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POLYMORPHIC SYSTEMS COMPANY PROFILE AND PRODUCT LINE SUMMARY

ABOUT POLYMORPHIC SYSTEMS

Formed in 1975 in Santa Barbara, California, the company is dedicated to the business and office microcomputer market, offering users an integrated and upward compatible line of hardware, software and support products known as the System 88.

The System 88 was introduced to the market in 1977 and has gained an excellent reputation for hardware and software reliability and ease of use. Several thousand System 88 processors are in use worldwide in a broad range of business, scientific and professional applications. The System 88 is well suited for use in accounting, word processing, data communications, business planning, office automation or electronic mail applications. System 88 processors are easily configured as multi-functional workstations for use in office environments.

PolyMorphic Systems manufactures and markets the System 88 business microcomputer system to end users in organizations of all sizes through a worldwide network of dealers, ISOs and systems houses. These sales organizations also provide programming and maintenance support services to System 88 users.

THE SYSTEM 88 CONCEPT

The System 88 is a flexible combination of hardware, software, packaging and support which provides businesses of all sizes with an expanding family of microcomputer products. The result is microcomputer systems which can grow and evolve with a company's needs.

HARDWARE

System 88 hardware configurations range from the single-user, single disk drive 8810 workstation to the two-user 8813 TwinSystem 88 with up to 5 megabytes of on-line disk storage. Future extensions of the 8813 will incorporate Winchester hard disk technology and advanced communications capabilities.

File storage for the 8813 consists of up to three integral 5 inch floppy disk drives. The 88/MS expansion unit adds up to four additional 8 inch floppy disk drives for a total of over 5 megabytes of file storage.

The System 88 design employs the S-100 bus architecture which provides the system with a high degree of modularity and expandability which are important to business users. This bus

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structure, combined with the upward-compatible design philosophy, permits field upgrading and expansion of System 88 processors, making them practically obsolescence-proof. In order to support upward compatibility with a new technology-based system, a high-speed data communications Ether-Net technology, known as PolyNet, has been developed and tested on the System 88.

Data communications capabilities resident in both hardware and software allow System 88 processors to exchange data files and programs as well as access data bases in remote host processors.

Input and output peripherals for the System 88 include desk top CRT/keyboard units and a range of dot matrix and daisy wheel printers to support the full range of business microcomputer applications.

PolyMorphic Systems also provides system desks, printer stands and other furniture necessary for effective and human-oriented integration of the System 88 into the office environment.

SOFTWARE

The PolyMorphic Systems software support philosophy is to balance the System 88 hardware design and reliability with strong systems software and applications development programs. These system level software tools are designed to enable the dealers and systems houses which sell and support the System 88 to develop user-customized applications programs with a minimum of programmer time and effort.

These program development products are supplemented with applications programs for those tasks, such as word processing and financial analysis common to large and small businesses of all types. The System 88 is supported for use in both stand-alone and communications oriented applications.

OPERATING SYSTEMS

The proprietary System 88 Operating System is available in single and dual-user versions. CP/M and UCSD Pascal operating system software are also supported.

System 88 Operating System

The System 88 Operating System provides a powerful screen-based editor with a unique Key Definition Library which enables the programmer to assign commonly used commands or phrases as single key strokes. Other features of the System 88 Editor include Global Search and Replace and numerous text manipulation capabilities. The printer driver can be configured to run most popular serial printers.

All operating system functions are initiated by simple commands and many operations provide helpful prompts and error messages which insure the easy and reliable completion of disk initialization, disk and file back-up procedures and creation of data or text files. Single-user operating system disks can be run in the single-user mode on the TwinSystem 88.

TwinSystem 88 Operating System

This version of the System 88 Operating System has all of the same capabilities as the single-user version, extended to support two users with common or separate files and applications programs. It automatically manages shared disks and a shared printer between the two partitions. Special user or application program requests for resource priority can be accommodated by the system. TwinSystem 88 operating system disks can be run in the single-user mode on single-user systems with 56K bites of memory.

CP/M

CP/M Version 2.1 is supported by the System 88 as an operating system option, enabling the PolyMorphic Systems dealer or end user to take advantage of the wide range of existing standard applications programs. (CP/M is a trademark of Digital Research, Inc.)

UCSD Pascal

UCSD Pascal (TM) is a complete operating system plus a Pascal compiler, assembler, screen editor, linker, file manager and more. It runs on all of the hardware of the System 88 line.

HIGH LEVEL LANGUAGES

Extended BASIC

PolyMorphic Systems extended BASIC is an integral part of the system software package. It provides error trapping and debugging capabilities for the applications programmer and has extensions which support graphics and scientific computation. The variable precision feature of PolyMorphic Systems BASIC allows selection of accuracy of computation from 6 to 26 digits.

PASCAL/MT

Version 2.0, a subset of the Wirth/Jensen Pascal language, generates native 8080 instructions directly, making it extremely fast both in compilation and execution. Version 3.0, available soon, will approach the full language facilities. The Symbolic Debugger, optionally built into object code programs by the compiler, coupled with the extremely high speed of the language and the system level language extensions, make Pascal/MT an extremely versatile applications or system development tool.

APPLICATIONS DEVELOPMENT PROGRAMS

DataMaster is a two-part applications development system, consisting of a simple-to-use but very powerful Data Base Management System called DataMaster I, and a powerful application generator program called DataMaster II.

DataMaster I

With DataMaster I, data files are created through simple, interactive procedures. Once constructed, these files can be altered to accommodate future changes in the information or operational needs of the System 88 user.

A menu-driven selection system provides interactive information retrieval capability. Files are searched sequentially, or in index-determined sorts, all at machine language speeds. File searches based on single or multiple parameters are easily defined and executed, making DataMaster an ideal tool for implementing user defined applications.

Unstructured or custom reports can be easily generated as required from the files. Simple, interactive format definition methods allow non-technical operators to create custom reports in minutes.

DataMaster II

DataMaster II uses DataMaster I as the nucleus around which it builds complete applications programs. Intended for the computer dealer, software house, or sophisticated user, DataMaster II allows the creation of complete applications packages automatically. The applications designer enters specifications of the "view" ("schema") of the database that is desired for a given application. Then, the details of the application, such as screen format or position of data on report lines are filled. Finally, DataMaster II writes a complete, bug-free, BASIC language program which performs the defined function. This program is then given to the end user, while the creation features of DataMaster II are withheld by the dealer or software house.

APPLICATIONS PROGRAMS

WordMaster II

WordMaster II is a complete word processing package that is easily learned by non-technical office personnel. Users can quickly become comfortable with WordMaster's powerful text editing and formatting functions. This word processing system interfaces with the System 88 Operating System and employs the full capabilities of the System 88 text editor including Global Search and Replace, Key Definition Library and file manipulation commands. WordMaster II is presented in a menu and form format which permits the user to select functions and guide operations by positioning the cursor and striking function keys. Quick Reference instructions are displayed when the user strikes the "Help" function key.

Mailist

This System 88 application package generates mailing list files, prints labels, sorts the list according to user defined characteristics and prints personalized business form letters to all or part of the mailing list.

PLAN

PLAN is a business analysis and planning tool which permits the user to do sales forecasts, pro forma business statements and other financial statement-oriented applications. When used with DataMaster I and WordMaster II, PLAN gives a business manager the ability to better understand and manage the financial aspects of business decisions.

DATA COMMUNICATIONS

PolyComm

PolyComm is a system support utility which permits use of the widely accepted D.C. Hayes MicroModem as an integral part of the System 88. The use of this package permits both originate and answer modes, as well as dialing under program control. The MicroModem connects directly to the telephone network through an FCC approved interface for maximum transmission reliability.

Applications programs written in either assembly language or BASIC can be used to control the modem for automatic dialing and connection to another System 88 CPU or a large host computer for transfer of files or data base access.

SUPPORT

The PolyMorphic Systems support capability is directed at insuring system integrity by periodic testing of the system by the user and with trouble-shooting support for field service engineers.

Confidence

The System 88 Confidence Package provides the user with the software necessary to test the integrity of the system. Components tested include the CPU, memory, disk drives, printer interface and video display.

Field Service

The Field Service Package provides the dealer or field service engineer with the programs necessary to isolate problems to the board level. The bad component can be temporarily replaced by a part from the spare parts kit and sent back to PolyMorphic Systems for repair.