Charles H. Sauer, Ph.D.

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Austin, Texas 78731
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CAPABILITIES AND ACCOMPLISHMENTS

Technologist with broad experience and vision in computing, communications, networking, multimedia, personal systems, Windows, UNIX, Linux, software, and systems modeling. Development manager of advanced products and technologies. Leader and organizer of cross-functional and multi-company teams, technical groups, and standards bodies. Authored 4 books, 6 book chapters, 17 journal articles and numerous additional publications. Named inventor on two U.S. patents and one European patent. Expert in successful patent litigation, providing research, software analysis, 12 declarations and reports, and testimony (1 fact deposition, 2 expert depositions, one *Markman* tutorial, one *Markman* hearing) in 17 matters.

EMPLOYMENT HISTORY

Technologists, Austin, Texas, ongoing

Founder and Chief of Research. Clients since 2002 include:

confidential matter ***2017-2021***
verdict September 2021

DLA Piper on behalf of FireEye, Inc. ***2017***
Expert – network and security software
Matter – Finjan, Inc. v. Fireeye, Inc.
Attorneys: Todd Patterson, Jeffrey Cole

DLA Piper on behalf of Sophos, Inc. ***2016***
Expert – network and security software
Matter – Patent No. 8,776,218 Inter Partes Review
Attorneys: James Heintz, Jeffrey Cole, Todd Patterson
wrote 1 declaration in support of Patent Owner's Response

DLA Piper on behalf of Sophos, Inc. ***2015-2016***
Expert – network and security software
Matter – Finjan, Inc. v. Sophos, Inc.
Attorneys: Todd Patterson, Ryan Cobb, Jeffrey Cole
wrote 1 declaration in support of Inter Partes Review
verdict September 2016

DLA Piper on behalf of Sophos, Inc. ***2014-2015***
Expert – network and security software
Matter – Fortinet Inc. v. Sophos Limited et al & Sophos Limited et al v. Fortinet Inc.
Attorneys: Todd Patterson, Ryan Cobb, Jeffrey Cole, Andrew Stein
settled December 2015

DLA Piper on behalf of Invensys Systems, Inc. ***2013-2015***
Expert – systems software, source code analysis
Matter – Invensys Systems, Inc. v. Emerson Electric Co. et al
Attorneys: Jeffrey Johnson, Todd Patterson, Steven Reynolds, Michael Burns
settled March 2014

DLA Piper on behalf of Samsung Electronics Co., LTD and Samsung Telecommunications America, LLC ***2013***
Expert – personal computer hardware and software
Matter – Summit 6 LLC v. Research in Motion Corporation et al
Attorney: Todd Patterson
affirmed on appeal

Reed & Scardino on behalf of EON Corp, IP Holdings, LLC ***2013-2015***
Expert – software systems
Matters - EON Corp. IP Holdings, LLC v. AT&T Mobility, LLC, et al
EON Corp. IP Holdings, LLC v. AT&T Mobility, LLC
EON Corp. IP Holdings, LLC v. Flo TV Incorporated, et al
Attorneys: John Hendricks, Steven Tepera, Chad Ennis, Matthew Murrell, Cabrach Connor, Ian Cohen
wrote 2 declarations
deposed 1/28/14 by Harrison Frahn of Simpson Thacher & Bartlett
testified 2/5/14 at *Markman* hearing
some defendants settled without trial
claims ruled indefinite

Keker & Van Nest on behalf of Comcast Cable Communications LLC ***2013-2014***
Expert – videoconferencing
Matter - Comcast Cable Communications LLC et al v. British Telecommunciations PLC et al
Attorneys: Leo Lam, Paven Malhrota
terminated March 2014

Morgan Lewis on behalf of Yahoo! ***2012-2014***
Expert – videoconferencing
Matter - Pragmatus AV LLC v. Yahoo! Inc.
Attorneys: Mansi H. Shah, Jason C. White
settled August 2014

Texas Department of Assistive and Rehabilitive Services ***2012-2025***
Tutorial Services

Fish & Richardson on behalf of Citrix, Adobe and Microsoft ***2012-2016***
Expert – videoconferencing
Matter - Richard A. Williamson v. Citrix Online LLC et al
Attorneys: Kurt Glitzenstein, Karolina Jesien, Tal Kedem, Jonathan Lamberson, Jerry Yen
wrote 1 report
stipulated final judgment in favor of defendants' non-infringement
remanded after appeal; final judgment in favor of defendants

DLA Piper on behalf of Sophos Limited and Sophos, Inc. ***2012***
Expert – personal computer hardware and software
Matter – Finjan Inc. v. McAfee Inc. et al.
Attorney: Todd Patterson
judgment in favor of defendants' non-infringement and invalidity of asserted claims

Polasek, Quisenberry & Errington, LLP on behalf of Technology Innovations, LLC ***2011-2015***
Expert – Internet software, source code analysis
Matter – Technology Innovations, LLC v. Nstein Technologies, Inc.
wrote 1 declaration
Attorneys: Douglas Elliott, John Halbleib
settled August 2015

Armstrong Teasdale on behalf of Cass Information Systems ***2011-2012***
Expert – Telecom Expense Management software
Matter – Asentinel LLC v. AnchorPoint, Inc. et al
Attorneys: Nicholas Clifford, Jr., Timothy Krieger
wrote 2 reports supporting adopted motion for partial summary judgment of invalidity
partial summary judgment in favor of defendants

Alston+Bird LLP on behalf of AOL Inc. ***2011***
Expert – Internet software, source code analysis
Matter – Bedrock Computer Technologies, LLC v. Softlayer Technologies, Inc. et al
Attorney: Deepa Nama
dismissed with predjudice

Island in the Son United Methodist Church ***2008-2016***
Webmaster

Mobility Worldwide ***2008-2024***
Trustee & I.T. Volunteer

Rainbow Network ***2008-2024***
Director, vice-chairman, chairman & I.T. Volunteer

Morrison | Foerster LLP on behalf of Codian Inc. and Codian Ltd. ***2005-2008***
Expert – videoconferencing, security software, source code analysis
Matter: Polycom, Inc. et al v. Codian, LTD et al
Attorneys: Bryan Wilson, Sherman Kahn
presented technology *tutorial* 1/29/07, wrote 4 reports,
deposed 6/29/07 by Babak Redjaian and Christopher Vanderlaan of Irell & Manella, LLP
settled without trial

Perkins Coie Brown & Bain on behalf of Intel Corporation ***2005-2006***
Expert – manufacturing simulation, source code analysis
Matter: Intel Corporation v. Information Technology Innovation, LLC
Attorneys: Michael Bailey, Chad Campbell
dismissed with prejudice

Northwest Hills United Methodist Church ***2004-present***
I.T. Director

Orrick, Herrington & Sutcliffe LLP on behalf of Charles Schwab ***2004***
Expert – Windows and Microsoft database software
Matter: Datamize Inc v. Fidelity Brokerage, et al
Attorneys: Robert Cote, Joseph Liu
dismissed voluntarily

SITEFORUM, Inc. ***2004-2006***
Consultant – ported SITEFORUM to Mac *OS X* & Mac *OS X Server*

Texas Reach Out Ministries ***2004-2016***
I.T. Volunteer & webmaster – support staff & residents

Telecom Purchasing, Inc. ***2003-2005***
I.T. Consultant – support prospects & staff

Signet Network Systems ***2002-2005***
I.T. Consultant – maintain & enhance *Telecom Analyzer*; support prospects & staff

Herbert I. Sauer Trust ***2002-2020***
Co-Trustee – manage distributions, investments and reporting

Lightling, Inc., Austin, Texas, 2001-2002

Chief Software Architect. Designed and developed Java software for integrating wireless "smart phones" with e-mail, intranet, and other enterprise applications.

Cymbia.com*, *Austin, Texas, 1999-2002

Co-founder and Chief Technical Officer. Chief architect and developer of Cymbia ***Telecom Analyzer***, a tool for analyzing and managing corporate telecommunications expenses and networks. This web-based software enables the user to identify inefficient usage and PBX programming, costly network design problems, policy abuses, billing errors, and non-competitive carrier plans.

Optimized ***Telecom Analyzer*** use of SQL databases for access to user, carrier, company and user interface data. Enabled access to data access methods, e.g., BTrieve, used for storage of customer call data. Delivered Java objects, applet and servlet for effective transfer of massive customer call data records from user web browser to ***Telecom Analyzer*** SQL database server. Provided JavaScript-based dynamic user interface for fetching XML encapsulations, asynchronous browser manipulation, and browser presentation of analysis results.

Signet Network Systems*, *Austin, Texas, 1999-2005

Consultant.

hire.com* *(formerly World.hire), Austin, Texas, 1996-1999

Chief Technical Officer, Senior Vice President Product Group. Established all aspects of ***Recruiter***, a web-based enterprise application for hiring and retention, including overall definition matching customer requirements, user interface, and internal architecture. Invented "appearance modeling" technology and incorporated in ***Recruiter***. Appearance modeling technology allowed for constrained, yet configurable, user interface definition for discrete and disparate user environments.

Optimized ***Recruiter*** use of SQL databases for access to candidate, hiring authority, company and user interface data. Managed network access and server support for major corporate installations of ***Recruiter***.

Managed all aspects of development and product management. Assisted in gaining funding from top tier firms, including Crosspoint Venture Partners, TL Ventures and Kleiner Perkins Caufield & Byers. "Beta" testing of pre-release versions of Windows 98.

VTEL Corporation*, *Austin, Texas, 1993-1996

1995-1996 Chief Technical Officer, Vice President Product Planning and Advanced Development. Established “VTEL Labs” as a separate functional organization. Developed, and achieved executive staff endorsement of, technology roadmap and “VTEL 2000” vision. Created corporate “intranet,” including broad information base on VTEL Labs, VTEL 2000, industry trends, standards and competitive environment. Established and led “Internet Systems Group,” a cross-functional program office for IP network conferencing and management. Negotiated key agreements with Microsoft and DataBeam. Chaired technical advisory board, with members from Intel, Microsoft, Motorola, MIT Media Lab, TeraQuest Metrics and the University of Texas at Austin. Chaired executive planning committee. Managed product planning function, coordinating product plan and definitions across marketing and development, and delivering new generation of hardware and software products. Established industry leading T.120 data conferencing products across VTEL product line.

1993-94 Vice President, Software and Architecture. Delivered leadership Windows-based products for videoconferencing, including ***AppsView™***, an object oriented, configurable and extensible user interface appropriate to a broad range of conferencing environments. User interface based on Windows 95, Microsoft Visual C++, Microsoft Foundation Classes (MFC) and Microsoft Software Development Kit (SDK). Provided overall system architecture and product planning direction for products for both group and desktop environments. Led technical relationships in joint activities with Intel. "Beta" testing of pre-release versions of Windows 95.

Dell Computer Corporation, Austin, Texas, 1989-1993

1991-1993 Vice President, Software and Technology. Development responsibility for operating systems products including Windows/DOS, Windows/NT, NetWare, OS/2 and UNIX. Specifics included customization for maximum compatibility, performance, features and ease of use, and automated factory installation procedures targeted at high volume build to order environment. Network hardware and software development, including "LAN-ready" systems and network management offerings. Responsible for competitive analysis and performance evaluation across product lines. Development responsibility for digital audio and video products, including “OASIS” hardware and software. Managed strategic technical relationships with Intel, Microsoft, NeXT, Novell, Sun and others. "Beta" testing of pre-release versions of Windows 95.

1990-1991 Vice President, Advanced Systems Development. Development responsibility for all 486 EISA system products, including advanced storage subsystems, ASIC and technology development. Products developed received numerous "editor's choice" and similar awards in industry publications. Led joint Dell/Intel development of "JAWS" local bus graphics systems, the primary precursor to local bus implementations in PC systems. Formed **BAPCo** (with IBM, Intel and NCR).

1989-90 Director, Systems Development. Led development of premiere PC implementation of UNIX SVR4. Developed RAID disk subsystems for EISA products. Developed ASIC's for Dell systems.

IBM Corporation, Austin, Texas, 1982-1989.

1986-1989 Senior Technical Staff Member, Advanced Engineering Systems. Lead architect for AIX on RS/6000 and "AIX Family" (RT/PC, PS/2, System/370). Initiated joint development efforts with Apollo Computer, CMU and OSF leading to winning design submission to OSF for Distributed Computing Environment.

1984-1986 Manager of System Architecture, Engineering Systems Products. Total responsibility for AIX software architecture, including graphics systems, networking and distributed systems components. IBM RT/PC software/systems design, with emphasis on compilers, run-time performance and virtual memory subsystems.

1982-1983 Senior Programmer, Communications Products Division. Architecture of micro-kernel subsystem for RT/PC prototype and product.

***The University of Texas at Austin*.**

1977-1979 Assistant Professor of Computer Sciences. Research and teaching in performance modeling methodology, operating systems and programming languages.

IBM Corporation, Watson Research Center*, *Yorktown Heights, New York

1975-1977, 1979-1982 Research Staff Member/Manager. Research in performance modeling methodology and software. Developed ***RESQ***, the pioneering modeling and simulation package.

PROFESSIONAL AWARDS

IBM Corporate Award, *AIX Architecture*, 1988. (with G.G. Henry and L.K. Loucks.)
IBM Outstanding Innovation Award, *IBM RT PC Virtual Resource Manager*, 1985.
IBM Research supplemental Outstanding Innovation Award, ***RESQ***, 1981.
IBM Research Outstanding Innovation Award, ***RESQ***, 1978.

BOARDS, COMMITTEES, PROFESSIONAL ACTIVITES

Trustee & IT Director, Mobility Worldwide, 2009-2024
Director, Secretary, Vice-Chairman & Chairman Rainbow Network, 2008-2024
Vice President, International Multimedia Teleconferencing Consortium, 1996
Steering Committee, Personal Conferencing Work Group, 1994-95
Adjunct Professor of Computer Sciences, University of Texas at Austin, 1992-93
Technical Advisory Board, VTEL Corporation, 1992-1993
Director, Business Applications Performance Corporation, 1991-1993
Editorial Board, *UNIX Technology Advisor*, 1988-91.
Program Committee, Winter 1988 USENIX.
Guest Editor, IEEE Journal on Selected Areas in Communications, January 1988 issue.
Program Committee, ACM SIGMETRICS 1985.
Program Committee, 5th International Conference on Distributed Computing Systems.
Director, ACM SIGMETRICS, 1981-85.

PATENTS

"System and method for accessing remote files in a distributed networking environment" (Johnson, Neuman, Sauer, Shaheen-Gouda, Smith) #4,887,204
"Single system image uniquely defining an environment for each user in a data processing system" (Johnson, Loucks, Sauer, Smith) #5,001,628
"Single system image" (Johnson, Loucks, Sauer, Smith) EP0278314

EDUCATION

Ph.D. 1975, computer sciences, University of Texas at Austin. Dissertation: *Configuration of Computing Systems: An Approach Using Queueing Network Models*
B.A. 1970, mathematics, University of Texas at Austin.

BOOKS

Duran and Sauer, *Mainstream Videoconferencing: A Developer's Guide to Distance Multimedia*, Addison-Wesley (1997). See http://technologists.com/jwdchs/.
MacNair and Sauer, *Elements of Practical Performance Modeling*, Prentice-Hall (1985).
Sauer and MacNair, *Simulation of Computer Communication Systems*, Prentice-Hall (1983).
Sauer and Chandy, *Computer Systems Performance Modeling*, Prentice-Hall (1981).

BOOK CHAPTERS:

C.H. Sauer, "Client/Server Concepts and Technology," D.D. Cerutti, editor, *Distributed Computing Environments*, McGraw-Hill, 1993.
T. G. Lang, M. S. Greenberg and C.H. Sauer, "The Virtual Resource Manager," *IBM RT Personal Computer Technology*, IBM SA23-1057 (1986).
S. S. Lavenberg and C. H. Sauer, "Analytical Results for Queueing Models," Chapter 3 of S. S. Lavenberg, editor, *Computer Performance Modeling Handbook*, Academic Press, Inc., New York (1983).
S. S. Lavenberg and C. H. Sauer, "Approximate Analysis Techniques for Queueing Networks," Chapter 4 of S. S. Lavenberg, editor, *Computer Performance Modeling Handbook*, Academic Press, Inc., New York (1983).
C. H. Sauer and E.A. MacNair, "Extended Queueing Network Models, "Chapter 8 of S. S. Lavenberg, editor, *Computer Performance Modeling Handbook*, Academic Press, Inc., New York (1983).
M. Reiser and C.H. Sauer, "Queueing Network Models: Methods of Solution and their Program Implementation," *Current Trends in Programming Methodology, Volume III: Software Modeling and Its Impact on Performance*, (K.M. Chandy and R.T. Yeh, editors), Prentice Hall, 1978.

JOURNAL PAPERS:

L.K. Loucks and C.H. Sauer, "Advanced Interactive Executive (AIX) Operating System Overview," *IBM Systems Journal 26*, 4 (1987) pp. 326-345.
S. Tucci and C.H. Sauer, "The Tree MVA Algorithm", IBM Research Report RC-9338 (April 1982). *Performance Evaluation 5*, 3 (August 1985).
W.-M. Chow, E.A. MacNair and C.H. Sauer, "Analysis of Manufacturing Systems by the Research Queueing Package," IBM Research Report RC-10769 (October 1984). *IBM J. of Research and Development 29*, 4 (July 1985).
C.H. Sauer, E.A. MacNair and J.F. Kurose, "Queueing Network Simulations of Computer Communication", IBM Research Report RC-9727 (December 1982). *IEEE Transactions on Communications COM-32*, 1 (January 1984).
C.H. Sauer, "Computational Algorithms for State-Dependent Queueing Networks", IBM Research Report RC-8698 (February 1981). *Transactions on Computing Systems 1*, 1 (February 1983) pp. 67-92.
C.H. Sauer, "Approximate Solution of Queueing Networks with Simultaneous Resource Possession", *IBM J. of Research and Development 25*, 6 (November 1981).
Y. Bard and C.H. Sauer, "IBM Contributions to Computer Performance Modeling", *IBM J. of Research and Development 25*, 5 (September 1981), pp. 562-570. (Invited paper.)
C.H. Sauer, E.A. MacNair and S. Salza, "A Language for Extended Queueing Networks", *IBM J. of Research and Development 24*, 6 (November 1980).
K.M. Chandy and C.H. Sauer, "Computational Algorithms for Product Form Queueing Networks", *CACM 23*, 10 (October 1980).
C.H. Sauer and K.M. Chandy, "Approximate Solution of Queueing Models of Computer Systems", *Computer 13*, 4, April 1980. (Invited paper.)
C.H. Sauer and E.A. MacNair, "Queueing Network Software for Systems Modeling," *Software-Practice and Experience 9*, 5, May 1979.
C.H. Sauer and K.M. Chandy, "The Impact of Distributions and Disciplines on Multiple Processor Systems", *Communications of the ACM 22*, 1, January 1979.
S.S. Lavenberg, T.L. Moeller and C.H. Sauer, "Concomitant Control Variables Applied to the Regenerative Simulation of Queuing Systems," *Operations Research 27*, 1, January-February 1979.

K.M. Chandy and C.H. Sauer, "Approximate Methods for Analysis of Queueing Network Models of Computer Systems", *Computing Surveys 10*, 3, September 1978. (Invited paper.)
S.S. Lavenberg and C.H. Sauer, "Sequential Stopping Rules for the Regenerative Method of Simulation", *IBM J. of Research and Development 21*, 6, November 1977.
K.M. Chandy, J. Hogarth and C.H. Sauer, "Selecting Capacities in Queueing Network Models of Computer/Communication Systems," *IEEE Transactions on Software Engineering 3*, 4, July 1977.
C.H. Sauer and K.M. Chandy, "Approximate Analysis of Central Server Models", *IBM J. of Research and Development 19*, 3 May 1975.

ARTICLES (not refereed):

C.H. Sauer, "Meaningful Indicators of System Performance," *UNIX Technology Advisor 2*, 7 (July 1990).
C.H. Sauer, "UNIX - The Force Behind Personal Computing?" *UNIX Technology Advisor 2*, 2 (February 1990).
C.H. Sauer, "Technology Infusion and Integration in AIX," *UNIX Technology Advisor 1*, 2 (April 1989).
L.K. Loucks and C.H. Sauer, "Saving the Day", *UNIX Review 7*, 1 (January 1989).
C.H. Sauer, K.A. Bohrer, T.G. Lang, C.S. Minshall, G.L. Owens, K. Solem, B.J. Walker, "Convergence of AIX and 4.3BSD", *UniForum Conference Proceedings*, San Francisco, February 1989.
C.H. Sauer, "Distributed File System Issues in UNIX Operating Systems," *UniForum-DC*, Washington, August 1988.
C.H. Sauer, "Presenting a Single System Image with Fine Granularity Mounts", *;login: 13*, 4 (July/August 1988).
C.H. Sauer, D.W. Johnson, L.K. Loucks, A.A. Shaheen-Gouda, T.A. Smith, "Statelessness and Statefulness in Distributed Services", *UniForum 1988*, Dallas, Texas, February 1988.
C.H. Sauer, D.W. Johnson, L.K. Loucks, A.A. Shaheen-Gouda, T.A. Smith, "RT PC Distributed Services: File System," *;login: 12*, 5 (September/October 1987) pp. 12-22.
C.H. Sauer, D.W. Johnson, L.K. Loucks, A.A. Shaheen-Gouda and T.A. Smith, "RT PC Distributed Services Overview", *Operating Systems Review 21*, 3 (July 1987) pp. 18-29.
C.H. Sauer, "Numerical Solution of Some Multiple Chain Queueing Networks", IBM Research Report RC-8986 (August 1981). *Performance Evaluation Review 10*, 4 Winter 1981-1982, pp. 47-56.
C.H. Sauer and E.A. MacNair, "Simultaneous Resource Possession in Queueing Models of Computers", IBM Research Report RC-6971, January 1978. *Performance Evaluation Review 7*, 1 and 2, Spring and Summer 1978.
C.H. Sauer, "Confidence Intervals for Queueing Simulations of Computer Systems," IBM Research Report RC-6669, Yorktown Heights, New York, August 1977. *Performance Evaluation Review 8*, 1 and 2, Spring and Summer 1979.

CONFERENCE PAPERS:

J.M. Sammons and C.H. Sauer, "Measuring the Performance of Personal Computers", Compcon Spring '92, Thirty-Seventh IEEE Computer Society International Conference, San Franciso, February 1992.
J.C. O'Quin and C.H. Sauer, "AIX 3 Technology", *Workstation Operating Systems: Proceedings of the Second Workshop on Workstation Operating Systems*, IEEE, Pacific Grove, California, September 1989.
C.H. Sauer and E.A. MacNair, "The Evolution of the Research Queueing Package", IBM Research Report RC-10376 (February 1984). *Proceedings of the International Conference on Modelling Techniques and Tools for Performance Analysis*, North-Holland, Paris, May 1984. (Invited Paper)
E.A. MacNair and C.H. Sauer, "The Research Queueing Package: A Primer," IBM Research Report RC-9784 (1983). *SHARE 60 Proceedings*.
A. Blum, E.A. MacNair and C.H. Sauer, "The Research Queueing Package: Graphics Developments," IBM Research Report RC-9513 (August 1982). *Proceedings GI/NTG 83: Measurement, Modelling and Evaluation of Computer Systems*, University of Stuttgart (February 1983).
C.H. Sauer, E.A. MacNair and J.F. Kurose, "The Research Queueing Package: Past, Present and Future," *Proceedings 1982 National Computer Conference*. Reprinted in K.S. Trivedi, editor, *Effectiveness of Fault-Tolerant Multiple Processor Systems*, IEEE Computer Society, 1984.

C.H. Sauer, "Passive Queue Models of Computer Networks," *Computer Networking Symposium*, Gaithersburg, Maryland, December 1978.
C.H. Sauer, "Queueing Network Models in the Design of Computer Communication Networks," *International Conference on Communications*, Toronto, June 1978. (Invited paper.)
C.H. Sauer, M. Reiser and E.A. MacNair, "RESQ - A Package for Solution of Generalized Queueing Networks," *Proceedings 1977 National Computer Conference*.
C.H. Sauer, "Simulation of Generalized Queueing Networks," *Proceedings 1975 Summer Computer Simulation Conference*, San Francisco, July 1975.
K.M. Chandy, C.H. Sauer and J.C. Browne, "An Overview of Modeling Techniques for Parallel Processing Systems," *Digest of Papers, CompCon75*, San Francisco, February 1975. (Invited paper.)
D.V. Foster, P.F. McGehearty, C.H. Sauer and C.N. Waggoner, "A Language for Analysis of Queueing Models", *Proceedings Fifth Annual Pittsburgh Modeling and Simulation Conference*, University of Pittsburgh, April 1974.

PUBLISHED REPORTS:

C.H. Sauer, "Disk Subsystems: The Dell Drive Array." January 1990.
E.A. MacNair and C.H. Sauer, "The Research Queueing Package: USER Function Data Structures," (IBM Confidential) IBM Research Report RC-11132 (April 1985).
E.A. MacNair and C.H. Sauer, "The Research Queueing Package: Evaluation Data Structures," (IBM Confidential) IBM Research Report RC-11131 (April 1985).
E.A. MacNair and C.H. Sauer, "The Research Queueing Package: Parametric Solutions and Graphics," IBM Research Report RC-10585 (June 1984).
C.H. Sauer and E.A. MacNair, "The Research Queueing Package: Availability Notice," IBM Research Report RA-144 (August 1982).
A.M. Blum, E. Jaffe, E.A. MacNair, J.F. Kurose and C.H. Sauer, "The Research Queueing Package: An Introduction and Update," IBM Research Report RC-10016 (June 1983).
C.H. Sauer, E.A. MacNair and J.F. Kurose, "The Research Queueing Package Version 2: TSO Users Guide," IBM Research Report RA-140, Yorktown Heights, New York (April 1982).
C.H. Sauer, E.A. MacNair and J.F. Kurose, "The Research Queueing Package Version 2: CMS Users Guide," IBM Research Report RA-139, Yorktown Heights, New York (April 1982).
C.H. Sauer, E.A. MacNair and J.F. Kurose, "The Research Queueing Package Version 2: Introduction and Examples," IBM Research Report RA-138, Yorktown Heights, New York (April 1982).
C.H. Sauer, E.A. MacNair and J.F. Kurose, "Computer/Communication System Modeling with the Research Queueing Package Version 2," IBM Research Report RA-128 (IBM Internal Use Only, November 1981).
C.E. Mear and C.H. Sauer, "A Simple and Robust Data Structure for the Simulation Event Set," IBM Research Report RC-8001, December 1979.
C.H. Sauer, "The Research Queueing Package Version 2: The Template Facility and Accompanying Extensions," IBM Research Report RC-7674 (IBM Internal Use Only), May 1979.
C.H. Sauer, "Some Results on Queue Lengths in Queueing Networks Solved by Aggregation," IBM Research Report RC-7607, April 1979.
E.A. MacNair and C.H. Sauer, "Multiple Language (APL and PL/I) Interfaces for Queueing Network Software," IBM Research Report RC-7535, March 1979.
C.H. Sauer, "Structure and Internal Operation of the Simulation Package APLOMB," IBM Research Report RC-7298 (IBM Confidential), September 1978.
E.A. MacNair and C.H. Sauer, "RESQ: Dialogue Files," IBM Research Report RC-7117 (IBM Internal Use Only), Yorktown Heights, New York, May 1978.
E.A. MacNair, M. Reiser and C.H. Sauer, "RESQ: Subroutine Interface, "IBM Research Report RC-7093 (IBM Internal Use Only), Yorktown Heights, New York, April 1978.
C.H. Sauer, M. Reiser and E.A. MacNair, "RESQ: Elements, Examples and Dialogues," IBM Research Report RC-6721 (IBM Internal Use Only), Yorktown Heights, New York, August 1977.
C.H. Sauer and E.A. MacNair, "Computer/Communication System Modeling with Extended Queueing Networks," IBM Research Report RC-6654, Yorktown Heights, New York, August 1977.
C.H. Sauer and E.A. MacNair, "Application of RESQ: Communication System Evaluation," IBM Research Report RC-6633, Yorktown Heights, New York, July 1977.
C.H. Sauer, L. Woo and W. Chang, "Hybrid Analysis/Simulation: Distributed Networks," IBM Research Report RC-6341, Yorktown Heights, New York, June 1976.
C.H. Sauer, "Characterization and Simulation of Generalized Queueing Networks," IBM Research Report RC-6057, Yorktown Heights, New York, May 1976.
C.H. Sauer and K.M. Chandy, "Parametric Modeling of Multi-miniprocessor Systems," IBM Research Report RC-5978, Yorktown Heights, New York, May 1976.