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INPUT/OUTPUT

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Boeing Places 156A Order For Over 3/4 Million Dollars

Data I/O announced the order of six 156A In-Circuit Programming systems from the Boeing Company. The order, valued at over $750,000, represents the largest single purchase of 156A's from Data I/O. Boeing will be using the 156A's in conjunction with the B1B Bomber weapons radar equipment.

According to Rick Karr, Vice Presendent of Programming Systems Division, the purchase further establishes Data I/O's position in the in-circuit programming marketplace. "The sale to Boeing reflects our beliefs that an enormous potential exists in the area of in-circuit programming." Karr further adds, "We have been in the in-circuit programming business since 1982 and are continuing to invest in new product development."

Data I/O was the first to offer commercially available in-circuit programming at the board level, as opposed to the individual PROM level. The 156A is designed to offer maximum power, flexibility, throughput and control. The standard 156A programs up to eight circuit boards, fully loaded with EPROMs, in a single operation. With custom options, this number can increase to 32 boards. Extensive power isolation circuitry prevents damage to the board being programmed and, in the case of a defective board, to the programmer itself. The unit performs various self-tests on power-up, and also checks all devices on the board before programming to make sure they are blank or contain no illegal bits, providing up to three levels of verification.

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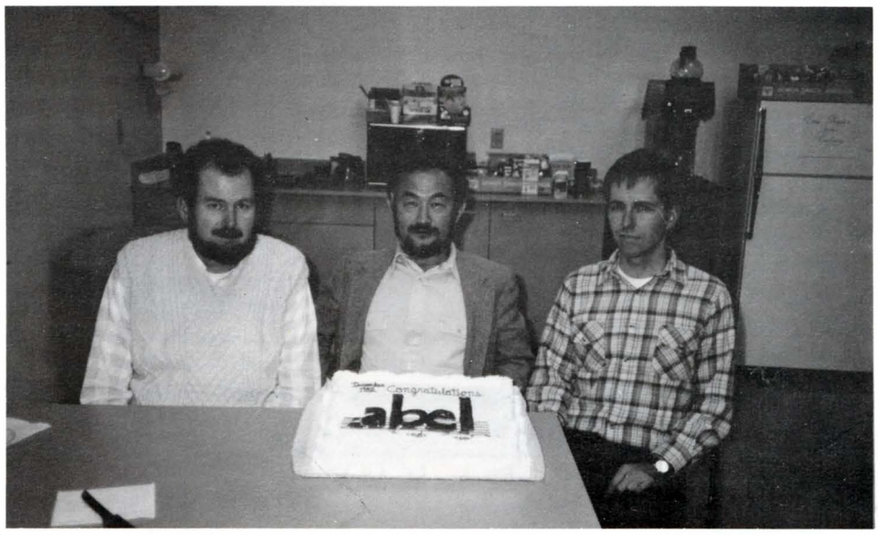

The founders of ABEL: Michael Holley, Kyu Lee and Walter Bright.

FutureNet Celebrates Five Year ABEL Anniversary

On December 16, 1987, the Redmond Tech Center staff celebrated the fifth anniversary of the announcement of ABEL to the electronics industry. Well wishers from DAD and PSD were also on hand to honor the three founders of ABEL: Kyu Lee, Michael Holley, and Walter Bright. Of the three original team members, Michael Holley is still very actively involved in ABEL. Most of his talent in the past few months has culminated in the January release of ABEL 3.0, a major new product update.

Consistent ABEL sales have been a success story for Data I/O since ABEL 1.0 began shipping to customers in April, 1984. Despite some early skepticism within the company that ABEL sales would not exceed 300 units, the product has flourished. More than 6000 ABEL sales have been recorded. Today ABEL enjoys dominant market share, and is recognized as the industry standard for logic design software.

December 16 marked the five-year anniversary of the meeting in Santa Clara, where Kyu Lee and Michael Holley presented the ABEL development plan to the semiconductor industry. Among the attendees at that 1982 meeting were key managers from AMD, Fairchild, National, MMI and Signetics. Kyu and Michael presented a list of features, and a system block diagram. ABEL, which was scheduled for initial release in January 1984, had three objectives: convert a logic description into a fuse pattern and test vectors; support all existing logic devices (PROM, PAL, IFL); and operate on a computer system available to Data I/O's customers.

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"There are two main applications for the 156A," says Randall Lutz, Product Line Manager. "The first is in situations where environmental stress necessitates permanent soldering directly on the board. For example, in military, industrial or transportation areas, the circuits must be protected against shock and constant vibration. This was the case with Boeing. Another area of application is in production, where medium to highly complex boards are being utilized. The 156A can save a lot of steps and reduce time and error probability, and therefore decrease costs."

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The plan was received enthusiastically, and the ABEL product development team expanded. The 1983 team included David Pellerin and Brenda French, who continue to be key engineering resources on the ABEL team, as well as Mary Bailey and Bjorn Benson, who occasionally drop by the Tech Center as a respite from their graduate work at the University of Washington. They are proof that it's tough to leave a great group of people and a sensational product success!

Susan Todd