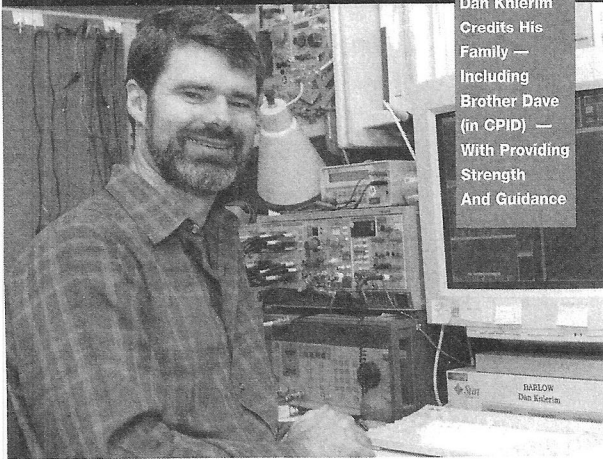


# Newest Tek Fellow Has Lifelong Interest In Things Scientific



Dan Knierim  
Credits His  
Family —  
Including  
Brother Dave  
(in CPID) —  
With Providing  
Strength  
And Guidance

For MBD's **Dan Knierim**, science is a way of life. It is also a family affair. Dan, who recently joined the ranks of the company's top technology innovators in being named a Tek Fellow, grew up with an engineer father, a math professor mother, and two scientific siblings — an older sister who is now a chemistry professor and an older brother, **David Knierim**, who is an engineer with CPID in Wilsonville.

"I have been interested in scientific things as far back as I can recall," said Dan, who started with Tektronix as a summer intern in 1978. "I give my parents a lot of credit for this because they were never bothered by their children asking 'Why?' In fact, even though they usually knew the answer, they

responded to many scientific questions with a family research trip to the library or a family experiment to help us find the answer for ourselves."

## Started with Christmas Present

Dan remembers a special holiday while growing up in northern California as a milestone in determining his future in electronics.

"When I was in sixth grade, my dad was cleaning the attic and came across a bunch of old tube radios and World War II gear that he'd played with as a young adult," he said. "He wrapped it all up and gave it to Dave and me for Christmas. Since it was a Christmas present, we thought it must be something fun to do, so we started designing intercoms and radios, and pretty soon got into transistors. It just all took off from there."

Today, Dan, who holds a BSEE degree from UC-Davis, and an MSEE degree from the University of Illinois at Urbana-Champaign, is a senior designer of integrated circuits. He has served as lead designer on three generations of Tektronix high-speed ADCs, and spends much of his time finding solutions for total systems. He has also developed oscilloscope acquisition architecture and worked with digital signal processing. He holds 16 patents and represents Tektronix on the IEEE TC-10 technical committee, which is responsible for writing standards on waveform measurement methods and apparatuses.

**"At Tektronix, we're willing to take the time to invest in the future. It's not uncommon at Tek for a senior designer to make time to teach a new kid from college."**

## Tek Provides Opportunity

Dan has enjoyed a friendly rivalry with his older brother most of his life. He says being named a Tek Fellow helped move him up a notch in the competition with *continued on page 4* ➤

his brother, who has earned more patents during his Tektronix career.

"As a kid, I sometimes felt I was just following in my brother's footsteps," said Dan. "When Dave got too busy in other things in high school, I took over his paper route. At UC-Davis, Dave helped me get a part-time job in one of the Physics Department's two electronic shops. He held a similar position in the other one.

"So when Dave got a summer job at Tektronix, I decided to strike out on my own," Dan recalled. "My hope was to land a position at Hewlett Packard, knowing it was Tektronix' rival. But HP and all the other high-tech firms that visited UC-Davis told me I was too inexperienced as a sophomore and to come back in a year. Ironically, it was Tektronix that told me if I felt I could compete with the juniors, I could sign up for an interview. But I made sure not to mention my brother in the interview, so I could be sure I landed the job on my own. I've always appreciated Tek's attitude and interest in me back then."

### Brotherly Assistance

Dan believes having a brother at Tektronix helps in his work. "I'm so glad now that the two of us work for the same company," he said. "We grew up sharing the same bedroom and I learned a lot about electronics from my brother. In high school, Dave would spend a couple of hours in the library after school every day reading about transistors. Then, to make sure he understood it, he'd come home and teach it to me at night. I got off easy because he did all the research. But the result is we both think in similar ways, and sometimes when one of us draws a blank while trying to solve a problem, we'll talk and the other one will come up with the solution. We really enjoy and help each other."

### Faith is Important

Outside of work, Dan enjoys spending time with his wife and three children and says his family is always his first priority. In addition, he enjoys church, square dancing, backpacking, puzzles of all kinds, volleyball, and chess. When time permits, he restores antique radios.

"My Christian faith is an important part of who I am," he said. "Since my family and my church are so interrelated, in many respects I view them as one and the same. It's

interesting how many people think science and faith are incompatible and are surprised that an engineer believes in God. The truth is, you can't use science to prove or disprove the existence of God. You have to look beyond science to understand spirituality."

### Encouragement Vital

Dan credits the encouragement of others for his success at Tektronix—his dad and siblings for encouraging his interest in science, and his mom for encouraging his interest in math, which he says helps him make many important decisions through the use of mathematical analysis.

He also gives Tektronix high marks for fostering an atmosphere that helps people learn.

"We have always had an open environment at Tektronix that allows individuals the freedom to spend time learning and teaching," he said. "This helped me as a summer intern. One day I heard one of our top analog designers speaking to someone about the thermal distortion of an amplifier. At the time, I was studying digital circuits in school and had never heard about thermal distortion. I asked him about it out of curiosity and he spent almost an hour talking to a summer intern about the causes of thermal distortion and how to fix it.

"Years later, I was assigned to work on an ADC, which can suffer from thermal distortion in the analog half. Although I hadn't needed the information for years, I remembered what this design engineer had told me and benefited significantly from his lesson.

"I know engineers in other companies who are required to justify every moment of their time on a particular project," Dan said. "At Tektronix, we're willing to take the time to invest in the future. It's not uncommon at Tek for a senior designer to make time to teach a new kid from college. With the benefit of my experiences, I'm trying to continue that tradition with the next generation."

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