

unashamedly calls Super Disk (see Nov., p. 159). At this rate, one wonders who will be first with a storage device that combines both disc and tape technologies.

In a more serious vein, others have conjectured that STC might develop its own mainframe, much like Telex had once considered doing. But STC president Jesse I. Aweida says they have no plans for a standalone computer in the next two or three years, certainly nothing comparable to a 145, 155, or 165. "Now when you come into a smaller area, a small computer for certain applications, I see no reason why we can't do something, because the talent and expertise are there." He continues: "The complexity of the control unit is equivalent to a mod 30, for example. So you're talking about a good size computer we could do with that talent . . . But we see that market as one of application, rather than head-on competition with the IBM product line."

Do jobs off-line

Thus Storage Technology foresees data base oriented systems, say, "where we tie in the peripherals we have with more intelligence in the control unit, and do some jobs off-line without any of the cpu."

The 42-year-old Aweida, who fled from Palestine to Jordan in 1948 during the fighting between Arabs and Jews, and who later came to the U.S. to attend college, got his degree in mechanical engineering at Swarthmore College. On the tall side, he has a slim build that makes him look taller than he really is. An avid skier, he's known to arrive home from a business trip late at night and immediately leave for a weekend of skiing in the nearby Rockies. Jesse spends a lot of time on the road, and perhaps because of this he makes it a point to take his wife and four children on some of his trips. A company sales meeting in Hawaii earlier this year provided such an opportunity. Final arrangements to acquire a marketing company in France, Promodata S.A., did the same last month, allowing Jesse to take his family for their first prolonged vacation together.

Following his graduation from Swarthmore in '56, Aweida joined IBM, continuing his education at night and acquiring his MS from Syracuse Univ. He was senior engineer and head of the Advanced Tape Drive Dept. with program responsibility for the IBM 2420 line when he left to form STC in August of 1969. He took with him Zoltan Herger, highly respected for his technical knowledge, who was managing the 2420 mod 7 program, to become vp-engineering at STC. Two other

Companies

Storage Technology: Will a cpu be Next?

Lawyers continue to debate the guilt or innocence of IBM in the anti-trust suit brought by Telex Corp. While the debate lingers on, as it surely will, one question keeps popping up. If IBM is guilty of having violated the nation's anti-trust laws for the way it treated the peripherals manufacturers, how much more successful would Storage Technology Corp. be with a more beneficent competitor?

Like Telex, STC was formed expressly to compete with IBM in the marketing of tape drives; unlike Telex, it has racked up an enviable record of steady and phenomenal growth despite IBM's marketing shenanigans. In the slightly more than four years since its founding, the Louisville, Colo., company has become a profitable venture, with annual revenues approaching \$50 million. It has installed more than 6,000 drives at more than 225 accounts, was able to demonstrate to a prospect its own 6250-bpi drive on the same day that IBM announced this capability, and now has come up with an improved version of the IBM double-density 3330 disc drive, which STC

co-founders were Tom Kavanagh and Juan Rodriguez, both of whom formerly held managerial positions with IBM in Boulder and are now technical managers at STC.

Within about a month, they were joined by Jim MacGuire who is one of only two corporate officers on the board; the other is Aweida. MacGuire, formerly associated with Univac, IBM, and MAI, was a vp of field operations for Telex's Computer Products Div. before joining STC. At that time, the new company was quartered in an insurance office in Boulder, whence they moved to become co-tenants of a Sears catalog sales office in Boulder's main shopping center. MacGuire, who has a quick and congenial smile, recalls that they had about 50 employees crowded into that facility before they moved the executive offices to a vacant house. That was the situation when they broke ground for the present plant in nearby Louisville.

In its first 20 months, STC spent some \$9.5 million, which averages out to \$475,000 a month; only at the end of that period were they starting to produce some revenue. The first tape drive didn't get its public showing until May 1970, the first delivery taking place the following September. But operating revenues didn't start coming in until January '71. Still, in October '71, the company had delivered its 600th drive. By the end of the year, employment had risen to almost 600 and total revenues came to \$3.6 million. The following year, employment had gone over the thousand mark and revenues exceeded \$26 million, producing for the first time a net profit of \$3.7 million. In the first nine months of this year, employment neared the 1,200 mark, gross revenues were more than \$38 million, and the net income was \$4.3 million.

Close to 6,600 tapes?

The performance exceeded even the bullish projections of analysts at the brokerage firm of Smith, Barney & Co. In a report dated May 1972, they estimated total revenues of \$21 and \$33 million for '72 and '73. By the end of this year, they thought, STC will have installed some 6,600 tape drives, a figure STC will not comment on but which is believed to be close.

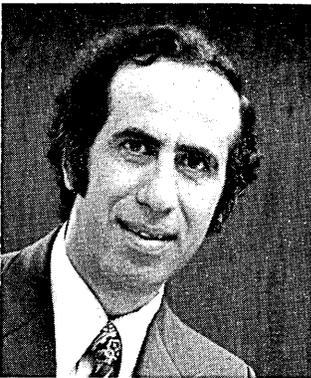
"The annual rental value of equipment we have on lease was \$18.3 million at the end of July '73," says Aweida. "It's building up very nicely. Our plan is to sell half the machines we ship, and retain (for rental income) the other half. If you look at the total to date, we own more than half... we've sold less than half."

Since these deliveries are to end users who seldom buy their hardware, it's required that the equipment be sold at reduced prices to third-party lessors. As long as Aweida is able to find lessors who are willing to undertake such arrangements at reasonable rates, the company is in good shape.

Of course, the marketing strategy that made it all possible was that initial sales were to only large customers, those with 50 or more drives, where enough transports could be installed to make it worthwhile for STC to set up a service office or assign an FE fulltime.



JIM MACGUIRE: STC won't become "The Peripheral Company."



JESSE I. AWEIDA: Sell half, lease half, and then go skiing.

There must be several FE's at the Social Security Administration, STC's largest customer with some 460 drives, but a number of others have more than 200, including Ford Motors and EDS. But now the company can afford to go after the smaller user. Says MacGuire: "If there's a user who needs, say, four drives, and he's a block away from a 155 or 165 user, we'll go after that business as hard as for a large user... Starting this year, once we got those larger installations, we were able to diversify to the smaller accounts."

According to Aweida, the new Super Disks will be marketed initially to existing accounts, but can also be part

of a package with appeal to others. "So I believe it will allow us to get into new accounts."

A matter of price

Interviews with several users indicate that the service provided by STC is a prime appeal. One user mentioned a call at 2:30 a.m. that brought an FE in 45 minutes. But it's still the bucks saved that make it possible for outfits like STC to get their drives into an IBM installation. And part of that savings comes from enhanced performance features, such as the 250-ips speed that STC was first to come out with, along with a 400 KB transfer rate. In the controller, too, are microprogrammed diagnostics that make preventive maintenance possible without the user having to turn the whole system over to the FE.

"Our users tell us to be very judicious about expanding the product line," says MacGuire. "They say we should be careful about trying to become a peripheral company handling everything available. To a certain extent I agree." Similar sentiments come from an eastern user who says, "They're in trouble when they think they can do everything well." And, he continues, when they start spending money on things like company planes and plush offices.

To date, STC probably has been too busy trying to find space for both the growing office staff and for its production activities to be concerned with plushness. And we'll give odds the company will buy a ski resort before it acquires an executive jet.

—Edward K. Yasaki