LABTAM

Labtam International Pty Ltd
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Telephone: (03) 587 1444
Systems: 3006, MU3000

LABTAM *now* is a high-performance desktop computer and a floor-mounted multiuser system which could be considered to offer more appropriate utilisation of the advanced facilities available. Labtam *then* was a successful manufacturer and exporter of scientific instruments, especially emission spectrometers for which it had developed an earlier dedicated computer of its own design.

As the current Labtam computer is reviewed elsewhere in this edition, it is sufficient here to look at the features which place it up-market in performance but not price from the enhanced IBM PC compatibles.

Labtam has for the time being stuck with the Digital Research CP/M family of operating systems but has adapted them quite heavily to produce new performance standards. For example, to run ordinary 8-bit CP/M code, an object program is executed by the onboard Z80A, but system calls are intercepted by an emulator program which signals the faster 8086 processor to carry out the functions required.

As well as faster execution than is possible in a standard CP/M environment, the partial emulation procedure has the added advantage of leaving a particularly large transient program area of around 62K-bytes available for application programs.

Two major innovations provide disk performance that is both faster and more useful than on comparable systems, and disk access is the limiting factor for a substantial portion of computer applications. Massive speed improvements are provided by the use of multiple (currently six) track buffering in the disk controller's cache memory which eliminates a substantial portion of disk seeks and head selections. Operational flexibility is provided by software to read standard 8in and most 5.25in diskette formats.

Labtam's success with scientific instruments is based on atomic emission spectrophotometry for analysing elements, particularly using inductively coupled plasma, which it claims to be the only company to have fully developed. Labtam International is the third company in the group, which started with R&D Instruments Pty Ltd and Labtest Equipment Co (SE Asia) Pty Ltd.

Labtest won a federal Department of Trade "Export Award" for outstanding export achievement in 1982. Its significant international customers include Malaysian defence, Korean and Singaporian institutes of standards, China steel and USSR iron and steel.

The group claims to have been one of the first businesses in the world to utilise a microprocessor (the Intel 8080) with a bus and operating system called Labdos and a scientific Basic it called Labtam.

The Labtam computer's visibility has been considerably boosted by a competition to give one away.

The companies are wholly owned by founding and still active directors Don Dryden and Heimo Eberhardt.

L & L AUSTRALIA

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System: Unison

UNISON is a MC68000-based computer designed during 1981 by Bill Hollier of Information Mechanics Incorporated Pty Ltd (IMI). Early attempts by IMI and its associates to obtain government and corporate backing for Unison came to nothing, so it went ahead alone and developed prototype boards, the first of which were publicly shown in August, 1982 at a Melbourne Unix users' group meeting.

L & L Australia Pty Ltd was the marriage of a local company successfully selling computerised petrol pump tops and other fuel-distribution industry systems on the world market and Kelvinator Australia, a subsidiary of the publicly listed Email white goods manufacturing group. L & L had been using the first widely available Unix-based multiuser micro, the Onyx, to develop more sophisticated backroom fuel distribution control systems.

After protracted negotiations, L & L purchased Australian manufacturing rights to Unison as a replacement for Onyx and to expand into the general-purpose computer market.

Great positive expectations for Unison were built up in the latter part of last year, as L & L moved into modern premises with substantial production capacity and accepted a $700,000 loan from the Victorian government to boost the Unison project.

However, L & L's entrepeneurial founder, Corrie de Waard, suffered a serious illness, retired and subsequently sold out his interest to Kelvinator during the first half of this year — a period during which the Unison project seemed to be drifting aimlessly.

CSIRO offshoot Siromath Pty Ltd was charged with porting its version of Unix, called Sironix, to Unison. The several hardware and software developments necessary to get Unison into full production were variously seen as delaying factors, but some new stability seemed to be taking hold of the project by the middle of the year, with nothing likely to stand in the way of a launch before or at 10ACC.

Although Unison's design matches the best of the 68000 systems on the market, a couple of bugs noticed by users of pre-release machines will certainly mean that the finally released version will be carefully evaluated before gaining the level of acceptance that has long been anticipated.