APPLE // SOFTWARE

PRODUCTS

Dear Friend:

This catalog describes Kyan Software's complete line of programming tools and utilities for the Apple // family of computers. These Kyan products run under ProDOS and provide you with the tools necessary to develop the latest state-of-the-art software. These products are now available from Kyan Software.

There are many good reasons for you to buy Kyan Software products. Following are just a few:

Kyan software is not copy-protected. You can make backup copies and copy the software into RAMdisk or onto hard drives without limitation.

Kyan software is royalty free. You can use the Pascal Runtime Library and routines in the programming Toolkits without paying royalties. (Note: Copyright notices must be observed and some modules must be licensed directly from Apple Computer Inc.).

Source code compatibility and portability. Since Kyan Pascal is ISO standard Pascal, the software you write on your Apple is portable to most mainframe computers. Also, since Kyan has similar compilers for the Atari and Commodore family of 8-bit computers, the source code for your Apple // programs can be recompiled to run on these other popular computers.

Finally, Kyan Software guarantees your satisfaction. All software ordered directly from Kyan comes with a 30 day money-back guarantee. If you are not completely satisfied, return the product for a full refund of the purchase price.

Join the Kyan Software family today!

Kyan Pascal PLUS

Kyan Pascal (version 2.0) is perfect for learning Pascal and developing Pascal programs. It is a full implementation of ISO Pascal and runs under ProDOS on any Apple II (with 64K of memory and a single disk drive). It is widely used by students and advanced programmers alike because of its economical price, user-friendly environment, and extensive list of features.

Kyan Pascal PLUS is a powerful programming tool, yet it keeps the beginner in mind. It comes with a comprehensive (480 page) manual containing a Pascal tutorial and Quick Reference Guide.

But, **Kyan Pascal PLUS** is more than just a learning tool. It's also a sophisticated software development system. **Kyan Pascal PLUS** includes **KIX™**, Kyan's powerful new UNIX-like environment for the Apple II. **KIX** gives programmers more than 25 operating system utilities which greatly enhance programming speed and productivity. And, when teamed with Kyan's new Programming Toolkits, **Kyan Pascal PLUS** gives you the ability to add MouseText, MouseGraphics, 3-D graphics, and other features to your programs.

Kyan Pascal PLUS also features:

- o ProDOS Operating System included on the disk.
- o 6502 machine code compiler and macro-assembler, which generate code that runs more than 30 times faster than BASIC.
- o Full Screen Text Editor with 40 and 80 column modes.
- o Pascal extensions like include, chain, string handling, random files, random numbers, gotoxy, and high resolution graphics.
- o Built-in assembler which allows you to add in-line or included assembly source code
- o Non-copy protected disks that allow you to make backup copies and load files into RAM, 3.5" Unidisk, or hard disk drive.
- o Royalty-free license to use the Pascal Runtime Library.

When you try **Kyan Pascal**, you will quickly discover why it is becoming the standard for Pascal programming on the Apple II.

Hardware Requirements: Any Apple // with 64K of memory
Suggested Retail Price: $99.95

Kyan Pascal
(Version 2.0)

Kyan Pascal is the perfect package for learning Pascal and developing Pascal programs. It is a full implementation of ISO Pascal and will run on any Apple II with 64K of memory and a single disk drive. It is widely used by both students and advanced programmers because of its economical price, user-friendly environment, and extensive list of features.

Kyan Pascal is an extremely powerful programming tool, yet it keeps the beginner in mind. It features command menus, HELP screens and several libraries of error messages. It comes with a comprehensive, 300 page manual which includes a complete Pascal tutorial. It is perfect for students who are taking a Pascal programming course and want do their assignments at home.

But, Kyan Pascal is more than just a learning tool. It's also a powerful software development system. It provides experienced programmers with features and capabilities not found in other Pascal products. And, when teamed with Kyan's new programming toolkits, Kyan Pascal gives you the ability to add MouseText, 3-dimensional graphics, and other advanced features to the programs you write.

Other Kyan Pascal features include:

- ProDOS Operating System included on the disk.
- 6502 machine code compiler and assembler, which generate code that runs more than 30 times faster than BASIC.
- Full Screen Text Editor with 40 and 80 column modes.
- Pascal extensions like include, chain, string handling, random files, random numbers, and high resolution graphics.
- Built-in macro assembler which allows you to add in-line or included assembly source code.
- Non-copy protected disks that allow you to make backup copies and load files into RAM, 3.5" Unidisk, or hard disk drive.
- Royalty-free license to use the Pascal Runtime Library with software you develop.

Try Kyan Pascal. Find out why it is quickly becoming the standard for Pascal programming on the Apple II.

Hardware Requirements: Any Apple II with 64K of memory
Suggested Retail Price: $69.95

KIX™

"Adds the power of MS-DOS and UNIX to ProDOS"

If you use your computer a lot, you know how limited ProDOS is as an operating system. With **KIX** you can unchain ProDOS and give it the power of MS-DOS and UNIX. **KIX** gives you capabilities that have been available to IBM and other PC users for years.

KIX is designed specifically for power users of the Apple II. It is a powerful ProDOS shell which saves you time and wasted motion. With simple command lines, you create or delete directories, manipulate files, search documents for key words, lock sensitive files, and much, much more. **KIX** has hundreds of command options. And, they can be called from a system prompt or from inside AppleWorks!

If you've never worked with a real PC operating system, it may be difficult to understand how it can simplify your life and increase your productivity. If you have, you've probably grumbled to yourself many times about the lack of power in ProDOS. Well, grumble no more!

KIX gives you the power to:

- Control Directories: (print, create, delete or change directories);

- Manipulate Files: (copy, move, delete, rename, print or change protection status of files);

- Work with Volumes: (copy, delete, or rename volumes; format disks);

- Compare Files and Volumes: (compare and list the differences between multiple files and/or volumes);

- Search Files and Directories: (search directories for files and/or search files for character strings); and,

- Make Hardware/Firmware Calls: (set system time/date and 40/80 column video outputs; and dump screen contents to a printer).

In addition, KIX contains full support for wildcards and redirection of output to printers and other peripheral devices.

Hardware Requirements: Any Apple II with 64K and two
                               disk drives; RAMcard recommended.
Suggested Retail Price: $49.95

System Utilities

The **System Utilities Toolkit** contains Pascal and Assembly language routines which are designed to be used in your Pascal application programs. The Toolkit contains 74 routines plus sample programs and complete instructions for using each routine in your own programs. The Toolkit routines are organized into four libraries.

I.   ProDOS Utility Library

This library contains routines which let you access the functionality of various ProDOS functions and procedures from within your Pascal program. The library contains 27 routines including procedures for: copying, renaming, deleting, locking/unlocking, and appending files; creating, removing, and searching directories; setting a system clock; and much more.

II.   Device Driver Library

This library contains 18 functions and procedures which allow you to link your application programs and external devices. The library includes routines for mouse, joystick, and trackball applications.

III.   Screen Management Library

This library contains 20 routines which you can use in your Pascal programs to control screen functions. The library includes routines for: GOTOXY and other cursor control functions; scrolling, inverse and clear screen actions; and, on/off routines for 80 column firmware. It also includes a routine which identifies the hardware configuration in which your program is being booted (e.g., Apple IIe with 80 columns vs. Apple II+ with 40).

IV.   Other System Utilities

This library includes random number routines plus: conversion routines which allow you to convert strings to integers or real numbers and vice versa; sort and merge routines which allow you to sort records and files alphabetically or numerically; and a line parsing routine which enables you to interpret command line inputs to your Pascal programs.

Hardware Requirements:	Any Apple // with 64K
Software Requirements:	Kyan Pascal, Version 2.0
Suggested Retail Price:	$49.95

MouseText

The **MouseText Toolkit** is a family of routines which provides the experi-enced programmer with an easy means of adding the Macintosh "look and feel" to programs written for the Apple II. With **Kyan Pascal** and the **MouseText Toolkit**, you can write programs for the Apple II which contain windows with text displays, menu bars, pull-down menus, and mouse-controlled events.

Many of the applications being developed today for the Apple II have this "look and feel." With the **MouseText Toolkit**, you'll have the same tools used by these professional software developers.

The **MouseText Toolkit** consists of a Runtime Module, utility files, and more than 50 MouseText routines. It also contains sample programs which show how to use these routines in your Pascal programs.

To use the **MouseText Toolkit**, just declare the MouseText routines in your Pascal program. Then, as you develop your application, call these routines to create windows and menus, track cursor movements, and read mouse events (e.g., mouse "clicks"). When your program is complete, it will have the Macintosh "look and feel".

A mouse is recommended when using the Toolkit. However, it is not essential. The **MouseText Toolkit** provides routines which allow you to simulate the actions of a mouse using cursor keys.

The **MouseText Toolkit** includes:

- o Demo Programs,
- o Programming Utilities,
- o Cursor Routines,
- o Event-Handling Routines,
- o Menu Routines,
- o Window Routines,
- o Control Region Routines, and
- o MouseText Runtime Module.

Hardware Requirements: //c or //e with enhanced ROM; (mouse recommended)
Software Requirements: Kyan Pascal, Version 2.0
Suggested Retail Price: $49.95

Advanced Graphics

The **Advanced Graphics Toolkit** is a family of routines which provide the experienced programmer with an easy means of adding sophisticated graphics to Apple // programs. With **Kyan Pascal** and the **Advanced Graphics Toolkit**, you can create HiRes and double HiRes displays (both color and monochrome), 3 dimensional graphics, perspective drawings, and much more.

The **Advanced Graphics Toolkit** supports the Apple // double hi-res graphics display on the Apple IIc and IIe (128K version). With a color monitor, you can display twelve colors plus white, black, and gray.

The **Advanced Graphics Toolkit** consists of two modules -- graphics primitives and advanced (3-dimensional) graphics.

The graphics primitives provide the programmer with a set of basic procedures for creating 2 dimensional graphics displays. The graphic primitives are grouped into the following categories.

>Initialization: Commands which set-up the operating environment;
>GrafPort: Commands to set-up, activate, or modify GrafPorts
>Drawing: Commands to create graphic displays; and,
>Text: Commands to place text in graphic images.

The advanced graphics provide the Pascal programmer with tools for 3-dimensional images. The procedures support:

>Geometry and Line Generation: Location and display of simple points and line segments;
>Polygons (many-sided figures): Display of solid patterns and objects using coloring and shading;
>Transformations: Uniform alteration of images through scaling (changing the image size), translation (moving the image), and rotation (rotating the image about a fixed point);
>Windowing and Clipping: Selection and enlargement of portions of a drawing, and clipping (deletion) of undesired portions;
>3 Dimensional Images: Extension of graphics to 3 dimensions; and,
>Curves: Generation of curves using interpolation and B-spline methods.

Hardware Requirements:	**Apple //c or //e with 128K**
Software Requirements:	**Kyan Pascal (version 2.0)**
Suggested Retail Price:	**$49.95**

TurtleGraphics

The **TurtleGraphics Toolkit** contains Pascal and Assembly language routines which are designed to be used in your Pascal application programs. The Toolkit contains 24 routines plus sample programs and complete instructions for using the routines in your own programs. The Toolkit routines are organized into three libraries:

I.   TurtleGraphics Library

This library contains 17 routines which allow you to use TurtleGraphics in your programs. The Library routines allow you to initialize the turtle, move it around the screen, draw lines in different colors, and more. The routines include:

o InitTurtle	o PenColor	o GrafMode	o TextMode
o Turn	o TurnTo	o Move	o MoveTo
o TurtleX	o TurtleY	o TurtleAng	o ViewPort
o FullPort	o FillPort	o SaveHires	o LoadHires
o FillArea			

II.   Sound Effects Library

This library contains four procedures used to generate sound effects in an application program. The routines include:

o Beep	Sounds a beep from the Apple speaker
o Note	Sounds a tone with a specified pitch and duration
o Click	Generates a click from the speaker
o Phaser	Creates a phaser sound effect

III.   Chart Routines

This library contains 3 procedures which allow you to graphically display data. The routines include:

o BarChart	Draws proportioned bar graph of data
o PieChart	Generates a pie chart
o PlotXY	Plots an X vs. Y graph, point by point

Hardware Requirements: Any Apple // with 64K
Software Requirements: Kyan Pascal, Version 2.0
Suggested Retail Price: $29.95

Code Optimizer

The Code Optimizer Toolkit is designed for the advanced programmer who needs to reduce the code size of an application program and/or increase its runtime speed. The Toolkit consists of two modules -- the Code Optimizer and source code for the Pascal Runtime Library. The Optimizer performs two functions:

1. It modifies the intermediate macro file generated by the compiler ("P.OUT") so that the Assembler generates "Program Specific Code" (i.e., code which includes only those Runtime Library routines which are specifically required by the program).

2. It replaces certain combinations of compiler-generated macros with optimizer macros which shorten code size and increase the runtime speed of the application program. (The areas most improved by the Optimizer are global variable accesses and record field calculations.)

The Optimizer can reduce the size of a program by fifty percent or more and, in some cases, double or triple the execution speed. The following results were achieved using the Code Optimizer on the Sieve of Erotosthenes.

Program	Compiled Only	Optimized	Improvement
Code Size	12.9K Bytes	3.1K Bytes	9.8K
Runtime Speed	15 seconds	5 seconds	10 seconds

Runtime Library source code offers programmers the following advantages:

1. The separate Kyan Pascal Runtime Library is not longer required on the disk. Now the application and the Pascal Runtime Library routines are combined in a single executable file.

2. The programmer can customize library routines (written in assembly langauge source code) to optimize performance and/or meet the specific needs of the application program.

The Code Optimizer Toolkit is a valuable tool for those programmers who are writing large applications and/or who are using MouseText or Advanced Graphics routines in their programs.

Hardware Requirements:	Any Apple // with 64K
Software Requirements:	Kyan Pascal (version 2.0)
Suggested Retail Price:	$149.95

Toolkit VI
Font Utilities

The **Font Utilities Toolkit** contains Pascal and Assembly language routines which are designed to be used in your Pascal application programs. The Toolkit contains Font Utility routines, sample programs and complete user's manual with instructions for using the routines in your own programs.

Together with Kyan Pascal, the **Font Utilities Toolkit** gives your application programs the ability to place various sized text (fonts) on the high-resolution graphics screen, a feat otherwise impossible for all but the most advanced programmers. With this feature, you can customize your programs to produce 20- *or* 40-column text on the hi-res screen. Add title screens to your programs, captions to hi-res pictures, and more.

In addition to allowing text to be placed on the hi-res screen in either small or large fonts, the **Font Utilities Toolkit** also provides the means to move single characters or groups of characters (strings) about the screen, thereby animating the hi-res display.

Yet another feature of the **Font Utilities Toolkit** is that it gives you the ability to create libraries of customized fonts and use these special fonts in your programs.

Included on the **Font Utilities** disk are:

- Routines for large font graphics
- Routines for small font graphics
- Routines for loading and saving sets of fonts
- Large and small font sets
- Demo programs--both source *and* object code

Hardware Requirements: **Any Apple II with 64K of memory**
Software Requirements: **Kyan Pascal (Version 2.0)**
Suggested Retail Price: **$29.95**