Chemistry and Chemical Engineering, Michigan Technological University, Houghton, MI 49931): "Animated Interactive Simulations of Chemical Phenomena on Microcomputers."

F. J. Juergens (Dept. of Chemistry, University of Wisconsin-Madison), J. I. Gelder (Dept. of Chemistry, Oklahoma State University) and S. Sellin (Dept. of Manufacturing Systems Engineering, University of Wisconsin-Madison): "Displaying Titration Curves on an Apple IIE With the ADALAB(TM) Interface Board and Interfacing Utility Programs."

Fred D. Williams (Dept. of Chemistry and Chemical Engineering, Michigan Technological University, Houghton, MI 49931): "Participational Fiction in Education."

R. C. Rittenhouse (Dept. of Chemistry, Eastern Michigan University, Ypsilanti, MI 48197): "Computer Simulation of Advanced Instrumentation."

Geoff Rayner-Canham (Sir Wilfred Grenfell College, Corner Brook, NF, Canada A2H 6P9): "Two Uses of Microcomputers in a Small College Environment."

John V. Clevenger (Truckee Meadows Community College, Reno, NV 89512): "Bring in a Trojan Horse."

John L. Burmeister (Dept. of Chemistry, University of Delaware, Newark, DE 19716): "Dynamics of a Three-Cornered Duel: The Creation of a Complete Computer-Based General Chemistry Course."

R. W. Gable (Dept. of Chemistry, Davidson College, Davidson, NC 28036): "Keeping the User Happy: Examples and Suggestions for Better Programs."

D. Cabrol (Centre de Recherche Pedagogique et de Renovation Didactique de Chemie, Universite de Nice, Parc Valrose, 06034 Nice Cedex, France): "Prolog and Artificial Intelligence Techniques for Chemical Education."

Tom Aanerud (P. O. Box 1828, Riverton, WY 82501): "Spreadsheet Templates for Vocabulary Development."

James L. Fasching, Duane C. Costa, Richard B. Suarez (Dept. of Chemistry) and James G. Kowalski (Dept. of Philosophy, University of Rhode Island, Kingston, RI 02881): "Chem-Tutor: An ICAI System for Teaching Chemistry."

Roy W. Clark (Dept. of Chemistry and Physics, Middle Tennessee State University, Murfreesboro, TN 37132): "Microcomputers in the Chemistry Teacher's Office."

Raymond F. Beamish (Chemistry Dept., Wilson High School, Tacoma, WA 98406): "Computer Assisted Science Labs for Chemistry."

H. Donato, Jr. and C. Metz (College of Charleston, Charleston, SC 29424): "Estimation of Error in the Physical Chemistry Laboratory Using Lotus."

C. R. Ward (Dept. of Chemistry, University of North Carolina at Wilmington, Wilmington, NC 28403): "Microcomputer Applications in Chemistry: A One Semester Course for Majors."

Lucy T. Pryde (Dept. of Chemistry, Southwestern College, 900 Otay Lakes Rd., Chula Vista, CA 92010): "Using SERAPHIM/ChemCom Interface Software in the Classroom."

COMPUTERS IN CHEMICAL EDUCATION NEWSLETTER

SUBSCRIPTION RENEWAL FORM

The mailing list will be updated for the next issue of the Newsletter. If you wish to renew or initiate your subscription please fill out this form completely and return it with your remittance to:

Dr. Donald Rosenthal  
Department of Chemistry  
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Potsdam, NY 13676

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Back issues from 1981 to the present may be obtained at \$1.50 per issue. Issues appear in (1) March, (2) June, (3) September and (4) December.

Number of back issues ordered  \$1.50/ issue \$

Specify which issues

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NAME

ADDRESS

CITY

STATE

ZIP

PHONE NUMBERS Work (  )

Home (  )

Courses which you teach

Name of school or professional affiliation, if not indicated in the above address.

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Please provide all information requested on the other side of this sheet.

OVER PLEASE

1. Are you a member of the ACS?       Yes       No  
 Division of Chemical Education       Yes       No  
 Division of Computers in Chemistry       Yes       No

2. Brief description of hardware and software which you use.

3. Do you have telecommunications capabilities?  Yes  No

4. What communicates with what? Indicate any special software or hardware.

5. Do you have access to any networks?  Yes  No

If so, please identify. \_\_\_\_\_

6. Areas of Computer Activity and Interest

Leave the space provided below blank if you have no present interest or activity. 1 means a little, 2 means moderate, 3 considerable, and 4 with a consuming passion.

Use the space on the right to identify the courses in which the software or hardware is used. Identify the programming language(s), computer and any specialized hardware or instruments used.

	Degree of		
	<u>Interest</u>	<u>Activity</u>	<u>Description of Use</u>
CAI Drill and Practice	_____	_____	_____
CATC (Comp. Assisted Test Construction)	_____	_____	_____
CMI (Comp. Managed Instruction)	_____	_____	_____
Simulation	_____	_____	_____
Numerical Methods and Statistics	_____	_____	_____
Graphics	_____	_____	_____
Software development other than above	_____	_____	_____
Interfacing	_____	_____	_____
Laboratory Automation	_____	_____	_____
Other (specify)	_____	_____	_____

	<u>Personal Use</u>	<u>Administrative Use</u>	<u>Use in Instruction</u>
Word Processing Software Used	_____	_____	_____
Electronic Spreadsheets Software Used	_____	_____	_____
Data Bases Software Used	_____	_____	_____

## WORKSHOPS, MEETINGS, CONFERENCES & COURSES

Please send information to Donald Rosenthal, Editor. Describe the program, include location sponsoring group, dates, costs and who to contact for further details (name, address, and phone number). Information should be sent as far in advance as possible.

April 20: SERAPHIM - C.C.C.E. High School Teacher Workshop at Marion College, Marion, IN. This workshop has two basic objectives- To illustrate how microcomputers can be of use to a chemistry teacher and to provide an opportunity to preview representative samples of commercially available software. Joe Rich, Blackhawk Christian School, Fort Wayne, IN is the workshop leader. Contact Dr. Vickie Hess, 4201 South Washington Street, Marion, IN 46952 for additional information.

April 28 - May 3: ACS National Meeting at Miami Beach, FL  
Symposia and general papers. High school and student affiliate programs. CHED meeting chair is Richard Steiner, Department of Chemistry, University of Utah, Salt Lake City, UT 84112; (801-581-6681). A symposium on Bachelor Degree Programs in Computational Chemistry is being organized in the Division of Computers in Chemistry by Dr. Peter Lykos, Illinois Institute of Technology, Chicago, IL 60616.

May 17: SERAPHIM - C.C.C.E. Teacher Workshop at Carl Sandberg H.S., 133rd and La Grange Road, Orlando Park, IL 60462.

See April 20 listing for details. Contact Sherry Berman at the above address for additional information.

May 30 - June 1: Personal Computer and STD Computer Interfacing for Scientific Instrument Automation at V.P.I. and State University, Blacksburg, VA.  
A hands-on workshop with each participant wiring and testing interfaces. Directed by Mr. David E. Larsen and Dr. Paul E. Field. \$450 for 3 days. For more information contact Dr. Linda Leffel, C.E.C., V.P.I. State University, Blacksburg, VA 24061. (703) 961-4848

June 1: SERAPHIM - C.C.C.E. Teacher Workshop at Columbia Greene Community College, Hudson, NY 12534.

See April 20 listing for details. Contact Dr. Jeanne Gizare at the above address for additional information.

June 10 - 14: VIIth International Conference on Computers in Chemical Research and Education at Garmisch-Partenkirchen in the Bavarian Alps, Federal Republic of Germany. Plenary lectures, poster presentations and a computer exhibit. For further information write Conference Office, Gesellschaft Deutscher Chemiker, Abt. Tagungen, P.O. Box 900440, D-6000 Frankfurt am Main 90, Federal Republic of Germany.

June 24 - 26: Northeast Regional Meeting of the A.C.S., SUNY at New Paltz, New Paltz, NY 12561

Symposia on Computers in the Chemical Laboratory, Computing for Every College Student, and computer literature searching. General papers on computer applications. Contact J. Malmgreen, Eastern Alloys, Henry Henning Drive, Maybrook, NY 12543.

July 28 - August 1: Seventh C.C.C.E. National Computer Workshops - East at Clarkson University, Potsdam, NY 13676

Six intensive workshops are planned. See detailed information elsewhere in this Newsletter. Contact: Donald Rosenthal at the above address (315-268-6647).

July 29 - August 2: World Conference on Computers in Education in Norfolk, VA.  
Contact Gerald Engel, WCCE/85, Department of Computer Science, Christopher Newport College, Newport News, VA 23606.

August 2 - 5: CHEM ED '85 at Montclair State College, Upper Montclair, NJ.  
Workshops, demonstrations, presentations, poster sessions and computer sessions. Individual presentations demonstrating effective use of currently available software and hardware which can be used in the classroom. Approaches to problem solving as illustrated by TK! Solver (Alan Smith) and George (Dick Cornelius). Computer Assisted Testing (Darell Beach). Workshops on laboratory instrument interfacing; and spread sheets, word processors and other aids to the chemistry teacher. A C.C.C.E./SERAPHIM software evaluation center will operate throughout the conference. Contact CHEMED '85, C/O Dorothy Lehmkuhl, 56 Normal Avenue, Upper Montclair, NJ 07043 for further details.

August 11 - 15: Seventh C.C.C.E. National Computer Workshops - West at Truckee Meadows Community College, 7000 Dandini Blvd., Reno, NV 89512

Five intensive workshops are planned. See detailed information elsewhere in this Newsletter. Contact John Clevenger at the above address for additional details (Phone 702-673-7221).

August 22 - 24: Personal Computer and STD Computer Interfacing for Scientific Instrument Automation, Washington, DC

Similar to workshop being held May 30 - June 1. Refer to this entry for further details.

Workshop repeated in Greensboro, NC September 19 - 21.

August 23 - 28: IUPAC-sponsored 8th International Conference on Chemical Education in Tokyo

Write J. T. Shimozawa, Chemical Society of Japan, 1-5 Kanda-Surugadia, Chiyoda-ku, Tokyo, 101 Japan.

September 8 - 13: 190th ACS National Meeting in Chicago, IL Symposia, general papers and exhibits. Those wishing to present papers must submit four copies of an abstract with the original on an ACS abstract form by May 1 to William F. Coleman, Department of Chemistry, Wellesley College, Wellesley, MA 02181 (617-235-0320, ext. 3129)

October 18 - 19: First Eastern Small College Computing Conference at the University of Scranton and the Hilton at Lackawana Station.

Designed to promote a free exchange of information among small college personnel concerned with the use of computers in the academic environment. Intended to span all academic disciplines. Topics include software, simulation, course management, curriculum development, computer literacy, the computing laboratory and micro/mini/mainframe. Extended abstracts are due on February 15th, notification of acceptance May 17th, completed papers are due by July 15th. Contact Professors Meinke and Beidler, ESCCC, University of Scranton, Scranton, PA 18510.

## WEST COAST COMPUTER WORKSHOPS SET FOR AUGUST 11-14 AT RENO, NEVADA

Unanticipated circumstances have necessitated rescheduling the Seventh CCCE National Computer Workshops-WEST, previously announced for the Los Angeles area. Instead, the Workshops will be hosted in Reno, Nevada at Truckee Meadows Community College beginning Sunday, August 11 and running through Thursday, August 15. The meeting is co-chaired by Dr. John Clevenger, Department of Chemistry, Truckee Meadows Community College 700 Dandini Blvd., Reno, NV 89512 and Dr. M. Lynn James, Department of Chemistry, University of Northern Colorado, Greeley, CO 80639. Workshops to be presented include "Getting Started", Dr. Pat McIntyre, St. Martin's College; "Development and Design of CAI", Dr. Stanley Smith, University of Illinois; "Computer Graphics for Chemistry", Dr. Jess Schilling, Trinity University; "Interfacing Laboratory Instruments and Microcomputers", Dr. James Currie, Pacific University; and "Software Evaluation", Dr. M. Lynn James.

Located in a well-known resort area, Truckee Meadows is only an hour's drive from Lake Tahoe. Registrants will be housed in casino hotels at special conference rates. For registration details, costs and other information, contact John Clevenger at the above address (phone (702) 673-7221). Additional information on these workshops will be available in the June Newsletter.

## SEVENTH C.C.C.E. NATIONAL COMPUTER WORKSHOPS-EAST

The registration form for the National Workshops to be held in Potsdam, NY, July 28th to August 1st, 1985 appears on the following page. Only the registration fee needs to accompany the Registration Form. Checks or money orders should be made out to Clarkson University. Housing will be provided in dormitory rooms with a shared bath between two rooms. The cost for single occupancy for four nights is \$52. Double occupancy is \$35 per person. This revised rate is less than is indicated in the registration form. Those interested in making Potsdam the home base for a vacation may be interested in weekly room rates which are \$57 for single occupancy and \$43 per person for double occupancy. In addition to local recreation Potsdam is within easy driving distance of the Adirondacks and Lake Placid, the Thousand Islands, Ottawa and Montreal. Persons planning to stay five or more days should request weekly rates.



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Donald Rosenthal, Editor

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Clarkson University  
Potsdam, New York 13676

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