

APPLICATION AND  
DEVELOPMENT SOFTWARE

# ECOSOFT, INC.

Since our beginning in 1977, we have concentrated our efforts on supplying the best, most cost-effective software possible. We think the packages described in this flyer meet those goals. We also know, however, that you've heard all that before and what you really need at this point is straight, "no-hype" information that will enable you to make a more intelligent purchase decision. That's the purpose of this flyer, and if you still have questions after reading it, give us a call. We're here to help.

A FULL C  
COMPILER \$5995  
FOR

	Eco-C88	L (1)	C86 (1)	MS (1)	MW (1)
Sieve	12	11	13	11	12
Fib	43	58	46	109	—
deref	14	13	—	10	11
matrix	22	29	27	28	29

(1) *Computer Language*, Feb., 1985, pp. 73-102. Reprinted by permission. Times on Eco-C88.



## Eco-C and Eco-C88 C Compilers

The Eco-C compiler has been called the only "professional" C compiler available for the CP/M market (*Computer Language*, Feb., 1985) and now that same power is available for the 8088 with our Eco-C88 C compiler. Both versions support all data types and operators (except bit fields) and feature a robust standard library. All error messages are in English (no number to look up) and tell you the line number and character count of the error. Some specific features include:

Eco-C: (Z80, CP/M)

Outputs Z80 assembler for MACRO 80 or SLR assembler-linker

Over 100 library functions, including transcendentals

Parameterized macros

Extremely fast floating point

Tight code

User's manual

Eco-C88: (8088, MSDOS)

Prototyping, enum and void, structure passing and assignment, and tiered error messages

ASM or OBJ output (with MSDOS linker compatibility)

8087 support from a single library (sense 8087 at runtime)

over 200 library functions (many System V compatible) and color

UNIX-like cc and "mini-make" (with source code)

Small model with fast-executing code

expanded user's manual.

Both compilers come with the user's manual and there are no royalty or license fees for programs developed with the compiler.

Prices:

Eco-C (Z80, CP/M only, no assembler-linker) \$ 49.95

Eco-C+ (With SLR assembler-linker for Z80) \$149.95

Eco-C88 (MSDOS, complete) \$ 59.95

Note: The Eco-C88 compiler uses the linker that is provided with MSDOS. Some IBM compatibles do NOT give you the linker (LINK.EXE) with MSDOS. Check your system disk before ordering.

## Support Products for Eco-C

We also sell several support products for the Eco-C compiler. All items are in stock.

**C Library Source:** Includes the C source code for all functions (except transcendental) in the library. If ordered with the compiler, the price is \$10.00. If ordered at a later date, the price is \$20.00

**Developer's Library:** Includes all of the source code (both C and assembler) used to write the Eco-C88 standard library, including the transcendental functions. (Sold only to Eco-C88 owners.) Price is \$49.95.

**ISAM Library:** Includes all of the functions for the ISAM (Index Sequential Access Method) file handler in relocatable format ready for linking. The source code is found in the **C Programmer's Library** mentioned below. Price if ordered with the compiler is \$15.00; otherwise \$30.00

**C Programming Guide** (Purdum, Que Corp.). The second edition of the B. Dalton Bestseller and a perfect book for those just getting started with C. Many of the error messages from the compiler have page references to this book. The second addition also discusses a number of the changes being proposed by the X3J11 ANSI Standards Committee on C. Price: \$20.00 plus \$2.00 for shipping.

**C Self-Study Guide** (Purdum, Que Corp.) The book uses the question-answer method of instruction and parallels the **C Programming Guide**. Perfect for those learning C on their own. Price: \$17.00 plus \$2.00 for shipping.

**C Programmer's Library** (Purdum, Leslie, and Stegemoller, Que Corp.). Another B. Dalton Bestseller that sold over 11,000 copies in its first week. Intended for the programmer that already knows C, but wants to get the most from the language. Filled with tips, techniques and additions to your C library, including an ISAM file handler. Price: \$20.00 plus \$2.00 for shipping.

**C ED (C program editor).** This full screen edition was designed for use with the Eco-C88 compiler. It has all of the features you'd expect in editors costing ten times as much: cursor movement commands, block move-replace, search-replace, multiple windows, auto indent, scrolling, etc. It comes preconfigured to look like Wordstar, but can be configured to look like your favorite editor. But unlike other editors, you can compile, link and run programs from the editor. If your program has an error, it will re-load the source code, place the cursor on the offending section of code, and show you the associated error message in its own "error window" thus enhancing your productivity. It has many other useful features, too. For use on IBM PC or compatibles running MSDOS 2.1 or later and a fantastic bargain at only \$29.95.

**SLR Systems assembler-linker-librarian package:** includes full macro facilities, HEX, REL or COM output, conditional assembly, up to 6 times faster than MACRO 80 (6000 lines per minute), plus many other useful features. Price: \$100.00

**MICROSTAT®**  
New Release!

**S**ince 1978, Microstat has been the most popular statistics package available for microcomputers. During

that time, we have continued to enhance Microstat largely due to user suggestions. Microstat Rel. 4.1 has many enhancements over previous releases, including:

Missing data handling, Interface with external files (comma delimited ASCII, fixed-field, dBASE II .DBF, DIF); conversion utility for older Rel. 2.0 and 3.0 files, buffered data entry, improved speed, program reports that can be output to a data file and modified or merged with other reports with a word processor, re-try on data entry, almost twice as many transformation codes, inclusion-exclusion of variables by key value, expanded variable names and descriptions, plus other new features. A partial list of Microstat's features include:

- Interactive or batch mode of operation.
- A Data Management Subsystem (DMS) for file creation plus the ability to: edit, list, destroy, delete cases, augment, sort, rank order, lag, move, merge and transform the data.
- The data transformations include: recode, add, subtract, multiply, divide, reciprocal, log, natural log, natural antilog, exponential, linear transformation, adding any number of variables to create a new variable, random number generator, plus others.
- The DMS places you in complete control of the data files and allows you to create new variables from existing variables via the transformations.
- Other features include: Descriptive statistics (mean, sample standard deviation and variance, population standard deviation and variance, standard error, minimum, maximum, sum, sum of squares, moments about the mean, skewness and kurtosis, and deviation sum of squares), Hypothesis tests (mean or proportion), Analysis of Variance (one-way, two-way and randomized blocks), Scatterplot (with overlapping points and regression line indicated), Correlation analysis, Simple, Multiple, and Stepwise Multiple Regression analysis (with support statistics), Time Series analysis, Nonparametric Tests (Wald-Wolfowitz, Wilcoxon Rank-Sum for two groups, Kruskal-Wallis One-Way ANOVA by ranks, Kolmogorov-Smirnov Goodness of Fit and Two group Tests, Absolute Normal Scores test, Friedman, Kendall, and Sign test), Crosstabs (including Chi-Square), Factorials, Permutations, Combinations, and Probability Distributions (Binomial, Hypergeometric, Poisson, Exponential, Normal, F, Student's t, and Chi-Square).

The user's manual is available separately for \$25.00 (credited towards purchase) and includes sample printouts for most programs. The complete package costs \$375.00 and is perfect for research, educational and industrial work. Microstat comes with its own runtime module, so there are no language requirements. A demo package with manual is available for \$40.00 (credited towards purchase).

**Microstat Tutor:** This tutorial was written by Total Learning Systems for the U.S. Navy to teach their people how to use Microstat effectively. It is an excellent tutorial that takes the user step-by-step through each Microstat procedure from data file creation to statistical analysis. Because it uses a special graphics presentation, it is available only for the IBM PC and compatibles (DOS 2.1 or later). Price is \$55.00. If ordered with Microstat, the price is \$35.00.

# A(rchivist)<sup>TM</sup>

If you have a hard disk or use disk data files, A(rchivist) is a must. A(rchivist) can copy random files and copy files that are larger than a floppy (i.e., copy a 1 megabyte files to smaller floppies). PIP can't do either one. A(rchivist) gives you an efficient, cost-effective means of backing up those valuable data files. But that's not all. A(rchivist) can also:

Copies between users; gives ambiguous-unambiguous, sorted-unsorted DIR; conventional or exclusive COPY (i.e., copy all files except those with certain character(s); a Q switch to query files to be copied; an R switch for system files; and an E switch for existing files; a sorted STAT which includes: ambiguous-unambiguous options, virtual and actual file sizes (different for random files), and the number of used-unused directory entries; conventional ERA plus exclusive erases with a W switch for R/O files, plus Q and R switches; START-END for copying any contiguous group of data files; an @ command for batch processing of A(rchivist) commands (like SUBMIT); and Archive mode for large file copies; LIST, TAB, WIDTH, LINES and WRAP printer controls for listing files; support for QT clock board for time stamping of listings; plus REN (including ambiguous renames), HELP CLEAR, RESET, DATE, TIME, QT, SETIT and TYPE. All of these features are in one program.

A(rchivist) is a Z80 assembler program and is available only for Z80 CPU and CP/M-MP/M systems using a 80x24 terminal. The price is \$49.95 and the user's manual is \$10.00 (credited towards purchase). Once you've used A(rchivist), you'll wonder how you ever got along without it!

## SYSTEM REQUIREMENTS

### Program Requirements:

#### Eco-C:

Digital Research's CP/M 2.0 or later, a Z80 CPU with 56K of free memory, and 2 disk drives (or hard disk).

#### Eco-C88:

MSDOS 2.1 or later, 8088, 8086, 80186, and 80286 CPU's with 256K memory and 2 disk drives (or a hard disk).

#### Microstat:

CP/M 2.0, PCDOS, MSDOS, CP/M86, 64K or more memory and 2 disk drives (or a hard disk).

#### Microstat Tutor:

MSDOS 2.1 or later. Available only for IBM PC and compatibles.

#### A(rchivist):

CP/M, MP/M, Z80 CPU and 2 disk drives.

#### Disk Formats:

8" SSSD (standard CP/M 80), IBM PC 5.25", plus about 40 other 5.25" CP/M formats. Call about your needs.

### REGRESSION ANALYSIS

#### A. FULL-MODEL REGRESSION

#### REGRESSION ANALYSIS

HEADER DATA FOR: A(LONGLEY LABEL) 285A, V.62, P819-841  
NUMBER OF CASES: 16 NUMBER OF VARIABLES: 7

Longley test data, unscaled and unperturbed

INDEX	NAME	MEAN	STD. DEV.
1	--I1--	101.681250000	10.791555416
2	--I2--	387498.437500000	99394.937795286
3	--I3--	3193.312500000	934.464247131
4	--I4--	2606.687500000	695.919604432
5	--I5--	117424.000000000	6956.101561459
6	--I6--	1954.500000000	4.760952286
DEP. VAR.:	--Y--	65317.000000000	3511.968255970

DEPENDENT VARIABLE: --Y--

VAR.	REGRESSION COEFFICIENT	STD. ERROR	T(DF= 9)	PROB.	PARTIAL r <sup>2</sup>
--I1--	15.061872274	84.914525779	.177	.86314	.0035
--I2--	-.035819179	.033491008	-1.070	.31268	.1129
--I3--	-2.020229804	.488399482	-4.136	.00254	.6553
--I4--	-1.033226867	.214274163	-4.822	.00094	.7209
--I5--	-.051104106	.224073200	-.228	.82621	.0056
--I6--	1829.151444609	455.478499161	4.016	.00204	.6418
CONSTANT	-5.482228635E+06				

STD. ERROR OF EST. = 304.854673568

ADJUSTED R SQUARED = .992465008  
R SQUARED = .995479005  
MULTIPLE R = .997736942

#### ANALYSIS OF VARIANCE TABLE

SOURCE	SUM OF SQUARES	D.F.	MEAN SQUARE	F RATIO	PROB.
REGRESSION	184172401.944469000	6	3.0495400324E+07	330.285	4.984E-10
RESIDUAL	836424.055539330	9	92936.006171037		
TOTAL	185008664.000000000	15			

	OBSERVED	CALCULATED	RESIDUAL	-2.0	STANDARDIZED RESIDUAL	0	2.0
1	60323.000	60005.650	267.34030	1	1	1	1
2	61323.000	61216.014	-94.613942	1	1	1	1
3	60171.000	60124.713	46.287168	1	1	1	1
4	61387.000	61297.115	-110.114622	1	1	1	1
5	63221.000	62911.295	309.714591	1	1	1	1
6	63639.000	63808.311	-249.313215	1	1	1	1
7	64989.000	65153.049	-164.048956	1	1	1	1
8	63761.000	63774.180	-13.180357	1	1	1	1
9	66019.000	66004.699	14.304733	1	1	1	1
10	67857.000	67401.606	455.394095	1	1	1	1
11	68149.000	68136.249	-12.748927	1	1	1	1
12	64513.000	64552.055	-39.055043	1	1	1	1
13	68655.000	68810.550	-155.549974	1	1	1	1
14	69564.000	69649.671	-85.671208	1	1	1	1
15	69331.000	69399.048	-68.049154	1	1	1	1
16	70551.000	70757.758	-206.757825	1	1	1	1

DUFBIN-WATSON TEST = 2.5595

(An example of calculating predicted values)

OBSERVED Y VALUE(S)

1, I1	= 118.2
2, I2	= 590432
3, I3	= 4500
4, I4	= 3600
5, I5	= 131000
6, I6	= 1963

CALCULATED Y VALUE = 70111.148132062



"I don't think we need to run any back-up today."

## InfoWorld Software Report Card

MICROSTAT  
ECOSOFT

	Unacceptable	Poor	Fair	Good	Excellent
Functionality					
Documentation					
Ease of Use					
Error Handling					
Support					

Infoworld, March 16, 1981.

Toll Free 1-800-952-0472 (orders only)

# ORDER FORM

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Business Hours: Monday - Friday 8:30 AM - 4:30 PM

Dear Ecosoft:

Please send me the following software packages as soon as possible.

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