Thus begins our second year of Cookbook. The response from readers has been overwhelming. (This means that we got four letters from readers during the year, and we only expected one or two.) Our high hopes for the column have remained rather unfulfilled for lack of inputs from the field. The column can go on indefinitely, fueled from my barrel full of personal opinions, but let's hope it doesn't have to.

**baudy old magpak**

Tape cassettes seem to be making it as a data storage medium. It's interesting to speculate on why this development has been so long in coming; XDS had a cassette drive called Magpak nearly ten years ago (using the "old" RCA large cassette which at least one manufacturer is still interested in). Perhaps it was necessary for the audio industry to develop a mass market for cassettes before we computer types became really aware of them. It's nice to see the computer industry making some attempts to standardize recording methods and formats, though we expect to see diversity for a long time to come. Here at Santa Cruz we have had good luck with ordinary audio cassette recorders at speeds up to 1200 bauds. We just take the audio output from a simple modem and record it right on the tape; and then play it back through the modem. We use START-STOP asynchronous data and work through the Teletype interface on the computer with its clock speed increased from 110 to 1200 bauds. The modem is homemade and is distantly related to the Bell 202 series, but lacking the sharp filters and phase equalizers that are needed in a long-distance telephone modem. One thing that doesn't work very well is the attempt to record on one machine and play back on a different one; our application happens not to require this. Perhaps if we were to try two machines of the same make and model this difficulty would go away; or we might have our machinist work over the various pulleys and belts and capstans to try to get all our machines to run at the same speed.

**camac copy needed**

Our colleagues in the instrumentation field seem to be pretty excited about the "Camac" system of construction. We gather that this includes both a system of mechanical packaging and a set of interface standards for interconnections. Would someone please tell us more about it, and how to get a copy of the published standard if one exists?

**about board designs**

Some months ago we discussed packaging systems to facilitate the construction of one-of-a-kind equipment by people lacking factory facilities. Vector has some new products which are more to our liking than any of the commercial offerings we have seen heretofore. Ask for literature on their latest board design and their J-pins, which offer one way to have wire-wrapped interconnections without using I.C. sockets. An equally nice board design has been announced by Mylee Digital Sciences, Inc., 16 Progress Parkway, Maryland Heights, Missouri 63042. (When we mention commercial products in this column it is because the products appear to offer a really good solution to problems that readers have brought up.)

**what's that you say?**

Just recently newspaper clippings headlined "Computer Noise Can Cause Hearing Loss" have been showing up on bulletin boards everywhere. How long have we logical designers been tossing around our gates and flipflops, expecting the mechanical designer to take care of fans and filters, who in turn figured the quality control people would fuss if the finished product were too noisy, but they thought it was up to the product safety engineer to set standards for noise, and he had complained about it to the industrial design consultant who was working on the problem but would have to talk with a friend in the acoustical field, and anyway the sales manager says you can't sell a machine if it doesn't make a nice busy sound! Or, in your company, is the approval of the total product a function reserved reverently for The Old Man, who says it doesn't sound too noisy to him (as long as he keeps his hearing aid turned off)? Of course if the computer is in the same room with a bunch of keypunches and teleprinters you can't hear it anyway. We seem to have accepted noise into our society as readily as we took to DDT, radioactive fallout, and nonreturnable bottles and cans. But the noise emitted by our creations is one social implication of computing that we designers cannot push off on someone else.

**a word from lliffe**

A very interesting little book is *Basic Machine Principles*, by John Iliffe of I.C.L. and late of Rice University. "The ultimate objective in designing a computer is to see it produced and applied effectively to current scientific and data-processing problems, and quickly adapted to an expanding range of activities," is the first sentence; and the rest of the book as equally well-said. It contains essentially a description of Iliffe's Basic Language Machine, which is very thought-provoking. The book is distributed in the U.S. by American Elsevier.

"Don't sweat it — it's only ones and zeroes."

— from Saint Patrick's Almanac

— Jim Haynes