

Cliff Moulton: from Mr. TV to Mr. Chips

Cliff Moulton calls himself a relic. But you know from talking to him, he's far from out-dated. Once known around the company as "Mr. TV," for his work on television monitors and adapters, he now designs integrated circuits and small electrical structures.

Cliff first discovered Tek while he was an instructor in television electronics at Oregon State. In 1950 he ordered one of the company's first 511 oscilloscopes for use in his TV lab.

"I had a good feeling for the company and quality of the product. That made it a natural for me to join Tek and move back to my hometown," says Cliff, a graduate of Portland's Lincoln High School.

One of the first engineers hired during the fifties, Cliff grew up right along with the company, and often flew private planes with Jack Murdock.

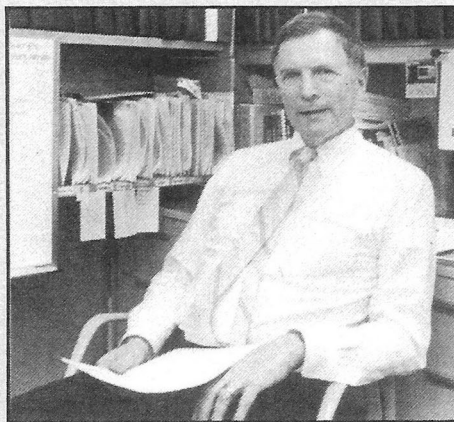
"You knew everyone pretty well back then. There was just a handful of us, still wet behind the ears and too green to know better," says the principal engineer in the Engineering Systems Lab of Tek Labs.

Cliff counts many design projects in his early career: 517 distributed amplifier scope adjustments, 524D television monitor, 525 rack-mounted TV monitor, and the 124 TV adapter.

Then came his pride and joy—the 519 oscilloscope. Introduced in 1960, it was designed for the fastest possible sweep and vertical. "It was an exceptional product. It took five years to develop, much to management's chagrin," Cliff said, "but it also had a product life of almost 20 years."

In the midst of the 519 project, Cliff also initiated the design of the 130 LC meter, a work-horse measuring instrument.

"We still have two or three of the 'El-



sies' in use. They'll outlast me," he chuckles.

The work of the early Tek engineers was intense and the rewards mostly intrinsic, according to Cliff.

"It was common to work 40 hours straight to finish a project for a trade show. When you work so intimately and hard, it's sometimes difficult to let it go. I used to smoke a big cigar after each project. This was my reward and a sign to shutdown and get on to something new."

Cliff ended his early career by completing the 3S76 and 3T77 sampler efforts. His current work is on a new sampler 100 times faster than that 1963 effort.

He's helped define Tek's standards for describing waveforms, and is contributing to industry standards through an IEEE committee working on pulse standards terms for digitizers.

New discovery has always been important to Cliff, and what's kept him on the leading edge in his field.

"I have an insatiable thirst for knowledge and a stubborn streak of curiosity," he says.

"Electricity has been my fascination since I did stage lighting in the seventh grade."

While working on a sampling project in 1964, Cliff developed a health problem that caused him to leave Tek. A year passed before he was diagnosed with low-blood sugar and successfully treated.

Cliff turned to a career as an engineering consultant under the auspices of Engineering and Science Associates. Tek was one of his clients. He was also CEO of Audionics, a high-quality audio systems manufacturer, and worked for several small businesses.

The intricacies of electronics have suited Cliff. His mind processes information as easily as the computer circuits he designs.

"I have a thing for numbers. They're fun for me," he says as he effortlessly recites the 50-digit base number for logarithms and Pi to 25 decimals. Cliff can also tell you every phone number he's had since childhood, and the registration numbers for all of Jack Murdock's planes.

Cliff's love for the whimsical also comes out in his hobbies. Once an accomplished unicyclist, he now plays the organ and operates a ham radio for enjoyment and relaxation.

"Unicycling is pure fun and silliness. I enjoyed it when I was younger, until I followed the sheriff's posse in the Albany Timber Carnival parade one hot summer day. That—along with several occasions of broken bones—ended my clown days."

Returning to Tek in 1984 was like coming home again, Cliff says. "It's a damn good environment to work in. There's room for different character and intellect. And, I find people here have honor, integrity and a passion for quality."

Where are they now? They're still here

Cliff Moulton is one of seven employees still at Tek who were working at the Hawthorne street site in Portland when the company moved in August 1951 to the Sunset plant near Beaverton.

The others:

Genevieve "Genie" Brink became Tek's first 40-year employee in August 1988. She started in the sheet metal shop but recalls doing a variety of jobs in those early years when the workforce of 30 experienced little red tape and much flexibility. She's now in the Bldg. 19 plastics operation of Measurement and Accessory Products division.

Deane Kidd will become Tek's second 40-year employee on Aug. 8, and says he's planning to retire in January. He worked for many years in new product introduction, and is now in PTID's Measurement Services, which sells Tek's measurement capabilities such as UL testing, safety and shock lab work to Tek divisions and outside companies.

Joe Griffith was a key player in getting Tek's CRT operation started in the early '50s. After leaving Tek in 1956, his interim activities included teaching at Linfield college for two years; his own business for six years; research at Allys Chalmers (where he enticed Cliff Moulton to join him); developing a switch that handled a half million volts at a time for Bonneville power; inventing what he termed "a gadget" and building a company around it. He returned to Tek—and CRT—in 1980.

Ramona Johnson started at Tek Hawthorne in November 1950 and worked in wiring until 1952. She came back in 1958 to do unit wiring and stayed until 1960. She came back once again in 1977 to work with cameras, probes and interconnect cables in Bldg. 19. She now builds parts and does laser trimming for Hybrid Components. She says, "Knowing Howard and Jack and working for them was a treat," and "I still believe in working and getting the job done." She says

she's going to stay this time, until retirement in four years.

Don Kephart started as a student summer worker in 1951, driving a truck and working in production and the silk screen area in Hawthorne. He went on to get his degree and serve in the army, then came back to Tek to test instruments. He's been in CRT since 1960, most recently as a process engineer.

George Roussos started as a temp in November 1949 after an interview with Jack Murdock. He began in the Hawthorne shop etching aluminum. He left Tek to go back to school a couple of times and then came back for good in the summer of 1954. He worked in engineering drafting and as an engineering technician until 1961. For the past 28 years, he's been in purchasing. He commuted from his Vancouver home to Beaverton or Wilsonville (60-70 miles roundtrip) in his '64 Beetle until he transferred to Portables in C1 on May 15.