NEWSLETTER

This issue of The Data Domain Newsletter celebrates the sixth anniversary of The Data Domain. The past six years have seen a revolution in the world of small computers, and The Data Domain has been a significant part of that revolution. Examples of the distance small computing has traveled in these years can be seen throughout this issue of the Newsletter. We have features on two of the newest entries: the Osborne 1, the first computer that comes complete with applications software at the price of a good stereo; and the NEC, one of the first of the Japanese competitors. We have features on software for the machine that made personal computers a national popular phenomenon, the Apple II. The Data Domain has been part of this microcomputer revolution from the earliest days of the do-it-yourself kits to today's sophisticated hardware and software that comes ready to solve all manner of problems from tax returns to wordprocessing to record keeping. This is just the beginning, so stay tuned.

John V. Lombardi, Editor

Ray Remembers

It is hard to believe that I've spent over six years of my life in this business. Especially when you consider that in the 32+ years since I graduated from high school, the longest I've been with any one employer was the five and a half years in the U.S. Army.

Although this industry, born only a few years ago in mid-1975, hasn't matured very much, the past six years have seen tremendous change.

Most of the pundits of microland have the story of the small computer industry all wrong. They constantly tout the founders of Apple, Vector Graphics, Alpha Microsystem, etc., as being the entrepreneurs who created a new industry. That is just not the whole story. It is true that traditionally (at least in this high technology area) new companies have been founded by people who perceive a need, have the credentials and persuasive power to obtain the backing of venture capital, or use their personal resources to finance their projects. As a cofounder of ADDS, I'm most familiar with this process. I'm also personally acquainted with the founders and backers of a fair number of such companies.

But our industry is distinctly different, and I'm disappointed that so little recognition of this difference is apparent, especially in the various business schools we come in contact with through our university customers.

This difference is simple. The microcomputer industry was created by the pioneer retailers. Now if that sounds like an ego trip, let me explain. When the first computer store opened in July of 1975 there were Altair computer kits by MITS, with Cromemco's Dazzler close behind. By the time The Data Domain opened in February of 1976 there were about 11 computer stores (all but one, maybe two are gone now), and Byte, SCCS Interface, Dr. Dobbs Journal, and the PCC tabloid. There was the IMSAI computer, as well as equipment from Processor Tech, Tarbell, and a couple of others. There was no Apple, Vector Graphic, Dynabyte, Alpha Micro, PET, TRS-80, or the other big names of the present industry. Computer stores were opening rapidly and we had a very limited product to sell, while demand was incredible. It was so strong, the dealers so inexperienced, the customers so patient that we, the early retailers accepted discounts ranging from nothing to a high of 25%. We paid in advance, or C.O.D., for products that didn't exist, based on promises from people we had never met (Steve Jobs of Apple among them), just to get something to sell. The manufacturers had it made. They were paid C.O.D. or in advance by dealers, telephone customers, mail order customers, and when they accumulated enough orders to pay for the parts or impress the banks, they produced the product. It was a sellers market, and the dealers accepted any deal they could get.

The only software in existence in those days were various versions of 4K and 8K Basic, some rewrites of Intel's Assembler/Editor and bootleg copies of Microsoft Altair 4K/8K Basic. "Manufacturers" were garage operations. The principals could not qualify to approach venture capitalists, and so depended on the mail order, telephone, and big orders from retailers, pre-paid or C.O.D., for their cash. Remember that back then very few products were sold assembled and tested. Most were sold as kits, so there was no need for elaborate and expensive production and burn-in facilities. All you needed was a good printed circuit board (always manufactured by companies who specialized in p.c. boards) and a source of I.C.s and other parts, some sort of manual, shipping boxes, and sales literature.

Anyway, I say that it wasn't the manufacturers who "created" the personal computer industry. It was the retailers, whose demand for something to sell, and willingness to accept those terms, that injected the capital to develop an industry.

Enough useless philosophy, the two most important things I can say this month are:

1. As of Monday, February 1st, 1981, we are officially dealers for the Osborne 1 computer. There is no way we can beat the $1795 price. If you add up the prices for the individual software packages they total about $1500 at list. This and a complete computer for $1795? More on this machine below in the Newsletter.

2. Not only is it our birthday month, but it is inventory tax time. We've still got a lot of miscellaneous hardware and software of a variety of makes and models that we'd like to eliminate from our inventory. Why not come in and look around. We'll have it out where you can browse through it. If you don't like the price tag, see me or Roy and haggle a bit. I've priced these items at what I think are fair prices, designed to give you a good deal and minimize our losses on it. But I have always been sympathetic to a real need with limited dollars to spend, so I can at least be counted on to listen to any offer.

Happy birthday to us.

Ray Borrill

From the Apple Pit

It's time for the first upswelling from the Apple-Pit for 1982. The new year has started with all kinds of new software and hardware available for the Apple II.

Have you seen the announcements of the intelligent printer interface cards for the Apple II? One such card that has been advertised recently is the Microbuffer II. The card contains its own microprocessor, ROM, and RAM. The ROM contains built-in print formatting and graphics dump routines to avoid the necessity of loading separate programs. The RAM (up to 32K) allows a hardware print spooling, and a Snapshot option allows video 'frame-grabbing' into the print spooling buffer to dump screens from uninterrupted programs to the printer. The 32K card is $299 plus $69 for the Snapshot option.

Videx has a new add-on for your Apple, the Enhancer-II. The Enhancer-II is meant to be installed on revision 7 or latter Apple-IIs (recognized by the piggy-back keyboard encoder board below the keyboard and the 2316 character generator ROM in the motherboard). The standard Apple keyboard is upper case only and is designed to allow entry of 91 out of the possible 128 ASCII characters. The standard Apple keyboard does not have auto-repeat (this feature can be added: see the article in the January issue of Nibble magazine). The Apple keyboard has a one character buffer. Consequently, if you type anything while the Apple is otherwise busy, only the last character typed is remembered. The Videx board replaces the piggy-back board below the Apple keyboard with an intelligent board containing a 6504 processor. Pairs of keys toggle the Apple-Enhancer combination between two modes, effectively doubling the Apple keyboard. All 128 ASCII characters can be entered into the Apple. The board contains a type-ahead buffer of 128 characters which can be enabled or disabled (a necessary feature for all you Gobbler fans). The Enhancer also allows user definable keyboard macro commands. These can either be entered manually from the keyboard or from a previously prepared disk. A single keystroke can cause a string of up to 510 characters to be entered into the Apple, or multiple macros can be defined as long as the total number of characters defined at any given time does not exceed 510.

There are now two 8088 cards available for the Apple....now maybe a little price war...? Memory has gone that way. Saturn has a 128K RAM card for the Apple now at $599. These memory prices are becoming comparable to disk drive prices so the large memory cards are becoming alternatives to extra drives that are only required for file manipulation or sorts in some programs.

John Prather

The Osborne 1 at The Data Domain

On February 1st, The Data Domain will become an authorized dealer and service center for the Osborne 1 personal and business computer. In future issues of the Newsletter we will highlight various features of this remarkable and innovative machine. For now, a quick overview will introduce the machine.

The Osborne 1 represents an unusual approach to the small computer business. The machine sells for $1795, is completely self-contained, and comes provided with a comprehensive software library at no extra charge. Unlike most machines in its class, the Osborne 1 is very portable. Although the computer can be used as a stand-alone microcomputer, it is especially well suited as a traveling work station that can be used in conjunction with more elaborate microcomputers at different locations.

What about the software? As a general purpose computer, the Osborne 1 comes with software for wordprocessing, numerical calculations, two Basic dialects, and the CP/M operating system. For wordprocessing, the Osborne 1 has Wordstar, which remains the standard of excellence for microcomputers. Numerical applications can be handled by Supercalc, one of the finest spreadsheet calculating programs in the micro marketplace. The Supercalc program, very similar to Visicalc, permits a worksheet of 64 rows and 126 columns and has a wide range of commands for

the manipulation of data within this matrix.

The computer comes with two Basics. CBASIC, a business-oriented version of Basic, is a compiler-interpreter language with many extensions and commands essential for complex business programming. MBASIC is a quick, interpreted language that is ideal for short problem solving. Both languages are from Microsoft, and there is a wide range of software available in these dialects.

The entire package is integrated around the CP/M operating system, an industry standard that permits a great variety of software to be used on the Osborne 1 computer.

This outstanding small computer comes with two disk drives and a built-in 5" monitor that provides a 52-character window onto a 128 character line with automatic horizontal scrolling. The machine has a monitor interface that will connect to any standard external monitor. The keyboard is typewriter standard and includes a numeric keypad and cursor control keys.

This machine has a Z80A central processor chip with 64K of random access memory. The disk drives have 100K bytes of storage each. In addition, an RS-232C interface is built in for communication with a modem or printer and an IEEE 488 interface is also standard. The computer can be upgraded to double density disk drives in March or April for $200.

What is amazing about this package is its revolutionary low price of $1795. Given the software package included, this microcomputer is surely the best buy in the industry. This has resulted in great demand for the limited quantities of Osborne 1s available.

Price Reduction on NEC Computer Systems

The NEC computer system, for which The Data Data Domain has been a dealer for some time, has a new lower price. Thanks to a price reduction from NEC, The Data Domain is able to sell this remarkably powerful microcomputer at the prices listed below.

Built around a Z80A compatible chip, this machine provides a wealth of powerful features for those interested in business, education, or wordprocessing applications. Like most microcomputers in its class, the NEC PC-8000 series can run either under its own operating system or the standard CP/M. It has a flexible configuration, but the basic machine consists of a keyboard unit (PC-8001A), an I/O unit (PC-8012A) for expansion slots and connection to disk drives, the dual mini disk drives (PC-8031A), and a monitor. NEC makes a very high quality color monitor and supplies a fast, high quality dot-matrix printer (PC-8023A).

Although a detailed description of the many features of this exceptional microcomputer is beyond the scope of the Newsletter, some features deserve special emphasis. This computer has outstanding graphics capabilities including 8 colors displayed in a crisp 160 by 100 matrix. The display screen can be configured in a variety of ways from 80 to 36 characters on 20 or 25 lines to fit any imaginable terminal requirement. There is a standard Centronics printer interface included and a TTL-level serial port that will operate at 300 to 4800 baud. The computer comes with its own Basic dialect with advanced features such as multiple statements per line, multiple dimension arrays, Print Using, and various color functions.

The NEC I/O Unit provides great flexibility through the provision of 7 extra slots for add-on devices. In addition, this unit permits the expansion of the machine's memory from 32K standard to 128K. The disks are connected to the computer through the I/O unit, and the interrupt control circuitry implements 8 priority levels.

NEC's PC-8023A printer provides 100 characters per second speed in a dot-matrix, bi-directional,

logic-seeking mechanism. The printer has either tractor or friction feed and includes the complete character set available on the NEC microcomputer including upper/lower case ASCII, Greek, mathematic, and graphic characters. The printer can also produce dot graphic screen images on paper. It operates on an industry standard parallel interface. Font sizes include 126 column, 17 characters/inch compressed format to 40 column, 5 characters/inch expanded format at 6 or 8 lines per inch. The printer also has the capacity to do 1/144" line feeds.

In sum, this is a superior set of products, and the price reductions outlined below make it an excellent microcomputer value.

NEC Item	Reduced Price	Old Price
PC-8001A Microcomputer	$ 995	$ 1295
PC-8012A I/O Unit	$ 645	$ 795
PC-8031A Mini Disk Drive (2 drives)	$ 995	$ 1295
PC-8023A Printer (Dot-Matrix)	$ 645	$ 795

Tax Helpers for the Apple

This is the time of year we all spend hours sorting through our old check stubs and other records to get materials together for the annual ritual of income tax preparation. Fortunately, much of the drudgery and complication of preparing those IRS forms can be automated. Several good packages are available that turn the Apple II computer into an efficient tax preparation system. Although none of these programs will make substantive tax decisions for you, they do make the preparation of forms a snap. Moreover, because form preparation is so easy, it is possible to do your taxes two or three different ways to see how the result works out.

The Tax Preparer by HowardSoft is a comprehensive program for tax form preparation. It costs $100 plus another $35 for the updated tax tables for 1981 returns. This program is professionally presented and has arrangements for all the lettered schedules (A, B, C, D, E, F, G, R and RP, SE, and TC). It also includes several forms including 1040, 2106, 2210, 3468, 4562, 4726, 4797, and 5695. This package of programs provides a clear set of instructions for preparing data and forms.

Tax Beater from Datamost by Jack and Carol Lennard is a second program that will do an excellent job of helping prepare taxes. This package has some interesting routines that optimize your return by trying out various possibilities for schedules and arrangements within the return to produce the lowest possible tax. In addition, this package will compare your deduction pattern against the typical patterns published by the IRS and alert you to deductions that might be out of line and trigger an audit. This program takes the usual schedules and forms and sells for $130.

The Tax Manager by Micro Lab is a similar program that sells for $150 complete with the 1981 tax tables included. This package includes the following schedules: A, B, D, E, G, and SE. It also prepares these forms: 1040, 2106, 2210, 2441, 3468, 4625, 4726, 5695, and 6251. These three packages are comprehensive and professionally prepared, The Tax Manager has a somewhat easier procedure to follow and is more forgiving of operator errors while the Tax Beater has the optimizing feature. All of these programs will do an excellent job of preparing the necessary forms for the IRS, and all have clear manuals.

SuperScribe II: Wordprocessing for the Apple II

On-Line Systems has had SuperScribe II available for some time and The Data Domain staff has been

evaluating this wordprocessor, along with a number of others. In these tests it has become clear that the current version of SuperScribe II is a superior product. The program provides Apple II and II+ users with a remarkably powerful text editing and formatting package that rivals such stellar performers as WordStar. Although this short notice can not do justice to the many advanced features of this program, a general description will give a good idea of the package's features.

The first feature of SuperScribe II that catches your eye is that this wordprocessor will provide upper/lower case display on the Apple screen without any extra hardware. That means there is no need to purchase lower case chips, or other special hardware add-ons to make this program perform its best. Moreover, SuperScribe not only provides lower case display on the screen it will give you 70 columns on the Apple screen without any hardware adapters. To be sure, this 70 column mode is difficult to use on a standard color tv, but it works exceedingly well on an inexpensive monitor. If your Apple has had the shift-key modified, a very simple operation that can be performed at The Data Domain, SuperScribe II will recognize the shift key just as a typewriter would. SuperScribe also gives you a variety of characters not normally available on the Apple screen such as the underline.

The SuperScribe Editor has many features to make the entry and modification of text simple and efficient. Rather than list these here, let it suffice to say that anything any of the other Apple wordprocessing editors can do, SuperScribe does with very few exceptions. The program does, however, have some unique features that recommend it to serious writers. First, the program will handle files as long as 65K. That is close to three times as large as most comparable programs. This is accomplished through the use of the disk as an extension of the Apple memory. Second, the editor permits a large number of customized macros. These are sequences of keys that are invoked by pressing one key. Although the utility of this facility may not be immediately apparent, anyone who has complex text to enter will be delighted to be able to reproduce an often typed word or phrase with a single key stroke. The editor also allows the entry of special characters for the control of printers, and anything else that might cross your mind.

The SuperScribe II formatter, called Runoff, does all the normal things such as justification, margins, indents, underlines, boldface, headers and footers, and more. But in addition there is a very interesting hyphenation feature that permits the insertion of hyphens in words that will not fit on the line. This is done during the printing of the document when each word that may be a candidate for hyphenation is shown on the screen and the user can decide where the appropriate hyphenations might be. The computer then decides which possible hyphenation will work best in the line, uses that one, and ignores the rest. This produces a much nicer looking line. Also, the program supports special features of printers such as the Diablo that have incremental spacing. The formatting program will fill out a justified line by distributing microspaces between words, rather than whole spaces. This makes for a much more evenly displayed text. That is how this Newsletter is formatted.

The program has other features such as a powerful indexing utility, and a host of print time options that make the preparation of complex text relatively easy. Because it requires no special hardware and is available at the low price of $149.00, this wordprocessor is a Data Doman Best Buy.

The General Manager: Apple Data Base System Review

The increasing use of Apple II microcomputers for business applications has led to a proliferation of data base and file managing programs. These vary from the most sophisticated and elaborate data base mangement systems to relatively simple file and record managers. No one program will be satisfactory for all users, and for that reason, The Data Domain carries a

variety of packages such as The Data Factory, DB Master, and a new program from On-Line Systems called The General Manager.

The General Manager qualifies as a sophisticated data base management system. It is powerful, flexible, and adaptable. Moreover, it has a number of features that make it quite easy to use. This package operates through a hierarchical system. Within the data base, items are organized in terms of their relationships within a hierarchy or organized structure. For example, a data base system to manage a personnel records operation would be organized around individuals. There would be a main record with the name of the individual, then there would be subsidiary records with information about salaries, about positions, about benefit plan participation, and any other related information. Similarly, within this hierarchical structure a subordinate record may itself have subordinates, so the record about salaries could include records on salaries in hourly work and records on jobs with monthly salaries. This ability to link subjects in terms of these various types of records provides a powerful analytical tool.

As should be obvious from this example, such a system permits extremely flexible records organization. Just about any system imaginable can be constructed with The General Manager. Part of the flexibility of this package is a result of its carefully arranged system for creating screens of information. These screens are the principal way the program communicates with the user, and the ability to design these screens in practically any way desired to reflect almost any data processing need is a major attraction of this package. Morevoer, the program allows the user to specify ranges of acceptable data entries, and this error checking capability lets a company set up data entry procedures that relatively untrained operators can use.

The General Manager permits virtually any mathematical calculations allowed in Applesoft Basic using any data contained within the data files of the program. Special calculated screens can be created that permit the aggregation and presentation of the information contained in other screens.

This flexibility is availabile not only when you first design an application, but is also applicable at any time after the data base has been designed and constructed. New fields, new screens, and new organizational arrangements can be introduced into a previously created data base.

Reports based on information in the data base can be easily designed and prepared by The General Manager. Output screens or printed output can both be created with very little effort. Moreover, the program has a facility for sending output to a disk file in standard format for subsequent input into a wordprocessing program such as SuperScribe II.

If the built-in flexibility of The General Manager is not adequate for some special application, the program has an unusual interface to Applesoft Basic. Through the & command of the Applesoft language it is possible to access the data structures of The General Manager and perform any manipulations with that data possible on the Apple computer. The manual provides examples of this facility which adds even more power to the standard package.

The size of the data base is limited only by the number of data disks you are prepared to use. The program can handle up to 100 data disks as part of a single data base. Many small business applications will find it more practical to create several related data bases instead of one very large one. The program also permits lower case input with the Videx keyboard enhancer and will recognize and use a 16K RAM card.

Small business users with a need for sophisticated, flexible, and easy to use data management systems should come in to The Data Domain and look closely at The General Manager.

The Data Domain Anniversary Sale

Introducing the Osborne 1

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Osborne 1 computer plus software:      list price $ 1795.00
C. IOTH F10 40CPS Daisywheel Printer: list price $ 1995.00
Computer-printer cable:                list price $   59.95
                  Total:               list price $ 3849.95


            TOTAL:       SALE PRICE $ 3595.00
            This includes Software !!!!!!!!!!!!!
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Special prices also on accessories for the Osborne 1.

Mondapt II, Osborne 1 external video adapter to Zenith or other monitor with cable: $44.95

Parallel printer cable for Epson, Centronics, NEC-type matrix printers: $59.95

Keyboard Extender Cable. Standard is 12". An extender can add up to 4 feet of additional cable.
Extender cable costs $29.95 for the first foot and $5.00 for each additional foot.

Software modifications to WordStar to drive Epson, Oki, and NEC matrix printers: $50.00

Software modifications to SuperCalc to drive Epson, Oki, and NEC matrix printers: $50.00

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