EXHIBIT B-2

division of W.H. Freeman, New York, 1995.

11. *Computer Algorithms in C++,* Computer Science Press, division of W.H. Freeman, New York, September 1996 (with S. Sahni and Sanguthevar Rajasekaran)

12. *Software Cost Estimation with COCOMOII,* Prentice Hall, New Jersey, 2000 (with Boehm, Abts, Brown, Chulani, Clark, Madachy, Reifer and Steece)

Proceedings

1. "Algorithms for Partial Fraction Decomposition and Rational Function Integration," *Proc. 2nd Symposium on Symbolic and Algebraic Manipulation,* Los Angeles, March 1971, pp. 441-457.

2. "Modular Arithmetic and Finite Field Theory: A Tutorial," *Proc. 2nd Symposium on Symbolic and Algebraic Manipulation,* Los Angeles, March 1971, pp. 188-194.

3. "Research Problems in Symbolic Mathematics," *SIGSAM Bulletin,* no. 18, April 1971, pp. 7-9.

4. "On Decreasing the Computing Time for Modular Arithmetic," *Proc. 12th Annual Symposium on Switching and Automata Theory,* IEEE, East Lansing, Michigan, October 1971, pp. 126-128 (with L. Heindel).

5. "Algorithms for Rational Function Arithmetic Operations," *Proc. 4th Annual ACM Symposium on the Theory of Computing,* Denver, Colorado, May 1972, pp. 108-119.

6. "The Application of Symbolic Mathematics to a Singular Perturbation Problem," *Proc. 25th Annual ACM Conference,* Boston, August 1972, pp. 8l6-825.

7. "Symbolic Solution of the Y@-(2n) Problem," *SIGSAM Bulletin,* no. 24, ACM, October 1972, pp. 22-24.

8. "On the Substitution of Polynomial Forms," *Proc. 26th Annual National ACM Conference,* Atlanta, August 25, 1972, 153-158.

9. "Computers and Society: An Interdisciplinary Approach," *Proc. 3rd Symposium on Computer Science Education,* vol. 5, no. 1, February 1973, pp. 134-137 (with M. Horowitz).

10. "The Design of Data Type Specifications,) *Proc. of the 2nd IEEE Symposium on Software Engineering,* San Francisco, October 1976, (with J. Guttag and D. Musser), pp. 414-420.

11. "The Art of the Algorithmist," *Proc. 29th Annual National ACM Conference,* Houston, October 1976, pp. 442-444.

12. "Some Extensions to Algebraic Specifications," *Proc. ACM Conference on Language Design for Reliable Software,* March 1977, (with J. Guttag and D. Musser).

13. "VLSI Architectures for Matrix Computations," *Proc. 1979 International Conference on Parallel Processing,* IEEE, Bellaire, Michigan, August 1979.

14. "The Binary Tree as an Interconnection Network", *Proc. 1980 Conference on networks*, IEEE, Purdue, April, 1980.

15. "The Computer Software Products Industry in the '80s", *Proc. National ACM Conference*, ACM, Los Angeles, November, 1981.

16. "The Computer Software Products Industry in Transition", *Proc. 1981 Conf. on Information Systems*, Boston, Dec. 1981.

17. "The Office Workstation of the '80s", *Proc. Office Automation Conference*, AFIPS Press, San Francisco, April 5-7, 1982, 637-638.

18. "An Expansive View of Reusable Software", *Proc. Workshop on Reusability in Programming*, September 7-9, 1983, Newport R.I., 250-262.

19. "Application Generators: Ideas for Programming Language Extensions", *Proc. ACM Annual Conf.*, San Francisco, Oct. 8-10, 1984, 94 - 101. (with A. Kemper and B. Narasimhan).

20. "High-Level Input/Output Facilities in a Database Programming Language", *Proc. International Conf. on System Sciences*, Jan. 1985, 67-80. (with A. Kemper)

21. "SCriptWriter: An Environment for Creating Multi-Media Productions", *Proc. IBM Academic Information Systems University AEP Conf.*, Washington, D.C. June 1985, 79 - 82.

22. "SCriptWriter- Integrated Software Development Environment for CAI", *IBM Academic Information Systems University AEP Conference Agenda*, San Diego, Ca., April 1986, 90.

23. "SCriptWriter II: From Vaporware to Freeware", *Proc. IBM Academic Information Systems University AEP Conf.*, San Diego, Ca. April 1986.

24. "SCriptWriter: A Multi-Media System for Creating Educational Software", *Proc. Nat'l Educational Computing Conf.*, San Diego, Ca. June 1986, 36.

25. "Using the Player Metaphor to Create Educational Software", *Proc. IBM AEP Conf.*, Boston, June, 1987.

26. "The Development of Perspective in Renaissance Art", *Proc. IBM ACIS Univ. Conf.*, Boston, June, 1987, 48-54.

27. "Cbase1.0: a CAD Database for VLSI Circuits Using Object Oriented Technology", *Proc. of the IC-CAD Conference*, (with M.A. Breuer, W. Cheng, R. Gupta, I. Hardonag, and S.Y. Lin) 1988.

28. "Database Support for Software Project Management", *Proc. ACM Conf. on Practical Software Development Environments*, Boston, Ma., November, 1988, pp. (with L. Liu)

29. "A framework for specification and design of software for advanced sensor systems," *Proc. 10th Real-time Systems Symposium*, Santa Monica, Ca. December 1989 (with Alice Muntz)

30. "OPM: Object Process Modeling Environment", *5th International Software Process Workshop, 1990,* with Y. Sugiyama

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31. "Software Requirements as Negotiated Win Conditions" Proc. Internatnational Conference on Requirements Engineering, IEEE, April 1994, (with Boehm, Bose, Lee)

32. "Experimental results with a prototype next generation process support system" *SIG Technology Review Journal,* 1994, (with Boehm, Bose, Lee)

33. "A Collaborative Spiral Software Process Model Based upon Theory W", *3rd International Process Conf.* 1994 (with Boehm, Bose)

34. "Software Requirements Negotiation and Renegotiation Aids: A Theory-W Based Spiral Approach", *IEEE Proc. of the 17th ICSE Conf.* Seattle, 1995 (with Boehm, Bose, and Lee)

35. "Modelling Graphical User Interfaces", *Tenth International Conf. on Mathematical and Computer Modelling and Scientific Computing,* Boston, July 1995 (with Singhera)

36. A New Approach to Software Tool Interoperability, in proceeding of ACM 11th Annual Symposium on Applied Computing, Philadelphia, Pennsylvania, February, 1996. (with Y. Bao)

37. A Flexible Integration Framework for Software Interoperability, in proceeding of 11th International Conference on Computers and Their Applications, San Francisco, March 1996.(with Y. Bao)

38. An Alternative Strategy for COTS and Third-Party Tool Integration Based on User Interface, to appear in proceeding of California Software Smposium, Los Angeles, April, 1996.(with Y. Bao)

Other Publications

39. ''UNIX Offers Power for Multiple-Project Management'', Government Computer News, January 16, 1987, pp.70.

40. ''SCriptWriter: A System for Building Educational Software'', *USC Engineer,* vol. 37, no. 1, Spring, 1987, 13-16

41. "RPP: A System for Prototyping User Interfaces, *Proc. SIGCHI,* New Orleans, 1991.(with J.H. Chien, S.T. Fu, and C. Rouff)

42. "A System for Specifying and Rapidly Prototyping User Interfaces", *Taking Software Design Seriously",* ed. John Karat, Academic Press, 1991, pp. 257-272.

43. Ellis Horowitz and Zafar Singhera, "Testing Graphical User Interfaces," Technical Report No. USC-CS-93-548, Department of Computer Science, University of Southern California, Los Angeles, California, April 1993

44. Ellis Horowitz and Zafar Singhera, "XTester - A System for Testing X Applications", Technical Report No. USC-CS-93-549, Dept. of Computer Science, University of Southern California, Los Angeles, California, May 1993

45. Ellis Horowitz and Zafar Singhera, "A Graphical User Interface Testing Methodology", Technical Report No. USC-CS-93-550, Dept. of Computer Science, University of Southern California, Los Angeles, California, June 1993

46. "A new approach to software tool interoperability," *Proc. ACM 11th Annual Symposium on Applied Computing*, Philadelphia, Pa. February, 1996, (with Yimin Bao)

47. "A flexible integration framework for sofware interoperability," *Proc. 11th International Conference on Computers and their applications*, San Francisco, March 1996 (with Yimin Bao)

45. "Interoperating through user interface: an alternative way for COTS integration," *Proc. of California Software Symposium*, April 1996 (with Yimin Bao).

46. "Charting the Future of Distance Education at USC", Faculty Forum, vol. 2, no. 3/4, 2000-2001, pp. 4-5

Research Grants

1. NSF, 2 years, 9/71-9/73, $77,500 "A study of algorithms for symbolic mathematical computation."

2. NSF, 18 months, 6/74-1/76, $30,000 "Investigation of some arithmetic and algebraic algorithms."

3. JSEP (Joint Services Electronics Program), 15 months, 6/75-9/76, $20,000 "Tools for structured program development."

4. NSF, 2 years, 6/76-6/78, $72,700 "Improved software reliability via axiomatic specification of data structures" (with John Guttag).

5. NSF, 3 years, 7/78-12/81, $189,000 "Improved software reliability via axiomatic specification of data structures - II" (with John Guttag).

6. AFOSR, 3 years, 6/82-8/85, $210,000, "Improving software productivity by the use of application generators".

7. DARPA, 3 years, 5/86 - 9/89, $858,000, "Designing Circuits for Testability", (with M. Breuer and A. Parker)

8. Hughes Aircraft Company, Support Systems Division, $66,980, "Implementing a CALS database Using Object oriented technology", 1/88-12/88.

9. Hughes Aircraft Company, EDSG Division, $15,000, "Studies in Object Oriented Databases", 6/88-12/88.

10. AT&T, 2 years, 9/88-8/90, $636,000, "Object Technology for Software Configuration Management", (with S. Ginsburg, R. Hull, D. Jacobs)

11. NSF, 3 years, 7/89-6/92, $1,500,000, "VISCOM: A multiprocessor system for image/vision processing and neural network computing", (with K. Hwang, B. Sheu, and R. Chellappa)

12. NSF, 5 years, 1/93-12/97, $1,200,000 "Infrastructure Grant for InterNetworking", (with D. Estrin)

13. Microsoft, 3 years, 1/97-12/00, $2,500,000 "Infrastructure Grant for Computer Science dept"

14. Intel Corp., 1 year, 1999, "Graphics and Multimedia Laboratory", with U. Neumann

15. Microsoft, 1 year, 3/02 – 3/03, $30,000, "Technology for Interactive Learning"
16. Microsoft, 1 year, 3/02 – 3/03, $30,000 "Extensions of Computer Science Courses with .NET Technology"

Doctoral Students

1. Sartaj Sahni, 1973, "Exact and approximate solutions to the knapsack problem", presently professor of computer science at the University of Minnesota.
2. Alessandro Zorat, 1979, "A divide-and-conquer machine", presently Professor at the Istituto Per La Ricerca Scientifica e Tecnologica, 38050 povo, Trento Italy
3. M. al-Suwaiyel, 1979, "An investigation of the trie data structure", presently Vice President For Research, King Abdulaziz City for Science and Technology, Saudia Arabia,
4. Thomas Mowbray, 1983, "Language Features for a Static Data Flow Environment". presently an independent consultant specializing in Object Technology.
5. Ron Williamson, 1984, "SODOS: A Software Documentation Support Environment" whereabouts unknown
6. Alfons Kemper, 1984, "Programming Language Constructs for Data Intensive Application Development" presently a professor at Universität Passau, Germany.
7. Marco Papa, 1988, "A Performance Model for Real-time Animation" presently working for a company in Los Angeles.
8. Lung-Chun Liu, 1988 "Software Project Management", currently Associate Prof. of Computer Science, Silicon Valley University, Ca.
9. Yasuhiro Sugiyama, 1990, "Object Process Modeling", June 1990, presently Associate Professor of Computer Science Nihon University, Japan
10. Alice Muntz, 1990, "The Design of Real-time Software", June 1990, presently chairman and CEO of Vizional Technologies, Los Angeles, Ca.
11. Christopher Rouff, 1991, "Specification and Rapid Prototyping of User Interfaces", presently working at Goddard Space Flight Center, NASA
12. Zafar Singhera, 1994, "Automated Testing of Computer Software" currently working in San Francisco for Sapient Corporation
13. Allen Nikora, 1995, "Software Prediction", currently working for JPL, Pasadena, Ca.
14. June Sup Lee, 1997, "The design and evaluation of middleware", currently working at USC/ISI
15. Joo Haeng Lee, 2002, "A System for Distance Education", currently working at Samsung, Seoul, Korea

Professional Society Memberships

1. Assoc. of Computing Machinery 1965 - Present
2. Institute for Electronic and Electrical Engineers 1970 - Present
3. American Association for the Advance of Science
4. American Society for Engineering Education

For a partial summary of my articles online see

http://www.informatik.uni-trier.de/~ley/db/indices/a-tree/h/Horowitz:Ellis.html

Personal Data:

Married, 3 children, U.S. Citizen

Experience with Distance Education

From 1999 - July 2001 I was the Director of the Distance Education Network (DEN) within USC's School of Engineering. DEN delivers graduate engineering courses to more than 1,000 students each year. More than 150 graduate engineering courses are delivered to more than 1,000 students affiliated with our corporate sponsors.

As Director I managed a staff of twenty-seven and a budget of $3 million per year. Among my chief responsibilities were:

- the introduction of webcasting as a delivery mechanism. DEN now webcasts all of its 150 courses each year

- profit and loss responsibility. DEN is a profitable unit of the School of Engineering

- developed internal computer systems including a student database for recordkeeping

- developed an extensive web site to aid in communication with our distance students. All student activities including advisement, enrollment, homeworks and exams are administered via the website, den.usc.edu

- initiated a non-credit effort, where short courses are produced and distributed both via CD-ROM and over our broadcast network.

- Presentations I have given on the subject of distance education

o DEN Overview (zip file), May, 2001

o Talk Given at USC President Sample's Leadership Retreat, Nov. 28, 2000

o Talk for Prof. T. Levi's Class on Distance Education, Nov. 13, 2000