

From the Editor

In the last two newsletters, I've taken a slightly different direction for articles. As always, I'd like to hear what you think. The first part of that change is placing more emphasis on the personal stories with the hope that it will inspire you to write or tell me of your experiences before, during and after Tektronix.

The second part of that new direction is a response to your feedback and a conversation with our newsletter staff, and with Dave Brown at the VintageTEK Museum. It has become a well-recognized location for Tektronix history, product technical information, and very detailed stories of the people who were technical contributors. As a reminder, you can use this link to the opening page of their website:

<https://vintagetek.org/>. For a great discussion of the era of the New Generation (7000 Series, for example) you can find an article and a video prepared by Gale Morris, Tek's first "Industrial Designer."

I've been especially encouraged by feedback from those of you who left Tektronix prior to full retirement. Selling off businesses and operations had a big effect on employment, and most who left had no choice in the matter. There are just shy of 10,000 people on our distribution list.

On Growing Engineers: Gordon Ellison

By Bill Gellatly

When we take time to reflect on a lifetime of jobs, it is amazing to see how we've been inspired, to reflect on people who influenced us, and recalling how we negotiated the twists and turns. I asked retired Tektronix Fellow and Thermal Engineer Gordon Ellison to tell me a bit about how his career evolved, and moreover, how his life after Tektronix had played out. As we talked, I could see his zeal for rigorous top-notch analytical problem solving.

While seeking the source of his zeal and ethos, Gordon told me about his father's having been a Journeyman machinist, his high expectations for each of the children, and his working long hours to provide for the family needs. Perspiration was prized over inspiration; there was low tolerance for mistakes that wasted time and material. Rough times were to be accepted as normal cycles in life. That work also meant painstaking and careful work, especially in the era of manual machinery. Gordon learned an ethic that was grounded in old-world crafts and apprenticeships. Respect for his father's skill and dedication to provide for the family was certainly an influence on his life.

On the side of generosity, his father bought his first two cars so he could get to school and to early jobs; he knew to respect and care for them.

Gordon's early jobs with a BA in Physics from UCLA was strewn with rough spots. He worked on acoustic homing devices, military surveillance satellites, UV-lasers and IR detectors, then magnetic materials research that led to work at NCR (formerly National Cash Register). This was all lab work and seemed too far removed from the practicality of his father's experience as a machinist. He might be able to advance some aspect of making faster or cheaper memory devices, but none of these applied science projects were really capturing his imagination.

Seeking a Masters degree seemed a good path to finding his passion, so he enrolled at USC. But a heat transfer class was not part of that study (he later bought several books on the subject and studied them after work), but he learned a lot of advanced math. After completing his MA, he took another advanced math class. After handing in his final exam, he asked the professor about a hypothetical math problem resembling one he'd seen at work. With encouragement and a clue from a Bell Labs paper, Gordon went home to find his Eureka moment – connecting the math in Green's Functions to the heat transfer problem that had prompted his question. That was when Gordon found the passion that would drive the rest his career.

A Bell labs article described what seemed like an awkward way to solve the problem, but then with

more math insights Gordon built a program that went from a curiosity to a workable one usable by ME's with limited software experience.

New methods in hand, Gordon steadfastly honed his skills in writing Fortran programs at NCR for the next seven years. Gordon's role was aimed at solving critical thermal problems for their mainframe computers. The simple sounding, yet classical and complex problem is to predict how and where heat will be transferred and where the hot spots will be.

Seeking to broaden his experience, he responded to a posting by Bill Snell at Tektronix. The interview with Bill went well, and he knew he could help Tek, but was hesitant about the capability to predicting airflow in complex packages. Gordon was also impressed by Jack Hurt during the interview. Jack also told Gordon about an airflow program that he had some familiarity with. Using this information plus some other ideas, Gordon eventually created an airflow program that was used to assist in the design of many important products.

For the next eighteen years, Gordon plied his trade, practicing his own brand of modesty and diplomacy, becoming recognized for untangling some engineering knots to enable reliable, compact products for all the divisions. In the evenings, he was inspired to write a book, with much of his handwritten work transcribed by his wife Sharon. Over time, he rewrote his set of Fortran routines

into a set of PC-based programs. His work was now at least as good as the estimates provided by the EE working on power input, and by the ME supplying the space and airflow constraints. The earlier tradition of design work was more art than science, so there was more to be done than teaching people to use the software he had developed. Imants Golts was a very supportive manager through this time. Gordon said, "He gave me a lot of autonomy to set realistic schedules and encouraged me to keep writing my book."

Gordon's path was founded in patience, encouragement, assistance when sought, and "down-in-the-weeds" work any time if he could bill his hours to a specific project. When I worked with him in 1977 on a heating problem, I found him to be very open about his NOT having expertise with the function of the Tek products. In many ways, that was an advantage. It forced me to articulate the details of the application. His expertise was in asking the questions in as many different ways as it took to get at the underlying assumptions to narrow the problem into its constituent parts. Just reflecting on his questions was educational!

As he broadened his base of thermal solutions, he was also building local experts. Gordon applied his own version of Howard Vollum's legendary "leading by walking around. Engineers could count on adding his methods to their product design skillset. Hearing Gordon describe the people whose talent he recognized was a marvelous indicator of his un-

stated pride in helping others grow.

As the 80's drew to an end, Tek Labs was being broadly restructured, and it was clear that any short-term focus on shareholder value would put pressure there. Work on projects that couldn't be tied directly to a divisional need were closed out, and Tek had gone through a period of time when integrated CAD solutions were only loosely tied together, and software vendors were under increasing pressure to build systems integrating what has now emerged as "multi-physics" behavior.

Gordon's response to this was to realize that it was no longer practical to offer software solutions for small segments of a design, and the option of trying to integrate his code into one of the larger integrated solutions would take immense resources and a large staff.

Gordon spent his last two years at Tek working for Ed Hershberg and Bruce Murdock in the Electronics Research Department and developed a lot of respect for these managers.

Gordon was able to retire in 1994, but he knew there was more work in store; that work would be driven by the satisfaction of teaching. He joined PSU as an adjunct professor, and in 2009, updated both his book and his software. That allowed him to be more academic, and to be freed of the pressure to write commercial software.

As a closing note to his description of his career, he reflected that teaching has been in his blood ever since he figured out he could teach others how to use a slide rule. That's a great description of fulfillment.

TEK Trivia Quiz

There were no respondents to the question: What was the name of the TEP instructor who narrated the film "Thevinin's Theorem". What is known: it was not Paul Stuart, Len Bell or John Sheppard. Can anyone contribute?

See this quarters new trivia question to the right

What is the figure below and why was it manufactured at Tek?

The figure was red for those of you that don't see it in color.



Death Notices

Abama, Arthur F. -d5/4/2018 @ Tek 35 years

Allen, Oneta May -d2/26/2018 @Tek 26 years

- Bergstrom, Dennis** -d2/22/2018
- Bird, Patricia "Joy"** -d3/6/2018 @Tek 32 years
- Brabham, Richard 'Dick' Charles** -d7/7/2016 @Tek 25 years
- Dunn, Keith G.** -d4/26/2018 @Tek 8 years
- Dunning, Daniel A.** -d6/27/2016 @Tek 9 years
- Gutz, Roiellen "Chez"** -d5/19/2018
- Hancock, Thelma R.** -d4/8/2018 @Tek 2-3 years
- Jackson, Gregory Ted** -d3/2/2018
- Jaeger, Charles 'Wayne'** -d3/9/2018
- Jaeger, Charkles Wayne** -d3/9/2018
- Jenkins, Robert S (W7BKN)** d4/13/2018
- Kelly, Wanda Alleen** -d1/29/2015 @Tek 9 years
- Knapp, Donald Richard** -d5/28/2018
- Lebarron, Walter Dale** -d8/31/2014
- Loucks, Harold F.** -d4/1/2015 @Tek 25 years
- Neff, Neva Carolyn** -d4/16/2018
- Selden, Grace Margaret** -d4/18/2018 @ Tek 36 years
- Sternes, Gerald 'Jerry' James** -d6/1/2018
- Stewart, John Michael** -d4/20/2018 @Tek 35 years
- Sutton, Waltaud "Wally"** -d4,22,2018 @ Tek 42 years
- Williams, Frnk E.** -d3/25/2018 @ Tek 30 years

RETIREE BENEFIT INFORMATION & ADDRESS CHANGE PROCEEDURE Retiree Medical and/or Life Insurance

Anyone who is a past employee with Retiree Medical and/or Life Insurance will need to request information or make changes in writing to A & I. You must include your signature and Social Security number.

Tektronix Post Employment Services
A & I Benefit Plan Administrators, Inc.
1220 SW Morrison St., Suite 300
Portland, OR 97205-2222
Toll Free: 1-800-778-7956
Fax: 503-228-0149

401k Benefit

Anyone who has a 401k benefit must contact Fidelity for information or to change their address directly with them at:

1-800-835-5092

Cash Balance Plan

The Cash Balance Plan has been transferred to Danaher Pension Plan Processing Center with Hewitt. Questions or changes should be directed to:

1-800-580-7526

Tektronix Retiree Volunteer Program

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Beaverton, OR 97077 - 0001

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www.tekretirees.org

TRVP Office Hours Thursdays 10-3

Tektronix Retiree Volunteer Program

M/S 13-400, PO Box 500

Beaverton, OR 97077 - 0001

VintageTEK Hours

Thursday: 10-6

Saturday: 10-4

Other times by request

TRVP Hours

Thursdays 10-3

Request for Articles

We would really enjoy more articles from our readers.

Some possible ideas:

Howard or Jack stories or other interesting individuals

Specific Instrument articles

Picnic Stories

Rose Show articles

Car Show Articles

Machine Shop Stories

CALENDAR

Redmond Breakfasts

8:00 a.m. 1st Monday monthly
Shari's Restaurant; Redmond, OR
1565 SW Odem Medo Way

Spouses welcome

Details: Nick Hughes 541-548-1201

TERadio Amateurs Club

Weekly on Friday 6:00 p. m.

Round Table — Beaverton
SW Beaverton Hillsdale Hwy and
SW Western Ave
Next door to Bi-Mart

Previous Tek-Employees Luncheon

11:30 a.m. 2nd Monday monthly
Peppermill Restaurant

17455 SW Farmington Road #26B

(Corner of Farmington
& Kinnaman Rd)

Aloha, OR 97007

Details: Annetta Spickelmier

503-312-8825

READ YOUR TEK-RETIREE NEWSLETTER ONLINE

Would you like to help save postage and read your Tek-Retiree Newsletter on our webpage? Send your name, address, phone number and email address to:

tek-retirees@tektronix.com

We will send you a notice when the newsletter is posted each quarter. If your email is changed or rejected for any reason you will receive one phone call to request an update. If you don't respond we will return your newsletter to the US mail list. To preview the web page and previous issues of the newsletter go to: **www.tekretirees.org**

Please send questions, information or correspondence not involving the newsletter online to TVRP at **tek-retirees@tektronix.com**