

C R E A T I V I T Y

PUBLISHED FOR IBM AUSTIN TECHNICAL PROFESSIONAL EMPLOYEES

The Eclectic Charlie Sauer

by Lynn Denton

Charlie Sauer is the only Senior Technical Staff Member (STSM) in IBM who is both a rock-and-roll musician and lead architect on the IBM RT Personal Computer. But he's very comfortable in any role he plays—musician, author, professor, programmer, manager, or STSM.

Named STSM in December 1986, just before the Senior Technical Forum in Thornwood, N.Y., Sauer emphasized that he was excited about all the talent gathered for that occasion. He said, "It was an illuminating experience to be among all the Nobel laureates, IBM Fellows, and STSMs—some 200 of the best technical leaders IBM has."

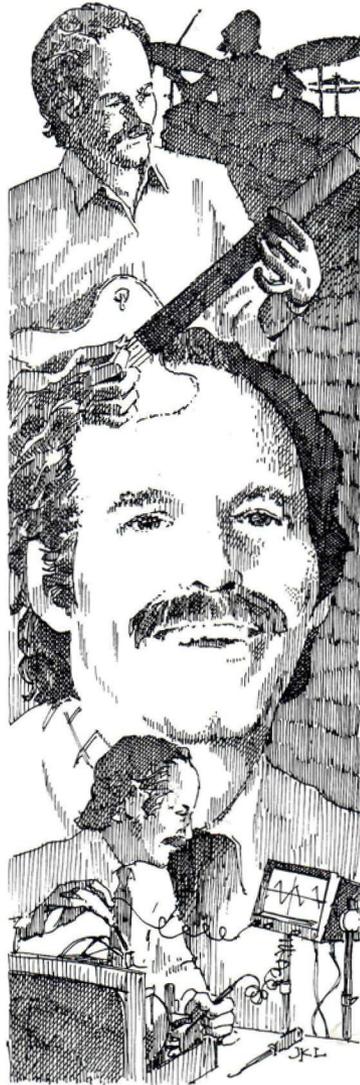
To be appointed as an STSM, one must demonstrate a very high level of knowledge and must demonstrate leadership in several technical areas. Currently, IBM/Austin has five STSMs. Charlie Sauer, Larry Loucks, Dale Reed, and Robert Sechler are STSMs in the Advanced Engineering Systems group. Paul Schumann, Jr. is an STSM in technical education. When asked what the STSM appointment meant to him, Sauer said, "One of the things it means is trying to show other technically oriented people that they can advance in IBM without being a manager. That's not to say that being a manager is bad, of course. I've been a manager before, and I might want to be one again."

"But there is a technical route toward advancement, and I think that needs to be reinforced. And to progress very far along that route, a technical person must be eclectic, must have a broad-based background, and must avoid becoming focused on one area or specialty."

"My original research-oriented activities were in performance modeling and performance evaluation, but I always wanted to be someone with broad skills—a systems person rather than a performance specialist. So when I had the opportunity to transfer to Austin and to the ad tech project that led to the RT, the opportunity to be architect rather than a performance person was a big plus for me."

"I still try to keep a broad perspective. This is a demanding job, so I have to focus on RT-related activities, but I still keep up

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Charlie Sauer

Sauer, Cont.

with my performance modeling contacts in Yorktown, in the academic world, and in the outside world.

"It's too easy to focus on one narrow technology. I try to be eclectic and I encourage others to be eclectic. You have to do your job, but you also have to be aware of everything else. Having contacts at other IBM sites, and, if appropriate, in the academic world and even among our competitors is very helpful. I'm getting to know some of our competitors, and I think that's a worthwhile thing to do."

Sauer's other interests include computer applications for music. He discovered how to connect his synthesizer to his PCjr, and he spends time helping others learn to do that. He also likes programming languages, especially relatively unusual languages.

Sauer has advice for IBMers who aspire to becoming STSMs: "The important thing is to make technical contributions to the business that others will recognize, but maintain the breadth necessary to play a consulting role. An STSM must be available to consult with other groups and with upper management and must have sound experience in several technical areas."

A native of Maryland, Sauer arrived in Texas in 1969. He earned a Ph.D. in computer science from the University of Texas, and joined IBM at Yorktown Heights, N.Y. There he developed a performance modeling package called RESQ (Research Queuing), currently available as an IBM product.

"The environment at Yorktown," he said, "made it easy to be very abstract, but I tried also to be practical and to publish—one is expected to do so at Yorktown. I wrote several books and a lot of papers. Then I spent two years teaching at the University of Texas, went back to Yorktown for three years and then transferred back to Austin in 1982. Glenn Henry was starting the advanced function workstation project that led to the RT, and I've been working on RT software, as well as some hardware, ever since."

Although probably weary of questions about his rock-and-roll experience, Sauer talked about running the public address system at the Vulcan Gas Company and working at the Armadillo World Headquarters as a UT student. "I was a bass player, and I led a band. I still play in public once a year or so, though I appeared three times last year, which is a little unusual for me these days."

Today he spends his spare time with his family and six cats, playing rock-and-roll, tinkering with computers, and doing some gardening. He's an avid reader of many different types of materials—always striving to be knowledgeable in several areas.

At the close of the interview, Sauer gave some parting observations: "I think that IBM is trying to make better career paths for technical people. I want to encourage IBMers to pursue their ambitions and to realize that following a technical career path is a viable option. I'm very appreciative of the attention and the recognition IBM has given me, and I know that the same recognition is available for an increasing number of technical professionals."

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