CATALYST

With this issue of Sun's Third Party Bulletin, we introduce a new name and a new look for the program, henceforth to be known as 'Catalyst.' Sun's Catalyst Program provides our customers with access to a broad range of applications running on Sun Workstations and to supplemental hardware interfaces available for Sun products.

The name 'Catalyst' was selected for the Third Party Program because we believe products offered through the program will help stimulate our customers' application development cycles, serving as building blocks to meet various application development needs.

This bulletin contains descriptions of Sun-compatible products available from independent vendors as well as any new software tools licensed from third parties that Sun will make part of its own product line.

Product information on referral products has been provided by the vendors. Sun has not qualified or reviewed the claims made about product features or function. We hope the data provided here will allow you to make an initial assessment which can be followed by product evaluations with the appropriate vendor.

The packages described in this bulletin are a complete listing of all product offerings currently available through Catalyst program. Our ongoing efforts to locate new packages mean that new offerings are constantly being added to the program. Sun will continue to publish bi-monthly bulletins to keep our customers up to date on the growth of the Catalyst program.

The following products are described in this issue:

General Engineering and Office Automation

C-CALC	- Electronic spreadsheet and modeling software from DSD Corporation
*CCA EMACS	- Full screen editor from Computer Corporation of America
DVIAPS, DVILPR DVIDWP	- Tex82 text formatter from TEXTSET, Inc.
EMACS	- Full screen editor from Unipress Software, Inc.

*New products added to the Catalyst Program this issue.

General Engineering and Office Automation - Cont.

*Horizon Software System   - Office Automation Software from
                                    Horizon Software Systems, Inc.

Interleaf   - Text and graphics processing/document
                                    production software from Interleaf, Inc.

LEX   - Word processing software from Unipress Software, Inc.

Mistress   - Relational database software from Rhodnius, Inc.

*MACSYMA   - Mathematical analysis software from Symbolics, Inc.

*Q-Calc   - Spreadsheet with Graphics from Unipress, Inc.

Scribe®   - Text formatter from Unilogic Ltd.

*SMP   - Mathematical symbolic manipulation program from
                                    Inference Corporation

*Sun MicroINGRES   - Relational Database Management System

*WordMARC   - Word processing software from MARC Software
                                    International, Inc.

*XED   - Document Processing System from
                                    Computer Methods, Ltd.

*XDE   - Forms Generator from Computer Methods, Ltd.

Electrical Engineering

CADroid   - Logic design system from Lucasfild Ltd.

HSPICE   - Circuit simulator from Meta-Software

Languages and Software Development

*FRANZ LISP   - Lisp Programming Language from Franz, Inc.

*Lattice C Cross Compiler   - C Cross Compiler for the
                                    Intel 8086 family from Unipress Software, Inc.

MAINSAIL™   - Programming Environment from XIDAK, Inc.

Telesoft-Ada   - A partial Ada compiler from Telesoft

Mechanical Design

*Amethyst   - Interactive solid modeling software from
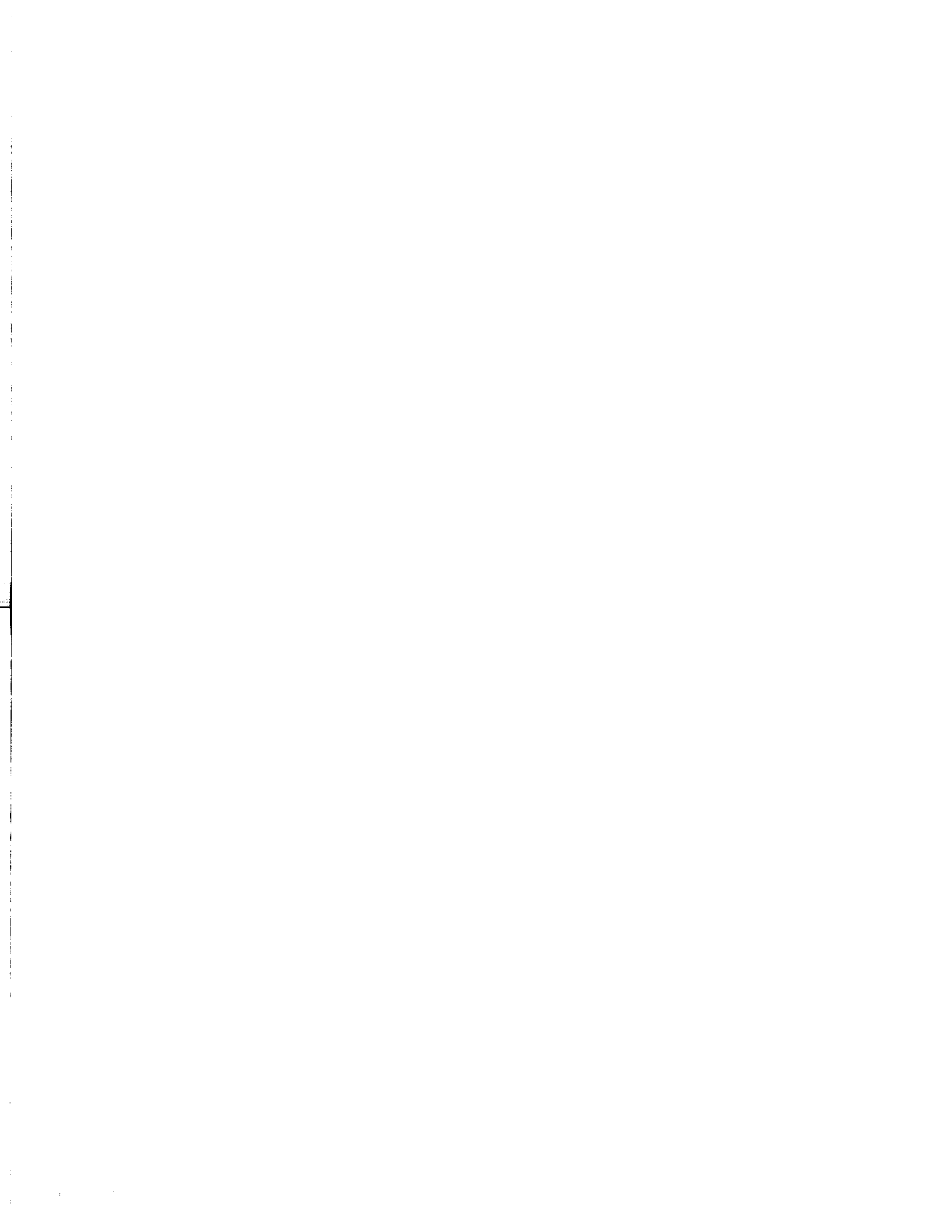   Cubicomp Corporation

CatSolid Geometric   - Constructive solid geometry (CSG)
Modeler   based solid modeler for CAE from Catronix Corporation

Graphics

CIMS   - Intelligent mapping system from Comarc Systems

Dataviews   - Real time presentation graphics from Intelligent Software Systems

*Imagist   - Window Oriented Graphics Package from Cericor, Inc.

*New products added to the Catalyst Program this issue.

General Engineering and Office Automation

Product Name: **C-CALC**
Function: **Electronic Spreadsheet and Modeling Package**

Description:

C-CALC is a menu-driven, interactive spreadsheet and modeling program with a built-in "Help Facility" and "On-line Training Procedure." Menus and single-level English-like editor commands allow the user with little or no experience to jump right in. For the advanced C-CALC user, a variety of optional "shortcuts" have been included which allow by-passing menus and prompts if desired.

C-CALC 's sophisticated data importing/exporting facility and worksheet consolidation capabilities make it ideal for use in computer networks and workstations. Entire worksheets can easily be transferred between different computer systems. In addition, worksheet data is transportable between C-CALC and most other applications programs: graphics, word processing systems, general ledger, etc., via ASCII stream files.

C-CALC offers in addition to the "standard" spreadsheet features: 736 by 600 matrix worksheet area; boardroom quality report generation (bolding, underlining, etc.) via stored print menus; alpha and numeric sorting; accessibility of data in other worksheets; consolidation of 'like' or 'unlike' worksheets or portions of worksheets; labels; user-defined procedures for automating repetitive operations; conditional formatting; flexible window and cell formatting; a wide range of built-in mathematical, statistical, financial, and logical functions; if-then-else capabilities; password file encryption; and many other features.

Availability Date:	December '83	Contact Info:	DSD Corporation
Source Language:	C		P.O. Box 2669
Source/Binary Available:	Binary only		12620 120th Ave. NE
Sales Office Demo:	Yes		Suite 201
Support:	Yes		Kirkland, WA 98033
In-house Sun for Support:	No		Ron Enos
Price:	Contact Vendor		Bill Fredrickson
	for Complete Information		(206) 822-2252

General Engineering and Office Automation

Product Name: **CCA EMACS**
Function: **Advanced Screen Editor**

Description:

CCA EMACS has the greatest combination of power, speed, and functionality of any text editor available for UNIX. With close to 400 built-in commands, CCA EMACS allows virtually any editing task to be accomplished in just a few keystrokes, including tasks that would be difficult or impossible to do using other editors. In addition, a set of more than 60 predefined variables allows each user to customize CCA EMACS to meet various application needs and user styles. A full on-line documentation package assists the user at any point, giving information that ranges from the definition of a single command to manual pages that contain complete explanations of major CCA EMACS features. Yet all of this is available with no sacrifice of efficiency. The efficiency of CCA EMACS is equal to or better than that of any other screen editor, and on an overall basis CCA EMACS is significantly faster than any other EMACS implementation.

Availability Date:	Now	Contact Info: Computer Corp. of America
Source Language:	C	Four Cambridge Center
Source/Binary Available:	Yes/Yes	Cambridge, MA 02142
Sales Office Demo:	Yes	(617) 492-8860
Support:	Yes	Steve Zimmerman
In-house Sun for Support:	Yes (Spring '84)	
Price:	Contact Vendor for Complete Information	
Configuration Requirements:	500K local memory 3MB disk space	

General Engineering and Office Automation

Product Name: **DVIAPS, DVILPR, DVIDWP**
Function: **Tex82 Installation and Applications Support**

Description:

Tex82 is a public domain typesetting language developed by Donald E. Knuth at Stanford University. Tex82 is well suited to typesetting technical text and is gaining popularity in both academic and commercial environments.

TEXTSET, INC., is installing Tex82 on Sun workstations for use in production environments. We offer a full range of Tex82 installation and application support, including: macro packages, DVI-to-printer driver programs, and final quality typesetting from an autologic APS-5 phototypesetter.

DVIAPS is a DVI-to-printer driver program for APS-5 series phototypesetters.

DVILPR is a DVI-to-printer driver program for fixed pitch line printers.

DVIDWP is a DVI-to-printer driver program for daisy wheel printers.

Availability Date:	Q1'84	Contact Info:	TEXTSET, INC.
Source Language:	WEB		1612 Anderson
Source/Binary Available:	Source Only		Ann Arbor, MI 48104
	(Non-Disclosure)		(313) 996-3566
Sales Office Demo:	Yes		Bruce Baker
	(Future)		David Rodgers
In-house Sun for Support:	Yes		
Price:	Contact Vendor		
	for Information		

Product Name: **EMACS**
Function: **Screen Editor**

Description:

EMACS is a full screen text editor offering extensive cursor navigation and powerful text manipulation. EMACS combines a built-in help facility with high-level programming aids, including vi compatibility. In addition to expected features, such as search and replace, text justification, and spell checking, EMACS incorporates the MLISP programming language, allowing the user to program as much into EMACS as desired.

Availability:	Now	Contact Information:	UNIPRESS SOFTWARE, INC.
Source Language:	C		1164 Raritan Avenue
Source/Binary Available:	Yes/Yes		Highland Park, NJ 08904
Sales Office Demo:	Yes		(201) 985-8000
Support:	Yes		Joyce Bielen
In-House Sun for Support:	No; Local Access		
Price:	$995 Source $395 Binary		

General Engineering and Office Automation

Product: **Horizon Software System**
Function: **Office Automation**

Description:

The Horizon Software System is a fully integrated family of Office Automation utilities written in the C language for use with computers using the UNIX operating system or its look-alikes.

The core of the Horizon family is Horizon Wordprocessing™, a proprietary product that incorporates spelling corrections, sorting, list-processing, and mail merge, in addition to features found in most mature word processing systems. It is fully integrated with the Horizon Spreadsheet™, a 256 X 256 square spreadsheet which, like Word Processing, features on-screen prompts.

Horizon Wordprocessing™ Features:

- on screen-prompt
- full-screen editor with easy positioning of the cursor anywhere
  in the text
- easily accessible 'explain' file
- logical and familiar office filing structure
- ready access to other files from within the document under preparation
- advanced on-screen and printing formatting

Horizon Spreadsheet™ Features:

- on-screen command explanations
- full interaction with Horizon Wordprocessing
- date arithmetic
- scientific and financial calculations

Coming Attractions For Second Quarter '84

- relational database, also fully integrated
- full interactive graphic capability

Availability:	Now	Contact Information:	Horizon Software Systems, Inc.
	To OEMs only		185 Berry St., Suite 4821
Source Language:	C		China Basin Building
Source/Binary Avail:	Binary Only		San Francisco, CA 94107
Sales Office Demo:	Yes		(415) 543-1199
Support:	Yes		Paul Miller
In-house Sun for Support:	No		
Price:	Contact Vendor		
	for Complete Information		

General Engineering and Office Automation

Product Name: **Interleaf Office Publishing System**
Function: **Text and Graphics Processing/Document Production**

Description:

The Interleaf Office Publishing System replaces text prepared on a word processor, headlines and captions set by a phototypesetter, and graphs and diagrams drawn by a graphic artist.

The software does all this by integrating powerful multifont word processing and interactive diagramming and business graphics capabilities with a high-speed laser printer.

Business Graphics

Charts

Data-driven bar, pie, and line charts, either chosen from a wishbook of chart styles or built from scratch

Diagrams

Flow, organization, and pert charts requiring a mixture of graphics and text

Pictures

Images, signatures, illustrations, logotypes "drawn" directly on the screen

Text Editing

The software features a sophisticated structured document editor. A structured document is made up of user-defined components (paragraphs, section headings, titles, etc.) in which each component has its own set of properties (margins, indentation, line spacing, font, justification, etc.).

A feature that greatly increases the productivity of the system is automatic pagination. Most other systems require the user to perform a separate pagination process before printing, greatly slowing down production.

User Interface

Even a novice can become proficient in a few hours, thanks to such advanced user interface features as a "mouse" that can be used instead of the keyboard to position the cursor rapidly and to execute commands. A "window" system is used to view and edit documents and to display text, chart, or diagram component properties. Overlapping windows allow the user to view and edit portions of different documents simultaneously.

Charts

A document prepared on the Interleaf Office Publishing system enables the user to prepare and edit documents with multiple type fonts and a wide range of business graphics.

Diagrams

The system replaces a multi-step process that in the past required manual, cut-and-paste procedures. Diagrams can be generated directly on the system and quickly printed out via the system's laser printer.

Availability Date:	Now	Contact Info:	INTERLEAF
Source Language:	C		955 Massachusetts Ave.
Source/Binary Available:	Binary		Cambridge, MA 02139
Sales Office Demo:	Yes		(617) 497-5570
Support:	Yes		Leslie Anderson
In-house Sun for Support:	Yes		
Price:	Contact Vendor for Complete Information		

General Engineering and Office Automation

Product Name: **LEX**
Function: **Word Processing**

Description:

LEX is a menu-driven, interactive word processing system offering full screen editing and scrolling, single-keystroke control functions, and a built-in help facility. In addition to such standard features as text insertion and deletion, LEX incorporates a four-function math calculator, a 100,000 word spelling dictionary, and a built-in customer/contact database. LEX documents can be merged together and can incorporate automatically standard phrases and paragraphs.

Availability Date:	Now	Contact Information:	UNIPRESS SOFTWARE, INC.
Source Language:	O/S Interface in C		1164 Raritan Avenue
Source/Binary Available:	Binary Only;		Highland Park, NJ 08904
	C Interface in Source		(201) 985-8000
Sales Office Demo:	Yes		Joyce Bielen
Support:	Yes		
In-House Sun for Support:	No; Local Access		
Price:	$750		

Product Name: **MISTRESS**
Function: **Relational Database System**

Description:

MISTRESS is a general purpose relational database management system which allows user access via English-like commands or programming languages. The MISTRESS query language has a syntax similar to IBM's SQL and offers full relational functionality for creating and dropping tables, inserting records, and selecting, updating, and deleting records. Significant features of MISTRESS include: automatic and user specifiable locking mechanisms, comprehensive multi-level on-line help facility, query language command buffer, multiple data types including text, character, integer, floating point, date and dollar, rapid data access through B+ tree indexing, and dynamic memory allocation. M-WRITER allows the user to create custom formatted reports using material from MIS-TRESS databases. M-VISION allows the application designer to create a template on the screen with which a user with little or no training in database management can operate the system by simply reading menus, filling in boxes, and pressing keys.

Availability Date:	Now	Contact Information:	RHODNIUS INC.
Source Language:	C		10 St. Mary Street
Source/Binary Available:	Yes/Yes		Toronto, Ontario
Sales Office Demo:	Yes		CANADA M4Y 1P9
Support:	Yes		(416) 922-1743
In-House Sun for Support:	No		Doran R. Foeller
Price:	Contact Vendor		
	for Complete Information		

General Engineering and Office Automation

Product Name: **MACSYMA**^{TM}
Function: **Computer Algebra, Mathematical Text Formatter and Graphics**

Description:

Computer Algebra: MACSYMA includes a complete set of commands for algebraic simplification, including factoring, matrix, vector and tensor manipulations, power series expansions, differentiation, pattern matching, integral transforms, and trigonometric simplification.

Applications Packages: Included are symbolic integration employing the Risch Algorithm, analytic solution of differential and difference equations, solution of linear and nonlinear systems of equations, FORTRAN conversion and optimization, and simplification and evaluation of Special Functions. MACSYMA includes an automatic facility for converting mathematical expressions to TROFF form.

Extensibility: MACSYMA is fully user-extensible. Functions and macros can be defined by the user to implement techniques ideally suited to the problem at hand. The simplifier can also be customized by the user.

Graphics: Plotting of mathematical functions in two dimensions includes parametric and contour plotting. Single points can be plotted with any of 10 symbols and 20 line types. Symbols and line types can be defined by the user. Logarithmic scales are also available. Arbitrary perspective views are available in three dimensions, with user-controlled resolution, viewpoint and scale. Plots can be saved and replotted from the same or different viewpoints, avoiding costly recomputation. Plots can be superposed, or several plots can be displayed in quadrants of one screen.

Documentation: A complete documentation set is included. Full on-line help facilities are available, including documentation and tutorials.

Availability Date:	To Be Announced	Contact Information:	Symbolics, Inc.
Source Language:	Lisp		MACSYMA Group
Source/Binary Available:	Binary		Symbolics Cambridge
Sales Office Demo:	Yes		Research Center
Support:	Updates, Newsletter,		243 Vassar Street
	Telephone User Assistance		Cambridge, MA 02139
In-house Sun for Support:	Yes		(617) 576-2600
Price:	To Be Announced		Joe Plonski
Configuration			
Requirements:	2MB local memory		
	6MB disk space		

† MACSYMA is a trademark of Symbolics, Inc. of Cambridge, Massachusetts.

† Symbolics is a trademark of Symbolics, Inc. of Cambridge, Massachusetts.

General Engineering and Office Automation

Product Name: **Q-CALC**
Function: **Spreadsheet with Graphics and Interface to UNIX**

Description:

Q-CALC is an extremely powerful spreadsheet with a model size of 999 rows by 18,000 columns. UNIX interface allows data to be generated or extracted via UNIX filters. Designed to be keystroke-compatible with our EMACS screen editor, Q-CALC also handles multiple windows, and allows sub-shells. Designed for ease of use with interactive prompts, help windows, etc.

Q-CALC provides extensive math/logical operators, formatting, sorting and searching. Integration between spreadsheets by field names or symbolic names.

Q-CALC graphics creates bar charts, line graphs, pie charts, and X-Y graphs with legends, titles, scaling and color output.

Availability:	Now	Contact Information:	UNIPRESS, Software, Inc.
Source Language:	C		1164 Raritan Avenue
Source/Binary Available:	Yes/Yes		Highland Park, NJ 08904
Sales Office Demo:	Yes		(201) 985-8000
Support:	Yes		Joyce Bielen
In-house Sun for Support:	Yes		
Price:	$750 Binary ($595 if purchased EMACS)		

Product Name: **SCRIBE®**
Function: **Text Processing/Document Production**

Description:

SCRIBE interfaces with existing editing programs and word processors to provide standardized camera-ready documents. Using a library of prestored formats, SCRIBE simply and quickly creates documents such as technical manuals, specifications, financial summaries, articles, and book-length manuscripts. SCRIBE supports more than 50 output devices, including line printers, letter quality typewriters, photocomposers, color graphics terminals, and laser printers.

Availability Date:	Now	Contact Information:	UNILOGIC LTD.
Source Language:	C		160 N. Craig St.
Source/Binary Avaialble:	Binary		Pittsburgh, PA 15213
Sales Office Demo:	Yes		(412) 621-2277
Support:	Yes		Wayne McDaniel
In-House Sun for Support:	Yes		
Price:	Contact Vendor for Complete Information		

SCRIBE® is a registered trademark of UNILOGIC, LTD.

General Engineering and Office Automation

Product Name: SMP, A Mathematical Symbolic Manipulation Program
Function: Second-Generation Computer Algebra Program

Description:

SMP is a second-generation computer algebra program that enables technical professionals to perform complex mathematical operations symbolically on a computer.

It replaces pencil and paper methods with a computer-based symbol manipulator under the direct control of the user. Among its many capabilities, SMP can differentiate and integrate most mathematical expressions, solve linear and non-linear equations, and perform matrix and tensor algebra. It also provides the capability to evaluate mathematical expressions numerically, and can generate graphical representations in 2-dimensions or in 3-dimensional perspective.

Availability Date:	Now	Contact Information:	Inference Corporation
Source Language:	C		5300 W. Century Blvd.
Source/Binary:	Binary		Los Angeles, CA 90045
Sales Office Demo:	In the Future		(213) 417-7997
Support:	Yes		Terry White
In-house Sun for Support:	Yes		
Price:	$7500, includes first year's maintenance		
Configuration Requirements:	1MB Memory 10MB disk space		

General Engineering and Office Automation

Product Name: **Sun MicroINGRES**[*]
Function: **Relational Database Management System**

Description:

Sun MicroINGRES is a full-feature relational database management system with powerful application development capabilities. Interactive and batch applications are designed with easy-to-use programming tools. These tools include the data manipulation language QUEL and a number of forms-based visual interfaces to this language.

Sun MicroINGRES uses tables to provide a simple, uniform data description. Tables -- rows and columns of data values -- simplify the use and understanding of Sun MicroINGRES for both end users and programmers. A single, high-level language is used to define, control and to process shared information.

All parameters concerning a particular data structure are stored in a data dictionary that is automatically updated as changes to the structure are made. As a result, relational tables can be created dynamically. Applications can evolve in step with the demands of a growing organization.

A sophisticated protection design ensures the integrity of data and prevents unauthorized access on a variety of levels. Additionally, transaction management and recovery controls oversee the execution of all processes to help prevent the possibility of incomplete updates caused by system failure.

Another feature of Sun MicroINGRES is that it supports concurrent access to databases by multiple users on different Sun Workstations. This means that a system can be configured to meet specific needs according to available computing resources.

Availability Date:	May 1, '84	Contact Info:	Sun Microsystems, Inc.
Source Language:	C		Local Sales Office
Source/Binary Available:	No/Yes		or
Sales Office Demo:	Yes		call 1-800-821-4643
Support:	Yes, Sun supported		
Price:	$3990 for first license, for single user or first network node		
	$1990 for additional licenses, discountable		

[*]MicroINGRES is a trademark of Relational Technology, Inc.

General Engineering and Office Automation

Product Name: **WordMARC**
Function: **Word Processing Package**

Description:

WordMARC is an office grade, Wang-like word processing package that can be used on Sun Workstations or on any standard CRT terminal attached to a Sun Workstation node.

The WordMARC software package features all the functions commonly found in the most prominent word processing system on the market today. It features a spelling checker which provides capabilities unmatched by any other word processing package. Documents are checked against four different dictionaries: the most common word dictionary (400 words), a user directory dictionary, a site specific dictionary, and the WordMARC main dictionary (57,000 words). After the spelling check, WordMARC interactively presents the document with the errors identified for correction. The user directory dictionary can be automatically updated during this session.

Other features in WordMARC include improvements to allow interactive pagination, an abbreviation glossary, quick-skip cursor, bold face typing, column move, copy and erase, multiple line headers and footers, and cursor controlled document selection and document deletion. All of these features are directed at increasing productivity by improving ease-of-use.

Organizations engaged in heavy technical typing with the need for multi-level equations find WordMARC very user friendly. Each character line can be expanded to 13 levels on the screen allowing the user to see up to 6 levels of superscript and six levels of subscript in addition to the base line. WordMARC handles alternate character sets on the terminal screen so Greek/math characters can easily be combined with standard characters to create very complex equations.

Availability Date:	30-45 days
Source Language:	Fortran 77
Source/Binary Available:	Yes/Yes
Sales Office Demo:	Yes - 90 days
Support:	Corrective Maintenance Available
In-house Sun for Support:	No
Price:	$850 - First Node Binary
	Subsequent Nodes Discounted
Configuration Requirements:	512KB local memory
	10MB disk space
Contact Information:	MARC Software International, Inc.
	260 Sheridan Avenue
	Suite 200
	Palo Alto, CA 94306
	(415) 326-1971
	John Meyer

General Engineering and Office Automation

Product Name: **XED**
Function: **Document Processing System**

Description:

The XED word processing system is a sophisticated general-purpose word processor designed for maximum flexibility and operator convenience while requiring minimum memorization of commands. All commands may be accessed by either function keys or optional menus. The word processor also features a tree-structured, recursive menu processor that can access related XED office system software for form generation, data entry, document management, and user defined programs. Complete file management utilities are provided by menu selections.

Features include multiple spooler drivers and printer daemons for either draft printers or fully proportional letter quality printers; balance sheet mathematic functions with decimal tab editing functions; an embedded interactive speller checker with a systemwide dictionary and user-defined local dictionaries; an automatic paragraph numbering and outlining, automatic footnoting, phrase glossary; paragraph glossary, and a floating text variable form letter merge program. The word processor is completely interfaced with other office systems manufactured by Computer Methods Ltd. For example, the XSP spreadsheet program can be invoked while editing a document; the results of the spreadsheet calculations on the screen will be saved as part of the document.

Product Name: **XDE**
Function: **Forms Generator and Data Entry and Edit**

Description:

The XDE data entry and edit system is comprised of two major programs that are selectable from the XED menu processor: the XFG form generator program for creating forms and the XDE data entry/edit program for building a data base. Pure data entry is done key-to-disk in a manner conceptually similar to standard keypunch operations. The package is further enhanced with printing utilities that allow formatted data to be printed with or without background text.

XFG allows the user to create a form template and to define the parameters for its use. Definitions include operator entry, computer entry, entry from a list, entry from calculations (cross-field, numerical, or character string), format masking, character masking, key field, key field prompt, blanked fields, operator or supervisor override, and verification by dual entry, sight, range, or list matching.

XDE allows record creation, update, modification, and printing and provides spreadsheet capabilities. Each record may contain up to 500 fields, and each field may contain up to 50 characters of data; there is no limit to the number of records per file. The XDE system provides a bridge for passing information between large data base management systems and the XED word processor; it can also be used as a user-friendly front end for the data base manager by creating data entry forms that are easily understood.

		Contact Information:	Computer Methods, Ltd.
Availability Date:	Now		Computer Methods, Ltd.
Source Language:	C		P.O. Box 709
Source/Binary Available:	Yes/Yes		Chatsworth, CA 91311
Sales Office Demo:	No		(818) 884-2000
Support:	Yes		Pamela A. Montrallo
In-house Sun for Support:	Yes		
Price:	Contact Vendor for Complete Information		
Configuration Requirements:	Standard System		

Electrical Engineering

Product Name: **CADroid**
Function: **Logic Design System**

Description:

CADroid is a complete logic design system that takes the circuit designer from schematic entry all the way through physical board layout. Through its interactive graphics, which include rubber banding, pan and zoom, CADroid makes schematic entry quick and efficient. Design realization is less subject to error, and the designer can go directly from schematic to wirelist, board layout, and wire wrap. CADroid generates a point-to-point routed wirelist which can be formatted for use by various wire wrap services. Included with the package is a library of most standard IC's (including the 7400 series and 10K and 100K ECL), error checking, and manual or automatic component placement routines.

CADroid uses the Sun optical mouse and user interface to facilitate drawing entry, and incorporates pop-up menus to simplify function selection.

Availability Date:	December '83	Contact Info:	LUCASFILM LTD.
Source Language:	C		Computer Division
Source/Binary Available:	Binary		P.O. Box 2009
Sales Office Demo:	Yes		San Rafael, CA 94912
Support:	Yes		(415) 457-5282
In-House Sun for Support:	Yes		Lisa Ellis
Price:	$8,000 for 1st CPU		

Product Name: **HSPICE**
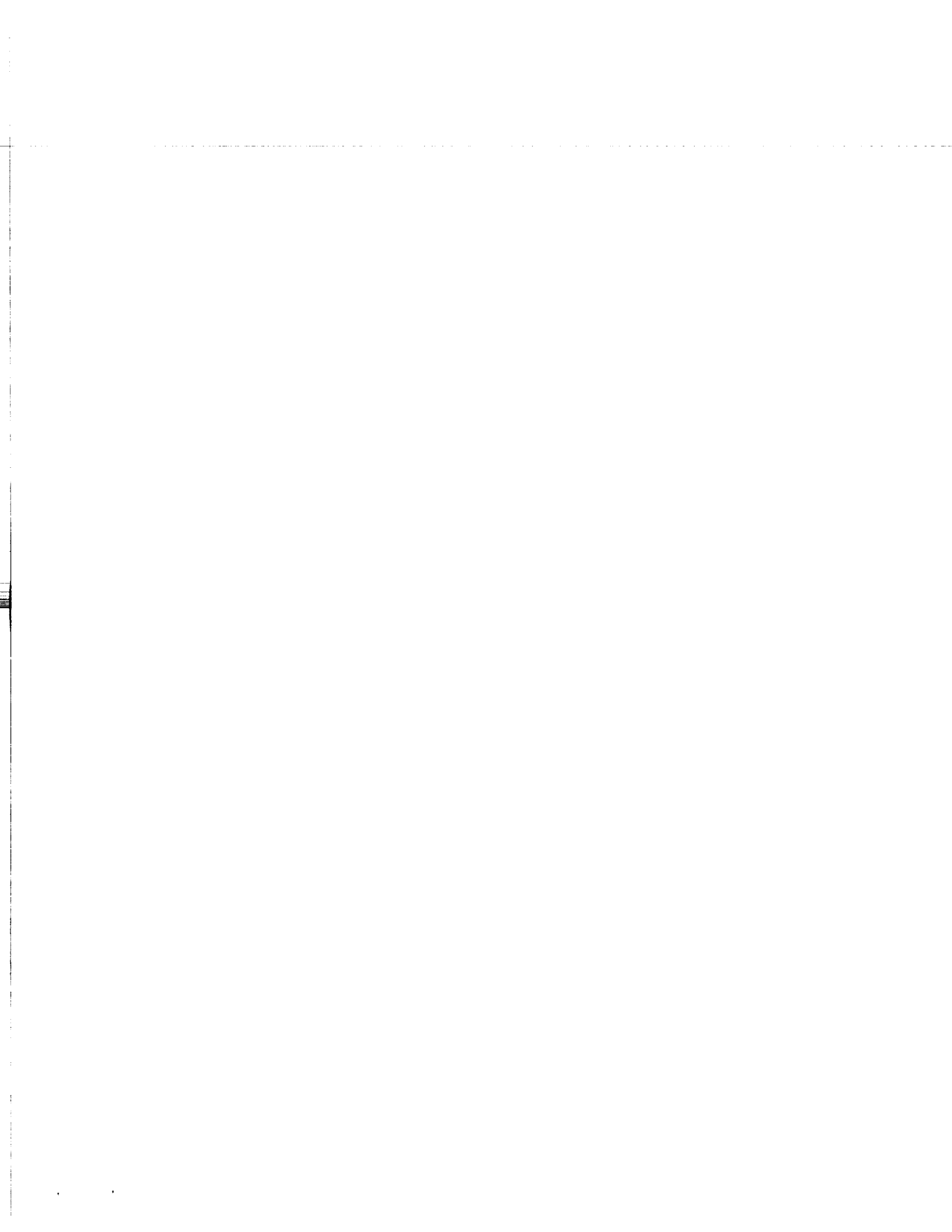Function: **Circuit Simulator**

Description:

HSPICE is a circuit simulator for engineers who require a serious design tool. HSPICE's advanced features and wide choice of models assure reliable answers for realistic simulators, regardless of technology or device type.

HSPICE has been engineer-tested and proven for a wide range of applications, from designing discrete amplifiers to validating complex integrated circuits. When a user needs assistance, a responsive staff of professionals is available. The Meta-Software staff is composed of professionals who understand circuit design problems.

Users of other commercial and academic circuit simulators will find HSPICE easy to use, since it allows user input in styles compatible with ASPEC^{TM}, ISPICE^{TM}, MSINC and SPICE2.

HSPICE is available on mainframe computers for back-up support.

Availability Date:	December '83	Contact Info:	META-SOFTWARE
Source Language:	FORTRAN		16496 Hilow Ave.
Source/Binary Available:	No/Yes		Los Gatos, CA 95030
Sales Office Demo:	Yes		(408) 356-9135
Support:	Yes		Shawn Hailey
In-house Sun for Support:	No		
Price:	Contact Vendor for Complete Information		

Languages and Software Development

Product Name: **FRANZ LISP AND FRANZ LISZT**
Function: **Programming Language**

Description:

Franz Lisp is a widely used implementation of the LISP language. Franz Lisp was developed in the late 70's at the University of California at Berkeley for research work in symbolic manipulation, expert systems, and other Artificial Intelligence projects. Several large AI programs have been written using Franz Lisp. A commonly cited example is the well-known symbol-manipulation program Macsyma that was developed at MIT.

Franz Lisp is similar to Maclisp, a version of Lisp which is available on the DEC 10 and 20 product line. It has been designed to make interfaces to non-Lisp application programs in C or Fortran quite convenient, thereby enabling users to take full advantage of many graphics packages, numerical codes, and data-base systems.

A 350 page Franz Lisp user's guide for UNIX systems has recently been written by Dr. Robert Wilensky, a Computer Science Professor at the University of California at Berkeley. The book is titled LISPcraft and is published by W. W. Norton, 500 5th Avenue, N.Y. N.Y. 10110 (800 223-2584).

Availability Date:	April 15, 1984	Contact Info:	Franz, Inc.
Source language:	C		6321 Thornhill Drive
Source/Binary:	Yes/Yes		Oakland, CA 94611
Sales office Demo:	Yes		(415) 339-1481
Support:	Yes		Fritz Kunze
In-House Sun for Support:	Yes		
Price:	Contact Vendor for Complete Information		

Product Name: **Lattice C Compiler for 8086 Family**
Function: **C Cross Compiler**

Description:

Lattice C cross compiler produces 8086 family load images on the Sun Workstation. The compiler produces the fastest and smallest code available, and supports the full UNIX C language. Small, medium, compact and large address model of the 8086 are included. Thus, the full memory of the 8086 can be addressed. Package includes compiler, linker, librarian, disassembler and 8087-support, along with runtime libraries to enable use of the code on MS-DOS machines.

Compiler produces standard Intel object format, and output can be linked with existing assembler modules.

Availability:	Now	Contact Information:	UNIPRESS Software, Inc.
Source Language:	C		1164 Raritan Avenue
Source/Binary Available:	Yes/Yes		Highland Park, NJ 08904
Sales Office Demo:	No		(201) 985-8000
Support:	Yes		Joyce Bielen
In-house Sun for Support:	Yes		
Price:	$8000 binary		
Configuration Requirements:	500KB disk space		

Languages and Software Development

Product Name: **MAINSAIL**
Function: **Programming Language**

Description:

MAINSAIL™ COMPILER: supports true source-level portability across a broad spectrum of computing systems. Used to develop applications written in MAINSAIL, it compiles MAINSAIL source text into code that can be executed on a target system. Generates pure, position independent, re-entrant target machine code. The output of the compiler is ready-to-run, binary, code, eliminating use of the host system linkage editor. A set of data types is provided, as well as a complete set of operators.

MAINSAIL™ RUNTIME SYSTEM: provides an execution environment for programs written in MAINSAIL regardless of the actual computing system being used. It offers a full specification of I/O, including data and text files; sequential and random access; terminal support, and user-extensible device modules. Intermodule linkage and loading is also provided, eliminating use of the host system linkage editor. It provides a portable memory management facility that includes a garbage collector for dynamic reclamation of unused storage, a mathematics package, and memory management.

MAINDEBUG™: a portable source-level debugger for MAINSAIL programs that provides the ability to set/remove breakpoints, set/examine the value of variables, single step and execute procedures. When used in conjunction with MAINEDIT, it provides a full display-oriented debugging facility.

MAINEDIT™: a portable display-oriented, general purpose, full-screen text editor that runs on a wide variety of computers and supports many speculated terminals; supports multiple windows and multiple files; offers orthogonal command structure, keyboard macros and user extensibility; provides programming and general text preparation, and is capable of being integrated into larger systems (e.g. electronic mail system).

MAINPM™: a portable performance monitor that expands the functionality of the fully portable MAINSAIL programming environment through dynamic monitoring of program execution. MAINPM's annotated source-listing feature permits rapid pinpointing of performance problems by listing each source statement and the number of times the statement has been executed. To aid automated test procedures, MAINPM provides an option that displays non-executed program statements. It also allows monitoring of both the "deed" time and "shallow" time.

Availability Date:	Now
Source Language:	MAINSAIL
Source/Binary Available:	Binary
Sales Office Demo:	In the Future
Support:	Yes
In-House Sun For Support:	Yes
Price:	Listed in Xidak Product Catalog
Contact Information:	XIDAK, Inc.
	530 Oak Grove Ave., Suite 101
	Menlo Park, CA 94025
	(415) 324-8745
	Greg Jirak

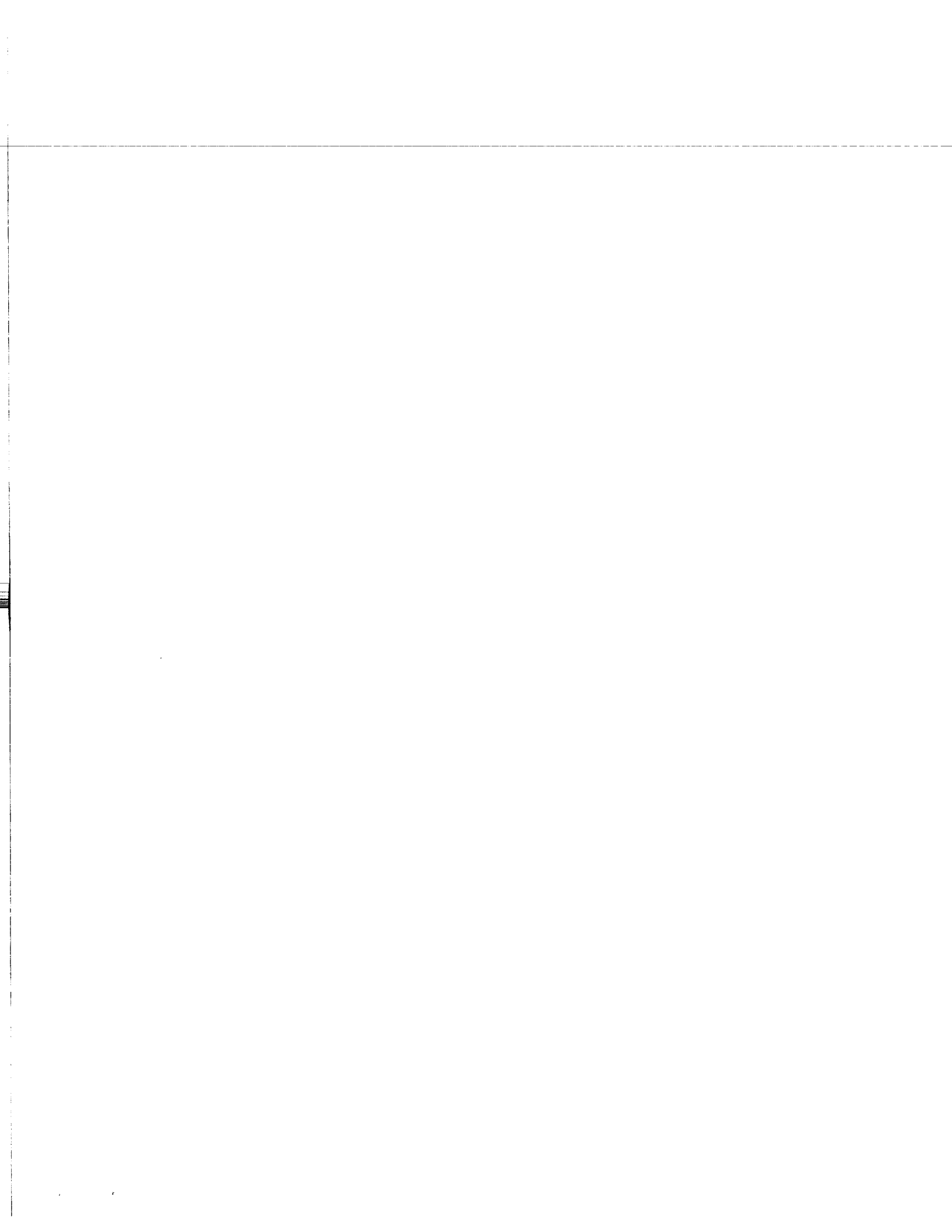# Languages and Software Development

Product Name: **TELESOFT-ADA**
Function: **High Level Programming Language**

Description:

TELESOFT-Ada is a significant partial implementation of the standard Ada language specified on behalf of the U.S. Department of Defense for use in embedded systems. TELESOFT-Ada is shipped with a package library of useful routines to facilitate use of the language. This new, structured, high-level language incorporates such important features as strict type checking and multitasking into the design concept. Rigid standardization allows programs to be written using the complete 1983 ANSI Standard Syntax. Powerful I/O, timing, and tasking facilities make Ada especially valuable for large-scale real-time systems, and for systems with distributored processing.

Availability Date:	Now
Source Language:	Ada
Source/Binary Available:	Binary only
Sales Office Demo:	No
Support:	Yes
In-House Sun for Support:	Yes
Price:	Contact Vendor for Complete Information
Contact Information:	TELESOFT
	10639 Roselle Street
	San Diego, CA 92121
	(619) 457-2700
	Terry Baugh

Mechanical Design

Product Name: **Amethyst**
Function: **Interactive Solid Modeling for Designers and Engineers**

Description:

Amethyst solid modeling software includes such features as hidden line or surface removal, anti-aliasing, smooth shading, rotation, translation, and zoom capabilities, rotational and cross-section sweeps, and dimensioning. More than 200 commands provide a powerful, easy-to-use system for defining, modifying, and manipulating three-dimensional solid models.

The Amethyst-9 Solid Modeling System features a frame buffer and complete, menu-driven, interactive solid modeling software. Two frames of 512 x 512 resolution by 16 bits per pixel are available. Twelve bits are used for color, making it possible to display 4096 colors simultaneously from a palette of 16.8 million. Genlock capability is available for broadcast-compatible video timing.

Amethyst-7 is a software-only version for use on a Sun high-resolution monochrome display, allowing the user to model three-dimensional objects as wire frames with or without hidden lines removed, and to use such features as automatic dimensioning and engineering drawing output. Amethyst-7 may be upgraded to the Amethyst-9 full color system with shaded surface capability.

Availability Date:	2Q'84	Contact Info:	Cubicomp Corp.
Source Language:	C		2372 Ellsworth Street
Source/Binary Available:	No/Yes		Berkeley, CA 94704
Sales Office Demo:	Yes		(415) 540-5733
Support:	Yes		Carol Rainin
In-house Sun for Support:	Yes		
Price:	Amethyst-9		
	Solid Modeling		
	Wire Frame Software		
	~$16K		
	Amethyst-7		
	3-D Wire Frame		
	Software		
	~$5K		
	Upgrade from		
	Amethyst-7 to full		
	color Amethyst-9		
	~$13K		

Mechanical Design

Product Name: **CatSolid Geometric Modeler**
Function: **Computer Aided Engineering, Mechanical Design**

Description:

CatSolid is a constructive solid geometry (CSG) based solid modeler supporting engineering design solutions. Computer Aided Engineering (CAE), especially mechanical engineering applications, is the primary area supported. The modeler interfaces to CAD systems via IGES files. Direct data transfer to CAD files is available on a case-by-case basis.

CatSolid is a FORTRAN-77 based, menu-driven modeler supporting engineering design from initial concept to the creation of a three-dimensional object database. Mechanical component design is an ideal application since an object is constructed using the volume primitives and Boolean operators of CSG to create the model. Primitives are joined through interactive English language commands. Object surfaces are color coded and mass properties are extracted.

CatSolid is one of the first solid modelers written specifically to interface with other portions of the user's database. This can include in-house analysis programs, two and three-dimensional drafting packages, publication systems and manufacturing systems. CatSolid is a powerful package having an extremely flexible database. Both color and black and white are supported.

Availability Date:	December '83	Contact Info:	CATRONIX CORPORATION
Source Language:	FORTRAN 77		120 Ralph McGill Blvd., NE
Source/Binary Available:	Binary Only		Atlanta, GA 30308
Sales Office Demo:	Yes		(404) 872-2300
Support:	Yes		Terry Binion
In-house Sun for Support:	No		
Price:	Contact Vendor for Complete Information		

Graphics

Product Name: **CIMS**
Function: **Intelligent Mapping System**

Description:

CIMS is the powerful Comarc intelligent mapping system. Unlike other mapping systems, CIMS is not just an automated digitizing and drafting system for maps. It understands data and creates a database which supports analyses and MIS applications as well as automated mapping.

CIMS can serve as a stand-alone automated mapping system. It provides all of the necessary functions for encoding map data, reformatting, selective retrieval and map production. Maps encoded by CIMS also serve the other Comarc products.

Availability Date:	Now	Contact Info:	Comarc Systems
Source Language:	Fortran 77		150 Executive Park Blvd.
Source/Binary Available:	No/Yes		San Francisco, CA 94134-3399
Sales Office Demo:	In Comarc		(415) 467-1300
	San Francisco Office		
Support:	Yes		
In-house Sun for Support:	Yes		
Price:	$25,000		Comarc Systems

Comarc Systems
245 Perimeter Center Parkway
Suite 420
Atlanta, GA 30346
(404) 396-2276

Comarc Systems
5501 LBJ Freeway
Suite 500
Dallas, TX 75240
(214) 991-3788

Comarc Systems
7100 Lakewood Building
5987 E. 71st Street
Suite 210
Indianapolis, IN 46220
(317) 849-2435

Graphics

Product Name: **DATAVIEWS**
Function: **Interactive Color Graphics**

Description:

DATAVIEWS is an interactive color graphics package which allows you to convert numerical data to graphic displays in real time. Using predefined or user customized menus, DATAVIEWS incorporates a display format library incorporating line graphs, scatter plots, bar, pie, and strip charts, surface plots, and dials. All display formats are provided with axis labeling, titles, tick marks, and legends. DATAVIEWS also allows the user to switch display formats instantly, thus displaying the same data in many different ways.

Availability Date:	Now	Contact Info:	Visual Intelligence Corporation
Source Language:	C		Amherst Fields Research Park
Source/Binary Available:	Binary Only		529 Belchertown Rd.
Sales Office Demo:	Yes		Amherst, MA 01002
Support:	Yes		(413) 253-3482
In-House Sun for Support:	Yes		Tom Manwell
Pricing:	Contact Vendor for Complete Information		

Graphics

Product Name: Imagist - Window Oriented Graphics Package
Function: Interactive Graphics Application

Description:

Cericor's Graphics Package offers a comprehensive set of graphics procedures for defining, displaying, and interacting with graphics images. The graphics procedures in the package are called by application programs. The procedures implement high-level graphics concepts such as matrix transformations, simple and complex viewing, and clipping. Procedures utilize sets of drawing primitives which are the basic graphic elements. Procedures are available to specify rules which assign attributes to the drawing primitives. Later, the programmer may select rules when calling drawing primitive procedures.

The graphics package is written in MAINSAIL^{TM}, a highly portable and machine-independent language. In addition, the package is device-independent and takes advantage of hardware-resident graphics features. Through appropriate scaling, physical dimensions are maintained across various display and matrix printing devices.

Two drawing spaces are available to the programmer, unit space and world space.

Unit space employs a co-ordinate system which provides a direct 1:1 viewing ratio with respect to the screen, and is thus, restricted to the limits of the screen. Therefore, unit space is used for creating screen size graphics representations using a limited set of drawing primitives.

Unlike unit space, word space has extensive boundary limits and is viewed through pre-defined windows. World space uses a richer set of graphics primitives, which are used to create more detailed graphics representations that can be operated on by world space transformation procedures.

Other graphics procedures are available to define window and manage user interactions.

Typical application programs utilize unit space for creating graphic images such as menus, sub-menus, banners, icons, and window. Such graphic images are used to facilitate communications and interactions with the user.

Single or multiple windows may be used to view world space. In world space, extensive and elaborate environments can be graphically modeled to provide the desired effects for many differing applications.

Current implementation of the graphics package supports full 2 dimensional black and white graphics applications with 3 dimensional and color application support coming soon. Future enhancements will support various black and white, as well as color plotting devices.

Availability Date:	June '84	Contact Info:	Cericor, Inc.
Source Language:	MAINSAIL		716 East 4500 South
Source/Binary Available:	Binary		Salt Lake City, Utah 84107
Sales Office Demo:	To Be Arranged		(801) 264-8600
Support:	Yes		Karen Freeman
In-house Sun for Support:	Yes		
Price:	Contact Vendor		
	for Complete Information		
Configuration			
Requirements:	1.5MB local memory		
	42MB disk		

† MAINSAIL^{TM} is a trademark of XIDAK, Inc., Menlo Park, CA