

# Interoffice Correspondence

*K. Lee*

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To: Bill Ellis

Date: January 3, 1983

CC:

From: Kyu Lee, Software Engineering *KYL*

Subject: Trip Taken: JEDEC Meeting and Other Business Matters, Dec. 13-17, 1982

A purpose of my visit to San Francisco during the week of December 13 was to attend the JEDEC meeting. However, a more important reason for the trip was to meet the major figures in the semiconductor industry, specifically in programmable logic arrays. Furthermore, we wanted to discuss ABEL specifications with our potential users. I believe we accomplished these goals. As a side trip, I visited the SAGUS Corporation, a micro-CAD company. This was to find out whether the company has something in common with Data I/O, and also whether they can be considered as a potential takeover candidate.

## 1. JEDEC meeting:

There were three sessions: bipolar, microprocessors, and CMOS. Michael Holley and I attended only the bipolar and the microprocessor sessions. The latter was, however, canceled due to the lack of attendance. Besides Michael and myself, neither of whom is a voting member, only four other individuals showed up. Vic attended the bipolar and CMOS sessions. Since he was an active participant in these meetings, I will defer the details to his report.

## 2. ABEL:

The ABEL meeting took place at A.M.D. on Thursday, December 16. Charles Bannon of the San Jose office did a good job of gathering the "right" people, representing A.M.D., M.M.I., Signetics, Fairchild and National. They included some key figures such as John Birkner of M.M.I. and Napoleone Cavlan of Signetics. The list of those attending is attached to this report.

Michael gave an excellent presentation on ABEL. While there were some of the usual pointed questions, the general mood was that we are heading in the right direction. Birkner especially liked our integrated approach to the problem, and our recognition of existing as well as future "specialized" languages to specific devices, such as PALASM, instead of ignoring

them. Both Birkner and Cavlan half-jokingly remarked that we have 20 man-years of effort ahead of us. I believe this represents the general mood of the audience. What follows are some of my thoughts and observations.

- a. M.M.I. is continuing their efforts to enhance PALASM. After the meeting, Birkner took Michael and me to M.M.I. to discuss this in more detail. They just released a new, enhanced version and he gave us a copy to try out. They are also planning to rewrite it in PASCAL. After our meeting, in which we discussed the possibility of writing ABEL in C-language, John seemed to rethink their own plan. Imtiyaz Bengali is their man to implement this. John and I agreed that it will be to our mutual benefit to make our ABEL and their new PALASM use as many similar symbols as possible. We will inform and consult with each other on this matter.
- b. After the ABEL meeting we had another meeting on PALASM. The participants included Warren Miller of A.M.D., ~~Bob Nelson~~ and Dave Uimari of National, and John Birkner and Imtiyaz Bengali of M.M.I. We all agreed to closely coordinate to "standardize" PALASM. Warren Miller and John Birkner shall act as the coordinators.
- c. National is also developing an ABEL-like language, of which they do not wish to discuss the details at this point. Considering the personnel involved in this project, I would discount their effort.
- d. Signetics, under the guidance of Napoleon, is making headway in developing a language and the associated software to support their devices. We visited Signetics on Thursday, December 16, and had a lengthy discussion with Napoleon and his people. They also gave us a short demonstration. I think the language is limited in scope but well planned and deserves notice. Signetics plans to demonstrate this product (preliminary, and the first phase of their longer-range plan) on January 15.

### 3. Assisted Technologies and Bob Osan:

We visited Assisted Technologies on Tuesday, December 14. Data I/O reps were Vic Belmondo, Michael Holley, Mike Mraz, Charlie Bannon, and myself. They expected to release their language, couple, for beta-test in late January and for sale in February. They promised us a copy for evaluation, and until then it is too early to make a definitive statement. Some preliminary observations are:

- It appears to meet some ABEL criteria. We plan to validate this product according to ABEL specifications, which should be ready sometime in the January-February time frame.
- The January release is by no means a final product. It is a bare-bones language to meet the immediate demand. They, of course, expect to continue enhancing the product.

After we evaluate their product, we need to get together with our Marketing people to discuss our strategy. Some options are:

- We can ignore theirs and continue developing ABEL.

- If their product satisfies industry needs, perhaps we can terminate the ABEL project and market theirs.
- Most likely, we will market theirs on an interim basis until ABEL is ready.

#### 4. Visit to SAGUS Corporation:

I visited SAGUS Corporation on Monday, December 15. SAGUS is primarily an engineering consulting firm with 7 full-time employees and a few part-timers, as well as consultants. It is headed by Don Hargrove, a nuclear engineer-turned-computer specialist. For the last 2 years they have been working on a micro-CAD system and in December, 1982, they released their first product. The first release handles only piping problems, and it is based on APPLE-II Plus. The personnel appear to be competent, and the company has been doing well financially. With the new product they feel that they need more capital to market, as well as different marketing skills.

More details will be found in the SAGUS profile submitted to you right after my return.

Kyu Lee.

12:00

12-16-82

DATA I/O

~~Eric Belmonte~~  
Mike MRAZ  
Kyu Lee  
Mike Holly  
George James  
Earl Lee  
Paul Ferzoco  
Charles Bannan

Monolithic Memories Inc.

John Birkwer  
Cyrus Tsui  
~~H. I. Chau~~  
Imtiyaz Bengali  
~~Bob Likins~~  
JIM FAHEY  
Tom Wait

NATIONAL Semiconductor

Robert Nelson  
Jay Robinson  
Dave Umari

Fairchild

Richard Hauser  
Rick Rasmussen

Advanced Micro Devices

Warren Miller ✓  
Bill Sievers  
~~Witch Richmond~~  
Bob Lutz  
BRAD KITZON ✓  
Paul Harvey  
Rolland Fritz ✓  
Bob Nick ✓  
Tony Holbrook  
Russ dePina  
Phil Sheu

SIGNETICS

Bob Barker  
FRANK Swiatowiec  
Napolean Cavlan  
~~Paul Sasaki~~  
Aky MASHAYEKHI

SEEQ Technology Inc.

Bill Smith