

INFO 64

THE QUARTERLY REVIEW & PRODUCT GUIDE FOR THE COMMODORE 64 COMPUTER

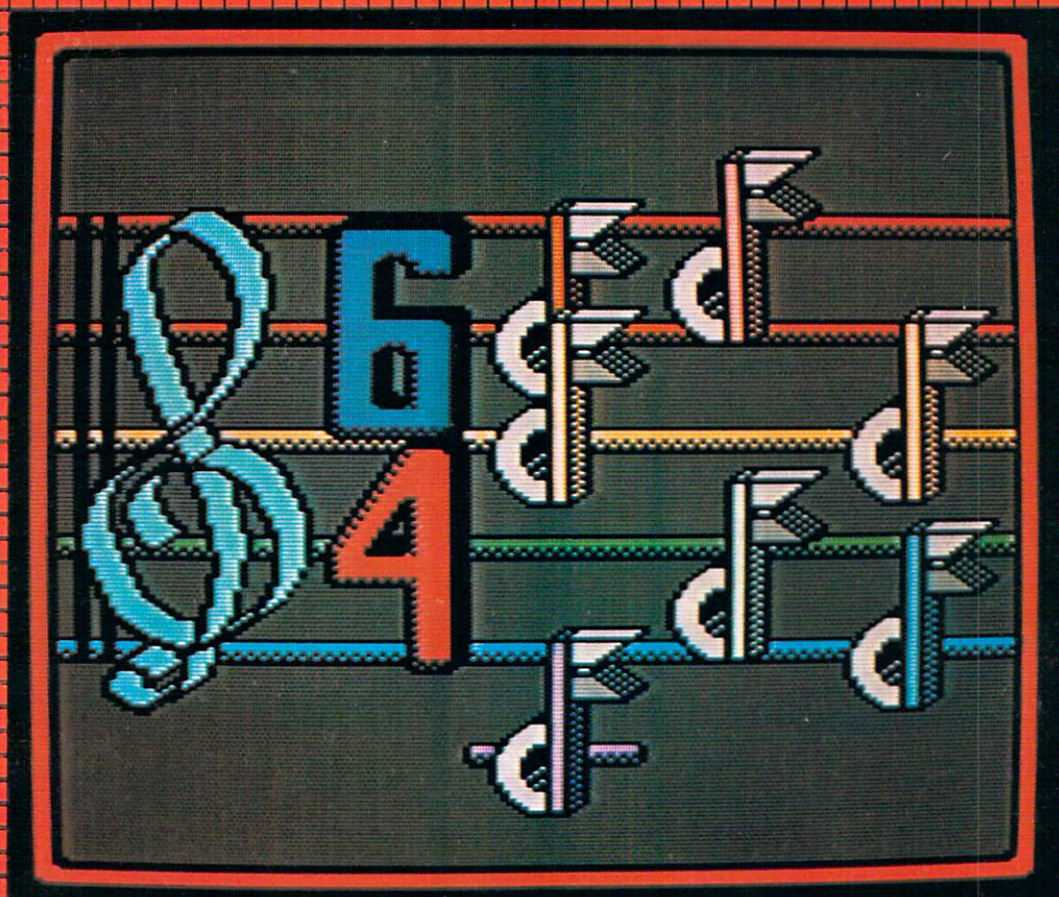
ISSUE #4

\$2.95 U.S.
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- * BUYER'S GUIDE TO 1000 PRODUCTS
- * MAKING MUSIC ON THE 64
- * CONTEST #1 WINNERS

REVIEWS:

Omni-Writer
Comal
Expando-vision
Personality
Analyzer &
The Hypnotist
MSD Dual Drive
Financial
Cookbook



FEATURES:

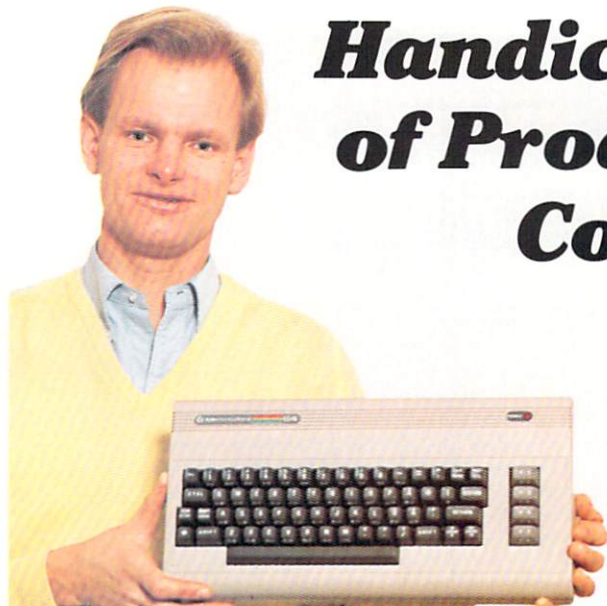
Synful Sounds
Double-Take
3 New
ERG-CARDS!
Flying the 64!

- * GALLERY: MUSIC EXHIBIT
- * CONTEST #2: WIN \$64.00 & AN ERG-BOARD!



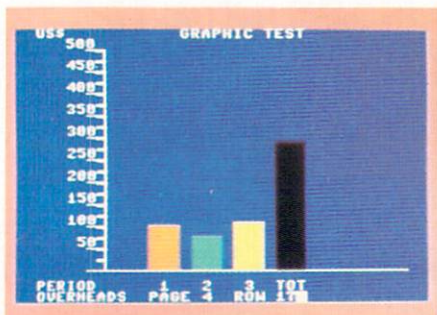
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Salaries	1000	1000	1000	3000
Rent	1000	1000	1000	3000
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Market	1000	1000	1000	3000
ALL DIR	21000	20000	20000	60000
CONTRIB	245	240	295	780
OVERHEA				0
NET PRO	NA	NA	NA	0
PROFIT	NA	NA	NA	0

Calc Result Advanced \$99.95

A complete database for the home

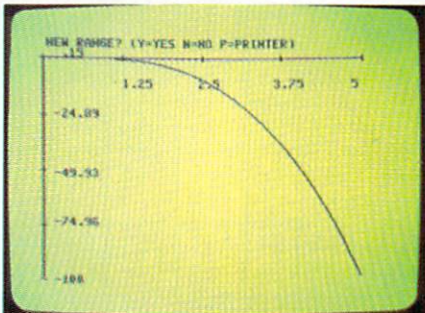
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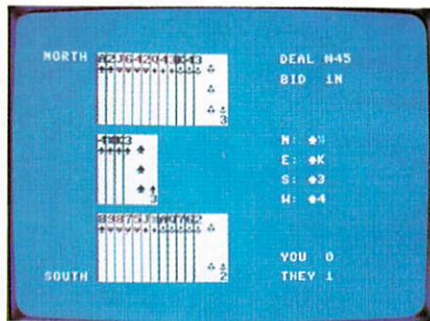
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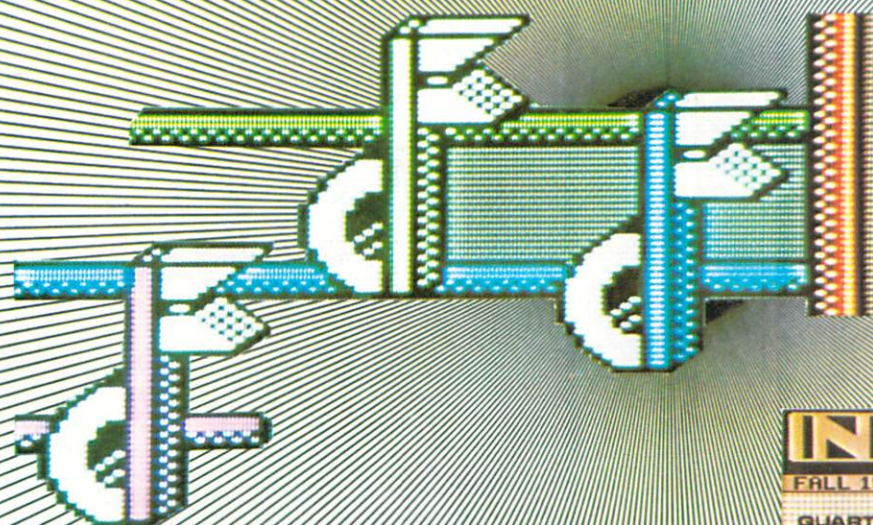
For more information and a catalogue of our products, see your nearest Commodore dealer, or call us direct.

handic software

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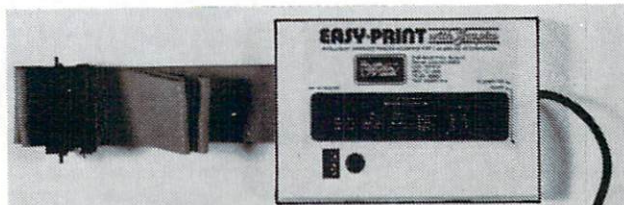
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1984
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THIS ISSUE OF INFO-64**

PAINT MAGIC

**DATA MOST
COVER ART**

DOODLE!

by Mark R. Rubin

LABELS/GRAPHICS**WORDPROCESSING****INTERFACING****PRINTOUT**

INFO 64

THE QUARTERLY REVIEW AND PRODUCT GUIDE FOR THE COMMODORE 64

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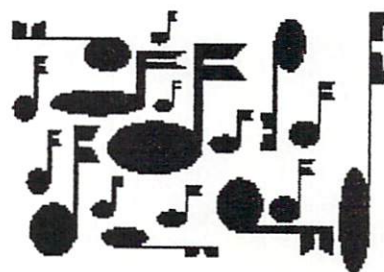
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CHORD: F C

DANCIN' FEATS

AN EARLY MUSICAL INTRODUCTION FROM PAGE 7 IN THE SYNTHY-64 MANUAL:

LINE	38	POS:	38
VOICE	1(+)	2(-)	3(2)
NOTE	C		
OCTAVE	5	5	5
DURATION	8	8	8
WAVE FRM	P	P	P
PULSE WD	8	8	8
ATTACK	0	0	0
DECAY	9	9	9
SUSTAIN	0	0	0
RELEASE	5	5	5
SYNC	0	0	0
RING MOD	0	0	0
GATE	0	0	0
FILTER	0	0	0
FILT FRO	0	0	0
FILT RES	0	0	0
FILT CTL	0	0	0
LINE	38	POS:	38

READY.

SYNTHY 64

MEASURES 1 2, 3 8
EDIT VOICE 1, 2, OR 3 8
1

NOTE PRO

WHEN I'M 64

ULTISYNTH 64

MEASURE	A	D	S	R	M	F	S	R
VOICE 1	0	0	0	1	0	0	0	0
VOICE 2	0	0	0	0	0	0	0	0
VOICE 3	0	0	0	0	0	0	0	0

VOICE 1: 0123456789012345
VOICE 2: 0123456789012345
VOICE 3: 0123456789012345

ULTISYNTH

SHIFT H=HELP : +/-MENU : CTRL K=KEYBOARD
VOICE # 1 MEASURE 000

MUSIC WRITER

DANCIN' FEATS**DISK/TAPE \$29.95 ***+****SOFTSYNC, INC. (SFS)**

THIS HAS BEEN APTLY DESCRIBED AS THE ELECTRONIC EQUIVALENT OF THE KAZOO! INSTANTLY UNDERSTANDABLE TO CHILDREN AS WELL AS LAY-PERSONS, *DANCIN' FEATS* MAKES UP IN ACCESSIBILITY WHAT IT LACKS IN DEPTH. COMPLETELY MENU-DRIVEN, YOU PLAY ALONG WITH SOME WELL-DONE BACKGROUND TRACKS OF VARIOUS STYLES FROM BLUES TO ROCK TO WALTZ. WHAT DO YOU PLAY ON? YOUR JOYSTICK! THE GRAPHICS DISPLAY IS TIED TO THE MUSIC & IS VERY DYNAMIC. FUN & SIMPLE.

SYNTHY 64**DISK/TAPE \$27.95 ***+****ABACUS SOFTWARE (ABA)**

SYNTHY-64 IS FUNDAMENTALLY AN EXTENSION TO BASIC ADDING OVER A DOZEN NEW COMMANDS WHICH CAN BE USED IN BASIC PROGRAM STATEMENTS TO CONSTRUCT AND PLAY MUSIC AT RUN-TIME. PROVISIONS EXIST FOR TAMPERING WITH THE ADSR (ATTACK, DECAY, SUSTAIN, RELEASE) PARAMETERS, AND OTHER CONTROLS LIKE "PORTMOTO" (GLIDE) ADD TO THE RANGE OF EFFECTS POSSIBLE. NOT REALLY WHAT I'D CALL STATE-OF-THE ART, BUT IT BEATS POKING VALUES INTO MEMORY.

NOTE PRO II**DISK/TAPE \$49.95 ***+****ELECTRONIC LAB INDUSTRIES (ELI)**

NOTE PRO II IS A PLAIN VANILLA MUSIC WRITER WITH AN AMPLE SET OF CREATIVE TOOLS, BUT NOTHING TO WAKE UP THE NEIGHBORS FOR. INPUT & EDIT EIGHT MEASURES OF 3-PART MUSIC ON THE LO-RES GRAPHICS STAFF. LEGATO, STECATO, 8-OCTAVE RANGE. HAS PRESET TONES TO START WITH, SID CONTROLS FOR THE MORE AMBITIOUS, ABILITY TO RE-SEQUENCE AND JOIN SEPARATE FILES TOGETHER. ONE HELPFUL FEATURE I LIKE IS THE ABILITY TO TRANSPOSE A SCORE TO ANOTHER KEY WITHOUT RE-ENTERING EACH NOTE.

WHEN I'M 64**DISK \$29.95 ****+****ALIEN GROUP (ALI)**

WHEN I'M 64 IS UNUSUAL IN MANY WAYS (BESIDES ITS NAME): IT IS UNUSUALLY INEXPENSIVE, IT LOOKS PLAIN (EXCEPT IN THE ANIMATED FACE MODE), IT IS VERY EASY TO GET GOING ON, IT SUPPORTS SUCH EXOTICA AS GLIDE, VIBRATO, REAL-TIME OVER-DUBBING, SINGLE-KEY RE-TIMING, INTERFACING WITH A SINGING SPEECH SYNTHESIZER, PROGRAMMABLE VOCALS, AND A SYNCHRONIZED FACE TO MOUTH THE WORDS. IT IS ALSO UNUSUAL IN THE BREVITY, & USEFULNESS OF ITS DOCUMENTATION. ONE OF MY FAVORITES FOR A QUICK ROMP INTO MUSICAL SELF-EXPRESSION.

ULTISYNTH**DISK *******QUICKSILVA (QUI)**

DON'T LET THIS COMPLICATED-LOOKING MUSIC PRODUCT FOOL YOU; IT IS MUCH MORE COMPLICATED THAN IT LOOKS! THIS PROGRAM PROVES THAT YOU CAN HAVE LOTS OF TALENT AND SKILL AND STILL MAKE A MESS OF THINGS. THE PROBLEM WITH ULTISYNTH IS THAT IT IS OVERWHELMED BY ITS OWN FEATURES. THIS RESULTS IN SOME HOPELESS ENCUMBRANCES LIKE THE 4-PAGE CONDENSED KEYBOARD REFERENCE-CARD SET. HONESTLY, EVEN THE AUTHOR MUST NOT ENJOY TRYING TO COMPOSE ON HIS/HER SYSTEM (AS EVIDENCED BY THE SINGLE UNREMARKABLE DEMO TUNE ON THE DISK.)

MUSIC WRITER-64**DISK \$69.95 ********M'SOFT INC. (DEE)**

ESPECIALLY NICE ANIMATED STAFF & SCROLLING NOTES (THAT LOOK LIKE REAL NOTES) HIGHLIGHT THIS ENTRY FROM M'SOFT. IT'S EASY TO FIND YOUR WAY AROUND THE VARIOUS MENUS AND 3-PART REAL-TIME OVERLAYING IS QUICKLY MASTERED BY ANY OF THE MUSICALLY CURIOUS. CAN DUMP SHEET MUSIC TO CBM PRINTER (OR EMULATING PRINTER). FULL CONTROL OVER VOICE PARAMETERS. WELL DOCUMENTED. 12 K OF NOTE STORAGE. YOU CAN ADJUST THE SOUNDS OF THE VOICES WHILE THEY ARE PLAYING. HELP SCREENS.

EXTENDED REGISTER SETTINGS

	VOICE 1	VOICE 2	VOICE 3
INSTRUMENT	1 A	1 G	2 M
PULSEWIDTH	900 B	800 H	1000 M
FILTERS	OFF C	OFF I	OFF O
TUNING	0 D	0 J	0 P
PHASER	0 E	0 K	0 Q
HEAVYMETAL	0 F	0 L	0 R
RESONANCE	15 S	VOLUME	13 V
TEMPO	90 T	FILTERTYPE	0 W
CUT/PEAK	1750 U	XFILTER	OFF X

PASS

MUSICALC

OSC
MOD 01
EMU
MOD 01

123456789111111111
0123456

M22 SOUND M10 SCORE

MUSICALC

KAWASAKI RHYTHM ROCKER

Press RETURN FOR HELP

STOP

PLAY CR STOP F DUB C H BASS M
RECORD C STOP FS DUB OFF P.MODE

KAWASAKI RHYTHM ROCKER

MUSIC CONSTRUCTION SET

Note F Sp So Sa Ho Vo
Key 2 4 6 3 4 4 4

MUSIC CONSTRUCTION SET

TSPN

CLEF VOICE N 2
OCTAVE N 3

STUDIO 64

PAGE 3 BLOCK 6 TREASURE MOVE 20 18 00:01:01

TR+

B-

MASTER COMPOSER

PASS

DISK \$49.95 *****

PARABOLA (PSS)

EXPERT OR NOVICE; IF YOU WANT TO GET SERIOUS ABOUT MUSIC AND SOUND ON THE 64, YOU ARE GOING TO LOVE THIS SYSTEM: NO FLASHY GRAPHICS, NO FANCY PACKAGE, BUT IF YOU WANT A SYSTEM USED BY MANY COMMERCIAL SOFTWARE HOUSES TO ADD MUSIC AND SOUND TO THEIR PROGRAMS, THEN THIS IS IT. SURPRISINGLY EASY TO USE, YOU CAN MAKE COMPLEX SOUNDS WITH PASS THAT YOU JUST CAN'T MAKE WITH ANY OTHER PACKAGE. USING 5 LANGUAGES, PASS IS A TECHNICAL WORK OF ART. THE DEMO SONGS ARE TRULY STUNNING, THE 74-PAGE MANUAL IS WORTH THE PURCHASE PRICE FOR ITS CLEAR DISCUSSIONS OF MUSIC AND DIGITAL SOUND.

MUSICALC

DISK \$74.95 *****

WAVEFORM (WAV)

HERE'S AN ELABORATE, COLORFUL, WELL-DOCUMENTED MUSIC SYSTEM INCORPORATING SYNTHESIZER AND SEQUENCER FEATURES IN A VISUALLY DAZZLING ENVIRONMENT. I REALLY ENJOY THE GRAPHIC SLIDER CONTROLS AND THE WAY THEY ARE ACTIVATED AND ADJUSTED: IT'S ALMOST LIKE SITTING AT A STUDIO CONTROL BOARD! I HAVE SPENT HOURS (QUITE ENJOYABLY) FOOLING WITH THIS SYSTEM; ADJUSTING THE SOUND PARAMETERS AND GOING THRU ALL THE PRESETS AND MENUS, BUT I STILL HAVEN'T GOT THE HANG OF HOW TO WRITE A SONG WITH IT (I HAVE NO DOUBT IT CAN BE DONE!). BE PREPARED TO SPEND SOME TIME STUDYING WITH THIS ONE.

KAWASAKI RHYTHM ROCKER

DISK \$39.95 *****

SIGHT & SOUND (S&S)

NO, IT DOESN'T COME FREE WITH A MOTORCYCLE, BUT THE KAWASAKI RHYTHM ROCKER WILL TAKE YOU ON A FAST RIDE THRU SIGHTS AND SOUNDS. RHYTHM ROCKER HAS MUCH OF THE "ANYONE CAN USE IT" APPEAL OF *DANCIN'* FEATS ALONG WITH SOME PRETTY 'NUTS & BOLTS' USER CONTROL FEATURES. YOU CAN RUN PRE-PROGRAMMED BASS TRACKS AND LAY DOWN YOUR OWN LEAD & DRUM TRACKS ON TOP. WHEN YOU GET TIRED OF MAKING MUSIC, YOU CAN DIVE INTO THE OTHER SIDE OF THIS WILD PROGRAM; THE GRAPHICS CONTROLS. THIS IS PROBABLY THE MOST 'FUN' OF THE LOT. WORKS WITH *SIGHT & SOUND'S* KEYBOARD ATTACHMENT (SEE NEXT PG.).

MUSIC CONSTRUCTION SET

DISK \$40.00 ****+

ELECTRONIC ARTS (ELE)

ELECTRONIC ARTS KNOCKED ME OUT WITH *PINBALL CONSTRUCTION SET*, SO I WAS DISAPPOINTED WHEN *MUSIC CONSTRUCTION SET* TURNED OUT TO BE LESS THAN THE MUSICAL EQUIVALENT. THAT'S NOT TO SAY THAT THERE ISN'T SOME PRETTY IMPRESSIVE PROGRAMMING BEHIND IT, OR THAT IT ISN'T DELIGHTFUL TO WATCH, PLAY-WITH AND LISTEN TO. IT'S JUST THAT IT FALLS SO SHORT OF WHAT IT COULD HAVE BEEN (I CAN'T FORGIVE E.A. FOR ONLY ALLOWING 2 VOICES AND 13 (PRE-DETERMINED) SOUNDS.) THESE AND OTHER PROBLEMS SEEM TO STEM FROM "APPLE CONVERSIONITIS". (HOPEFULLY, THIS DISEASE CAN BE STAMPED-OUT IN YOUR LIFETIME!)

STUDIO 64

DISK \$39.95 ****+

ENTECH (ENT)

STUDIO 64 HAS SOME NEAT THINGS GOING FOR IT: I LIKE THE SCROLLING GRAPHICS, AND THE SNAPPY MENUS & ADJUSTMENT DISPLAYS. THE ONLY WAY TO GET LISTENABLE MUSIC FROM THIS SYSTEM, THO, IS TO TRANSCRIBE THE INFORMATION FROM SHEET MUSIC, OR BE ABLE TO COMPOSE MUSIC IN STANDARD NOTATION. ALTHOUGH REAL-TIME NOTE ENTRY (ONE VOICE AT A TIME) IS SUPPORTED, 3-PART SCORES ARE IMPOSSIBLE TO MANAGE BY EAR SINCE YOU CAN'T HEAR THE OTHER 2 TRACKS. DEMO SONGS AND FEATURES ARE WELL-EXECUTED, BUT UNLESS YOU READ MUSIC &/OR ARE ABLE TO WRITE IT, YOU WILL BE FRUSTRATED BY THIS MUSIC PRODUCT.

MASTER COMPOSER

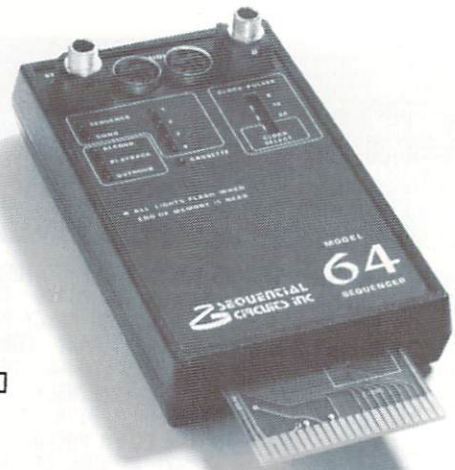
DISK \$39.95 *****

ACCESS SOFTWARE (ACC)

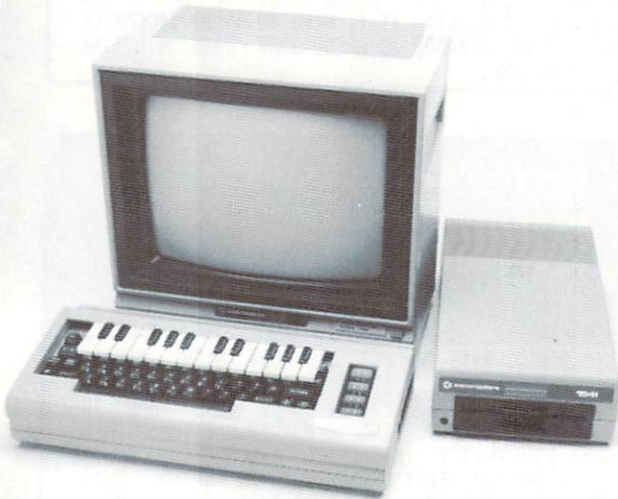
THIS IS A REAL SOLID MUSIC-PROCESSOR WITH 4 VISIBLE STAFFS, COLOR VOICE DESIGNATIONS, REAL TIME GRAPHIC DISPLAY OF NOTES AS THEY PLAY, ETC. GREAT SAMPLE TUNES ON SYSTEM DISK DEMONSTRATE THE RICH MUSICAL POTENTIAL OF *MASTER COMPOSER*. CHANGE SOUNDS DURING PLAYBACK, DUMP SCORES TO MOST PRINTERS. LINK FILES FOR EXTENDED COMPOSITIONS. INTERRUPT-DRIVEN WITH FACILITIES FOR PATCHING MUSIC TO EXISTING OR NEW PROGRAMS.



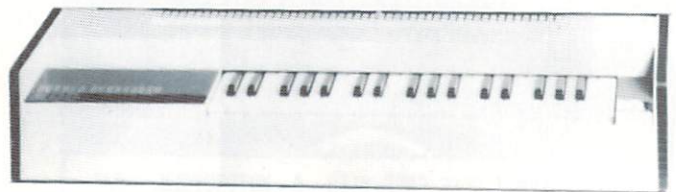
1.



2.



3.

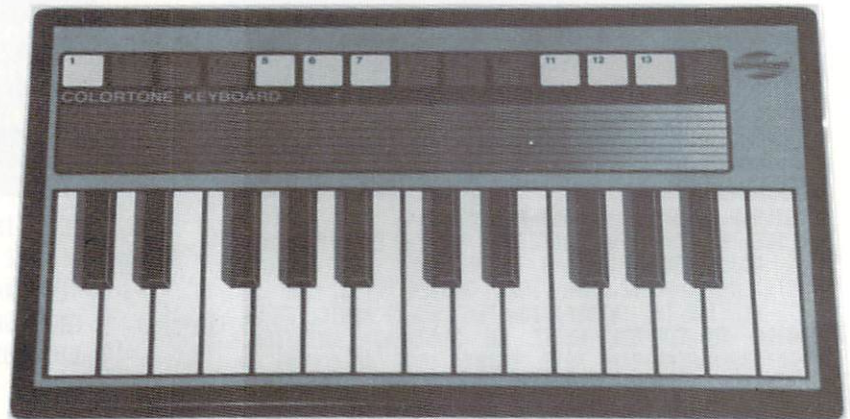


4.

5.



6.



1.

SIX-TRAK SYNTHESIZER

MIDI-COMPATIBLE, THIS \$1100 KEYBOARD IS CLEARLY AIMED AT THE PRO MARKET. WHEN USED WITH C-64 AND SEQUENCER AT RIGHT (#2), CAN BE USED TO INPUT 8 SEQUENCES OF 4000 NOTES ON UP TO SIX "TRACKS". A NEW MODEL WITHOUT THE PITCH WHEELS AND A FEW OTHER FRILLS SHOULD BE READY FOR THE HOME MARKET SOON. UN-NAMED AS YET, IT IS EXPECTED TO WEIGH IN AT < \$600.

FROM: **SEQUENTIAL CIRCUITS (SEQ)**

2.

MODEL 64 SEQUENCER

THIS IS THE INTERFACE WITH SOFTWARE THAT ALLOWS THE 64 TO STORE, PROCESS, & SEQUENCE MUSIC AND SOUND TRACKS FROM MIDI DEVICES (FOR A FURTHER DISCUSSION OF MIDI, SEE MIDI SIDEBAR BY PEGGY HERRINGTON WITH "SYNFL SOUNDS" ARTICLE ELSEWHERE THIS ISSUE.)

\$200.00 FROM: **SEQUENTIAL CIRCUITS (SEQ)**

3.

INCREDIBLE MUSICAL KEYBOARD

FOR \$49.95 YOU GET A NIFTY LITTLE KEYBOARD ASSEMBLY THAT SITS SNUGLY ON YOUR C-64 KEYBOARD (AND LOOKS LIKE IT'S PART OF IT). THE PIANO LAYOUT GIVES TWO OCTAVES OF KEYS THAT MAKE MUSICAL SENSE, YOU DON'T GET THE 'FEEL' OF A 'REAL' KEYBOARD, BUT THIS IS A GOOD COMPROMISE FOR THE \$\$\$. COMES WITH SIMPLE SOFTWARE- IS COMPATIBLE WITH ENTIRE LINE OF SIGHT & SOUND'S SOFTWARE (CONSIDERABLE).

FROM: **SIGHT & SOUND (S&S)**

4.

MELODIAN KEYBOARD WITH CONCERTMASTER

THE SOFTWARE (3 MODULES @ \$39.95) IS THE STRONG SUIT AT MELODIAN INC. THE KEYBOARD IS RIDICULOUSLY PRICED AT \$200.00. FROM THE UNITS I TRIED AT CES CHICAGO, I AM GUESSING THAT THESE GUYS GOT A HECK OF A DEAL ON SOME DISCONTINUED TOY ORGANS MINUS THE INNARDS. THE FEEL IS DEFINITELY DIME-STORE. NOT A BAD IDEA, REALLY, BUT 69.95 WOULD BE MORE LIKE IT. THE SOFTWARE IS ANOTHER STORY- IT IS UP THERE WITH THE BEST.

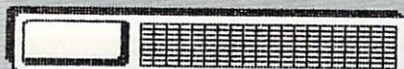
FROM: **MELODIAN INC.
115 BROADWAY - SUITE 1202
N.Y. NY 10006
(212) 406-5163**

5.

COLORTONE KEYBOARDS

THESE KEYBOARDS OFFER QUITE A RANGE OF COST/PERFORMANCE TO THE MUSIC ENTHUSIAST. THE REGULAR COLORTONE (5) IS A FLAT-MEMBRANE AFFAIR (THE ART-WORK MAKES IT LOOK 3-D, BUT IT IS FLAT) WITH SOME INTERESTING ICON-BASED INTERMEDIATE LEVEL SOFTWARE. THE PRICE IS \$79.95. THE COLORTONE PRO (6) IS A FULL-TRAVEL PROFESSIONAL-FEELING NUMBER WITH A TOUCH SENSITIVE MEMBRANE STRIP ACROSS THE TOP (ACTS LIKE A SECOND KEYBOARD FOR EFFECTS, ETC.) FOR \$399.95 YOU ALSO GET SOME SPECIAL SOFTWARE GEARED MORE TOWARD THE PERFORMING PROFESSIONAL.

FROM: **WAVEFORM (WAV)**



INFO READER MAIL

DEAR MR. DUNNINGTON:

BANKING ON YOUR ASSURANCES THAT ALL LETTERS WILL BE READ BY YOUR STAFF, I FEEL I SHOULD ADVISE YOU THAT I HAD TO STEAL YOUR WINTER 83/84 ISSUE FROM A LOCAL DEALER.

AFTER STUDYING SAID ISSUE I'VE COME TO THE CONCLUSION THAT - MUCH LIKE THE FORMER CASSIUS CLAY - YOU ARE THE GREATEST. UNFORTUNATELY YOU ALSO HAVE ONE OTHER THING IN COMMON WITH HIM: ARROGANCE!

YOU ARE NOT AVAILABLE ON MAGAZINE RACKS NOR CAN ONE SUBSCRIBE TO YOUR PUBLICATION, HENCE IT IS OF LITTLE VALUE TO ONE WHO IS ANXIOUS TO BECOME LITERATE ENOUGH TO ACQUIRE THE BEST COMMODORE COMPATIBLE SOFTWARE AND PERIPHERALS AVAILABLE.

I LIVE IN THE BOONIES AND IT'S A 170 MILE ROUND TRIP TO ROSEBURG AND ITS BIG BOOKSTORES - YET THEY'VE NEVER HEARD OF YOUR MAGAZINE.

OF COURSE, I ADMIT THAT I'M WAY BEHIND THE TIMES (HAVING TO READ AN OLD PUBLICATION) AND YOU HAVE EITHER FOLDED OR, SO I HOPE, HAVE BECOME SO SUCCESSFUL THAT ON MY NEXT TRIP TO ROSEBURG I JUST MIGHT FIND YOU.

HAVING TO PURLOIN YOU A SECOND TIME IS JUST TOO MUCH OF A BURDEN ON MY CONSCIENCE.

SINCERELY,
GUNTER VOGEL
LANGLOIS, OR 97450

DEAR MR. VOGEL:

WE WERE QUITE ALARMED TO HEAR ABOUT YOUR BRUSH WITH A LIFE OF CRIME... AFTER SOME SOUL-SEARCHING WE DECIDED TO OFFER SUBSCRIPTIONS IMMEDIATELY (SEE ENVELOPE IN CENTERFOLD) BELIEVING THAT, IF EVEN ONE PERSON COULD BE KEPT OUT OF PRISON, IT WOULD BE WORTH IT.

AS FOR CASSIUS CLAY- WELL...
I TRY TO FLOAT LIKE A BUTTERFLY AND STING LIKE A BEE,
BUT MY FRIENDS SAY I LOOK MORE LIKE MR. 'T'!

-BENN

DEAR BENN:

I LOVE YOUR MAGAZINE, INFO-64. IT HAS TO BE THE BEST FOR THE COMMODORE 64. I LOOK ALL OVER TO FIND IT EVERY TIME YOUR ISSUES ARE DUE TO COME OUT. THANKS TO YOU I KNOW WHAT PRODUCTS ARE ON THE MARKET AND WHAT PRICE I AM LOOKING AT.

I'M A PROUD OWNER OF A 64 AND LOVE IT. THE ONLY REAL COMPLAINT I HAVE IS THAT YOU SHOULD PRINT MORE PROGRAMS.

IN THE WINTER '83/'84 YOU PRINTED A GAME CALLED 'CRASH!' I PRINTED IT AND RAN IT ON MY COMPUTER AND IT DIDN'T WORK. DID YOU TEST IT?

WELL BENN, OVER ALL YOU HAVE A GREAT MAGAZINE. (I WISH IT WAS DAILY!)

YOUR FAITHFUL READER,

DARIN PADUR, AGE 12
TACOMA, WA

DEAR DARIN:

THANKS FOR YOUR KIND WORDS! IT'S PEOPLE LIKE YOU THAT KEEP ME GOING AT 3 IN THE MORNING! (I USED TO WORK IN TACOMA BEFORE I STARTED THIS MAGAZINE!)

AS FOR THE 'CRASH!' PROGRAM, NO, I NEVER RE-TYPED IT IN AFTER DUMPING IT OUT TO THE PRINTER, BUT SINCE IT RAN JUST BEFORE I DUMPED IT, I DON'T KNOW HOW IT CAN BE WRONG, THO I KNOW THAT THOSE LISTINGS WERE NOT EASY TO WORK FROM. SORRY FOR THE FRUSTRATION. PERSONALLY, I NEVER TYPE IN PROGRAMS FROM MAGAZINES ANYMORE BECAUSE THEY NEVER SEEM TO WORK, AND THEN I GET THE CORRECTIONS 3 MONTHS LATER IN ANOTHER ISSUE, AND BY THEN I'VE LOST THE URGE!

-BENN



INFO READER MAIL

INFO-64:

I ORIGINALLY PASSED YOUR PUBLICATION BY ON THE MAGAZINE STAND, UNTIL SOMEONE TOLD ME HOW EXCELLENT IT IS. IT IS REALLY GREAT.

ALTHOUGH I WAS ORIGINALLY TURNED OFF BY YOUR USE OF PRINTER TYPE RATHER THAN SET TYPE -- NOW THAT I UNDERSTAND WHY YOU DO IT THAT WAY (TO DEMONSTRATE THE CAPABILITIES OF A PRINTER) I LIKE IT AND HOPE YOU WILL KEEP IT UP.

YOUR REVIEWS ARE OUTSTANDING -- THEY SAVED ME FROM MAKING A PURCHASE ERROR A FEW DAYS AFTER I BOUGHT THE SPRING ISSUE.

CHARLES POLLOCK
RESTON, VA

DEAR CHARLES:

I'M GLAD YOU GAVE US A TRY AND APPROVE OF OUR PRODUCTION PHILOSOPHY. WE ALSO USE THE DOT MATRIX FOR TWO OTHER REASONS: IT FITS THE THEME OF OUR SUBJECT MATTER, AND IT'S IMMEDIACY LETS US MAKE LAST MINUTE CHANGES AND UPDATES THAT WOULD OTHERWISE REQUIRE TOO MUCH LEAD TIME. I HAD MY RESERVATIONS TOO, WHEN WE FIRST BEGAN, BUT NOW I FEEL REAL GOOD ABOUT THE FORMAT. THANKS FOR YOUR COMMENTS.

-BENH

INFO-64:

CHECK ATTACHED FOR BACK ISSUES. GEEZ! THIS IS AN ABSOLUTELY FANTASTIC MAGAZINE!!!! WHY HAVEN'T I SEEN IT BEFORE??

KEEP UP THE GOOD WORK! I LOVE THE DESIGN (AN ENTIRE MAGAZINE PRINTED OFF A DOT-MATRIX PRINTER - WHAT A CONCEPT!), AND DUE TO MY FAMILIARITY WITH "DOODLE" IT IS QUITE AN ACHIEVEMENT TO SEE WHAT THAT PROGRAM CAN ACTUALLY ACCOMPLISH! AMAZING!

I HIGHLY DISAGREE WITH YOUR ASSESMENT OF SIERRA ON-LINE'S WP PROGRAM "HOMWORD". HOWEVER, EVEN THOUGH YOU CONSIDER IT SLOW, IT IS MY WP OF CHOICE, AND OF MOST OF MY FRIENDS ALSO. EVEN THOUGH YOU MAY THINK THE ICONS SLOW THINGS DOWN, EACH ICON IS REPLACEABLE (AS YOU KNOW) WITH A CONTROL KEY, WHEREAS THE OTHER "INDUSTRIAL STRENGTH" WP'S I.E. PAPERCLIP, WORDPRO/3, ETC. ARE STRICTLY CONTROL-CODE OPERATED, WHICH REQUIRES A LOT OF MEMORIZATION OR HAVING REF CARDS LAYING AROUND ALL THE TIME.

HOMWORD SEEMS TO ME TO BE A VERY ELEGANT SOLUTION, AND OF COURSE YOU ARE AWARE THAT THIS PROG WAS ORIGINALLY DEVELOPED FOR THE IBM PC-JR. , THE CBM VERSION BEING A SPINOFF.

OTHER FAVORITE PROGS OF MINE:

SUB LOGIC FLIGHT SIMULATOR
DOODLE II
COMPUSERVE VIDTEX EXECUTIVE
(ANY) INFOCOM ADVENTURES
PINBALL CONS. SET.
MUSICALC
PHAROAH'S CURSE
JUMPMAN

ANYWAY... KEEP UP THE EXCELLENT WORK. HOPEFULLY YOU WON'T SUFFER THE FINANCIAL COLLAPSE EVIDENT IN SOME OF YOUR COMPETITION AS MENTIONED IN YOUR SPRING ISSUE!

ALSO HEARTILY RECOMMENDED IS STEWART BRAND'S "WHOLE EARTH SOFTWARE REVIEW", IF YOU HAVE NOT CHECKED IT OUT, PLEASE DO SO!!

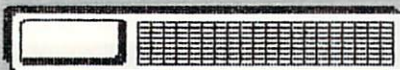
YOURS FAITHFULLY,
HR LASER
TORRANCE, CA

DEAR HR:

THANKS FOR YOUR GENEROSITY & CANDID RESPONSE RE: "HOMWORD" (I FIGURED QUITE A FEW PEOPLE MUST LIKE IT FOR IT TO BE DOING SO APPARENTLY WELL.) HAVE YOU TRIED PAPERCLIP? (WITH OUR NEW ERG-CARD IN THIS ISSUE, YOU WILL FIND THE CONTROL CODE PROBLEM IS LESSEned CONSIDERABLY!)

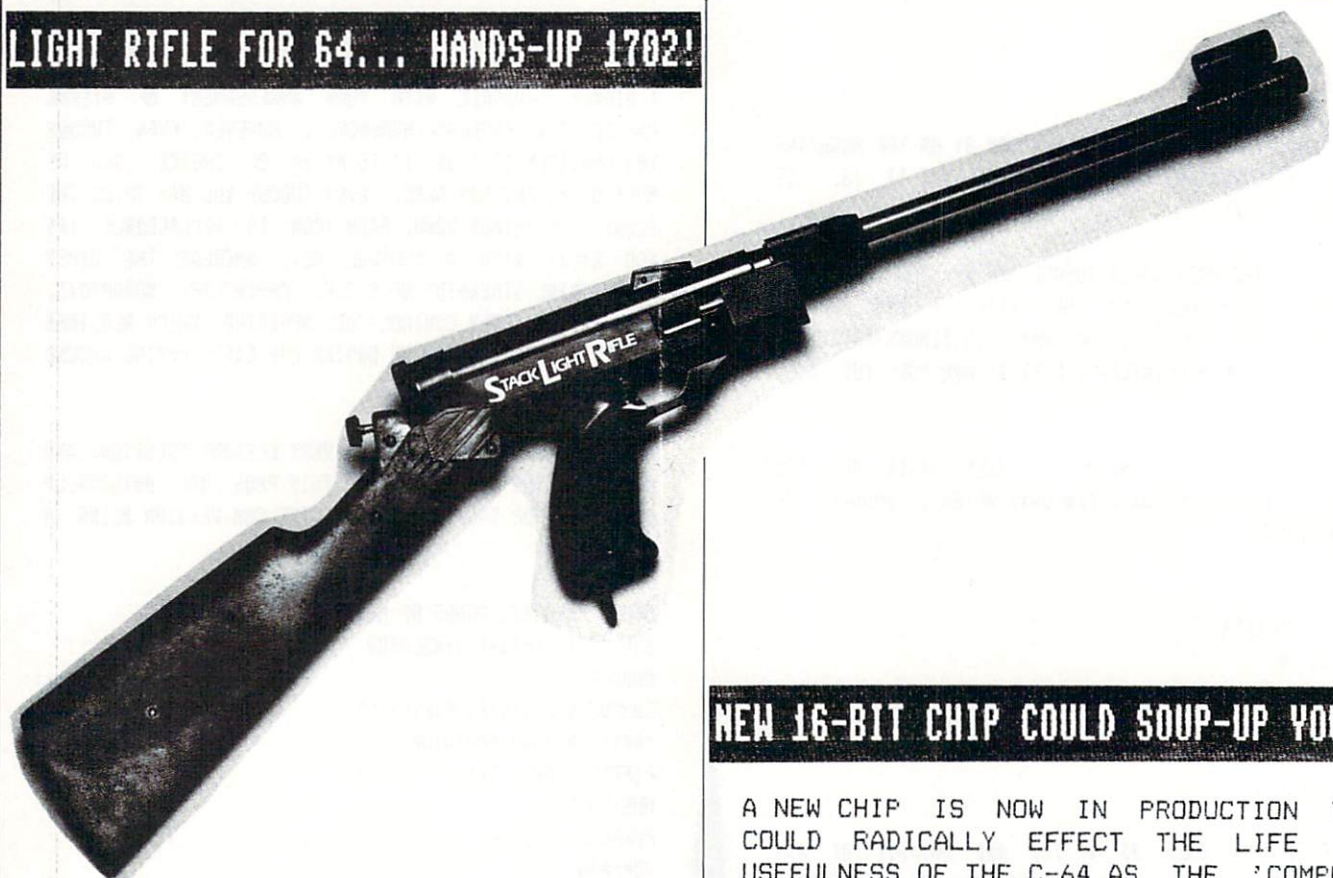
SEND YOUR LETTERS TO:

INFO-64
READER MAIL
ROUTE 2, BOX 198-E
IOWA CITY, IA 52240



NEWS & VIEWS

LIGHT RIFLE FOR 64... HANDS-UP 1702!



THE STACK LIGHT RIFLE IS A LIGHT-SENSITIVE INPUT DEVICE IN THE SHAPE OF A RIFLE (OR YOU CAN BREAK IT DOWN INTO A PISTOL, IF YOU LIKE). VARIOUS GAMES ARE AVAILABLE THAT INCORPORATE THE RIFLE INTO THE PLAY. THE GAMES HAVE, UNSURPRISINGLY, NAMES LIKE "HIGH NOON", "SHOOTING GALLERY", "GROUSE SHOOT", "RATS & CATS", "ESCAPE FROM ALCATRAZ", "BIG GAME SAFARI", AND "CROW SHOOT". CONNECTS TO YOUR 64 BY A 12-FOOT CABLE.

PRICE: \$69.95 (INCLUDES 6-PROGRAM DISK)

FOR MORE INFORMATION,
CONTACT:

ROMARO ENTERPRISES
BOX 227
STREETSVILLE POSTAL STATION
MISSISSAUGA, ON L5M 2B8
CANADA

NEW 16-BIT CHIP COULD SOUP-UP YOUR 64

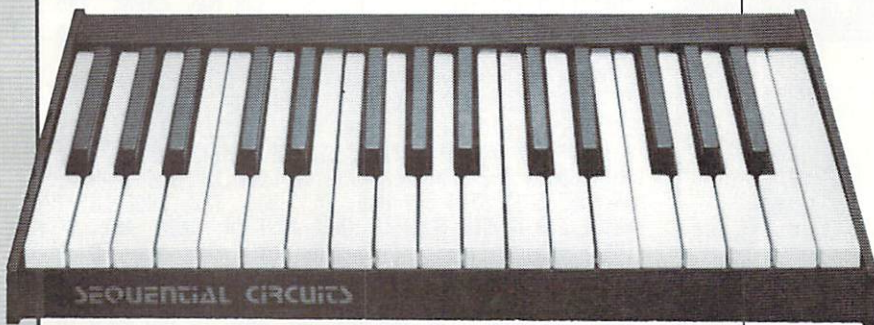
A NEW CHIP IS NOW IN PRODUCTION THAT COULD RADICALLY EFFECT THE LIFE AND USEFULNESS OF THE C-64 AS THE 'COMPUTER OF THE MASSES'. THE NEW 16-BIT 65816 IS REPORTED TO COST UNDER \$12 (OEM). CAN ADDRESS 16MB RAM, IS MANY TIMES FASTER THAN THE 64'S 6510 8-BIT CPU, AND IS COMPLETELY HARDWARE AND SOFTWARE COMPATIBLE WITH THE 6510!

THAT MEANS, ACCORDING TO ONE SOURCE WE SPOKE WITH, THAT WITHIN THE NEXT SEVERAL MONTHS WE CAN EXPECT TO SEE SOME MAIL-IN RETRO-FIT SERVICES THAT WILL BE ABLE TO UPGRADE 64'S INTO SUPER-64'S WITH THE 65816 AND 256K RAM FOR UNDER \$200! SO, FOR UNDER \$500 YOU HAVE A COMPUTER THAT STILL RUNS YOUR COLLECTION OF 64 SOFTWARE (BUT FASTER), AND CAN ALSO ACCEPT A WHOLE NEW GENERATION OF HEAVY-DUTY, IBM-STRENGTH APPLICATIONS AS WELL!

IN THE LIGHT OF THIS DEVELOPMENT, IT WOULD SEEM EXPEDIENT FOR COMMODORE TO DITCH THE DUBIOUS PLUS-4 CONCEPT AND PUT OUT THERE OWN SUPER-64. NOW THAT IS THE KIND OF NEW COMPUTER WE COULD GET BEHIND!

NEWS & VIEWS

KEYBOARD COME LATELY...



HERE IS A LAST-MINUTE ADDITION TO THE MUSIC KEYBOARD LINE-UP (SEE PAGES 10-11): SEQUENTIAL CIRCUITS, FAMOUS FOR THEIR *PROPHET* PROFESSIONAL KEYBOARD SERIES, HAS INTRODUCED YET ANOTHER KEYBOARD OPTION FOR 64 MUSIC LOVERS. CALLED THE *MUSICMATE*, THIS 2 1/2 OCTAVE POLYPHONIC KEYBOARD COULD BE THE PRICE/PERFORMANCE BREAKTHRU WE'VE BEEN WAITING FOR. WE GIVE IT AN A+ FOR GOOD LOOKS, AND ARE HAPPY TO REPORT THAT IT INCLUDES SOFTWARE FOR CREATING CUSTOM SOUNDS, AND RECORDING/PLAYBACK OF UP TO 10 MINUTES OF CONTINUOUS MUSIC. THE KEYBOARD PLUGS INTO A JOYSTICK PORT, LEAVING EXPANSION SLOTS FREE. 4 ADDITIONAL SOFTWARE PACKAGES ARE AVAILABLE (\$39.95 EA.): *SONG BUILDER* FOR 3-LAYER OVERDUBBING, *SONG EDITOR* FOR ENHANCED GRAPHIC EDITING (HI-RES COLOR DISPLAY ON A GRAND STAFF), *SONG PRINTER* ALLOWS HARD-COPY PRINTOUT IN STANDARD MUSIC NOTATION, AND *SOUND MAKER* PROVIDES AN ENHANCED SOUND-CREATION ENVIRONMENT.

MUSIC MATE KEYBOARD (W/SOFTWARE)
\$99.00
SEQUENTIAL CIRCUITS
3051 NORTH FIRST STREET
DEPT. P
SAN JOSE, CA 95134
(408) 946-0226

'MAC-VIC': THE 64+ COME TRUE??

THE BIGGEST NEWS OF THE NEXT YEAR (AND YOU'LL BE HEARING ABOUT THIS MORE AND MORE AS THINGS DEVELOPE) IS AND WILL PROBABLY CONTINUE TO BE THE EVENTUAL UNVEILING OF COMMODORE'S NEW 32-BIT, MACINTOSH-LIKE, UNDER-\$1000, SUPER-MACHINE. AFFECTIONATELY CALLED THE *MAC-VIC* ON THE STREET, THE NEW MACHINE WAS 'ADOPTED' BY COMMODORE IN THE PROCESS OF ACQUIRING *AMIGA*, THE MACHINE'S BIOLOGICAL PARENT. JACK TRAMIEL IS SAID TO BE FURIOUS ABOUT COMMODORE'S BEATING HIM AND ATARI TO THE DEAL, AND THIS ONE MOVE ALONE COULD REDEEM COMMODORE FROM AN OTHERWISE LACK-LUSTER SEASON SINCE TRAMIEL'S DEPARTURE EARLIER THIS YEAR.

THE NEW MACHINE SPORTS A 68000 CPU WITH FROM 128K TO 512K OF ON-BOARD RAM (EXPANDABLE TO MULTI-MEGABYTES EXTERNALLY) / ENHANCED APPLESOFT-COMPATIBLE BASIC / BUILT-IN IBM COMPATIBLE 320K DBL.-SIDED DISK / BUILT IN MODEM / PARALLEL & SERIAL PORTS / 4-VOICE SOUND & MUSIC CHIP / 640 X 200 X 4096 COLOR GRAPHICS RESOLUTION / EIGHT, 16-COLOR SPRITES / WINDOWS / FRAME BUFFER ANIMATION / SMOOTH SCROLLING IN ALL DIRECTIONS / 80 COLUMNS CLEARLY READABLE ON A STANDARD TV SET / RF, COMPOSITE, RGB OUTPUTS / & BUILT-IN WORDPROCESSING AND SPREADSHEET. ALL THIS AT (IF YOU CAN BELIEVE IT) AT UNDER \$1000. WHEN? COMMODORE SAYS "AFTER CHRISTMAS". IF YOU ASK ME, THE 'MAC-VIC' ITSELF SOUNDS LIKE CHRISTMAS!

COMAL 2.0: IT'S UP TO YOU!

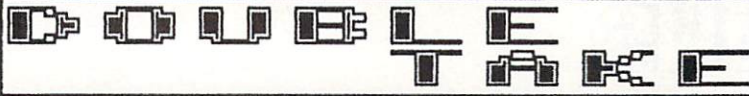
WE WOULD LIKE TO PASS THIS TIDBIT ON FROM COLIN F. THOMPSON IN THE *NORTHWEST USERS GUIDE* OUT OF PORTLAND OREGON:

APPARENTLY COMMODORE HAS DECIDED NOT TO RELEASE THE INCREDIBLE CARTRIDGE VERSION (2.0) OF COMAL. WE AT INFO-64 THINK THIS IS A CRIME! MR. THOMPSON SAYS THAT THE MAN RESPONSIBLE AT COMMODORE IS PAUL GOHEEN, AND THAT HE HAS SAID HE WILL RELEASE COMAL 2.0 IF HE RECEIVES 3,000 LETTERS IN FAVOR OF HIS DOING SO. PLEASE WRITE THIS MAN A LETTER OR POST-CARD !!!!!!!
WRITE:

**INFO-64 READERS WANT COMAL 2.0
MR. PAUL GOHEEN
DIRECTOR OF SOFTWARE DEVELOPMENT
COMMODORE BUSINESS MACHINES
1200 WILSON DRIVE
WESTCHESTER PA 19380**

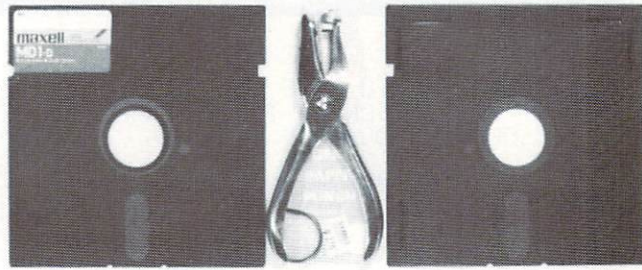
WE WILL PUBLISH AN UPDATE ON THIS STUNNING INCARNATION OF THE COMAL LANGUAGE IN ISSUE #5.





AVAILABLE FROM:
 EVOLVING TECHNOLOGY COMPANY
 3725 TALBOT ST., SUITE F
 SAN DIEGO, CA 92106

\$19.95



AVAILABLE FROM:
 ANY OFFICE SUPPLY
 OR DIME STORE
 (USE ANOTHER DISK FOR A TEMPLATE)

\$ 1.79

* NOTE ON "DISK-DOUBLING":
 BEFORE YOU RUN OUT AND BUY EITHER
 ONE OF THESE HI-TECH INSTRUMENTS,
 CHECK WITH YOUR LOCAL COMPUTER GURU
 FOR ADVICE: WE HAVE HEARD MANY
 WARNINGS AGAINST DOUBLING STANDARD
 DISKETTES DUE TO THE LACK OF DUST-
 WIPING PROVISIONS IN THE REVERSE
 DIRECTION. APPARENTLY THERE ARE
 SPECIALLY DESIGNED "FLIPPY" DISKS
 MADE WHICH CAN BE DOUBLED WITHOUT
 SURFACE DAMAGE. - THE EDITOR.

THINGS WE'D LIKE TO SEE...

- * MANUALS IN SPIRAL-RING, 3-RING, OR OTHER LOOSE BINDING THAT ALLOWS LAYING OPEN FLAT FOR HANDS-FREE REFERENCE: I SHEAR, THESE COMPANIES THAT PERFECT-BIND THEIR MANUALS HAVE EITHER NEVER USED THEIR OWN PRODUCT, OR ARE JUST SABOTIC TROUBLE-MAKERS. SOMEONE MUST TELL THESE MANIACS THAT IT TAKES TWO HANDS TO TYPE, AND TWO HANDS (OR TWO NAILS, OR TWO POTTED RUBBER TREE PLANTS) TO HOLD THEIR MANUALS OPEN.
- * PROGRAM LOADING INSTRUCTIONS ON THE DISKETTE LABEL: IF THESE PEOPLE ARE GOING TO TAKE THE TROUBLE TO PUT EXPENSIVE, ARTSY LABELS ON THEIR SYSTEM DISKS, WHY NOT PUT THE BARN LOADING SEQUENCE ON THE LABEL TOO? WHY SHOULD THE CONSUMER HAVE TO LOOK IN THE MANUAL ON PAGE 5 TO FIND OUT HOW TO LOAD THE PROGRAM??? WHILE I'M ON THE SUBJECT (AND JUST IN CASE ANY OF THESE GENIUS-TYPES ARE READING THIS) WHY NOT GO A STEP FURTHER AND PUT THE INSTRUCTIONS "UPSIDE DOWN" SO THAT YOU CAN READ THEM WHEN THE DISKETTE IS GOING INTO THE DRIVE? BETTER YET (NO, THIS IS TOO MUCH TO ASK) WHY NOT FOLLOW THE SIMPLE CONVENTION OF MAKING EVERY PEICE OF SOFTWARE LOAD WITH 'LOAD * , '8' ? EVEN IF IT'S A MACHINE LANGUAGE PROGRAM, THIS COULD STILL WORK BY LOADING A BOOT PROGRAM THAT WOULD LOAD THE MAIN PROGRAM. BUT NO-0-0-0-0, EVERY 5TH VENDOR WANTS YOU TO DO IT DIFFERENT (EVIDENTLY, SOME WANT YOU TO LOAD "PRODUCT NAME",8 SO YOU WON'T FORGET THE ELUSIVE NAME OF THEIR GREAT NEW GAME).
- * UNIFORMITY IN TERMINOLOGY: I HAVE SEEN ALL OF THE FOLLOWING USED FOR THE SAME THING IN VARIOUS MANUALS: 'NEW', 'FORMAT', 'HEADER', 'PREPARE', AND 'INITIALIZE' (WHICH IS JUST PLAIN WRONG). NO WONDER NEWCOMERS TO THE BRAVE NEW WORLD THROW UP THEIR HANDS IN FRUSTRATION.
- * USEFUL SOUNDS: WITH THE MULTI-TALENTED SID CHIP AT THE PROGRAMMERS' DISPOSAL, I WOULD LIKE TO SEE WELL-CONCEIVED SOUND EFFECTS USED TO AID IN APPLICATIONS SOFTWARE. FOR INSTANCE, WHY NOT USE TWO DISTINCT SOUNDS TO INDICATE THE 'ON' OR 'OFF' OF A TOGGLE (IE: TOGGLE-ON ALL-CAPS IN A WORDPROCESSOR GIVES A SHORT, ASCENDING CHIRP, WHILE TOGGLE-OFF GIVES A LOW, BASS 'BLAT'). THUS THE OPERATOR KNOWS (WITHOUT LOOKING) JUST WHAT HE/SHE HAS DONE. BETTER YET, USE EVEN A CRUDE SOFTWARE-SYNTHEZIZED SPOKEN WORD ('ON' AND 'OFF' SHOULD BE FAIRLY EASY FOR THE WIZARDS OUT THERE, ESPECIALLY IF COUPLED WITH HI AND LO PITCHES).
- * MORE BOOKS THAT DEAL WITH HOW TO DO NEAT THINGS WITH YOUR ALREADY-NEAT SOFTWARE.
- * I'M WAITING FOR THE SAME PERSON THAT INVENTED VELCRO TO INVENT A NIFTY INTEGRAL WRITE-PROTECT DEVICE THAT IS ALWAYS ON THE DISKETTE & ELIMINATES THE TAPE-TAB SYSTEM CURRENTLY EMPLOYED (MAYBE A SLIDING, ULTRA-THIN PLASTIC CLIP OR SOMETHING)... WHERE ARE ALL THE PRODUCT ENGINEERS THAT GRADUATED FROM COLLEGE IN THE LAST 10 YEARS? DON'T THEY KNOW THERE'S MONEY TO BE MADE ON THIS STUFF??
- * SPEAKING OF ENGINEERS, WHERE IS ALL THE ENGINEERING SOFTWARE? I ALWAYS THOUGHT THIS WOULD BE THE FIRST APPLICATIONS STUFF TO BE DONE, BUT I HAVE YET TO SEE A PROGRAM FOR THE 64 THAT HELPS YOU DESIGN AN 'I'-BEAM FOR OPTIMUM STRENGTH-TO-WEIGHT, OR CALCULATES THE STRESSES ON A TRUSS MEMBER, OR THE SHEAR-STRENGTH OF A RIVETED PLATE. I THINK THIS IS LONG OVERDUE.

IF THERE IS SOMETHING YOU'D LIKE TO SEE TO MAKE YOUR COMPUTING MORE PRODUCTIVE OR ENJOYABLE, SEND YOUR COMMENT TO:

INFO-PUBLICATIONS
 'THINGS WE'D LIKE TO SEE'
 ROUTE #2, BOX 198-E
 IOWA CITY, IA 52240

EXPANDO-VISION

by: **Ted Salamone**

We all know that self improvement is a worthy, but often difficult goal. Whether it's breaking a bad habit or shedding a few pounds, will power, perseverance, and self sacrifice are usually the minimum requirements to get the job done.

Being mere mortals we need help, either from a loved one (friend or relative), an institution or organization (like Weight Watchers), or a device (such as Stimutech's Expando-Vision). Expando-Vision provides help in the form of subliminal messages displayed on your TV.

As an interface between an ordinary television set and the Commodore 64 or Vic 20 personal computers, Expando-Vision permits users to alternate between computer only, TV only, or combination modes. The latter setting is the newest wrinkle in behavior modification. Imagine what B.F. Skinner could do with a machine like this!

Consisting of the Electronic Interface Device, a matching transformer, and coaxial cable with antenna adaptor, the unit works in conjunction with the computer, TV, and eight software packages (each sold separately).

Installation is quite simple, taking no more than a few minutes and requiring nothing but a screwdriver and common sense. Similar to a home computer's television hookup, the interface device can also be connected to a video cassette or videodisc system. All the hardware is included for cable or internal/external antenna hookups for either UHF or VHF broadcasts.

The software is designed to help with weight and stress control as well as career/success motivation and sexual confidence. Other topics include athletic confidence (golf, bowling, and an area of general reinforcement), study habits and memory enhancement, smoking control, and drinking control/responsibility.

The documentation, though skimpy, is adequate. Most of it concerns the installation procedure. Case in point, several well laid out diagrams make things even easier for those that aren't comfortable with anything more than driving a nail into a two by four.

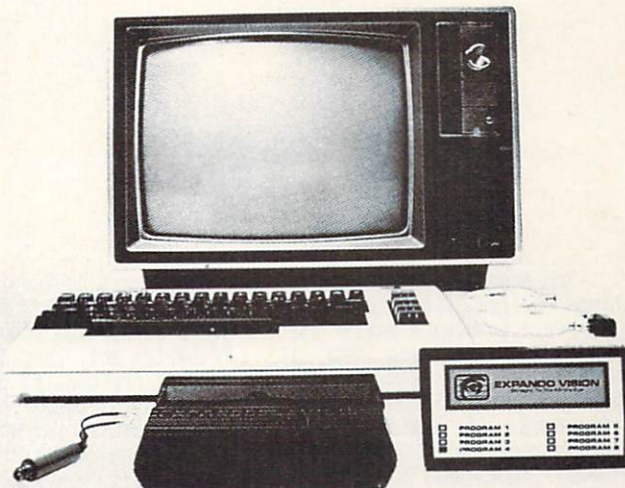
Since there are few control options available, learning how to use Expando-Vision is a snap. First, to ensure proper operation once connected, hitting the "D" key interrupts the TV show being broadcast and displays the complete message cycle in slow motion. Depressing "S" shows only the next subliminal prompt at a visible speed; while keying "R" restores the message bank to its starting point, permitting selection of an alternate reinforcer from the on-screen menu.

This main menu screen, which appears after the title page, offers the following options: message selection, the company address, and a preview of other programs. Choosing message select brings forth a submenu of specific "user friendly" routines.

Though the eight programs are designed to work in different areas, there is some overlap and duplication in the routines offered. For instance, positive thinking is included in Stress Control, Control Drinking, Control Smoking, and Study Habits. Self Confidence makes appearances in Athletic Confidence, Study Habits, and Control Drinking. There are other occurrences of this nature.

While this is not a fault, or even unethical, it highlights the fact that the eight "self help" program product line has been somewhat artificially inflated. No one can tell me that each routine takes anywhere near the 170K or so that can fit on a 1541 compatible floppy. At best, two or three disks could do the entire job, and that's being generous!

Of course each program is only for those seeking a particular type of aid, so (hopefully) no one will need all of them. (At that point, or well before it actually, anyone contemplating personal use of every program should see several doctors; preferably in as many disciplines as possible!).



So in the long run, this division of routines into so many offerings appears to be motivated more by the desire to create an air of specialization than greed.

Every title contains five routines. When invoked they display (subliminally or visually depending upon user selected preference) messages such as weight control's I see me thin, trim, or slender; I am secure, attractive, slim, acceptable, and comfortable. Every routine visually inspected during the testing had the fix-it-all "I am OK" as the final message.

Though scientifically designed and administered tests are needed to determine whether or not Expando-Vision actually works as claimed, the anticipation, or knowledge of its use can provide a reassuring and beneficial placebo effect. If you believe it can and does help, then it most likely will. Heaven knows faith and sugar pills have gone a long way before!

Though by far less expensive than professionally administered psychoanalysis, Expando-Vision is not cheap. The Electronic Interface Device retails for \$89.95 while each software package goes for \$39.95 (Commodore 64 disk).

The decision on whether or not to purchase this device and its supporting software is strictly a personal matter. Investigate first (this review should help in that respect), seek advice (professional or trustworthy), and then weigh all the factors.

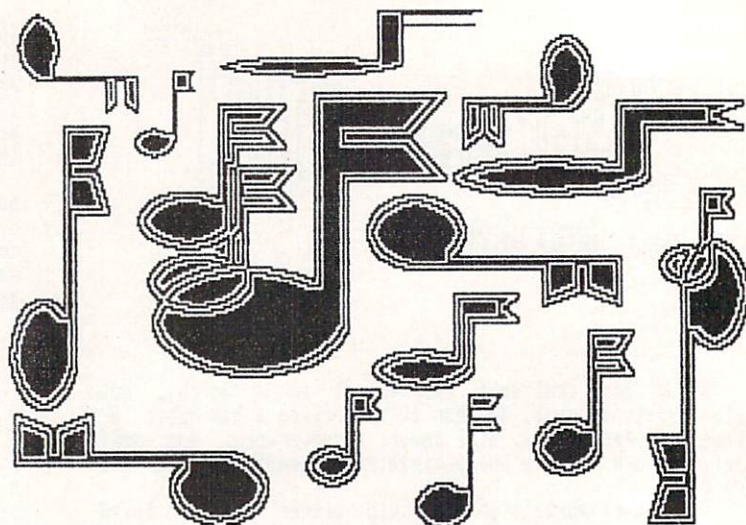
Editor's note: Stimutech declined to provide a sample product for INFO-64 to rate unless censorship control was given to them in exchange. Consequently, NO RATING is available.

EXPANDO-VISION
DISK / \$39.95
INTERFACE \$89.95

Stimutech Incorporated
3850 Research Park Drive
Ann Arbor, Michigan 48104
(313) 761-9027

SYNFL SOUNDS

BY: PEGGY HERRINGTON



You hear about them all the time now, these newfangled things called synthesizers. Everyone can tell the difference between a guitar and a trumpet but do you know a synthesizer when you hear it? Probably not, because synthesizers are sneaky; they're so good at reproducing the sounds of acoustic instruments you can't tell the difference. If mimicking existing instruments is what synthesizers are for (besides tossing in a few futuristic effects), then what's all the fuss about?

In case you don't already know, synthesizers are probably the most versatile, economical, productive and, yes, exciting musical instruments ever devised.

Music synthesizers are changing our entire musical landscape and, from amateur to professional, instrument manufacturer to recording studio engineer, composer to consumer, everyone is moving to the beat. You can't switch stations on your car radio, catch a concert or flop down in front of the TV at the end of a long day without hearing the sound of a synthesizer.

Digital technology, the driving idea behind the synthesizer, and automated music, the concept of making music without a player, have been around a lot longer than you might think. Automation dates back to the ancient Chinese who carefully constructed wind-chimes to play melodies and harmonies powered by wind patterns of the day. Then, nearly a thousand years ago, a group of Dutch engineers developed a bell chiming device they called a carillon, which was driven by a revolving wooden cylinder studded with thousands of holes (say "hello" to the binary zero). Wooden pegs (meet the binary one) were fitted into these holes. Turning this cylinder activated the bell-ringing mechanism. Different melodies and chords could be played by reorganizing the pegs (analogous to programming) and the music would play while the musician snoozed.

Reorganizing the pegs probably wasn't easy; playing any instrument well isn't like whistling Dixie. Peter Nero, well-known composer, conductor and pianist, and spokesperson for the 1984 Summer Consumer Electronics Show, uses a computer professionally - but not for making music. "A synthesizer is a musical instrument unto itself," said this master keyboard artist when I asked why his lifelong affair with electronics hadn't led to playing the synthesizer professionally. "You have to spend a lot of time developing technique on a synthesizer, just like any other instrument," he said. Bob Moog personally introduced him to synthesizers in the '70s and that was when Nero decided he had his hands full with the piano, not to mention composing and conducting. He uses a TRS-80 for business management and has written many of his own programs.

Peter Nero pointed out (and I can confirm it by my own comparatively limited experience) that computer programming and musical composition are a lot alike. Both are governed by strict parameters and, even more instrumental to the process, symbolic thinking. If you have some skill at one and an interest in the other, by all means check it out. Keep in mind that the Commodore 64 is a fantastic way to approach either.

The C-64 contains a bonafide music synthesizer, the Sound Interface Device, familiarly called "SID." It has three independent voices, each with a programmable 4-step sound envelope (ADSR), triangle, sawtooth, variable pulse or white noise waveforms, high-pass, low-pass, band-pass or notch reject filters, synchronization and ring modulation. Although they usually have more voices and some offer 6-step ADSR's, features identical to these can be found on many professional music synthesizers. The least expensive unit I've seen costs just about what my Commodore system did (including computer, color monitor, disk drive and letter quality printer). The synthesizer didn't have an amplifier or speakers, nor would it drive a printer, control a robot or play games with my kids.

Straight out of the box, a Commodore 64 will produce darned good sound. With only a couple of changes you can make music with it like a pro.

Music synthesizers produce tones in a number of ways. SID does it with voltage control oscillators (VCO's). The operation is digital up until a tone is sounded, when the VCO'S switch on and the process becomes analog. One way to spot an analog synthesizer is by waveform specification: with digital synthesizers, you have to design your own.

Electronic music in an entirely digital system takes the form of a changing voltage which is transmitted from a computer to a speaker in bit streams. These bit streams are measured in units called samples, which you can think of as tiny numerical slices of parameters. Sampling is a memory intensive process. In general, the more often you sample, the better quality sound you'll get. With VCO synthesizers (like many professional synthesizers and SID in the C-64) you don't have to fool with sampling. But the sample width, the number of bits used to represent each sample, is determined by the size of the processor in the unit, not the VCOs. Six decibels of signal-to-noise ratio are produced for each bit in a sample, so an 8-bit processor results in a signal-to-noise ratio of 48 decibels. This ratio produces an audible hiss and some harmonic distortion and I've heard it compared to the sound of a portable AM radio. Something like a 12-bit system is needed for audio as good as a decent stereo system, and 16-bit and larger processors are used professionally.

The Commodore 64 houses an 8-bit processor. Now before you intellectually shove SID on the shelf beside that portable radio, you should seriously consider routing SID's audio through your stereo (and filtering out that little hiss) or putting it through an amplifier with reverb. I think the sound system affects the quality of sound almost as much as the size of the processor.

The other thing you need is a piano-type keyboard. Until recently, one which accessed SID's voices on the C-64 couldn't be found. This situation has been rectified now by Melodian, Inc. and Waveform Corp., who've each designed unique software to incorporate professional music-making techniques on the C-64. See reviews in this issue. (Incidentally, I have it on good authority that the Commodore keyboard with additional SID chips will not be produced after all.)

Making music on a synthesizer with a musical keyboard and appropriate software is so much fun it's downright sinful. Let me give you an example. First we'll lay down the bass or rhythm track. Through software control we'll turn on the record feature and set the click track (a metronomic beat which won't sound when we playback) at a slow tempo. On the musical keyboard we'll pick out the bass line or the lowest harmonic line from sheet music - or compose our own if we wish - all the way through to the end of the piece. It will automatically be recorded. When we're finished, we can experiment with various instrument sounds for that voice. Then we'll switch to track two and record another voice on top of the bass line (with or without the click track), after which we can adjust the timbre again. Viola and violin? Bass drum and trumpet? Better yet, let's synthesize a sound that doesn't belong to another instrument. We can even try different sounds while the music is playing. We'll continue to lay down tracks and adjust voices until we've entered them all. We could enter more than one voice at a time although distinguishing instrumentation would be a problem. Then we'll pickup the overall tempo. Unlike changing speeds on a turntable, changing the speed on a synthesizer doesn't alter the pitch. For real-time performance, we'll reserve a voice, plug a microphone into the audio input and sing and play along with the tracks we laid down and edited earlier.

The Commodore 64 is capable of all this - and more - with the addition of a musical keyboard and software. Mastering a synthesizer, as Peter Nero said, is another matter altogether. Comparatively speaking, I've just demonstrated chopsticks on an upright piano.

Synthesizers are equipped with a multitude of features. Piano-type keyboards predominate but drum machines and a digital guitar are available too. Coordinating and controlling different brands of electronic music-makers with a computer like the Commodore is now being done through Musical Instrument Digital Interface (MIDI) hardware and software.

A system from CompuSonic will be available early next year which will translate anything audible into digital form directly from a microphone to a disk, for endless manipulation and playback. Initially, the home and studio units will both be compatible only with the IBM-PC but I'll bet the introduction of products like Auricle (specifically for the C-64) will convince CompuSonic of the errors of their way.

If you've got a Commodore 64 you already have a music synthesizer. All you need to participate fully in this sound revolution is to upgrade the audio and add a keyboard with software. Let me tell you from experience, it sure beats singing in the shower.



MIDI

Consider this... Users are clamoring for educational music software. You have the resources to produce it for several personal computers but you need one synthesizer that will interface with them all...

You're lead musician in a performing group. You like the sound of woodwinds on one brand of synthesizer but prefer the horns and strings on another. It's not easy to sing and control two keyboards, a piano and do vocals on-stage but if one keyboard could control the other...

You work in a recording studio and have to synchronize pre-recorded tracks between two synthesizers and a drum machine. Murphy's Law says they're different brands and each has its own timing system...

Dilemmas like these are being solved with an evolving industry-wide standard called Musical Instrument Digital Interface. MIDI involves hardware, software and communications protocol for co-ordinating and synchronizing electronic instruments with each other and (you guessed it!) personal computers. The C-64, and other computers, handle communications, timing and dynamic effects. The units communicate via two 5-pin DIN plugs (MIDI in and MIDI out) on each.

For more information, contact IMA, 8426 Vine Valley Drive, Sun Valley, CA 91352; (818) 767-0597.

AURICLE

Most of us don't even notice the split-second timing of music to dramatic action in movies and TV. The music just rides along with the hero on his horse. We would probably take note, though, if the climax sounded two beats before the horse reared and threw him. Film composers juggle three time systems to accomplish this: metronomic time, film speed and real time. "Auricle: The Film Composers Time Processor" was written specifically for the Commodore 64. It takes the drudgery out of producing a variable click track, the audible metronomic beat which musicians follow in the recording studio.

Freeing composers from the tyranny of thick conversion books and digital metronomes is an accomplishment in itself but that's not the only reason Auricle is coming to the attention of people like Commodore Business Machines. It's the way it's done.

Auricle is built upon an operating system that can be personalized to accept any language. The two main screens show recognized commands and vocabulary. The Auricle itself (a little movable input box equated to an ear) will accept any command - including those previously redefined - at any time within the program. Neat, huh? But you might think twice before you get it just to play with: it retails for \$500.

For more info contact: Richard Grant, 3828 Woodcliff Rd., Sherman Oaks, CA 91403





THE HYPNOTIST

by: Ted Salamone

Numerous flicks pumped out by Tinseltown have made most of us leery about hypnosis, auto-suggestion, or anything remotely concerned with "mesmerism" or "animal magnetism".

In actuality, the latter two are widely publicized misnomers; a little part of scientific folklore connected to an eccentric 18th century Parisian doctor named Anton Mesmer.

As for hypnosis, it's been a useful tool since long before Dr. James Braid named it after the Greek god of sleep (Hypnos) in 1841. Though some of the earliest surviving records point to the use of hypnotic influences in ancient Egypt, mankind probably wielded its subtle powers much earlier.

Currently, trained hypnotists use the power of suggestion to benefit mankind. People seek this type of treatment to lose weight, stop smoking or drinking, or break other bad habits which have resisted other, more "traditional" remedies and cures.

It is possible for a willing subject to undergo this therapy successfully. A case in point: an acquaintance of mine had been unable to stop smoking; over the years his dependence increased to the point where he was smoking about two packs of cigarettes a day.

Stop smoking classes, sheer willpower (cold turkey), the nagging concern of loved ones, and even nicotine reducing filters were of no avail.

In desperation he turned to hypnotism. Though clearly wanting to break the habit, he had reservations about the validity and usefulness of something he felt had more in common with the occult than with modern medicine.

In spite, or maybe because of his skepticism, three separate sessions did the trick. He hasn't smoked in several years!

Now, instead of trekking to an office for hypnotherapy it is possible, if you own a Commodore 64 with a disk drive or Datasette, to use Psycom Software International's The Hypnotist for similar purposes.

In conjunction with their pulse monitoring biofeedback device, this program delves into the realms of the subconscious. Individual routines include habit modification, biofeedback, regression (including progression), and superlearning.

You are guided on these forays by Kurian, a video rendition of an ancient, accommodating Egyptian priest with very influential looking eyes.

Upon startup he asks (displayed text with moving lips!) which program you would like to run. In order to properly use The Hypnotist, the biofeedback segment must be selected initially, and the biofeedback monitor must be placed over the tip of the little finger. (If you have thin digits like my wife the elastic strap will not secure the sensor, another finger must be used.) This determines a target pulse rate for each individual.

Next, answer Kurian's query about target pulse rate. A reply of 99 is recommended so first timers can observe their actual range without difficulty.

From there it's a matter of selecting lower and lower targets until the pulse can be reduced no more.

To help reduce the rate, progressive relaxation techniques are listed in the comprehensive, somewhat informal manual. Letting the tension fall or drain away from your body sections one at a time is the prescribed method for accomplishing this feat. Simultaneous reduction of mental stress, also important, is done through controlled breathing. Don't worry! Doing yoga, standing on your head, or chanting mantras aren't necessary.

So prepared, selection of habit modification enters one into a routine where stimuli (specific words) are paired with habit names for reinforcement, alteration, or eradication.

Accompanied by "restful" music, a picture is displayed depicting an ancient Egyptian woman facing a seated animal-headed, human-bodied god. Focusing on a specific area (participant's choice) is meant to make you susceptible to trance induction. The disk drive whirrs constantly, providing a distraction that's hard to ignore, but not impossible.

After a long or short session (user selectable) with the art and audio, a purple pendulum appears on-screen.

Swinging to a metronome-like beat, this luminescent bauble suspended on a white string induces the trance. In a second phase it pulsates wildly across the screen, appearing in two areas only.

Next the word pairs flash on-screen. Random association of the habit name(s) with Kurian's or the computerist's eight inputted words ensures a balanced attack.

Kurian's negative associations are etymological masterpieces such as scab, puke, and urine. They really are a turn off. Effective? No doubt about it!

The other portions run similarly. A quick look at pulse rate, some time spent with the same picture and music; then on to the pendulum.

Regression is the oddest selection. Beyond the threads of commonality it departs radically. While Kurian "speaks" of associations and remembrances related to the year selected for recall, a Memory Fragments piece plays across the screen. Unique each time, it's basically a patternless depiction of white lines (doodles) and geometric shapes meant to aid the recall process. Offbeat to say the least.

In Superlearning, files provided by computerist or computer are displayed on-screen for educational purposes. These video flash cards can be sent to a printer, or selected words can be replaced by dashes for memory enhancement and other beneficial purposes.

Though The Hypnotist appears to have helped me with a particular problem (deadline associated stress), Psycom does not guarantee that it will get any monkeys off your back.

Without proper scientific equipment and procedures it is impossible to be certain the program actually can induce hypnosis.

What I do know is that the wake up call after trance induction does work. I feel as if I'm being brought out of an altered state. No, not like the one Paddy Chayefsky wrote about. Not even the zombie representations from Hollywood's B movies. More like waking from a light sleep.

The monitored pulse, stress reduction segment really works. Because of it my pulse is lower, and I'm calmer than I've been in a long time. Even with so much to do!

Though there are other apparently useful sections, it is on this one alone that I recommend The Hypnotist.

THE HYPNOTIST
DISK / \$87.95

Psycom Software International
2118 Forest Lake Drive
Cincinnati, Ohio 45244
(513) 474-2188

PERSONALITY ANALYZER

by: Ted Salanone



Having Psycom International's Personality Analyzer (for the Commodore 64) around is like having a live-in psychologist. This self improvement program is a computerized rendition of the teachings and postulations of the late Swiss psychologist, Carl Gustav Jung.

As such it delves into the thinking, feeling, sensing, and intuitive aspects of the mind's inner workings in combination with the personality traits which (in summation) label people as either introverts or extroverts. The need to judge (closure) and perceive is also taken into consideration, as follows from Jung's, Keirsey's, and other's works.

The program evaluates, analyzes, and reports on responses subjects make to the tri-level, multi-question (22, 44, or 88 queries per set) survey it performs. As with most things in life, the return (the quality of the analysis in this case) depends upon the investment (answering 88 questions provides more detail than the other levels are capable of).

The questions themselves are grouped into a series of similar, analogous themes posed with different syntax and slight variations in meaning. After answering each collection of queries the computer cross tabulates the results; thereby producing an incredibly accurate outline of the participant.

Sample questions run the gamut from "Do you prefer the historic or current, the organized or incidental, the concrete or abstract?", to "Do you prefer to evaluate or analyze?" and "Are you more governed by whim or habit, or intuition or experience?"

By developing a subtle pattern of intricacies and gradations the program forces users to open up, to divulge the information needed for an informative personality readout.

This delicately intertwined structure is possible because the Personality Analyzer accepts two dimensional weighted, or bipolar responses to questions. Though such a situation can occur with practically any of the queries, one example should suffice.

In response to the interrogatory remark, "Are you more reserved or approachable", someone might legitimately consider several different scenarios where either answer would be correct. Instead of forcing a black and white answer to an unmistakably grey question, respondents can (via a joystick), split the reply proportionally along both lines.

This feat is accomplished easily because each question appears on-screen with a histogram, the left and right sides of which are labelled according to the choices offered. The levels of commitment, which range from zero to seven, provide sufficient latitude for an accurate portrayal of your feelings, attitudes, and beliefs.

Moving the joystick right or left positions a selector arrow above a portion of the histogram. Depressing the firebutton enters the reply into the file.

By pulling the controller backwards it is possible to split the selector for placement on both sides of the chart. Once set, activating the firebutton enters the Janus-faced decision.

Participants are permitted to skip a query or return to the prior question for a change of heart. Both options are also joystick manipulative; hitting the fire button with the selector at zero brings up the next query, pushing the stick away from you recalls the prior one. The latter function erases the original input, clearing the way for the new entry.

Weighted responses have an audio feedback feature which lets respondents know just where the selector is on the scale. This helps in keeping one's mind on the matter at hand.

Psycom Software does have a disclaimer stating that the Personality Analyzer is an entertainment package not meant as a substitute for professional treatment. Though true, this does not diminish the value of any insights which can be gained from it.

Once completed the survey results are tabulated and presented on-screen. Output to a printer is possible through a user selectable option.

The first part of the readout lists a personality type and assigns numerical values to various categories such as extrovertive, intuition, thinking, and judging, as well as their antitheses, introvertive, sensation, feeling, and perceiving. The categories with the highest values become part of your personality type diagnosis.

The report continues with a classification of the respondent's general personality type, e.g., scientist or journalist.

Next comes a collection of the attributes and characteristics typical of the general personality type the participant has been categorized under. Possible occupations and behavior as a mate are briefly depicted. A topic, idea, or item valued above all else (privacy or independence for example), and potential trouble spots (stubbornness, lack of emotional understanding, procrastination) are also mentioned.

As with similar, non-professional analyses of this nature (even more so for the less substantive and highly questionable practices of astrology, phrenology, and tarot card reading), caution and prudent judgement should be used when interpreting the data created.

The Personality Analyzer is at its best when honest answers are provided to the full bank of 88 questions. It is particularly enlightening and entertaining at a party or small gathering. Parts of the readout are on the money, others appear to be off the mark. Naturally this can be expected, for the need to work within a framework broad enough to include most of the populace will result in some ambiguities and errors as applied to each specific case.

PA is a unique, thought provoking program useful for semi-serious as well as lighthearted applications. Since personal computers are all about learning, the Personality Analyzer fits right in. Instead of hardware or programming, you'll learn about human nature. That alone is worth the investment.

PERSONALITY ANALYZER
DISK / \$32.95

Psycom Software International
2118 Forest Lake Drive
Cincinnati, Ohio 45244
(513) 474-2188

COMAL

by: Mark R. Brown

PROGRAMMING LANGUAGES ARE LIKE CARS: SOME ARE FAST, SOME ARE EFFICIENT, SOME ARE FLASHY AND LOADED WITH FEATURES, AND SOME ARE COMPACT AND ECONOMICAL. AND, NO MATTER WHICH ONE YOU HAVE, YOU ALWAYS SEEM TO BE SHOPPING FOR ONE THAT'S BETTER. WELL, I CAN'T HELP YOU FIND A BETTER CAR, BUT I CAN RECOMMEND A BETTER, FASTER, AND CHEAPER PROGRAMMING LANGUAGE. IT'S A FLASHY LITTLE EUROPEAN IMPORT CALLED COMAL.

YOU MAY NOT HAVE EVER HEARD OF COMAL, BUT IT IS A WELL-ESTABLISHED LANGUAGE WITH A TEN-YEAR HISTORY. (THE NAME IS UNFORTUNATE; PEOPLE OFTEN DISMISS IT OUT OF HAND BECAUSE THEY CONFUSE IT WITH THE BUSINESS LANGUAGE COBOL.) COMAL IS VERY POPULAR IN EUROPE, AND IS THE OFFICIAL LANGUAGE TAUGHT IN THE SCHOOLS OF SEVERAL EUROPEAN COUNTRIES. IT IS ALSO GAINING A FOLLOWING HERE AMONG BOTH EDUCATORS AND HOBBYISTS. VERSIONS OF COMAL ARE NOW AVAILABLE FOR ALL COMMODORE COMPUTERS EXCEPT THE VIC-20, THE APPLE WITH Z-80 CARD, AND SOME EUROPEAN MACHINES. AN IBM PC/PC JUNIOR VERSION IS ALSO IN THE WORKS, AND WHEN THIS BECOMES AVAILABLE IT IS SURE TO GIVE A GREAT BOOST TO THE COMAL "MOVEMENT".

"...the cost is about as reasonable as you can get: it's free."

WHY ALL THE ENTHUSIASM? BECAUSE COMAL IS A COMPOSITE OF THE BEST FEATURES OF THE MOST POPULAR PROGRAMMING LANGUAGES. IT COMBINES THE FAMILIARITY OF BASIC COMMANDS WITH THE STRUCTURED PROGRAMMING ENVIRONMENT OF PASCAL AND, IN THE COMMODORE 64 VERSION, THE TURTLE GRAPHICS OF LOGO. IT ALSO INCORPORATES A "THREE-PASS RUN-TIME COMPILER" THAT MAKES COMAL AN AVERAGE OF THREE TIMES FASTER THAN BASIC. AND THE COST IS ABOUT AS REASONABLE AS YOU CAN GET: IT'S FREE. IF YOU CAN FIND COMAL AT SCHOOL OR IN YOUR LOCAL USERS GROUP, YOU CAN MAKE A COPY FOR YOUR OWN USE. IF YOU CAN'T FIND IT, YOU CAN GET A COPY WITH DEMO PROGRAMS FOR \$19.95 +\$2.00 SHIPPING FROM THE COMAL USERS GROUP, USA, LTD.

THE CURRENT VERSION OF COMAL FOR THE COMMODORE 64 IS COMAL 0.14. IT IS DISK-LOADED AND COMES WITH DEMO PROGRAMS AND HELP FILES. THE HELP FILES CONTAIN LISTS OF COMAL KEYWORDS, WITH EXAMPLES OF PROPER SYNTAX; THE DEMO PROGRAMS WILL SHOW YOU HOW TO USE COMAL COMMANDS AND TURTLE GRAPHICS. A SINGLE-DRIVE DISK-COPY UTILITY IS INCLUDED TO HELP YOU MAKE BACKUP COPIES FOR YOURSELF AND COPIES TO GIVE TO YOUR FRIENDS!

IF YOU ARE MAKING THE TRANSITION FROM BASIC, MANY OF COMAL'S KEYWORDS WILL BE FAMILIAR TO YOU: LOAD, LIST, RUN, NEW, PRINT, AND SO ON. AT LEAST HALF OF COMAL'S COMMANDS LOOK AND ACT EXACTLY THE SAME AS THEIR BASIC COUNTERPARTS. SEVERAL MORE ARE ALMOST IDENTICAL, SUCH AS COMAL'S "CON" VERSUS BASIC'S "CONT" FOR THE CONTINUE COMMAND. A FEW OTHERS WILL TAKE A LITTLE GETTING USED TO. FOR EXAMPLE, COMAL'S "GOTO" COMMAND DOES THE SAME THING AS BASIC'S, BUT REFERENCES A LABELED LINE INSTEAD OF A LINE NUMBER.

THOSE WHO ARE CURRENTLY PROGRAMMING IN PASCAL WILL ALSO FIND FAMILIAR FEATURES IN COMAL. IT SUPPORTS SUCH POWERFUL STRUCTURED PROGRAMMING FEATURES AS IF-THEN-ELIF-ELSE AND CASE-OF-WHEN-OTHERWISE CONDITIONALS. (BASIC PROGRAMMERS: IF THESE AREN'T FAMILIAR TO YOU, DON'T WORRY. THE FIRST IS JUST A POWERFUL MULTIPLE-CHOICE IF-THEN STATEMENT, AND THE SECOND IS A VASTLY IMPROVED VERSION OF "ON X GOTO".) COMAL ALSO USES NAMED PROCEDURES AND FUNCTIONS RATHER THAN BASIC'S MORE CUMBERSOME SUBROUTINES. FUNCTIONS AND PROCEDURES MAY BE OPTIONALLY DECLARED CLOSED, SO THAT ALL VARIABLES BECOME LOCAL VARIABLES. THIS ALLOWS YOU TO USE THE SAME VARIABLE NAMES IN PROCEDURES AND FUNCTIONS AS ARE USED IN THE MAIN PROGRAM WITHOUT PERMANENTLY AFFECTING THEIR VALUES.

COMAL'S TURTLE GRAPHICS ARE THE BEST AVAILABLE ANYWHERE. THE COMMANDS ARE VIRTUALLY IDENTICAL TO COMMODORE LOGO, BUT THE TURTLE IS FASTER. BESIDES THE TURTLE, THERE ARE ALSO POINT-PLOT GRAPHICS COMMANDS WHICH ALLOW YOU TO PLOT USING X-Y COORDINATE GRAPHICS (THIS INCLUDES FILL, THE MOST USEFUL AND NEGLECTED OF ALL GRAPHICS COMMANDS!) SPRITES CAN BE EASILY DEFINED AND MANIPULATED, TOO. IN ALL, THERE ARE OVER 50 GRAPHICS COMMANDS.

"COMAL's turtle graphics are the best available anywhere...there are over 50 graphics commands."

DISK I/O, PRINT FORMATTING, AND KEYBOARD INPUT ARE ALL IMPROVED OVER BASIC, WITH ADDITIONAL KEYWORDS TO SIMPLY DO MANY THINGS THAT WERE IMPOSSIBLE OR REQUIRED MACHINE CODE LINKS TO DO FROM BASIC. HOWEVER, IF YOU FEEL THE NEED TO LINK INTO MACHINE LANGUAGE, THE FAMILIAR PEEK, POKE, AND SYS ARE STILL AVAILABLE.

THE MANUAL FOR THIS LANGUAGE IS THE "COMAL HANDBOOK" BY LEN LINDSAY. AVAILABLE SEPERATELY FOR \$18.95 + \$2.00 SHIPPING. YOU NEED THE HANDBOOK TO BE ABLE TO USE COMAL EFFECTIVELY. IT EXPLAINS THE PROPER SYNTAX FOR COMMANDS AND HOW THEY WORK, AND GIVES CLEAR EXAMPLES OF HOW TO USE THEM. THE BOOK IS WELL-ORGANIZED AND CLEAR (IT'S GENERALLY REGARDED AS ONE OF THE BEST REFERENCE BOOKS AROUND FOR ANY PROGRAMMING LANGUAGE, PERIOD) AND IS THE PERFECT REFERENCE TOOL FOR THOSE WHO ARE ALREADY PROGRAMMING. SINCE THE MANUAL IS INTENDED TO DOCUMENT ALL OF THE COMMODORE VERSIONS OF COMAL, AND THE TURTLE GRAPHICS EXTENSIONS ARE UNIQUE TO THE COMMODORE 64 IMPLEMENTATION, THEY ARE NOT DOCUMENTED IN THE COMAL HANDBOOK. A GRAPHICS MANUAL IS PROMISED FOR LATER THIS YEAR; UNTIL THEN, YOU WILL HAVE TO FIGURE OUT THE GRAPHICS WITH THE AID OF THE DISK HELP FILES. A GOOD LOGO BOOK MIGHT HELP, TOO, SINCE THE TURTLE GRAPHICS ARE ALMOST IDENTICAL TO LOGO'S. IF YOU ARE A PROGRAMMING NOVICE, OTHER INSTRUCTIONAL BOOKS ARE AVAILABLE, SUCH AS "BEGINNING COMAL" BY BORGE CHRISTENSEN, THE ORIGINATOR OF THE LANGUAGE. A COMPANION DISK IS ALSO AVAILABLE FOR EACH BOOK AT ADDITIONAL COST.

THE EDITOR IS ONE OF THE BEST FEATURES OF COMAL. BESIDES SUPPORTING THE C64'S BUILT-IN FULL SCREEN EDITOR, THE COMAL EDITOR FEATURES AUTOMATIC LINE NUMBERING AND RENUMBERING AND CHECKS SYNTAX AS YOU ENTER YOUR PROGRAM. IF YOU MAKE AN ERROR, YOU ARE TOLD WHAT THE ERROR IS AND THE CURSOR IS PLACED AT THE POINT IN THE LINE WHERE THE ERROR OCCURS. WHEN YOU HAVE TYPED IN THE CORRECTION, THE ERROR MESSAGE DISAPPEARS FROM THE SCREEN, REPLACING ANY TEXT THAT IT MAY HAVE OVERWRITTEN. WHILE IT IS STILL POSSIBLE TO MAKE LOGICAL PROGRAMMING ERRORS IN COMAL, THE EDITOR MAKES IT IMPOSSIBLE TO END UP WITH ANY SYNTAX ERRORS.

COMAL PROGRAM LISTINGS ARE UNIQUE, TOO. THEY RESEMBLE PASCAL "PRETTY" LISTINGS, WITH AUTOMATIC INDENTATION OF PROGRAM STRUCTURES AND LOOPS. LINE NUMBERS ARE RETAINED FOR EASE OF EDITING, EVEN THOUGH THEY ARE NOT USED BY THE PROGRAM ITSELF. THIS POWERFUL EDITOR MAKES COMAL THE MOST USER-FRIENDLY LANGUAGE AROUND.

```

0010 // pretty listing demo
0020 repeat
0030   b:=0
0040   while b<3 do
0050     b:=b+1
0060     for x:=0 to 6 do
0070       case x of
0080         when 0,2,4,6
0090           if x=0 then
0100             print "x = 0"
0110           else
0120             print "x is even"
0130           endif
0140         when 1,3,5
0150           if x=1 then
0160             print "x = 1"
0170           else
0180             print "x is odd"
0190           endif
0200         endcase
0210       endfor x
0220     endwhile
0230   until rnd(0,5)=false

```

LIKE BASIC, COMAL IS AN INTERACTIVE LANGUAGE. THIS MEANS THAT YOU CAN "TRY OUT" YOUR CODE AS YOU GO BY RUNNING ALL OR PART OF THE PROGRAM. THIS ABILITY IS TAKEN FOR GRANTED BY MOST BASIC PROGRAMMERS, BUT TO ANYONE WHO USES A LANGUAGE LIKE PASCAL, WHICH REQUIRES A SEPERATE EDITOR AND COMPILER, IT CAN SAVE MANY HOURS OF SWAPPING FILES DURING THE DEBUGGING PROCESS.

COMAL IS AN EXCELLENT LANGUAGE, BUT NOTHING IS PERFECT. A FEW FAMILIAR KEYWORDS ARE MISSING, SUCH AS CLR, WAIT, TI\$, AND STR\$. IN MOST CASES, IT IS POSSIBLE, HOWEVER, TO DEFINE A PROCEDURE OR FUNCTION TO TAKE THEIR PLACE. THERE ARE ALSO NO SOUND COMMANDS, AN OMISSION SHARED WITH MOST OF THE LANGUAGES NOW AVAILABLE FOR THE COMMODORE 64; IT'S A SHAME THAT THE SID CHIP IS SO OFTEN OVERLOOKED. THE ONLY REALLY SERIOUS DRAWBACK TO DISK-LOADED COMAL VERSION 0.14 IS THAT IT LEAVES YOU WITH ONLY ABOUT 10K OF AVAILABLE

MEMORY. (THERE IS ADDITIONAL SPACE RESERVED FOR THE 8K HI-RES SCREEN, SO HI-RES GRAPHICS WILL NOT EAT UP PART OF YOUR PROGRAM MEMORY.) EVEN WITH THE MEMORY-SAVING STRUCTURED PROGRAMMING ENVIRONMENT OF COMAL, THIS WILL PROBABLY LIMIT YOU TO GAME AND HOME APPLICATIONS.

"COMAL...is the official language taught in the schools of several European countries."

ON THE PLUS SIDE, THE DISK VERSION OF COMAL IS COPYABLE AND FREE. THIS MAKES IT PERFECT FOR SCHOOL SYSTEMS WHICH WISH TO TEACH GOOD PROGRAMMING SKILLS, AND FOR USERS'S GROUPS AND INDIVIDUALS WHO WANT A LANGUAGE FOR THEIR PERSONAL APPLICATIONS THAT IS POWERFUL, FRIENDLY, AND INEXPENSIVE. BUT WHAT ABOUT THE PROFESSIONALS WHO NEED MORE MEMORY FOR COMPLEX APPLICATIONS? WELL, FOR NOW IT IS POSSIBLE TO CHAIN PROGRAMS TOGETHER AND SHARE DATA FILES, A LESS THAN PERFECT SOLUTION BUT ONE THAT WORKS. AND LATER THIS YEAR, A CARTRIDGE CONTAINING THE EVEN MORE POWERFUL VERSION 2.00 COMAL IS PROMISED FROM NONE OTHER THAN COMMODORE ITSELF, AND IT WILL OVERCOME ALL OF THE NEGATIVES I'VE MENTIONED. VERSION 2.00 WILL LEAVE ABOUT 30K OF AVAILABLE MEMORY, AND WILL INCLUDE SOUND COMMANDS, ADVANCED LOOP STRUCTURES, STR\$, TIME, EXTERNAL PROCEDURES, AND MUCH MORE, AND SHOULD RETAIL FOR UNDER \$100. THIS MAKES IT A BETTER FEATURES-PER-DOLLAR BARGAIN THAN ANY OTHER LANGUAGE CURRENTLY AVAILABLE FOR THE COMMODORE 64. THE ARGUMENT, THEREFORE, IS TO GET DISK-LOADED COMAL VERSION 0.14 NOW AND LEARN TO USE IT, AND THEN ADVANCE TO THE CARTRIDGE VERSION WHEN IT BECOMES AVAILABLE IF YOU NEED THE ADDITIONAL PROGRAMMING POWER. I BELIEVE THAT THOSE WHO JOIN THE 50,000 PEOPLE ALREADY PROGRAMMING IN COMAL MAY WELL PROVE TO BE THE PIONEERS OF THE STANDARD PROGRAMMING LANGUAGE OF THE NEXT DECADE.

SUPPORT FOR COMAL HERE IN THE U.S. COMES FROM THE COMAL USERS GROUP, WHICH IS CAPTAINED BY LEN LINDSAY, THE FATHER OF COMPUTE! MAGAZINE. THEY CAN SUPPLY COMAL INFORMATION, BOOKS, AND DISKS, AS WELL AS THE LANGUAGE ITSELF. CONTACT:

COMAL USERS GROUP USA LIMITED
5501 GROVELAND TERRACE
MADISON, WI 53716

OmniWriter OmniSpell

BY: Don Vandeventer

Have you ever wanted something so bad you just couldn't see straight? I wanted a computer that bad. I must have looked at over twenty different models, but I just couldn't afford 2 or 3 thousand dollars for one! I never bothered looking at the Commodore 64. After all, how good could it be if they sold them at K-Mart? Right?

Then, in January of this year, after watching a salesman demonstrate OmniWriter by HesWare on the Commodore 64, I was sold. By the end of the week I was the proud owner of a new Commodore 64, disk drive, printer and the OmniWriter word processing program. To my surprise, I even had change back from my "thousand dollar bill".

Today I have two complete systems, and, although I've tried more than a dozen other word processing programs, I keep going back to OmniWriter. I've used it to write two books, edit another, and start a third. Many articles, day-to-day correspondence, and over 200 form letters at one time have been prepared on it.

The program is easy to use and it has most of the features that you expect to find in a truly professional word processing program. In most cases, the manual is easy to follow. Best of all, instead of taking a week or more to learn, OmniWriter can be learned in a few hours.

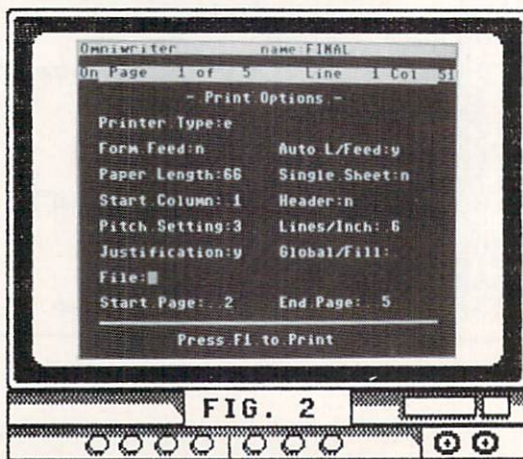
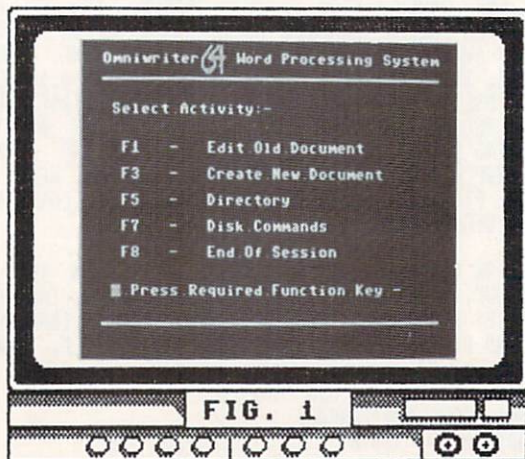
A separate "quick reference card" lists the main commands. Each command on the card is followed by the section number of the manual where the command is explained. There are 20 editing commands activated by the CBM key and 14 commands activated by the CTRL key for formatting your text. Eight function key commands are used for moving through the text and for inserting or deleting text.

In addition to these, there are features that are often found only in programs costing much more:

- Full cursor control
permits writing and editing in the same mode.
- Word wrap
drops the word to the next line instead of breaking the word if it is too long.
- Varied margins
permits the widths of your margins to be changed within the text.
- Justified margins
is a feature that prints both left and right edges of a column of text in a straight line. Text can also be printed with a ragged right margin like a typewriter.
- Unlimited tab stops and/or numerical tab stops
permits as many tab stops as you have columns. Tab stops work just like a typewriter. Numerical tabs automatically line up the column with the decimal point or last digit.
- Line spacing from 1 to 9 blank lines
can be set for the entire text or varied within the text if desired.
- Automatic pagination
will print the page number at either the top or bottom of your text.
- Document linking
allows you to print a continuous document that can fill the entire disk.
- Printer pause
permits use of either single sheet or fanfold paper.
- Special printing codes
can be added for printers that print italics, or other special type forms.
- Document merge
word processing files can be merged using OmniWriter. The program will also load some sequential files as a document for editing and use in a text.
- Merging
for printing form letters.
- Editing
is easy and fast. Text may be moved, copied, or deleted in any size block. Text may also be inserted in any amount at any place you choose.

After loading OmniWriter you see the first of three menus (fig. 1). From this main menu you may access saved documents, create a new document, view the disk directory, format a new disk, or scratch a document from a disk.

The print menu (fig. 2) is another example of how easy OmniWriter is to use. The manual includes an entire chapter to help with document printing, but after a few times you will probably not need to refer to it.



The third menu appears when you load OmniSpell (fig. 3). OmniSpell is one of the main reasons that I bought the program. It not only checks your spelling against a 30,000 word dictionary but also compiles an alphabetical word list, a high usage word list, and counts the number of words in the text. As an added bonus, you may add an additional 20,000 words of your own making it one of the largest dictionaries available for the Commodore 64.

After OmniSpell checks the spelling, the unrecognized words are highlighted. You have the choice of accepting the word as is, correcting it, and/or adding the word to the dictionary.

To my surprise, my own spelling has improved since I started using OmniSpell. At times I even make a game of spell checking trying to have as few misspelled words as possible. (Now if only my 13 year old son would play!)

Although the text displayed is only 40 columns wide by 21 lines, OmniWriter provides a work space 240 columns wide (fig. 4). The text scrolls horizontally as you work. To avoid scrolling, there is a margin override to bring the text into 40 columns. Remember to turn off the margin override before printing or you will print only 40 spaces wide.

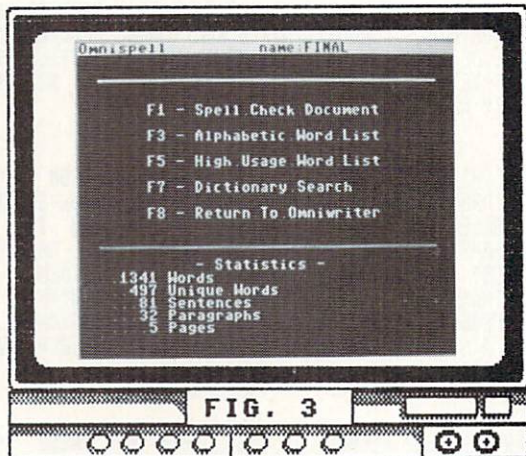


FIG. 3

Another great feature is the "work page". Information on the work page will not be printed out unless you use the merge command. This allows you to write notes concerning the document. The work page is also used if you wish to do a mail merge. First the names, addresses, and any other information to be merged are typed on the work page. Then your letter is typed in the main text area. When printing, the information from the work page can be merged into the text for form letters. I have used this to create a form letter for 200 companies yet each letter was addressed to the right person, department, and company.

A few data base programs on the market can be merged with OmniWriter making the job of form letters easier. The best I have found is Superbase 64 by Precision. The Multiplan spreadsheet by HesWare can also be merged, increasing its usefulness for small businesses.

While maximum document length is 34,000 characters, about 6,000 words, you may link more than one document together. As a full disk will hold 170K, you could, as I have done, link an entire disk with each page numbered in order.

Is OmniWriter the perfect program? No! It has some faults that at times make me want to find the programmer and #!%&! The first of these faults is that OmniWriter does not allow you to set the top and bottom margins so that they will be automatically adjusted for every page. You must enter the "end of page" markers for each page. Although I prefer this to the programs that will not permit forced page ends, setting 200 pages for a book takes time.

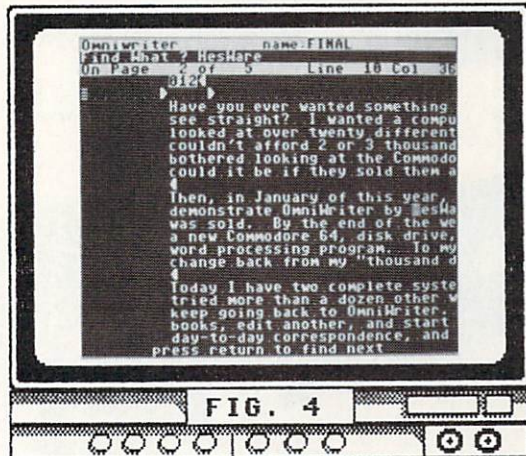


FIG. 4

The second fault is a bug in the program. Suppose you have saved a document called "article 1" and then want to change the name to "article 2" and save it. Later, when you try to call up "article 2" you will get "article 1". Your saved "article 2" is lost forever. There is a way around this. Just call the second document "2 article".

I have learned to live with these small problems because I have found OmniWriter to be an easy program to use and very versatile. With as much writing as I do, this means a lot. I haven't seen anything that can compare, and as it costs only \$69.95, it's a real bargain.

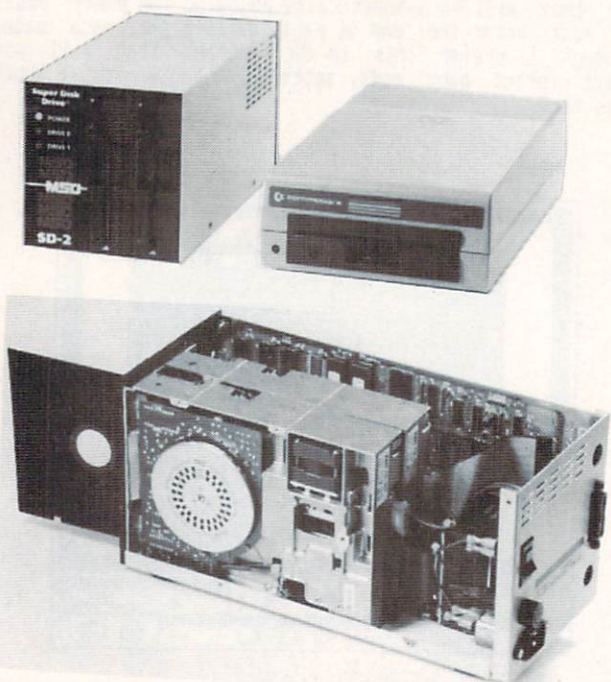
OmniWriter & OmniSpell
DISK / \$69.95

Human Engineered Software
150 N. Hill Drive
Brisbane, CA. 94005
(800) 227-6703

Don Vandeventer is the author of several books for home businesses. His newest, THE SMALL BUSINESS GUIDE TO THE COMMODORE 64, is an in depth review of hardware, business software and income opportunities for the home based business. It is available from Work At Home Press, P.O. Box 5520, Dept. I, Ocala, FL 32678.

Editor's note: We agree with the reviewer's assessment of OmniWriter's quality AND we have some #!%&'s of our own. A few minor oversights in the documentation can lead to difficulties for beginners. The assistance of a users' group or an experienced OmniWriter user would be helpful for newcomers. Consult the product roundup section for brief reviews and ratings of other wordprocessors.

MSD SD-2 SUPER DISK DRIVE



THE MSD DUAL DRIVE IS A WELCOME PRODUCT TO THOSE 64 OWNERS WHO NEED GREATER STORAGE, SPEED, & RELIABILITY IN THEIR COMPUTER APPLICATIONS. \$695.00 ISN'T PEANUTS, BUT THIS UNIT CAN PAY FOR ITSELF IF YOU HAVE INTENSIVE BUSINESS APPLICATIONS AND LARGE DATABASES, ETC. (LOOKING BACK, I DON'T KNOW HOW WE EVER GOT ALONG WITHOUT ONE!)

THE FIRST THING YOU'LL NOTICE UPON TAKING THIS ITEM OUT OF THE PACKING BOX, IS HOW HEAVY IT IS. HEFTING THIS DRIVE, YOU HAVE THE DISTINCT FEELING THAT IT'S NOT GOING TO FALL APART (AND OURS HASN'T EVEN MADE AN UNTOWARD NOISE THRU 5 MONTHS OF 12 HR. DAYS).

THERE ARE SOME NOISES, HOWEVER; THEY ARE THE SECOND THING YOU'LL NOTICE (I JUMPED FOR THE POWER SWITCH THE FIRST TIME BECAUSE I THOUGHT IT WAS DAMAGING ITSELF!) THE MSD SUPER DISK IS LOUDER THAN 20 1541'S GOING AT THE SAME TIME, BUT I ASSURE YOU, IT'S HARMLESS AND YOU MAY EVEN GET USED TO IT.

ONE OF THE NICEST THINGS ABOUT THE MSD SUPER DISK IS THE ABILITY TO MAKE STRAIGHT BACKUPS IN ABOUT 1.5 MINUTES. THE VALUE OF THIS IS HARD TO JUDGE; I USED TO MAKE BACKUPS ABOUT ONCE A WEEK (WITH SOME DISASTEROUS RESULTS). NOW I MAKE BACKUPS SEVERAL TIMES A DAY OF MY CRITICAL DATA DISKS. I'M SURE I HAVE SAVED THE COST OF THE DRIVES 3 TIMES OVER IN SAVED LABOR FROM HAVING TIMELY BACKUPS WHEN A DISK WENT SUNNY-SACK.

THE COMPATIBILITY OF THE MSD SUPER DISK IS GENERALLY QUITE GOOD: 98% OF COMMERCIAL 64 SOFTWARE SEEMS TO RUN ON IT WITH NO PROBLEM IN THE SERIAL CONFIGURATION. THE PARALLELL OPTION (NEED EXTRA CABLE AND INTERFACE) IS ATTRACTIVE FROM A SPEED STANDPOINT (2 TO 3 TIMES FASTER), BUT I FOUND THAT ONLY HALF THE COMMERCIAL PROGRAMS WILL RUN WITH MSD'S PARALLELL SET-UP (STRANGELY, MANY MORE WILL RUN WITH BATTERIES INCLUDED'S BUSCARD II!).

IN SUMMARY I HIGHLY RECOMMEND THE MSD SUPER DISK AND COMMEND MSD FOR FIELDING A THIS QUALITY PRODUCT.

MICRO SYSTEMS DEVELOPMENT
(MSD)
\$695.00

FINANCIAL COOKBOOK

Index of Recipes	
11	A Single Payment's Present Value
12	Monthly Payments' Present Value
13	Saving Money with IRAs
14	An IRA's Future Value
15	Living from an IRA
16	Early Withdrawals from an IRA
17	How Much Life Insurance You Need
18	Mortgage Schedule, Yearly
19	Mortgage Schedule, Monthly
20	Variable Rate and Payment Mortgages
21	Variable Rate, Fixed Payment Loans
22	Interest Only Second Mortgages
23	Mortgages with Balloons
24	A Loan's Interest Rate
25	Refinancing Your Home
26	Retiring Your Mortgage Early
27	Buying or Renting a Home
28	Energy Saving Devices
29	Owning Your Car
30	Fixing Your Car
31	Buying Your Car
32	Leasing Your Car
RECIPE CATALOG PROFILE QUIZ FORM	
Arrows scroll recipes, ← enters menu	

WE'VE SEEN LOT'S OF 'ALMOST' PROGRAMS THAT PROMISE TO HELP FIGURE MORTGAGES & AMORTIZATION ETC. NOW *ELECTRONIC ARTS* HAS COME OUT WITH ONE OF THE MOST USEFUL LITTLE UTILITY PACKAGES YET FOR THE BEFUDDLED HOME-OWNER OR NEWCOMER TO THE DIZZY WORLD OF CONSUMER FINANCES.

SEVERAL THINGS SET *FINANCIAL COOKBOOK* APART FROM THE OTHER 'MONEY' PROGRAMS: FIRST, YOU'VE GOT THE HIGH-SPEED MENU WITH A SELECTION BAR THAT SLIDES UP AND DOWN THE SCREEN OVER DOZENS OF HEADINGS LIKE "VARIABLE RATE AND PAYMENT MORTGAGES" AND "BUYING OR LEASING A CAR" (ALMOST EVERY NASTY FINANCIAL PREDICAMENT IS REPRESENTED WITH A SLICK LITTLE PROGRAM THAT WILL WHIP IT INTO SUBMISSION). THERE IS ALSO A STATUS MENU THAT TAKES YOU TO DIFFERENT ASPECTS OF THE PROGRAM.

ANOTHER VALUABLE ELEMENT IS THE DEPTH OF THESE MODULES: THESE ARE NOT SIMPLE TIMES, AND SIMPLE MATH WILL NOT LET YOU MAKE KEEN DECISIONS REGARDING YOUR FINANCES. *FINANCIAL COOKBOOK* WEIGHS IN THE MORE SUBTLE FACTORS LIKE INFLATION, FUTURE CONDITIONS, AND TAX RATES.

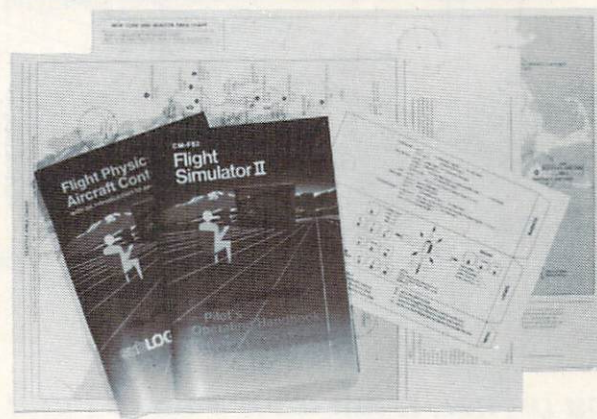
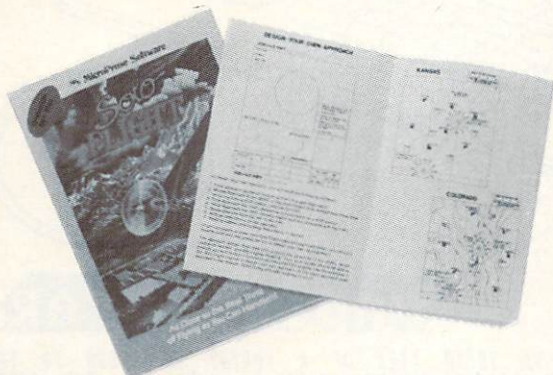
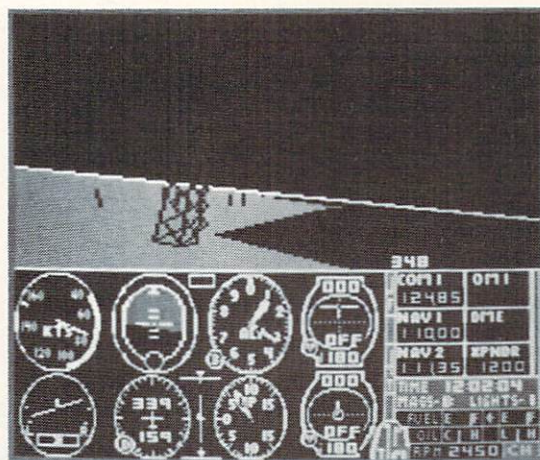
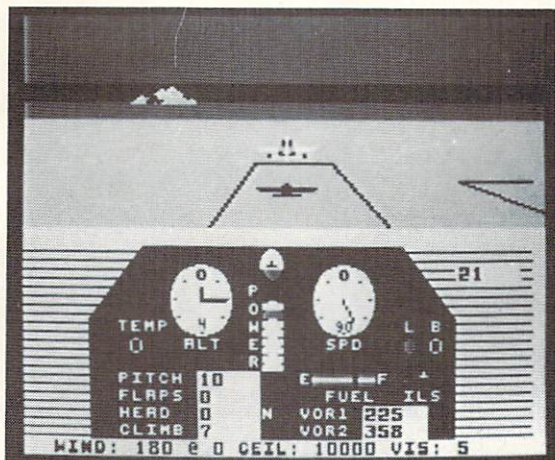
ONCE YOUR HAVE ENTERED THE PROPER VALUES, YOU CAN LOOK AT THE RESULTS AND, IF NECESSARY, CHANGE THE PARAMETERS FOR A REAL 'WHAT-IF' INVESTIGATION OF YOUR OPTIONS.

WHEN YOU HAVE THE FIGURES YOU LIKE (OR EVEN IF YOU DON'T LIKE THEM), YOU CAN DUMP THE WHOLE THING OUT TO YOUR PRINTER FOR A NICE PERMANENT RECORD. (SUITABLE FOR TROTTING DOWN TO THE BANK WITH).

ELECTRONIC ARTS HAS HAD SEVERAL BIG WINNERS IN THE ENTERTAINMENT FIELD, NOW THEY HAVE ONE IN THE 'SERIOUS' CATEGORY, AND I HOPE WE CAN LOOK FORWARD TO SOME MORE SOON!

ELECTRONIC ARTS
(ELE)
DISK \$50.00

FLYING THE COMMODORE 64



IF YOU ALREADY HAVE A COMMODORE 64, THEN YOU CAN ALSO HAVE A NICE HI-PERFORMANCE AIRCRAFT AND FLIGHT LESSONS FOR AN ADDITIONAL \$35 TO \$50! WELL, THAT IS YOU CAN HAVE EVERYTHING AN AIRPLANE OWNER HAS EXCEPT THE UPKEEP, STORAGE, FUEL COST, INSURANCE, AND DANGER.

SHOWN ABOVE ARE THE BEST AND THE SECOND BEST FLIGHT SIMULATOR PROGRAMS AVAILABLE TODAY. *FLIGHT SIMULATOR II* IS THE BEST. (*SOLO FLIGHT* IS NOT TOO FAR BEHIND.) BOTH HAVE EXCELLENT 'REAL-TIME' GRAPHIC DISPLAYS SHOWING THE WORLD FLYING BY (OR THE GROUND RUSHING UP!). BOTH HAVE STANDARD INSTRUMENT CLUSTERS SHOWING CONSTANT UPDATES ON CONDITIONS LIKE AIR SPEED, ALTITUDE, FUEL LEVEL, FLAPS, HEADING, ETC. *FLIGHT SIMULATOR II* HAS A REALISTIC "COCKPIT" VIEW, WHILE *SOLO FLIGHT* USES A UNIQUE "TRAILING-EYE" APPROACH. THE *SOLO FLIGHT* VIEW SHOWS THE ENTIRE PLANE (WITH A REALISTIC SHADOW RIPPLING OVER THE GROUND AT LOW ALTITUDE).

BOTH FLIGHT SIMULATORS ALSO HAVE GAME MODES: *FLIGHT SIMULATOR II* TAKES YOU BACK TO WORLD WAR I AND LETS YOU FLY AROUND A MICRO-WORLD AT WAR IN YOUR DOUBLE WINGER ELUDING THE RED BARON AND HIS GANG, *SOLO FLIGHT*, ON THE OTHER HAND, TAKES A MORE PACIFISTIC APPROACH WITH AN AIR-MAIL GAME (THE LATTER WILL TEST YOUR LANDING SKILLS MUCH MORE.)

SPEAKING OF LANDING, DON'T BE SURPRISED IF IT TAKES YOU A WHILE TO LEARN THIS MOST-IMPORTANT FLYING SKILL. IT TOOK ME TWO HOURS BEFORE I COULD SET MY PIPER CHEROKEE DOWN AT SEATAC INTERNATIONAL WITHOUT WASTING IT!

HOW GOOD ARE THESE SIMULATIONS? WELL, *FLIGHT SIMULATOR II* IS TRYING TO GET FAA RECOGNITION AS A BONA-FIDE GROUND-SCHOOL COMPONENT. PERSONALLY, IF FIND THE EFFECT TOTALLY CONVINCING AFTER ABOUT 5 MINUTES OF FLYING, AND I'M SURE MY HEART RATE INCREASES SIGNIFICANTLY WHEN I GO INTO AN IRRECOVERABLE DIVE!

SO WHAT'S THE DIFFERENCE BETWEEN THE TWO IF THEY BOTH SHARE SO MANY FEATURES? IT'S A MATTER OF DEGREE. *FLIGHT SIMULATOR II* IS JUST MORE-SO IN EVERY CATEGORY. MORE DETAIL, SHARPER GRAPHICS, MORE CONTROL OVER CONDITIONS, MORE ELABORATE, (MORE EXPENSIVE). EITHER ONE IS A REAL TREAT, BUT *FLIGHT SIMULATOR II* GOES UP AS ONE OF THE BEST 5 RECREATIONAL PIECES EVER WRITTEN FOR THE 64.

FLIGHT SIMULATOR II
SUBLOGIC (SUB) DISK / \$49.95

SOLO FLIGHT
MICROPROSE SIMULATIONS (MPS) DISK / \$34.95



CONTEST #1 WINNER!



DESIGN THE
64+

1ST
PRIZE

DAVID SPEAR

IN THE LAST ISSUE, WE ASKED READERS TO DESIGN A COMPUTER THAT WOULD BE THEIR IDEA OF A WORTHY SUCCESSOR TO THE COMMODORE 64. WELL, WHEN WE SAW DAVID SPEAR'S WINNING ENTRY, WE WERE SORRY WE COULDN'T PLACE AN ORDER ON THE SPOT! THANKS TO EVERYONE WHO ENTERED AND SENT SUCH GREAT IDEAS- IT'S TOO BAD WE DON'T HAVE ROOM TO SHOW THEM ALL. FOR HIS EFFORTS, DAVID WINS A CASH AWARD OF \$64.00 AND THE AMAZING ERG-BOARD! OUR RUNNERS-UP WILL ALSO EACH RECEIVE ERG-BOARDS.

WHAT FOLLOWS IS A CONDENSED VERSION OF THE SIX PAGES OF DETAILED SPECS AND DESCRIPTIONS SUPPLIED BY MR. SPEAR:

PRESS RELEASE

AN 8 LB. LAP PORTABLE WITH AN 800K DISK, 512K OF BATTERY-PROTECTED RAM, A CLOCK THAT CAN TURN THE COMPUTER ON OR OFF, AN 80 CHARACTER BY 25 LINE LCD, AND AN ACCESSORY MONITOR THAT CAN DISPLAY UP TO 60 LINES OF 160 CRYSTAL-CLEAR CHARACTERS IN VARIOUS FONTS AND SIZES; THE NEW C64+, WITH A STARTING PRICE OF \$1495 (INCLUDES DISK, 256K RAM, & LCD DISPLAY) IS EXPECTED TO BE THE COMPUTER PRODUCT OF THE YEAR.

THE 64+ RUNS ON AC OR 5-HR. RECHARGEABLE BATTERIES. ON POWER-UP, THE OWNER'S NAME APPEARS, AND A 3-CHARACTER PASSWORD MUST BE ENTERED BEFORE THE KEYBOARD CAN BE USED FURTHER. THE 110-KEY KEYBOARD HAS EXCELLENT FEEL.

DEDICATED KEYS SUPPORT A UNIQUE WINDOW ENVIRONMENT, FAST SCROLLING, CATALOG SYSTEM, MACROS, AND SINGLE-KEY ENTRY OF THE MOST COMMON ENGLISH WORDS. THE 20 FUNCTION KEYS CAN BE LABELED BY A REFERENCE STRIP, LCD, OR BOTTOM LINES OF THE OPTIONAL TOUCH-SCREEN MONITOR. THE KEYBOARD DOUBLES AS A MULTI-MODE CALCULATOR SUPPORTING ALGEBRAIC, REVERSE POLISH, DECIMAL, & HEX NOTATIONS.

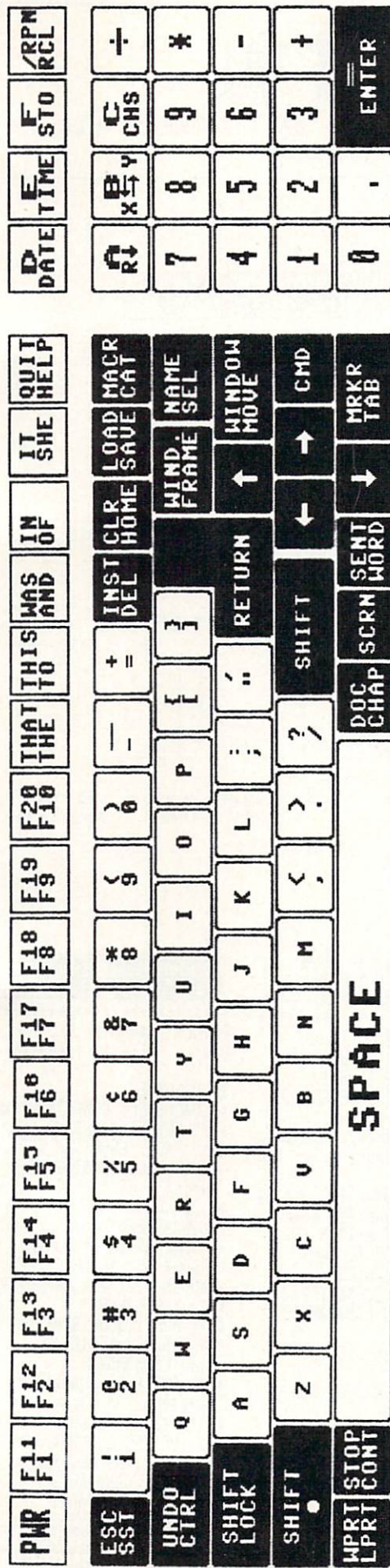
BUILT-IN SOFTWARE INCLUDES BASIC, C-LANGUAGE, INTEGRATED WORD-PROCESSING, SPREADSHEET, AND DATABASE MANAGEMENT.

OPTIONAL DISPLAYS INCLUDE EVERYTHING FROM COLOR TV'S TO A SPECIAL 60 LINE BY 160 CHARACTER VERTICAL SCREEN CAPABLE OF DISPLAYING ENTIRE DOCUMENT PAGES.

CO-PROCESSOR CARTRIDGES AND DISK ADAPTERS PROVIDE COMMODORE 64, APPLE, CP/M, AND IBM-PC COMPATIBILITY.

WITH THE INTEGRAL CLOCK-CALENDAR AND MODEM, THE 64+ CAN TURN ITSELF ON, DIAL A BULLETIN BOARD UNTIL CONNECTED, LOG ON, DOWNLOAD DATA, LOG OFF, HANG UP, STORE TIME AND CHARGES (AS WELL AS DATA) TO DISK, PRINT THE DATA, AND TURN ITSELF OFF UNATTENDED!

...



THE 64+ KEYBOARD

GENERAL: FULL SIZED, FULL-STROKE, REMOVABLE. INTERNAL PROTECTIVE MEMBRANE PROTECTS FROM SPILLS. PROGRAMMABLE AUDIO FEEDBACK AND REPEAT ATTRIBUTES.

POWER: LED INDICATES POWER ON. BLINKING INDICATES LOW BATTERY. LOW BATTERY FORCES A PROGRAM BREAK & WARNING TO APPEAR ON-SCREEN ('CONT' TO RESUME PROGRAM).

F1 TO F20: FUNCTION KEYS. CAN BE LABELED ON KEYBOARD STRIP OR DISPLAY DEVICE.

THE, THAT, ...IT: TAKE 24% MOST COMMON ENGLISH WORDS. THESE WORDS TAKE ONE BYTE IN MEMORY.

INS/DEL: SAME AS 64

HOME: MOVES CURSOR TO UPPER LEFT OF WINDOW.

CLR: ERASES FROM CURSOR TO BOTTOM OF WINDOW.

SAVE: IF NO FILE SPECIFIED, DOES A BACKUP OF FILE THAT CURSOR IS IN.

CAT: ALPHABETIZED CATALOG OF SPECIFIED DISK, MEMORY, WINDOWS, MACROS, MASTER DISK CATALOG, ETC.

MACRO: INITIATES A MACRO. MACRO ALLOWS VIRTUALLY ANY KEY SEQUENCE TO REPLACE ANY OTHER KEY SEQUENCE (OF ANY LENGTH). MACRO CAN EXECUTE TO SPECIFIC CURSOR POSITION, INTO MEMORY, OR IN IMMEDIATE MODE.

UNDO: REVERSES UP TO LAST 16 ACTIONS. ACTIONS WHICH CANNOT BE 'UNDONE' PRODUCE THE WARNING; "ARE YOU SURE?".

WINDOWS: WINDOWS ARE REALLY MOVABLE OBJECT BLOCKS (OR SPRITES). MAY BE PROGRAMMED SO THAT TEXT IS CONTINUALLY ADJUSTED TO THE WIDTH OF THE WINDOW. TRAVEL FROM WINDOW TO WINDOW (AND BETWEEN PROGRAMS) IS SUPPORTED.

WINDOW NAME: CREATES UP TO 255 NAMED WINDOWS. CAUSES PREVIOUSLY NAMED WINDOW TO BECOME CURRENT WINDOW.

SPECIFICATIONS

WINDOW SELECT: PULLS SELECTED WINDOW TO FRONT. IF ALREADY IN FRONT, CAUSES WINDOW TO EXPAND TO FULL SCREEN, OR RECED.

WINDOW MOVE & CURSOR: MOVES ENTIRE CURRENT WINDOW IN CURSOR DIRECTION.

WINDOW FRAME & CURSOR: MOVES WINDOW BORDERS INWARD OR OUTWARD.

SHIFT & CURSOR: MOVES CURSOR 20 CHARACTERS OR 5 LINES AT A TIME.

CMD & CURSOR: MOVES COMMAND CURSOR IN MENU AREA OF DISPLAY.

DOC & UP/DN CURSOR: MOVES CURSOR TO BEGINNING OR END OF DOCUMENT.

CHAP & LFT/RT CURSOR: MOVES CURSOR TO PREVIOUS OR NEXT CHAPTER MARKER IN WINDOW.

SCRN & CURSOR: FLIPS TO PREVIOUS OR NEXT WINDOW SECTION (SCREEN).

MRKR & UP/DN CURSOR: TAB TO NEXT MARKER.

CHAP, TAB, OR MRKR: WITHOUT CURSOR KEY PLACES CORRESPONDING MARKER AT CURSOR. (SHIFTED TO REMOVE MARKERS.)

WORD AND LFT/RT CURSOR: MOVES CURSOR TO PREVIOUS OR NEXT WORD.

SENT AND UP/DN CURSOR: MOVES CURSOR TO PREVIOUS OR NEXT SENTENCE.

CALCULATOR SECTION: TOGGLE EITHER ALGEBRAIC OR RPN MODES. SHIFTED MODE ENABLES HEX VALUES OF KEYS. TYPE IN FUNCTIONS SUCH AS LOG, DATE, RADIAN-CALCULATIONS APPEAR AT CURSOR POSITION.

LPRT AND WPRT: PRINT CURRENT LINE OR WINDOW.

SST: SINGLE STEP EITHER MACHINE LANG. OR HIGH LEVEL LANGUAGE INSTRUCTIONS. INSTRUCTION DISPLAYED WHILE KEY PRESSED.

PRICE: \$1495.00

MAIN CPU: 68000 RUNNING AT 7.5 MHZ.

POWER: FOUR RECHARGEABLE C-CELLS. 5-HOUR BATTERY LIFE. CELLS RECHARGE DURING AC OPERATION. BUILT-IN SURGE PROTECTION. DISK WILL NOT OPERATE IF POWER IS TOO LOW. NON-ESSENTIALS POWER-DOWN AFTER 5 MIN. INACTIVITY.

RAM: 256K STANDARD, EXPANDS TO 512K INTERNALLY. MEMORY RETAINED BY BATTERY EVEN WHEN POWER 'OFF'. MEMORY MANAGEMENT FIRMWARE INCLUDES RAM-DISK, DISK & PRINTER BUFFERS, AND VIRTUAL MEMORY.

ROM: 64K; CONTAINS MULTIPLE LANGUAGES, INTEGRATED SOFTWARE, 6 MULTIPLE CHARACTER FONTS.

DISK: ONE 3.5" MICRO-FLOPPY. 800K FORMATTED.

PORTS: TWO RS422 PORTS FOR EXTERNAL DRIVES, LOCAL NETWORKING, ETC. TWO GAME PORTS FOR JOYSTICKS, LIGHT PEN, MOUSE. RS232C PORT. PARALLEL PORT FOR PRINTER. PORTS FOR R6B, COMPOSITE VIDEO, AND RF DISPLAY OUTPUT.

SOUND: 3 64-TYPE 51D CHIPS (FOR 9-PART SOUND AND MUSIC), EXTERNAL HI-FI OUTPUT, VOLUME CONTROL FROM KEYBOARD.

SPRITES: 255 SPRITES. SPRITES MAY BE EXPANDED, ROTATED, & TILTED (ITALIC SPRITES!). 15 COLORS (PLUS TRANSPARENT), 16 PRIORITIES, SPRITE-LINKING, AND VECTORED INTERRUPTS SUPPORTED.

GRAPHICS: 60 BY 160 CHARACTER MAXIMUM DISPLAY. 420 BY 960 BIT-MAPPED GRAPHICS IN UP TO 256 COLORS.

SECURITY: LUG FOR SECURITY CHAIN. WEATHER-PROOF COVER. COMPUTER WILL NOT ACCEPT INPUT UNTIL OWNER'S PASSWORD IS INPUT. COMMERCIAL SOFTWARE CAN FORCE PASSWORD TO BE COPIED ONTO SYSTEM DISK AND GENERATE BACKUPS THAT CAN ONLY BE RUN ON ONE COMPUTER. THIS SHOULD ALLOW SOFTWARE PRICES TO COME DOWN FURTHER. OWNER'S NAME (AND OTHER USER-DESIGNATED INFORMATION) IS DISPLAYED ON POWER-UP.

RUNNERS-UP: CONTEST #1

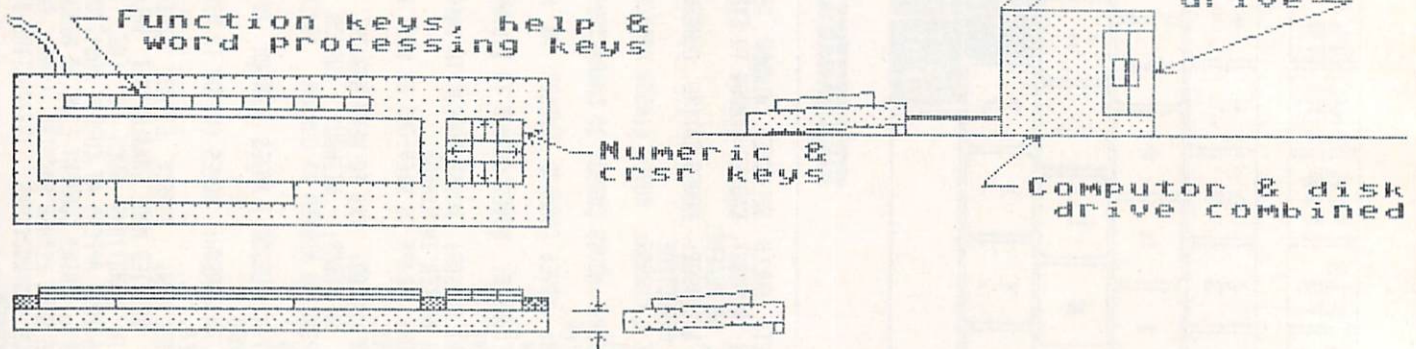
BELOW ARE THE FIVE RUNNERS-UP IN INFO-64'S CONTEST #1. EACH RUNNER-UP WILL RECEIVE A BRAND NEW SHINY ERG-BOARD- COMPLIMENTS OF INFO-64:

Major Features:

- 1) 98% compatible with C-64
- 2) Compatible with 1541, 1702 and Commodore printers.
- 3) 128K RAM(16K non-volital)
- 4) High speed 5.25" drive
- 5) 40/80 column option
- 6) Basic 2.0/5.0 option
- 7) 640x400 hires. black and white mode in basic 5.0
- 8) Semi-portable design

JOHN J. HARTLEY
LOUISVILLE, KY

Optional LCD display
320x200 pixels
40/80 columns
collapses into
slot in top



DONALD C. HINDS
BOSTON, MASS

PRICE: \$900
CPU: W65SC816 (16-BIT)

- ‡ PORTABLE
- ‡ COMPLETELY COMPATIBLE W/ 64
- ‡ DETACHABLE KEYBOARD
- ‡ 1 3.5" SONY MICRO-FLOPPY STANDARD (2ND OPTIONAL)
- ‡ INTERFACE FOR 1541 PROVIDED
- ‡ BUILT-IN COLOR MONITOR
- ‡ BATTERY POWER / AC POWER
- ‡ DUAL SID CHIPS / STEREO
- ‡ PLUG-IN "PIANO" KEYBOARD
- ‡ PLUG-IN RAM TO 384K
- ‡ ROM-PAKS FOR COMAL, LOGO, PASCAL, PILOT, & COBOL.
- ‡ 640 X 400 COLOR GRAPHICS
- ‡ 80/40 COLUMN TOGGLE
- ‡ IMPROVED SIMON'S BASIC
- ‡ BUILT-IN SUPERBASE, EASY-SCRIPT, AND MULTIPLAN

STAN PAPE
GRETN, LA

PRICE: \$699
CPU: 68008 (32-BIT)

- ‡ PORTABLE
- ‡ COMPLETELY COMPATIBLE W/ 64
- ‡ DETACHABLE KEYBOARD
- ‡ 12 SPECIAL FUNCTION KEYS
- ‡ NUMERIC KEYPAD
- ‡ FAST DISK DRIVE-SECOND DRIVE OPTIONAL
- ‡ 256K RAM
- ‡ 9 X 12 CHARACTER FONT
- ‡ 640 X 400 GRAPHICS RES.
- ‡ COMPOSITE VIDEO, RGB, OR LCD DISPLAYS
- ‡ IEEE 488 PORT
- ‡ RS-232 PORT
- ‡ 3.5 BASIC
- ‡ MS-DOS CAPABILITY
- ‡ BUILT-IN COBAL, PASCAL, FORTRAN, LOGO, & COMAL 2.0

JOHN SCHILLING
HOUMES BEACH, FL

PRICE: \$999.95
CPU: W.D.C. CMOS 6502
PSEUDO 16-BIT
(16 MB ADDRESSABLE)

- ‡ 64K RAM, EXPANDABLE TO 15MB
- ‡ 64K ROM, EXPANDABLE TO 1MB
- ‡ PORTABLE
- ‡ COMPLETELY COMPATIBLE W/ 64
- ‡ DETACHABLE 'QWERTY' KEYBOARD (DVORAK OPTION IN ROM, KEYCAPS OPTIONAL)
- ‡ 640 X 200 GRAPHICS
- ‡ 40, 80, 132 COLUMN TEXT
- ‡ 15 COLORS X 8 LUMINANCES
- ‡ 256K RAM
- ‡ 64 ADDRESSABLE SPRITES
- ‡ 3 SID CHIPS
- ‡ RF, COMPOSITE VIDEO, RGB
- ‡ IEEE 488 PORT
- ‡ 2 RS-232 PORTS
- ‡ 4 EXPANSION SLOTS
- ‡ BUILT-IN COMAL-80 LANGUAGE

MATTHEW STERN
RESEDA, CA

PRICE: \$495
CPU: TED II (16-BIT)

- ‡ PORTABLE
- ‡ COMPLETELY COMPATIBLE W/ 64
- ‡ 72-KEY KEYBOARD
- ‡ 10 PROG. FUNCTION KEYS, ONE-TOUCH LOADING KEY, & RESET & HELP KEYS
- ‡ 128K RAM
- ‡ HIGH-SPEED DRIVE (DUAL DRIVE OPTIONAL)
- ‡ 480 X 300 GRAPHICS RES.
- ‡ 40 OR 80 X 25 CHARACTERS
- ‡ 16 X 8 COLORS
- ‡ 16 MULTICOLOR SPRITES
- ‡ 4.0 SUPER-BASIC- (80 COMMANDS)
- ‡ MS-DOS & CP/M ADAPTERS OPTIONAL
- ‡ SID II SOUND CHIP- (SIX VOICES & HUMAN SPEECH)
- ‡ PLUG-IN PASCAL, FORTH, AND 'C' LANGUAGES
- ‡ ONE YEAR WARRANTY

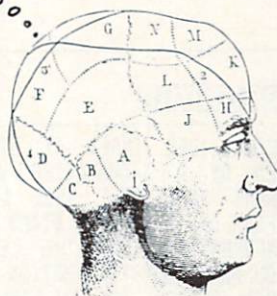


AND NOW...

READER CONTEST #2

"THE ELECTRONIC LAVA-LITE"

IF YOU ARE OLD ENOUGH TO REMEMBER THE ED SULLIVAN SHOW, THEN YOU MOST LIKELY REMEMBER WHAT A LAVA-LITE IS. (IF YOU FALL OUTSIDE OF THIS GROUP, GO ASK YOUR FOLKS.) THE LAVA-LITE USED TO AMUSE SIMPLE FOLKS FOR HOURS AT A TIME WITH ITS COLORFUL RANDOM FLOATING ILLUMINATED GLOBULES. CERTAINLY WITH THE AWESOME GRAPHICS POWER OF THE C64 AT YOUR DISPOSAL, AND ALL THE LEISURE TIME OF THE 80'S TO BOOT, SOME OF OUR READERS SHOULD BE ABLE TO CREATE A SUPERIOR ELECTRONIC REPLACEMENT FOR THIS ANCIENT CURIOSITY OF YESTER-YEAR!



START THINKING!

DON'T BE BASHFUL!
SEND US YOUR CONTEST IDEA!

1ST PRIZE

\$64⁰⁰ CASH!!

**PLUS: THE COVETED...
ERG-BOARD!!**

5 RUNNERS-UP

**WILL EACH RECEIVE A NEW
ERG-BOARD!!**

WHAT WE NEED:

WE ARE LOOKING FOR A SELF-RUNNING GRAPHICS PROGRAM WRITTEN IN BASIC OR PASCAL. IT SHOULD BE SOOTHING, UNPREDICTABLE, INTERESTING, AND UNIQUE - (NO RANDOMLY-LIT CHARACTER BLOCKS, PLEASE). OPTIONALLY YOU MAY ENHANCE THE BASIC THEME WITH VARIOUS INITIALIZING INPUT OR WITH THE ABILITY TO CHANGE THE MOOD OF THE DISPLAY WHILE RUNNING BY TOUCHING VARIOUS KEYS. PROGRAM MUST BE LISTABLE, NO LONGER THAN 281 LINES OF CODE, AND SUBMITTED ON DISKETTE (NO TAPES PLEASE!). YOU MAY ALSO INCLUDE A WRITTEN EXPLANATION IF YOU FEEL YOUR CONCEPT IS ESPECIALLY CUNNING OR ESOTERIC. THE WINNING ENTRY WILL BE LISTED IN INFO-64. ENTRIES MUST NOT BE COPYRIGHTED AND WILL BECOME PUBLIC DOMAIN SO THAT ALL MAY ENJOY !! *

SEND ENTRIES TO:

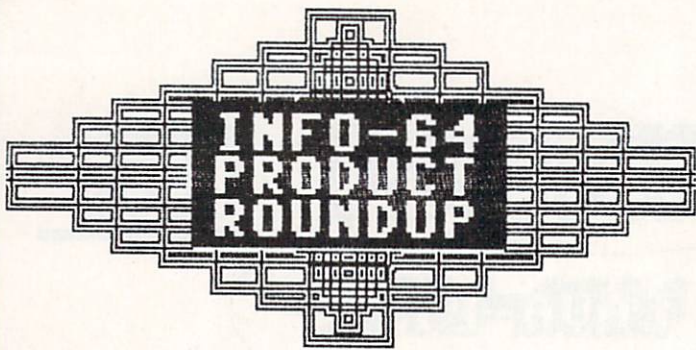
**INFO-64
CONTEST #2
RT.#2, BOX 198-E
IOWA CITY, IA 52240**

ENTRY MATERIALS
BECOME THE PROPERTY
OF INFO PUBLICATIONS
AND CAN NOT BE
RETURNED.

**CONTEST DEADLINE:
OCT. 31, 1984**



***NOTE: INFO-64 DOES NOT SELL ANY OF THESE PRODUCTS. PLEASE SEE YOUR DEALER OR CONTACT THE VENDOR IF YOU WANT TO BUY ANY OF THESE.**



HOW TO USE THE PRODUCT ROUNDUP

PRODUCTS ARE ARRANGED BY CATEGORIES (SEE INDEX AT RIGHT). EACH PRODUCT TITLE IS ACCOMPANIED BY A 3-CHARACTER VENDOR CODE, A MEDIA ABBREVIATION WHERE APPLICABLE (SEE LEGEND BELOW), PRICE, AND A RATING OF FROM ONE TO FIVE STARS (*). IF WE DON'T HAVE ONE OF THESE INFORMATION ITEMS, THE LETTERS "NA" WILL APPEAR INSTEAD. IF YOU WANT MORE INFORMATION ABOUT A PARTICULAR PRODUCT AND YOUR LOCAL DEALER IS NOT ABLE TO HELP, USE THE 3-CHARACTER CODE TO LOCATE THE VENDOR IN THE VENDOR ROUNDUP (BEGINNING ON PAGE).

LEGEND: (D)=DISK (T)=TAPE (R)=CARTRIDGE
 (D/T)=DISK OR TAPE AVAILABLE
 (T+D)=DISK VERSION INCLUDED ON TAPE
 (R&D)=USES BOTH ROM AND DISK

RATINGS:

- *.....BOD, HISS, YUK, BLAH, SNORT, ARGH.
- **.....POOR: EITHER DOESN'T WORK RIGHT (SERIOUS BUGS), OR IS LACKING IN IMAGINATION, USEFULNESS, OR PERFORMANCE.
- ***.....JUST FINE: NO SERIOUS BUGS, PERFORMS REASONABLY WELL - BUT NOTHING SPECIAL (THIS IS SOMETIMES A PRODUCT WHICH HAS BEEN DONE ENOUGH BY OTHERS, LIKE A PLAIN VANILLA MAILING-LABEL PROGRAM, OR SOME BLAST-'EM ARCADE GAMES)
- ****....VERY GOOD: PROFESSIONAL, SOLID, CREATIVE, STANDS APART.
- *****..UNUSUALLY OUTSTANDING!: A LEADER IN ITS CATEGORY.

(PLUS AND MINUS SIGNS INDICATE SLIGHTLY HIGHER AND LOWER JUDGEMENTS, RESPECTIVELY)

WE DON'T RECOMMEND BUYING ANYTHING RATED BELOW 3 STARS-THERE'S TOO MUCH GOOD STUFF OUT THERE TO SETTLE FOR LESS.

ONLY PRODUCTS ACTUALLY TESTED BY INFO-64 OR TRUSTED ASSOCIATES ARE RATED - OTHER PRODUCTS SHOW "NA" (NOT AVAILABLE) IN PLACE OF STARS.

CATEGORY P6

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BUSINESS ACCOUNTING



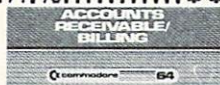
PRODUCT NAME
VENDOR CODE MEDIA PRICE RTG.

TOTL. BUSINESS 3.6
 TOT.....(D).....95.00.....*****
 INTEGRATED SMALL-BUS. ACCOUNTING PACKAGE: A/R / A/P / INVENTORY / INVOICES / STATEMENTS / PURCHASE ORDERS. INTERFACES WITH TOTL'S GENERAL LEDGER, AS WELL AS THEIR LABEL AND DATABASE PROGRAMS. RECENTLY UPGRADED, THIS IS NOW A TOP-QUALITY PACKAGE WITH GREAT FEATURES LIKE PRODUCT FILES (SO YOU DON'T HAVE TO TYPE IN INFO ON STANDARD PRODUCTS EACH TIME YOU CUT AN INVOICE) AND MULTI-LEVEL PRICE AND TAX FILES, OPTIONAL DISCOUNTS, CUSTOMIZABLE COMMENTS ON STATEMENTS, USES ONE UNIVERSAL FORM FOR INVOICES, STATEMENTS, & PURCHASE ORDERS, AND MUCH MORE. WELL DOCUMENTED WITH MANY CONVENIENCE FEATURES.

THE FOLLOWING MODULES FROM INFO DESIGNS CAN PASS AND SHARE DATA AND LINK TOGETHER THRU A MASTER MENU. ORIGINALLY SOLD AT \$200 PER MODULE, THE CURRENT PRICES ARE ONE OF THE MAJOR IMPROVEMENTS IN THIS LINE IN THE LAST YEAR!

COMMODORE NOW OFFERS A VERSION OF THE INFO DESIGNS SERIES (IDC) LISTED BELOW. PRICED AT ABOUT \$50 PER MODULE, THE COMMODORE VERSIONS ARE ESSENTIALLY THE SAME PRODUCTS WITH SOME REDUCTIONS IN MAXIMUM CAPACITIES:

GENERAL LEDGER
 IDC.....(D).....79.95.....*****
ACCOUNTS RECEIVABLE/BILLING
 IDC.....(D).....79.95.....*****
ACCOUNTS PAYABLE/CHECKS
 IDC.....(D).....79.95.....*****
INVENTORY
 IDC.....(D).....79.95.....*****
PAYROLL
 IDC.....(D).....79.95.....*****



commodore

commodore

TOTL. LEDGER 3.6
 TOT.....(D).....NA.....NA
 CAN BE USED STAND ALONE, OR WITH TOTL. BUSINESS (ABOVE). MAINTAINS 12 MONTHS OF BUSINESS DATA AND PRODUCES TRIAL BALANCES, BALANCE SHEETS, INCOME & EXPENSE, PROFIT & LOSS STATEMENT REPORTS.

GA 1600 ACCOUNTING
 DES.....(D).....395.00.....NA
 COMBINED G/L, A/R, A/P; 2 DRIVES REQUIRED.
INVENTORY PACKAGE
 MSP.....(D).....99.95.....NA
 FULL-FEATURED INVENTORY PACKAGE.
PAYROLL SYSTEM
 MSP.....(D).....99.95.....NA
GENERAL LEDGER
 MSP.....(D).....99.95.....NA
 UP TO 75 ACCOUNTS.
INVENTORY
 LUN.....(D).....49.95.....NA
GENERAL LEDGER
 AAR.....(D).....69.95.....NA

INSTA-LEDGER
 CIM.....(NA).....(NA).....NA
DATABASES
 DMI.....(D).....295.00.....NA
 G/L A/R A/P BILLING, INVOICING. SINGLE DRIVE SYSTEM. MENU DRIVEN.
ACCOUNTS RECEIVABLE/PAYABLE
 ECP.....(NA).....21.95.....NA
THE ACCOUNTANT (G/L B/S P&L)
 ECP.....(NA).....29.95.....NA
INVOICE EASE 64
 ENT.....(NA).....39.00.....NA
SUPERBYTE BUSINESS PAK
 POW.....(D).....100.00.....NA
 INCLUDES: G/L / INCOME STATEMENT / BALANCE SHEET, A/R, A/P, WORDPROCESSOR / SPREADSHEET / INVENTORY / CHECKBOOK MAINTENANCE / MAILLIST / 6 UTILITIES

==>> THE FOLLOWING ARE MODULES IN A SERIES WHICH ARE ALL: PASSWORD PROTECTED / MENU-DRIVEN / STAND-ALONE OR INTEGRATABLE WITH THE OTHER MODULES / FLEXIBLE REPORTING: (\$ NOTE PRICE REDUCTIONS-)

GENERAL LEDGER
 TMW.....(D).....59.95.....NA
CASH FLOW MANAGEMENT
 TMW.....(D).....59.95.....NA
PAYROLL MANAGEMENT
 TMW.....(D).....59.95.....NA
ACCOUNTS PAYABLE AND CHECKS
 TMW.....(D).....59.95.....NA
A/R AND INVOICING
 TMW.....(D).....59.95.....NA
SALES ANALYSIS MANAGEMENT
 TMW.....(D).....59.95.....NA
INVENTORY MANAGEMENT
 TMW.....(D).....59.95.....NA
MANAGEMENT SYSTEM 64
 ENT.....(D).....69.95.....NA
 INTEGRATED BUSINESS PACKAGE: CALCULATES AND PRINTS INVOICES, PACKING SLIPS, MAILING LABELS/ TRACKS INVENTORY/ GENERATES RELATED REPORTS.
BUSINESS PAK
 LOE.....(D).....179.95.....NA
 SINGLE-DISK ACCOUNTING SYSTEM COVERS: RECEIVABLES, INVENTORY, SALES, INVOICING/ INCLUDES SPREADSHEET ROUTINES.
TRICOUNT.
 TRI.....(D).....149.94.....NA
 FOUR MODULES: G/L, A/R, A/P, & INVENTORY/ ALSO ABLE SEPARATELY. FULL-FEATURED SMALL BUSINESS ACCOUNTING.
BUSINESS WARE
 SOU.....(D).....??..??.....NA
 (SOUTHERN SOLUTIONS OFFERS A BROAD RANGE OF BUSINESS ACCOUNTING MODULES FOR EVERYTHING FROM GENERAL LEDGER TO PAYROLL FUNCTIONS.)

INTEGRATED BUSINESS/HOME



COMPLETE PERSONAL ACCOUNTANT
 P61.....(D/T).....79.95/74.95.....*****
 INCLUDES ABOVE MODULES I THRU III: A SOLID SET OF PERSONAL FINANCE TOOLS/ INCLUDES A UNIQUE SELF-RUNNING DEMONSTRATION PROGRAM ON THE FLIP-SIDE OF THE DISKETTE WHICH MAKES FIRST-TIME FAIRLY PAINLESS (WE WOULD LIKE TO SEE MORE OF THIS TYPE OF BUILT-IN TRAINING AID INCLUDED WITH 'SERIOUS' SOFTWARE.) SEE COMPLETE REVIEW IN ISSUE #2.)

====>> THE FOLLOWING 5 MODULES CAN BE USED STAND- ALONE OR LINKED IN VARIOUS COMBINATIONS.

FINANCE I
 P61.....(D/T).....39.95/34.95.....*****
 CHECKBOOK MAINTENANCE / CHART OF ACCOUNTS / CHECK SEARCH / CHECK WRITER

PRODUCT NAME
VENDOR CODE MEDIA PRICE RTG.

FINANCE II

PG1.....(D/T).....29.95/24.95.....***
NET WORTH/INCOME/EXPENSE STATEMENTS / DETAIL AND SUMMARY
BUDGET ANALYSIS

FINANCE III

PG1.....(D/T).....29.95/24.95.....***
PAYMENTS CALENDER / APPOINTMENTS CALENDAR / MAILING LIST
/ COLOR GRAPH DESIGN PACKAGE

FINANCE IV

PG1.....(D/T).....29.95/24.95.....NA
SPREADSHEET: COMPATIBLE WITH FINANCE I, II, & V.

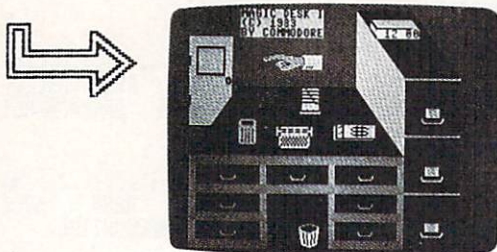
FINANCE V

PG1.....(D/T).....59.95/54.95.....NA
INCOME TAX PACKAGE: PRINTS FORMS, HANDLES MOST
SCHEDULES/ USES FINANCE I, II, & IV.



MAGIC DESK I

CBM.....(R).....<50.00.....***+
ICON-BASED 'SHELL' PACKAGE THAT WILL HELP THE USER
ACCESS AND TRAVEL BETWEEN APPLICATIONS IN A MORE
'FRIENDLY' WAY THAN IS NOW USUALLY THE CASE. MAGIC DESK I
INCLUDES WORDPROCESSING AND FILING FUNCTIONS/ MORE
FUNCTIONS ARE SCHEDULED TO COME LATER ON ADDITIONAL
CARTRIDGES.



SMART

DEE.....(D).....79.95.....***+
INCLUDES SIMPLIFIED WORDPROCESSING/ MONEY MANAGEMENT/
LOAN & SAVINGS ANALYSIS/MAIL LIST/ HOME INVENTORY/ TIME
MGNT CALENDAR & SCHEDULING/ ALL LOAD FROM ONE MENU

TRIO

SFS.....(D).....69.95.....NA
WORDPROCESSOR, DATABASE MANAGER, & SPREADSHEET IN ONE
PACKAGE.

BUDGETEER

ABA.....(T/D).....19.95/22.95.....NA
PART BUDGET MANAGER, PART SPREADSHEET. PRODUCES BAR
CHARTS OF MONTHLY TOTALS AND AVERAGES. ALLOWS 999
COLUMNS BY 99 ROWS FOR WORKSHEET

JANE

ARK.....(NA).....(NA).....NA
MOUSE & ICON-BASED INTEGRATED SYSTEM: WORDPROCESSING,
SPREADSHEET, FILING/ 'ALL ON ONE SCREEN AT THE SAME
TIME'. WILL THIS BE THE 64-USER'S SCALED-DOWN ANSWER TO
LOTUS' 1-2-3??

SUPERBYTE BUSINESS PACK

SPB.....(D).....100.00.....NA
INCLUDES: 6L/ AR/ AP/ WORDPROCESSOR/ SPREADSHEET/
INVENTORY/ CHECKBOOK MNGR/ MAIL LIST/ & 6 UTILITY
PROGRAMS

CCI MERCHANDISER

CCI.....(2800 - 4000).....NA
COMBINED HARDWARE/SOFTWARE SYSTEM PROVIDES POINT OF SALE
RETAILERS WITH ELECTRONIC CASH DRAWER STATION, AND A
HOST OF USEFUL SOFTWARE ROUTINES INCLUDING SALES
ANALYSIS, INVENTORY CONTROL, ACCOUNTING, MAILING &
FILING, STICKER & LABEL MAKING, WORDPROCESSING, AND
TELECOMMUNICATIONS.

THE MASTER KEY

TRI.....(D).....129.95.....NA
HARD TO CATEGORIZE THIS INTERESTING BUNDLE. INCLUDES:
FILING/ WORD PROCESSING/ HOME FINANCE/ ELECTRONIC
PAINTBRUSH/ & 'TERRESTRIAL GAME'.

PERSONAL FINANCES

CERTIFIED PERSONAL ACCOUNTANT

SND.....(D).....99.95.....***+
THIS IS THE EASIEST TO USE, BEST DOCUMENTED, SENSIBLY
PUT TOGETHER PERSONAL FINANCE PACKAGE WE HAVE SEEN YET.
PREVIOUSLY AVAILABLE ONLY ON IBM, APPLE, & TI
PROFESSIONAL, THIS IS A QUALITY PACKAGE THAT GIVES YOU
A REAL SENSE OF CONFIDENCE AND GUIDES YOU SURE-HANDEDLY
THRU ALL PHASES OF SET-UP AND ROUTINE USE. EXTENSIVE
HELP SCREENS AND TUTORIAL. A COMPATIBLE TAX PACKAGE IS
DUE OUT LATE THIS YEAR.

PERSONAL ACCOUNTANT

SFS.....(D/T).....34.95.....***+
DOUBLE ENTRY BOOKKEEPING/ MAINTAIN CHECKBOOK, CREDIT
CARDS, LOANS/ REPORTS INCLUDE: TRIAL BAL., PROFIT/LOSS,
EXPENSE VS. INCOME, ASSETS VS. LIABILITIES. AMORTIZATION
TABLES AND ADDRESS BOOK FUNCTIONS.

HOME ACCOUNTANT

CON.....(D).....79.95.....***+
THIS COULD BE AN EXCELLENT PACKAGE; UNFORTUNATELY, THE
PRODUCT, IN ITS PRESENT CONDITION, CAN NOT BE
RECOMMENDED. SLOW DISK-ACCESSING ROUTINES RESULT IN
UNACCEPTABLY LONG DELAYS DURING ROUTINE PROCESSING.
(SEE COMPLETE REVIEW IN ISSUE #2)

PERSONAL FINANCE ASSISTANT

RAI.....(NA).....59.95.....NA

BUDGET AID

MIQ.....(NA).....69.95.....NA
MENU DRIVEN / CHART OF ACCOUNTS / USER-DEF CATEGORIES /
CHECKBOOK W/RECONCILIATION / COLOR GRAPH ANALYSIS

THE MONEY MANAGER

TMW.....(D/T).....24.95.....NA
DETAILED BUDGET ANALYSIS WITH BAR CHART GRAPHING.

HOME FINANCE MANAGER

SWC.....(D).....59.95.....NA
BUDGETING / 3-ACCT CHECKBOOK / DEDUCTION FLAGS / CHARTS &
GRAPHS

FAMILY FINANCES

SOP.....(D).....33.95.....NA
MENU-DRIVEN / BUDGETING / EXPENSES AND INCOME /
CHECKBOOK MGR. / SUMMARIES & JOURNALS

CCI BOTTOM LINER - PERSONAL

(BUSINESS VERSION IS 74.95)
CCI.....(D).....69.95.....NA
THIS PACKAGE GOES BEYOND THE USUAL BUDGETING ROUTINES,
ADDING GENERAL LEDGER, INVOICING FUNCTIONS, CLIENT FILE,
INVENTORY, AND AMORTIZATION/ SUPPORTS 700 ACCOUNTS.

HOUSEHOLD FINANCE

CRE.....(D/T).....34.95/29.95.....NA

PERSONAL FINANCE FORECASTER

XAN.....(NA).....(NA).....NA
THIS PACKAGE EMPHASIZES THE FUTURE BASED ON DATA FROM
THE PAST & PRESENT. GENERATES GRAPHS AND REPORTS FOR A
WHAT-IF LOOK AT YOUR FUTURE FINANCES.

COMP-U-CHECK

HOT.....(D).....64.95.....NA
CHECK WRITING/ ACCOUNT BALANCING/ UNLIMITED BUDGET
CATEGS./ CREDIT ACCOUNTS/ AUTO-TELLER TRANSXS/ TAX
SUMMARIES/ SUPPORTS ALL PRINTERS & INTERFACES. ALSO
INCLUDES SIMPLE WORDPROCESSING FEATURES.

PERSONAL FINANCES (CONT'D)



BUDGET AIDE

MID.....(NA).....69.95.....NA
MENU-DRIVEN/ CHART OF ACCOUNTS/ CHECKBOOK WITH
RECONCILIATION/ COLOR GRAPH ANALYSIS OF BUDGET
MANAGEMENT.

THE FINANCIAL ASSISTANT

GAL.....(D).....49.95.....NA
50 ACCOUNTS/ 100 CATEGORIES/ 3200 ENTRIES PER DISK/
SEARCH-SORT ON ANY FIELD/ REPORTS TO WIDE VARIETY OF
PRINTERS.

BILLWRITER/SUMMARY

UHL.....(T).....29.95.....NA
HOME ACCOUNTING & CHECK-WRITING/ PRINTS CHECKS ON
REGULAR PRINTER PAPER.

64-ACCOUNTING SYSTEM

SDI.....(D).....69.95.....NA
SUPPORTS 10 CHECKING LEDGERS AND 20 SEP. ACCOUNTS.
PRINTS: CHECKS, STATEMENTS, PROFIT & LOSS AND TRIAL
BALANCE SHEETS. 'MINI A/R, A/P LEDGERS'.

FINANCE MANAGER

HES.....(D).....69.95.....NA
BUDGET MANAGEMENT: MULTIPLE CHECKING ACCOUNTS/ PRINTS
CHECKS/ KEEPS TAX RECORDS/ HELP SCREENS

FINANCIAL ACCOUNTING & PLANNING SYSTEM.

SMX.....(D).....39.95.....NA

HOT ACCOUNTS

CES.....(D).....64.95.....NA
BOOKKEEPING SYSTEM FOR SMALL BUS. AND HOME. TRACKS
INCOME, EXPENSE, CREDIT CARDS, IRA'S, DEDUCTIONS, ETC.
PRINTS GRAPHS, FIGURES PERCENTAGES, ON-SCREEN PROMPTS.

CHECKBOOK MANAGEMENT



CHECKBOOK MANAGER

MSP.....(D).....69.95.....NA

VICHECK

UMI.....(T&D).....29.95.....***

CHECKBOOK MANAGER WITH PRINTER OPTIONS

64 CHECKBOOK MANAGER

DES.....(D/T).....40.00/35.00.....NA

INSTA-CHECK

CIM.....(NA).....(NA).....NA

64 CHECKBOOK MANAGER

DES.....(D/T).....40.00/35.00.....NA

PASSWORD PROTECTED / 400 CHECKS PER FILE / 200 DEPOSITS
/ 100 ACCOUNT CHARGES

CHECKBOOK ACCOUNTING

MID.....(NA).....24.95.....NA

CHECKBOOK BALANCER

GAT.....(T).....9.95.....NA

CHECK MANAGER

GOS.....(T).....29.95.....NA

CHECKBOOK BALANCER

GTR.....(T).....10.00.....NA

CHEC K HELPER

MAG.....(D/T).....(NA).....NA

CHECKEASE

T&F.....(D/T).....34.95/29.95.....NA

OVER 600 CHECKS / INTERFACES WITH COMMODORE'S 'PERSONAL
FINANCE' / RECONCILIATIONS / FORWARD & REVERSE REVIEW /
DEDUCTIBLE FLAGGING / PRINT BY CATEGORY

MY ACCOUNTANT

RAM.....(D).....(NA).....NA

CHECKBOOK MANAGER WITH 36 CHECK CATEGORIES. 10 FOR
DEPOSITS. HOLDS 2000 CHECKS AND 475 DEPOSITS PER YR.
SEARCH, REPORT, RECONCILE.

YOUR PERSONAL ACCOUNTANT

TRI.....(D/T).....39.95.....NA

SUPPORTS ONLY 2 BANK ACCOUNTS AND NINETEEN EXPENSE
CATEGORIES.

LOANS & INVESTMENT



PRODUCT NAME
VENDOR CODE

MEDIA

PRICE

RTG.

FINANCIAL COOKBOOK

ELE.....(D).....50.00.....***+

ONE OF THE HANDIEST LITTLE PACKAGES FOR THE AVERAGE
PERSON TRYING TO FIGURE OUT WHETHER TO BUY OR RENT, SAVE
OR INVEST, SAVE OR SPEND, ETC. I USED THIS FREQUENTLY
DURING THE RECENT SALE AND PURCHASE OF OUR HOME, AND
WILL USE IT BEFORE I BUY A CAR OR OPEN A MONEY MARKET
ACCOUNT!

Index of Recipes	
11	A Single Payment's Present Value
12	Monthly Payments' Present Value
13	Saving Money with IRAs
14	An IRA's Future Value
15	Living from an IRA
16	Early Withdrawals from an IRA
17	How Much Life Insurance You Need
18	Mortgage Schedule, Yearly
19	Mortgage Schedule, Monthly
20	Variable Rate and Payment Mortgages
21	Variable Rate, Fixed Payment Loans
22	Interest Only Second Mortgages
23	Mortgages with Balloons
24	A Loan's Interest Rate
25	Refinancing Your Home
26	Retiring Your Mortgage Early
27	Buying or Renting a Home
28	Energy Saving Devices
29	Owning Your Car
30	Fixing Your Car
31	Buying Your Car
32	Leasing Your Car
RECIPES CATALOG PROGRAM: QUIT FORNA	
Arrows scroll recipes, + enters menu	

FINANCIAL COOKBOOK

PORTFOLIO MANAGER

BAB.....(D/T).....29.95.....***+

MENU-DRIVEN INVESTMENT AID TRACKS UP TO 70 STOCKS WITH
UP TO 300 TRANSACTIONS PER PORTFOLIO. UPON ENTERING
CURRENT QUOTES, YOU MAY QUICKLY ASSESS YOU PRESENT
BALUE, % GAIN/LOSS, ACTUAL GAIN/LOSS, AVG. PURCHASE
PRICE, AND TOTALS. REPORTS TO SCREEN OR PRINTER.

LOAN ANALYZER

CRE.....(D/T).....19.95/14.95.....NA

LOAN CALC

FAN.....(D/T).....11.95/9.95.....NA

AMORTIZATION PROGRAM

INP.....(D).....30.00.....NA

THE INVESTORS PAK

USE.....(D).....39.95.....NA

25 BUSINESS & INVESTMENT PROGRAMS IN REAL ESTATE,
MORTGAGES, BONDS, LOANS, SHELTERS ETC.

HOME MATH ANALYZER

UHL.....(D).....19.95.....NA

ANALYZES HOME LOANS, SAVINGS, AND SIMPLE STATISTICAL
DATA.

HOW TO MAKE GOOD INVESTMENTS

TWZ.....(D).....54.95.....NA

COMBINED 100 PAGE TEXT & PROGRAM DISKETTE DESIGNED TO
INSTRUCT THE BEGINNING OR OCCASIONAL INVESTOR.

BEC

LAW.....(D/T).....89.95/79.95.....NA

DESIGNED TO HELP THE ENTREPRENEUR FIND BREAK-EVEN POINT
FOR NEW PRODUCT. COMPUTES TOTAL FIXED COSTS, VARIABLE
COSTS, & SALES REVENUE AT BREAK-EVEN POINT.

INVESTMENT PORTFOLIO MANAGER

B&B.....(D).....14.95.....NA

TRACKS STOCKS AND STOCK OPTIONS/ REPORTS ON 9 INVESTMENT
CATEGORIES.

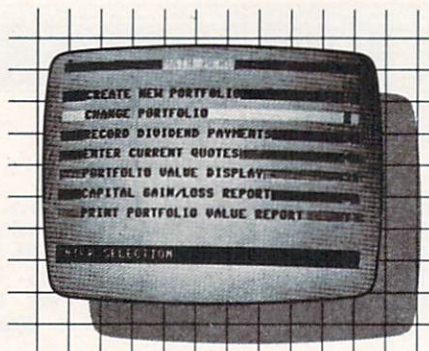
STOCK PORTFOLIO MANAGER

BAB.....(D/T).....34.95/29.95.....NA

STOCK HELPER

MAG.....(NA).....(NA).....NA





PORTFOLIO MANAGER

WALLSTREET MICROSCOPE

DEE.....(D).....(NA).....NA
 DETAILED PRICE AND FINANCIAL ANALYSIS OF COMMON STOCKS/
 EACH STOCK RATED AGAINST 10 CRITERIA/ AVAILABLE WITH 10
 YR. HISTORY OF FORTUNE 500'S / OTHERS SOON.

TAS-64

ABA.....(D).....84.95.....NA
 ANALYZES AND CHARTS (HI-RES TO PRINTER) TECHNICAL
 SECURITIES INDICATORS. INDICATORS MAY BE DOWNLOADED
 FROM DOW JONES NEWS SERVICE OR MANUALLY ENTERED. ONE
 DISKETTE HOLDS UP TO 300 PERIODS FOR UP TO 10 ISSUES.
 SPLIT-SCREEN CHARTING OF 7 MOVING AVERAGES, 3
 OSCILLATORS, 1-99% TRADING BANDS, LEAST SQUARES, & 5
 VOLUME INDICATORS. COMPARATIVE CHARTS FOR 2 DIFFERENT
 ISSUES. SUPPORTS CBM, EPSON, GEMINI, & OKIDATA
 PRINTERS.

TAX PACKAGES

SUPERTAX (I, II, & III)

RDC.....(D).....\$79/89/99.....NA
 I: GENERATES SUMMARIES OF PAGE 1 & 3 AND SCHED. A. PRINTS
 OVERALL SUMMARY OF RETURN SHOWING ADJUSTED GROSS INCOME,
 ITEMIZED DEDUCTIONS, TAXABLE INCOME, REG. TAX, INCOME
 AVERAGING TAX, MIN. TAX, & PAYMENT OR REFUND DUE. ALSO
 COMPUTES: MOVING EXPENSE DEDUCTION, INVESTMENT CREDIT,
 TAXABLE CAPITAL GAINS, POLITICAL & CHILDCARE CREDITS,
 MEDICAL LIMITATIONS, & MORE. (SUPERTAX I IS ALSO
 AVAILABLE ON CASSETTE)
 II: ALL FEATURES OF ABOVE BUT PRINTS ACTUAL INCOME TAX
 RETURN (PAGE 1, 2, SCHEDULES A, B, & 6, FORM 3468) ON
 GOVERNMENT FORMS (WITH FRICTION-FEED PRINTERS) OR BLANK
 PAPER FOR USE WITH TRANSPARENCIES.
 III: ALL FEATURES OF ABOVE TWO MODULES PLUS CALCULATES AND
 PRINTS SCHED. C ALONG WITH A STAND-ALONE DEPRECIATION
 PROGRAM.

THE TAX ADVANTAGE

CON.....(D).....59.95.....NA
 HELPS WITH 1040 FORM/ SCHEDULES A,B,C,D,E,G,SE,4562, AND
 W. INCOME AVERAGING. HELP SCREENS.

FINANCE V

PG1.....(D/T).....59.95/54.95.....NA
 PRINTS FORMS/ MOST SCHEDULES/ USES DATA FROM
 PROGRAMMER'S INSTITUTE'S (PG1) HOME FINANCE PROGRAMS.

TAX FILE

S&G.....(D/T).....19.95/14.95.....NA
 ORGANIZES TAX DATA FROM 23 CATEGORIES/ DOES NOT PRINT
 FORMS.

TAXPAYER'S SURVIVAL PROGRAM

CAR.....(D).....39.95.....NA
 INCLUDES H&R BLOCK INCOME TAX WORKBOOK, HOTLINE PHONE #,
 DISK-BASED TAX TABLES, DISK STORAGE OF YOUR TAX FORM
 DATA, LINE BY LINE PRINTOUT OF TAX FORM DATA, & RUNNING
 TOTAL OF REFUND OR TAX DUE.

SWIFTAX

TMW.....(D).....49.95.....NA
 MENU DRIVEN/ GUIDES USER THRU PREPARATION OF TAX FORMS/
 CHECKS ALTERNATIVES INCLUDING INCOME AVG. AND FIGURES
 LOWEST TAX TO PAY/ CAN PRINT DIRECTLY ON IRS SCHEDULES
 AND GENERATE ITEMIZED ADDITIONAL STATEMENTS/ ALSO
 CALCULATES & PRINTS AMORTIZATION SCHEDULES. YEARLY
 SOFTWARE UPDATES AVAIL. AT SMALL CHARGE.

TAXWARE

SFP.....(D).....44.95.....NA
 STORES ALL TAX INFO ON ELECTRONIC VERSIONS OF MOST TAX
 FORM/ CALCULATES TAX AT ANY TIME/ FACILITATES EASY
 'WHAT-IF' TYPE ANALYSIS/ HANDLES ITEMIZED DEDUCTIONS,
 INCOME AVG., DIVIDENDS, STOCKS, SELF-EMP., RENTS,
 ROYALTIES, MANY OTHERS/ M.L. & COMPILED BASIC

TAX-MAN

SAU.....(D/T).....39.95.....NA
 COMPUTES TAX TABLE / SCHEDULES X,Y,Z / INCOME AVERAGING /
 W/PRINTER FORMS

MISC. BUSINESS & PERSONAL

PRODUCT NAME MEDIA PRICE RTG.

ESI TIME PLANNER

ESI.....(D).....89.00.....****
 USE ON-SCREEN DAILY OR MONTHLY CALENDAR TO SCHEDULE
 EVENTS. 40 COMMANDS ALLOW SCHEDULING BY 15 MIN., 30
 MIN., DAILY, WEEKLY, OR MONTHLY INTERVALS. REPEAT,
 MOVE, & RESCHEDULE EVENTS/ FIND FREE TIME INSTANTLY.
 ON-LINE HELP, COLOR & SOUND, ON-SCREEN REAL-TIME CLOCK/
 CROSS-REFERENCING/ PASSWORD-PROTECTION/ HARD-COPY
 REPORTS/ UP TO 8000 EVENTS PER DISK/ SCHEDULE THRU THE
 YEAR 2000/ UNLIMITED PERSONS AND COMMENTS PER DAY.

TOTL.TIME 2.6

TOT.....(T/D).....35.00/39.00.....***+
 USEFUL FOR SCHEDULING AND MANAGING PROJECTS

RESEARCH ASST.

TOT.....(T/D).....35.00/39.....***+
 UNIQUE CROSS-REF. TOOL FOR BIBLIOGRAPHIES ETC.

BIBLIOGRAPHER

GEM.....(D).....50.00.....NA
 CROSS-REFERENCING PROGRAM

DATE DUE

MWS.....(D).....39.50.....NA
 LIBRARY UTILITIES TO MANAGE OVERDUES ETC. PRODUCES
 HARDCOPY / SORTS & SEARCHES

MASTER LIBRARY PROGRAM

MWS.....(D).....39.50.....NA
 INTERESTING PROGRAM FOR MANAGING LARGE COLLECTIONS OF
 COMPUTER DISKETTES, CATALOGS OVER 8000 TITLES / M.L.
 SORTING / SEARCHES AND FLAGS DUPLICATE TITLES / MORE

CCI MERCHANDISER

CCI.....(D).....599.00.....NA
 POINT OF SALE SYSTEM. TRANSACTION DISKETTE / INVENTORY
 DISKETTE. INTEGRATED COMPUTER- CONTROLLED CASH DRAWER
 AVAILABLE FOR AN ADDITIONAL \$374.00



MISC. BUS./PERSONAL (CONT'D) ↓

PRODUCT NAME
VENDOR CODE MEDIA PRICE RTG.

BARTENDER'S FRIEND
RLR.....(T).....9.95.....NA
CONTAINS HUNDREDS OF RECIPES & BAR TERMS.

RENTAL PROPERTY MANAGEMENT
MSP.....(D).....(NA).....NA

BLACKJACK TEACHER
SOT.....(D/T).....49.95.....NA
FOR THE SERIOUS BLACKJACK STUDENT; SIMULATES CASINO PLAY IN REAL-TIME WITH COMPUTER CONTROLLED PLAYERS/ TEACHES SEVEN DIFFERENT STRATEGIES OF VARYING COMPLEXITY/ MONITORS YOUR PERFORMANCE AND CORRECTS YOUR BAD DECISIONS.

RENTAL MANAGER
FAB.....(D/T).....27.95/24.95.....NA
GENERAL RENTAL RECORD KEEPING WITH YEARLY/MONTHLY COLOR GRAPHING, TRACKS UNIT #'S, RATES, OCCUPANT, & DATES IN USE/AVAILABLE.

FAB BUSINESS
FAB.....(D).....37.95.....NA
PROVIDES MAIL-ORDER OR SMALL BUSINESS WITH: INVOICES/ PACKING LISTS/ LABELS. SUPPORTS CHARGE-CARD DATA AND FEATURES AN INVENTORY DATABASE. PRINTOUTS TO PLAIN PAPER OR SELECTED FORMS (ON 1525, EPSON, GEMINI & SIMILAR PRINTERS).

PM+
LAW.....(D).....129.95.....NA
COMPUTES CRITICAL PATH AND/OR SCHEDULE FOR PROJECTS. REQUIRES NO EXPERIENCE WITH CRITICAL PATH TECHNIQUES. MANAGES 5 LEVELS OF WAGE-RATES, THREE TYPES OF MATERIAL, CAPITAL EQUIPMENT COSTS, AND MISC. EXPENSES FOR EACH PROJECT. EVALUATES ACTUAL VS. ESTIMATED COSTS.

TIMESTAR
F/2.....(D).....24.95.....NA
15 SEPARATE ON-SCREEN TIMERS WITH AUDIO ALARMS CAN TIME FROM 1 SEC. TO 99 MIN., 59 SEC. VARIABLE WARNING PERIODS MAY BE SET FROM 5 TO 50 SECONDS. TIMERS MAY BE LINKED SEQUENTIALLY OR RUN SIMULTANEOUSLY.

DARKSTAR
F/2.....(T).....74.95.....NA
PHOTOGRAPHER'S AID: PROVIDES EXPOSURE, PROCESSING, AND COLOR CORRECTION DATA BASED ON PRINT DENSITY, MAGNIFICATION, LENS OPENING, PAPER TYPE, EMULSION, CONTRAST GRADE, FILTERS.

TENANT FILE
FAB.....(D/T).....17.95/14.95.....NA
MANAGE TENANT DATA FILES / OCCUPANCY AND RATE SPREADSHEETS.

ENERGY MASTER
FAB.....(D/T).....27.95/24.95.....NA
'AN EXTENSIVE UTILITY CONSUMPTION DATA PROCESSING PROGRAM FOR DISPLAY, STORAGE, AND PRINTING WITH METER READING INPUTS.'

DISCALENDER
SUD.....(D).....49.95.....NA
TIME MANAGEMENT: 12 MONTHS OF SCHEDULING AND APPOINTMENTS PER DISK.

MULTI-LEVEL MARKETING MNGR.
CDC.....(?).....(NA).....NA

INVENTORY
SUD.....(D).....79.95.....NA
1200 RECORDS PER DISK/ BACKORDERS/ 3-LEVEL PRICING/ PRINTED REPORTS.

RESTAURANT MANAGER
SUD.....(D).....79.95.....NA
POINT OF SALES RESTAURANT SYSTEM; HANDLES 60 TABLES/ 250 MENU ITEMS/ CREDIT CARDS & TIPS/ PRODUCES KITCHEN & SERVER REPORTS.

ESTATE ANALYSIS
(ESTATE PLANNING)
SMX.....(D).....24.95.....NA

COMPUTA-LAW

LEG.....(D/T).....24.95/14.95.....NA
15 COMMON LEGAL AGREEMENTS: 'JUST ANSWER THE QUESTIONS AND YOUR COMPUTER & PRINTER DOES THE REST'. INCLUDES WILL, POWER OF ATTORNEY, REAL ESTATE AGREEMENT, PROMISSORY NOTE, SEPARATION AGREEMENT, CONSTRUCTION CONTRACT, COMPUTER SOFTWARE CONTRACT & MORE! SOUNDS LIKE A NEAT IDEA!

REAL ESTATE ANALYSIS
(PROPERTY)
SMX.....(D).....24.95.....NA

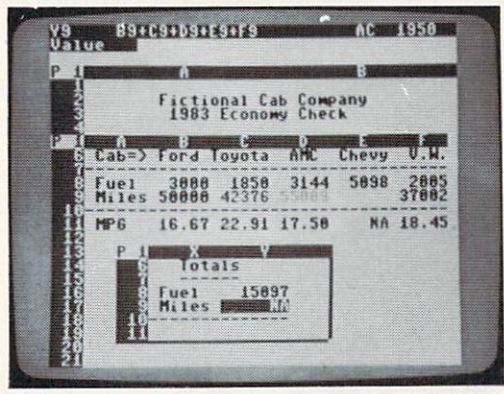
FORM GENERATOR
SIM.....(NA).....19.95.....NA

APPOINTMENTS
SIM.....(NA).....24.95.....NA

TASK ORGANIZER
SIM.....(NA).....24.95.....NA

PRO SPORTS STATS (FOOTBALL)
ECC.....(D).....285.00.....NA
AWESOME SOUNDING DATA BASE ON DISK WITH EVERY CONCEIVABLE STATISTIC FOR NFL AND USFL GAMES SINCE 1970. IMPLIES YOU WILL BE ABLE TO PICK WINNERS MORE OFTEN BY CONSULTING YOUR COMPUTER BEFORE A GAME. (WEEKLY UPDATES ARE INCLUDED FOR \$15 PER MONTH.) IF YOU LIKE THIS PACKAGE, THEY HAVE SIMILAR SYSTEMS FOR BASEBALL, HOCKEY, AND BASKETBALL.

SPREADSHEET SOFTWARE ↓



CALC RESULT ADVANCED

CALC RESULT ADVANCED

HAN.....(R+D).....99.95.....****+
3-DIMENSIONAL SPREADSHEET SUPPORTS SPLIT SCREENS/ WINDOWS/ COLOR GRAPHING/ EXTENSIVE HELP SCREENS/ COMPLEX FORMULAS. SEARCH & SORT ROUTINES WOULD MAKE THIS POWERFUL PACKAGE EXCEPTIONAL.
(SEE REVIEW- PREMIERE ISSUE)

PRACTICAL

CSA.....(D/T).....54.95/49.95.....****
EASY TO USE SPREADSHEET. SEARCHING & SORTING FEATURES ADD EXTRA VALUE HERE.

CALC RESULT EASY

HAN.....(R).....49.95.....****+
SINGLE-PAGE, SCALED-DOWN VERSION OF CALC RESULT (THIS IS THE SMAE PRODUCT COMMODORE MARKETS AS 'EASY CALC 64') NO WINDOWS OR SCREEN-SPLITTING.

MULTIPLAN

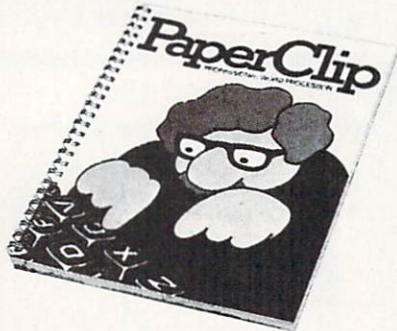
HES.....(D).....99.95.....NA
MICROSOFT'S POPULAR ADVANCED SPREADSHEET PACKAGE IS NOW AVAILABLE FOR THE 64 AT A FRACTION OF ITS ORIGINAL PRICE AND WITH MOST OF ITS ORIGINAL POWER. SINCE MICROSOFT HAS TAKEN H.E.S. UNDER ITS WING, WE CAN LOOK FORWARD TO MANY MORE EXCELLENT OFFERINGS FOR THE 64!

SPREADSHEET ASSIST
RCC.....(NA).....125.00.....NA

SPREADSHEETS (CONT'D)

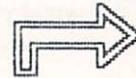
BUSICALC 1			
SEW.....(NA).....	69.00.....		NA
INSTA-CALC			
CIM.....(NA).....	NA.....		NA
FINANCE CALC			
ENT.....(NA).....	69.00.....		NA
BCALC			
MTS.....(D/T).....	44.95/39.95.....		NA
PS: PROGRAMMABLE SPREADSHEET			
CSA.....(D).....	79.95.....		NA
ADVANCED SPREADSHEET USES THE PROGRAMMABILITY OF BASIC TO ALLOW COMPLEX OPERATIONS IN A SPREADSHEET FORMAT.			
JANECALC			
ARK.....(NA).....	NA.....		NA
SPREADSHEET PART OF 'JANE', A MOUSE-BASED INTEGRATED SOFTWARE BUNDLE.			
BUSICALC 2			
SEW.....(NA).....	99.00.....		NA
ESP>CALC			
NLI.....(D/T).....	47.50/43.50.....		NA
ULTRAPLAN			
DAS.....(D).....	NA.....		NA
COMBINED SPREADSHEET & GRAPHICS UTILITIES.			

WORDPROCESSING



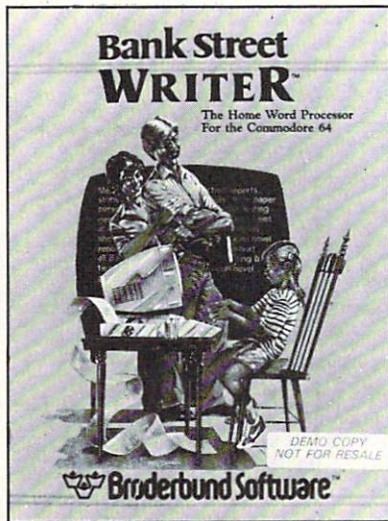
PAPERCLIP			
BAT.....(D).....	89.95.....	*****	
WITH ITS MANY RECENT ENHANCEMENTS, THIS HAS BECOME OUR FIRST 5-STAR WORDPROCESSOR. CAN BE USED WITH 80-COLUMN HARDWARE / HAS SOFTWARE 80-COL. MODE / HORIZONTAL SCROLLING IN 40-COL. MODE / EXTENSIVE SEARCH & REPLACE VARIATIONS / IT WAS A REAL JOY EDITING ISSUE #4 WITH PAPERCLIP.			
PAPERCLIP WITH SPELLPACK			
BAT.....(D).....	119.95.....	*****	
WORDPRO 3 PLUS/64			
(INCLUDES SPELLRIGHT PLUS)			
PRO.....(D).....	99.95.....	****	
FULL-FEATURED, AND A STANDARD OF THE INDUSTRY. WIDELY SUPPORTED BY OTHER VENDORS' PRODUCTS. COMPLETE WITH ALL USUAL FEATURES & COMPATIBLE WITH SEVERAL OTHER MAJOR PRODUCTS. LACKS ON-SCREEN FORMATTING, & MULTI-COLUMN CAPABILITY. SPELLRIGHT (FORMERLY 'SPELLMASTER') IS AN 18,000-WORD SPELLING-CHECKER WITH ROOM FOR 1500 ADDITIONAL USER-ENTERED WORDS.)			
OMNIWRITER (WITH OMNISPELL)			
HES.....(D).....	69.95.....	****	
ON-SCREEN FORMATTING, INTERFACING WITH MULTIPLAN, AND INTEGRAL 30,000 WORD SPELLING CHECKER HIGHLIGHT THE MANY FEATURES OF THIS NEW ENTRY.			
SCRIPT 64			
RTC.....(D).....	105.00.....	****	
FULL-FEATURED WITH SEARCH & REPLACE, NUMERICS, SCREEN FORMATTING, AND DICTIONARY SOFTWARE BUILT IN (YOU MUST BUILD THE VOCABULARY YOURSELF). BUILT-IN 80-COLUMN SOFTWARE, NOW INCLUDES DATABASE MANAGER ('SCRATCH PAD')			

PRODUCT NAME MEDIA PRICE RTG.
VENDOR CODE



EASY SCRIPT			
CBM.....(D).....	<50.00.....	****	
QUALITY AT A LOW PRICE. RANGE OF CAPABILITIES SIMILAR TO WORDPRO 3 PLUS- FEATURES ON-SCREEN FORMATTING AND HORIZONTAL SCROLLING. (DEVELOPED BY PRECISION SOFTWARE LTD.)			
WORDMANAGER			
DAT.....(R).....	\$ FREE.....	****-	
\$ FREE WITH THE PURCHASE OF ANY DATA-20 80-COLUMN VIDEO EXPANSION CARTRIDGE. FEATURES: 80 COLUMNS (NATURALLY) / ON-SCREEN FORMATTING / KEYBOARD 'FEATURE STRIP' / DISK & TAPE STORAGE / MAIL-MERGE			
CIRCASCRIPT			
CIR.....(D).....	39.95.....	****-	
COPYABLE (FOR PERSONAL BACKUPS), M.L. WORDPROCESSOR IS FAST WITH MANY FEATURES: WE LIKE THE ON-SCREEN, ONE-LINE PROMPTS WHICH ACCOMPANY MOST OPERATIONS. THESE, ALONG WITH FULL-PAGE HELP SCREENS, VIRTUALLY ELIMINATE THE NEED TO REFER TO THE MANUAL AFTER THE FIRST READ-THRU. THE GLOBAL SEARCH & REPLACE IS ONE OF THE FASTEST. SUPPORTS THE USUAL ARRAY OF EDIT & FORMAT CONTROLS ALONG WITH EMBEDDED PRINTER CONTROLS. THE PRINTER INTERFACING SECTION IS TOO TECHNICAL FOR MOST USERS. CIRCADIAN'S POLICY (WHICH WE APPLAUD) IS TO PROVIDE ANY AND ALL SOFTWARE UPGRADES AT NO COST TO THEIR CUSTOMERS.			
TOTL.TEXT 2.6			
TOT.....(D/T).....	44.00/40.00.....	****+	
WRITTEN SKILLFULLY IN BASIC WITH MACH. LANG. SUBROUTINES FOR INCREASED SPEED/ FEATURES INCLUDE MERGING OF LABELS CREATED WITH TOTL.LABEL 2.6/ MENU-DRIVEN/ NO SEARCH & REPLACE.			
WORD MACHINE/NAME MACHINE			
CBM.....(D).....	19.95.....	***	
YOU GET A MINI WORDPROCESSOR AND MENU-DRIVEN MAILING LIST PROGRAM SUITABLE FOR LIGHT-WEIGHT LETTER WRITING AND MAILINGS. ALSO INCLUDED ARE DOS 5.1 AND A NICE PROGRAM THAT WILL ADD A 'SMART' DIRECTORY MENU TO ANY OF YOUR DISKETTES.			
CUT & PASTE			
ELE.....(D).....	<40.00.....	***	
ADVERTISED AS 'THE REMARKABLY SIMPLE WORD PROCESSOR'. SIMPLE TO A FAULT. THIS NEW WAVE OF 'TV-DINNER' SOFTWARE IS DISCOURAGING. WHAT 'CUT & PASTE' GAINS IN SIMPLICITY, IT LOSES IN POWER AND UTILITY. NO ONE LIKES UNNECESSARY COMPLEXITY, BUT 64 USERS AREN'T BABIES EITHER- WE DON'T NEED TO BE PROTECTED FROM SEARCH & REPLACE, JUST SHOWN HOW TO USE IT BETTER.			
HOMEWOR			
SIE.....(D).....	49.95.....	***-	
MENU-DRIVEN WORDPROCESSOR FEATURES ICON FUNCTION-- SELECTION AND PICTORIAL VIEW OF DOCUMENT LAYOUT. INCLUDES AUDIOTAPE-BASED TUTORIAL AND DETAILED 30-PAGE MANUAL. (IN SPITE OF THE OBVIOUS THOUGHT, LABOR, AND CONVINCING MARKETING BEHIND THIS PRODUCT, THIS SYSTEM IS VERY SLOW AND ANKWARD TO USE. IT LOOKS PRETTY IN THE STORE, AND IS FUN FOR ABOUT 5 MINUTES, BUT WRITING MORE THAN A MEMO WITH HOMEWORD WILL WIPE THE SMILE RIGHT OFF YOUR FACE.)			
HESWRITER 64			
HES.....(R).....	44.95.....	***-	

WORDPROCESSING (CONT'D)



BANK STREET WRITER
 BRO.....(D).....69.95.....NA
 GENERALLY WELL-REGARDED WORDPROCESSOR ESPECIALLY SUITED TO OCCASIONAL USERS.

MIRAGE WORDPROCESSOR
 -PROFESSIONAL VERSION
 MIR.....(D).....89.95.....NA
 FULL-FEATURED: LINKS WITH THEIR DATABASE MANAGER, & NOW INCLUDES 30,000 WORD SPELLING CHECKER. INTEGRAL 80 COLUMN SOFTWARE.

MIRAGE WORDPROCESSOR
 -PERSONAL VERSION
 MIR.....(D).....39.95.....NA

WRITE NOW
 CAR.....(R).....49.95.....NA
 FULL-FEATURED WITH GLOBAL SEARCH & REPLACE / ARABIC OR ROMAN PAGE NUMBERING / AUDIO CASSETTE INSTRUCTIONS WITH MANUAL / UP & DOWN SCROLLING / LINKS WITH 'MAIL NOW' / SAVES TO TAPE OR DISK.

COPY-WRITER
 CBR.....(NA).....145.00.....NA
 FEATURES INCLUDE DOUBLE COLUMNS & SHORTHAND.

WORDPRO 64
 PRL.....(D).....49.95.....NA
 A PRELIMINARY COPY OF THIS LONG-AWAITED PRODUCT FINALLY CAME FOR EVALUATION- UNFORTUNATELY THE PRELIMINARY DOCUMENTATION IS NOT SUFFICIENT FOR A REASONABLE REVIEW. OUR APPOLOGIES TO ANYONE WHO HAS WAITED 6 MO.S TO BUY A WORDPROCESSOR BASED ON OUR ANTICIPATORY ENTHUSIASM FOR THIS PRODUCT. WHILE THE DOCUMENTATION WE DID GET SUGGESTS A VERY POWERFUL WORDPROCESSOR FOR THE MONEY (IT MAY EVEN BE THE BEST), WE ARE HIGHLY DISMAYED AT PRO-LINE'S ENDLESS DELAY IN BRINGING THIS PRODUCT TO MARKET WHILE TANTALIZING EVERYONE WITH MONTHLY ADS FOR THE LAST 6 TO 9 MONTHS. CLAIMS ALL ORIGINAL WORDPRO FEATURES PLUS: 100% PROPORTIONAL SPACING, 40 TO 136 COLUMNS OF SCREEN DISPLAY (NO, YOU CAN'T READ THEM, BUT YOU CAN SEE WHAT YOUR PAGE WILL LOOK LIKE), COLUMNIZATION (MULTIPLE COLUMN, LIKE THIS MAGAZINE, PRINTED IN ONE PASS), AND 'DOOPS' BUFFER FOR RECOVERY OF ACCIDENTAL DELETIONS. INTERFACES WITH PRO-LINE'S 25,000-WORD SPELLING CHECKER (SEE BELOW), ONE OTHER FEATURE (AND THE POSSIBLE REASON FOR MUCH OF THE DELAY) IS A SET OF COMMANDS WHICH ARE RUMORED TO ALLOW MERGING GRAPHICS FROM OTHER PACKAGES INTO TEXT DOCUMENTS.

WRITER'S ASSISTANT
 RCC.....(NA).....125.00.....NA

JANEWRITE
 ARK.....(NA).....(NA).....NA
 WORDPROCESSING MODULE OF 'JANE'- A MOUSE-BASED INTEGRATED SOFTWARE BUNDLE.

SMITHWRITER
 SSM.....(D/T).....(NA).....NA

BLITZTEXT
 EPI.....(D/T).....89.00.....NA
 4-DIRECTION SCROLLING/ 70 COMMANDS/ WORKS WITH MOST PRINTERS/ SENDS PRINTER CONTROL CODES/ LINK FILES ON UP TO 4 DISKETTES/ INTEGRAL TERMINAL SOFTWARE.

WORD WRITER
 THW.....(NA).....59.95.....NA
 FULL-FEATURED WORDPROCESSOR WITH 80-COLUMN SOFTWARE PREVIEWING, KEYBOARD FUNCTION STRIPS, & ABILITY TO INTERFACE WITH TIMWORKS' DATA MANAGER.2

LETTER WIZARD
 DAS.....(D).....49.95.....NA
 FULL-FEATURED WORDPROCESSOR FROM DATASOFT LINKS WITH 'SPELL WIZARD' SPELLING CHECKER (BELOW)

SCRIPTIMUS
 TRI.....(D/T).....39.95.....NA
 FULL-FEATURED, MENU-DRIVEN, MATH MODE, SIX WORK PAGES IN MEMORY, RS -232 COMPATIBLE.

THE CRITIC
 TOL.....(D).....29.99.....NA
 SOFTWARE 80-COL./ SUPPORTS KEYBOARD GRAPHICS, GLOBALS, WORD-COUNT, QUICK REFERENCE CARD.

SPELLING CHECKERS



SPELLPACK
 BAT.....(D).....49.95.....****+
 USE WITH 'PAPERCLIP' TO CHECK DOCUMENTS AGAINST 20,000 WORD DICTIONARY IN UNDER 4 MINUTES/ ADD 5000 ADDITIONAL WORDS OF YOUR OWN.

SPELLRIGHT PLUS
 (FORMERLY SPELLMASTER)
 PRO.....(D).....<50.00.....****
 INCLUDED NOW WITH WORDPRO III PLUS/64, MAY ALSO BE PURCHASED SEPARATELY. (SEE WORDPRO III ABOVE FOR DESCRIPTION.)

EASYSPELL 64
 CBM.....(D).....<25.00.....****
 20,000-WORD DICTIONARY & SPELLING CHECKER/ WORKS WITH EASYSOFT 64.

TOTL SPELLER 3.6
 TOT.....(D).....35.00.....NA
 CHECKS SPELLING OF DOCUMENTS CREATED WITH TOTL.TEXT 2.6/ COMPILED BASIC/ OPERATES UNATTENDED/ 10,000-WORD STARTER DICTIONARY IS EXPANDABLE TO 24,000 WORDS BY USER/ SUPPORTS MULTIPLE DRIVES & 80-COLUMN HARDWARE.

EASY SPELL
 PRE.....(NA).....(NA).....NA

SPELLPRO 64
 PRL.....(D).....49.95.....NA
 25,000-WORD CAPACITY DICTIONARY BY JIM BUTTERFIELD DESIGNED TO WORK WITH THE WORDPRO LINE OF WORDPROCESSORS OR PROGRAMS USING SIMILAR FILE FORMAT.

SPELL WIZARD
 DAS.....(D).....(NA).....NA
 33,000-WORD DICTIONARY/ WORKS WITH 'LETTER WIZARD' ABOVE.

DATABASE MANAGEMENT



PRODUCT NAME
VENDOR CODE MEDIA PRICE RTG.

SUPERBASE 64
PRE.....(D).....99.00.....*****

THIS TOPS OUR LIST OF THE BEST DATABASE MANAGERS. EXCELLENT PRODUCTS LIKE SUPERBASE 64 ARE ELEVATING THE C64 TO NEW HEIGHTS OF RESPECTABILITY. (SEE REVIEW-ISSUE #3)

THE CONSULTANT
(FORMERLY 'DELPHI'S ORACLE')

BAT.....(D).....99.95.....*****

9 SCREENS PER RECORD / FLEXIBLE REPORTS / PASSWORD PROTECTION. THIS IS A QUALITY PRODUCT OVERALL, THO WE FOUND SOME PROBLEMS WITH INITIAL SCREEN DESIGN, SCREEN AESTHETICS, AND LACK OF FLEXIBILITY IN MAILING LABEL DESIGN.



SOLIDEX

SOL.....(D).....99.95.....*****

REVOLUTIONARY DISK-ACCESS TECHNIQUES INCREASE THE SPEED OF 1541 DISK OPERATIONS BY AS MUCH AS 20 TIMES! / MANAGE UP TO 625 'CARDS' PER DISKETTE/ LIGHTNING-FAST SEARCHES WITH SOPHISTICATED CONDITIONALS. THO WELL DOCUMENTED, THIS PACKAGE TENDS TO BE OVERWHELMING (DUE PARTLY TO THE EXTENSIVE OPTIONS, BUT ALSO TO SOLIDUS' UNIQUE STYLE OF STRUCTURING AND WRITING)/ DOES NOT GENERATE OUTPUT FOR WORDPROCESSORS.

MIRAGE DATABASE MANAGER

MIR.....(D).....89.95.....*****

ALL MACH. LANG. / FREE FORM RECORD DESIGN AND INPUT / CALCULATED FIELDS / RESTRUCTURING / CREATES SEQUENTIAL FILES FOR POPULAR WORDPROCESSORS / ENTIRE PROGRAM RESIDES IN RAM SO DISKS NEED NOT BE SWAPPED DURING OPERATION / THO SOME IMPROVEMENTS HAVE BEEN MADE TO THE ORIGINAL, WE STILL FIND THE MAILING LABEL ROUTINES TOO RESTRICTIVE. REQUIRES A SEPARATE REPORTING PACKAGE (SEE BELOW) TO ACCESS THE MORE POWERFUL REPORTING FUNCTIONS (WE THINK THESE SHOULD HAVE BEEN DESIGNED INTO THE ORIGINAL PACKAGE). GOOD DOCUMENTATION, WITH HANDS-ON TUTORIALS.

M'FILE

DEE.....(D).....109.95.....*****

MENU-DRIVEN / CALCULATED FIELDS / SORT ON ANY FIELD / FAST KEY SEARCH / CREATE SEQUENTIAL FILES FOR WORDPROCESSORS / BUILT-IN BACKUP ROUTINE / DOES NOT ALLOW RE-STRUCTURING OF FILES.

THE MANAGER

CBM.....(D).....50.00.....*****

THIS DBMS HAS MANY UNIQUE AND DELIGHTFUL FEATURES BUT SUFFERS FROM ABOMINABLE DOCUMENTATION AND A LACK OF INTERNAL CONSISTENCY (POSSIBLY DUE TO ITS LONG EVOLUTION AND DEVELOPMENT AT THE HANDS OF MANY CONTRIBUTORS FROM THE TORONTO PET USERS GROUP, WHERE IT ORIGINATED.)

TOTL. INFOMASTER 3.6

TOT.....(D).....50.00.....*****

SORT & SEARCH/ COMPATIBLE WITH TOTL.TEXT, TOTL.LABEL, TOTL.TIME, RESEARCH ASSISTANT, AND TOTL.BUSINESS FILES/ BASIC WITH MACH. LANG. ROUTINES/ SUPPORTS MULTIPLE DRIVES, MOST PRINTERS, 80-COLUMN HARDWARE/ INCLUDES BUILT-IN BACKUP UTILITIES.

DISK DATA MANAGER

MSP.....(D).....79.95.....*****

SORTS 2-DEEP / SEARCHES 3-DEEP / 18 FIELDS PER RECORD / 24 CHAR. PER FIELD / MENU-DRIVEN

MINI JINI

JIN.....(R).....89.95.....***

ENTRY LEVEL DBMS ON CARTRIDGE/ 500 RECORDS PER DISKETTE / SINGLE DEPTH SEARCH AND SORT / AVAILABLE IN ENGLISH, SPANISH, AND FRENCH.

PRACTIFILE

CSA.....(D).....55.00.....**

WE LIKE MANY THINGS ABOUT THIS PACKAGE INCLUDING: THE FLOATING FIELD STRUCTURE/ EASY CONFIGURATION TO MOST EQUIPMENT/ FLEXIBLE SELECTION & REPORT OPTIONS/ RUN-TIME ADDED FIELDS/ CALCULATED FIELDS & COLUMNS/ OUTPUT TO MANY POPULAR WORDPROCESSORS, ETC. (WE DON'T LIKE THE CONSTANT DISKETTE SWAPPING REQUIRED TO USE MOST FUNCTIONS).

THE REASON FOR THE DOWN-GRADED RATING IS THAT THERE SEEMS TO BE A RELIABILITY PROBLEM WHICH WE FIRST ATTRIBUTED TO OUR EQUIPMENT, BUT WHICH NOW APPEARS TO BE SOMEWHERE IN THE CODE. WHATEVER IT IS, IT CAUSES DATA DISKS TO OCCASIONALLY GO BELLY-UP FOR NO APPARENT REASON. IF YOU ALREADY HAVE THIS PRODUCT, WE RECOMMEND MAKING EXTRA-FREQUENT BACKUPS.

POWERFILE

CIS.....(D).....130.00.....NA

MENU DRIVEN / APPLICATION TEMPLATES INCLUDED / SORT 5 DEEP ON ANY FIELD / CREATES SEQUENTIAL FILES FOR WORDPROCESSORS

ASERT

GTC.....(D).....(NA).....NA

MENU-DRIVEN WITH SAMPLE RECORDS INCLUDED/ 180 SEARCH WORDS / BUILT-IN STATISTICAL CAPABILITIES / SORT ON ANY FIELD / COMPILED BASIC WITH ML SORT ROUTINES

INSTA-FILE

CIM.....(NA).....(NA).....NA

CREATE-A-BASE

COC.....(NA).....39.95.....NA

COMPILED BASIC / 8 DEEP SORTS / MENU-DRIVEN

DATALOG

MWS.....(D).....39.50.....NA

DATABASE MANAGER- INTERFACES TO MOST WORDPROCESSORS

DATMAN

SWC.....(D).....59.95.....NA

19 FIELDS / SEARCH, SORT, PRINT REPORTS AND LABELS / INTFC'S TO WORDPRO ETC.

YOUR FILING SYSTEM

MTS.....(T&D).....49.95.....NA

FILING ASSISTANT

RAI.....(NA).....125.00.....NA

DREAM-DB

CAN.....(D).....99.95.....NA

'HIGH-LEVEL RELATIONAL DATA BASE MANAGEMENT SYSTEM...ENGLISH-LIKE COMMAND LANGUAGE...GENERATE ALMOST ANY IMAGINABLE...APPLICATION.' INCLUDES: DATA RELATION GENERATOR/ REPORT GENERATOR/ INTERACTIVE COMMAND INTERPRETER/ SCREEN GENERATOR/ MENU GENERATOR/ PROGRAM EDITOR AND COMPILER.

*(MUST BE USED WITH COMPANION PRODUCT, 'DISK ACCESS MANAGER' (D.A.M.)- SEE PROGRAMMING SECTION.)

DREAM-DB

APPLICATION CASEBOOK

CAN.....(D).....99.95.....NA

TEN READY-TO-RUN APPLICATIONS FOR DREAM-DB (ABOVE): APPOINTMENT SCHEDULING/ CHECKBOOK BALANCING/ TELEPHONE DIRECTORY/ MAILING LIST/ BUDGET MANAGEMENT/ AR/ AP/ CHECK WRITER/ INVENTORY/ ORDER ENTRY. CAN BE USED AS-IS OR MODIFIED BY USER.

DATABASE 64

MEL.....(D).....39.95.....NA

DDB-ONE

MIQ.....(D).....89.95.....NA

DATA MANAGER 2

TMW.....(D).....49.95.....NA

INTERFACES WITH TIMWORKS' 'WORD WRITER' FOR FORM LETTERS, ETC. / PASSWORD PROTECTION / RESIDENT BACKUP UTIL.

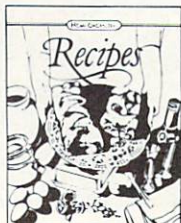
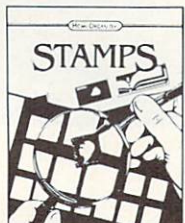
MAILING-LIST SOFTWARE

PRODUCT NAME	VENDOR CODE	MEDIA	PRICE	RTG.
TOTL LABEL 2.6				
TOT..... (D/T).....			24.00/20.00.....	****
MACH. LANG. SUBROUTINES SPEED CRITICAL OPERATIONS, COMMENT LINES / SORTING / BROWSE / MERGES WITH TOTL.TEXT 2.6				
MAIL NOW				
CAR..... (D).....			39.95.....	***
MACH. LANG. SORTS / ASSEMBLY LANGUAGE PROGRAM / MENU-DRIVEN / SUPPORTS 600 ENTRIES / 1 TO 3 LABELS ACROSS / COMMENT LINE / CATEGORY FIELD / SORT BY ZIP, CATEGORY, LAST NAME, OR STATE / SEARCH ANY FIELD- WILD CARDS SUPPORTED / INCLUDES DISK BACK-UP UTILITY / LINKS WITH 'WRITE NOW'				
MAILING LIST				
MSP..... (D).....			54.95.....	NA
PRINTS 4-UP / 1200 ENTRIES PER DISK MAX				
COMMODORE 64 MAILLIST				
RAK..... (D/T).....			17.95/14.95.....	NA
MAINTAINS 300 ENTRIES				
MAILFILE				
STE..... (T).....			14.95.....	NA
MANAGES 200 ENTRIES PER FILE				
MAILING LIST 64				
ENT..... (NA).....			39.00.....	NA
DELUXE ADDRESSER				
BRI..... (T+D).....			40.00.....	NA
ADDRESS MITE				
NEL..... (D/T).....			16.95/14.95.....	NA
64 MAILING LIST				
DES..... (T/D).....			30.00/35.00.....	NA
THE MAILING LIST				
GAL..... (T/D).....			27.95/29.95.....	NA
MAILING-LIST				
LUN..... (T/D).....			39.95/44.95.....	NA
MAILING LIST				
LOG..... (T).....			24.50.....	NA
MAILING LIST V2.0				
SPE..... (T).....			19.95.....	NA

GENERAL LIST & FILE MNGMNT.

HOME ORGANIZER SERIES

BAT..... (D)..... 29.95 EA..... ***
 SERIES OF 8 DEDICATED LIST MANAGERS FOR: STAMPS/ PHOTOS/ MAIL LIST/ HOME INVENTORY/ RECIPES/ CHECKBOOK/ AUDIO--VIDEO/ ADDRESS BOOK. WHILE WE ENCOURAGE READERS TO LEARN HOW TO USE A GENERAL-PURPOSE DATABASE MANAGER AND DESIGN THESE TYPES OF APPLICATIONS THEMSELVES, THESE APPLICATIONS SUBSETS OF THE CONSULTANT MAY BE THE BEST CHOICE FOR SOMEONE WITH A VERY SPECIFIC FILING NEED, OR THOSE WHO ARE OVERWHELMED BY ANYTHING RESEMBLING PROGRAMMING.



THE HOME ORGANIZER SERIES

HOMEBASE 1, 2, & 3

PRE..... (D).....	29.95 EA.....	NA
PRE-PROGRAMMED HOME APPLICATIONS TEMPLATES FOR USE WITH SUPERBASE 64.		
CHECK BALANCING / EXPENSE ANALYSIS		
PRE..... (D).....	34.95 EA.....	NA
PRE-PROGRAMMED HOME APPLICATIONS TEMPLATES FOR USE WITH SUPERBASE 64.		
MAILPRO 64		
PRL..... (D).....	129.95.....	NA
'TOTAL FORMAT AND RECORD SELECTION CONTROL...WORDPRO COMPATIBLE...UP TO 4000 RECORDS ON 1541' CAN BE USED AS A DATABASE MANAGER.		



DIARY 64

HAN..... (R).....	29.95.....	NA
ELECTRONIC NOTEBOOK- KEEPS TRACK OF APPOINTMENTS, PHONE NUMBERS, MEETINGS, BIRTHDAYS, ETC. / ACCESS BY VARIOUS KEYS (DATE, NAME, ETC.)		

DATA MANAGER

TMW..... (D/T).....	24.95.....	NA
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SDB 64

SIP..... (D).....	39.95.....	NA
GENERAL PURPOSE FILING SYSTEM FOR ADDRESSES, HOBBIES, ETC. SORT & RETRIEVE BY ANY FIELD. MENU- DRIVEN WITH PRINTOUT CAPABILITY		

TAPEWORM

ECP..... (NA).....	12.95.....	NA
TAILORED ESPECIALLY FOR KEEPING TRACK OF YOUR TAPES AND RECORDS		

LIST HELPER

MAG..... (NA)..... (NA).....		NA
EDIT, ENTER, AND SORT VARIOUS LISTS		

LIST MITE 2

NEL..... (D/T).....	16.95/14.95.....	NA
GENERAL LIST MANAGEMENT FOR INVENTORIES, COLLECTIONS, ETC.		

OMNIFILE

STG..... (D/T).....	19.95.....	NA
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DATAFILE

FAM..... (D/T).....	17.95/15.95.....	NA
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INVENTORY MANAGER

GOS..... (NA).....	19.95.....	NA
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FILE/CARD

DIG..... (D).....	29.95.....	NA
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DATA/SCAN

DIG..... (D).....	29.95.....	NA
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LOG

MES..... (?).....	9.95.....	NA
EVENT LOGGING AID/ LIST BY DATE OR PERSON		

THESIS MASTER

MCR..... (D).....	29.95.....	NA
ORGANIZES RESEARCH NOTES AND CREATES BIBLIOGRAPHY/ REPORTS/ SORT & SELECT.		

STAMP COLLECTOR

MCR..... (D/T).....	29.95.....	NA
STORE UP TO 14 FIELDS FOR EACH ISSUE INCLUDING CAT. NOS., CAT. VALUES, COND., PERF, WRMK., COLOR.		

HOME LIBRARIAN

MCR..... (D).....	29.95.....	NA
PERSONAL ELECTRONIC CARD CATALOGUE FILE.		

KEEPTACK

DIL..... (D)..... (NA).....		NA
THIS FILE MANAGER COMES WITH A BOOK DISCUSSING USES AND EXAMPLES AS WELL AS OPERATING MANUAL.		

CLASSROOM ADMINISTRATION

GRADEPRO

GEM.....(T/D).....25.00.....NA
 FULL-FEATURED GRADING UTILITY. ALLOWS WEIGHTED OR STRAIGHT AVGS., GENERATES BAR GRAPHS OF GRADE DISTRIBUTIONS, AUTOMATIC GENERATION OF PROGRESS REPORTS.

MASTER GRADES PROGRAM

MWS.....(D).....(NA).....NA
 COMPREHENSIVE GRADES MANAGEMENT SYSTEM FOR TEACHERS. INCLUDES ATTENDANCE / POINT-SYSTEM, PERCENTAGE, AND LETTER GRADE TRACKING AND REPORTING / UP TO 200 STUDENTS

COMPUGRADE

MES.....(D).....24.95.....NA
 MULTI-CLASS GRADEBOOK/ REPORTS TO SCREEN OR PRINTER.

THE ATTENDANCE MASTER

MES.....(D).....39.95.....NA
 KEEPS ATTENDANCE RECORDS FOR UP TO 39 STUDENTS PER CLASS/ UNLIMITED # OF CLASSES.

GRADECALC

TAM.....(D).....29.95.....NA
 KEEPS FILES OF ALL RAW GRADES & ASSIGNMENT INFO/ AVERAGES GRADES IN VARIETY OF WAYS/ GENERATES REPORTS INCLUDING MISSING ASSIGNMENTS, GRADE TOTALS & AVERAGES, ASSIGNMENT SUMMARIES ETC./ ALSO MAINTAINS AND REPORTS ON ATTENDANCE.

TEACHERS' AID

TQL.....(D).....22.95.....NA
 KEEP SCHEDULES, STORE SCORES, ALPHABETIZE, CROSS--REFERENCE STUDENTS & TEACHERS.

GRADE MANAGER 2 PLUS

SMD.....(D/T).....29.95.....NA
 SORT STUDENT LISTS, TRACK ASSIGNMENTS, GRADES, AVERAGES, REPORTS INCLUDE STUDENT LIST, ASSIGNMENT SUMMARY, MISSING ASSIGNMENTS, COMPARISON AND AVERAGES OF ANY 10 ASSIGNMENTS, CUMULATIVE AVERAGES. UP TO 100 STUDENTS AND 65 ASSIGNMENTS PER FILE.

TYPING & KEYBOARD MASTERY

TYPING TUTOR/WORD INVADERS

ACA.....(T).....21.95.....****+
 THIS IS THE BEST TYPING TUTOR WE HAVE SEEN YET; IT CAN GET YOUR CHILDREN TOUCH-TYPING IN SHORT ORDER AND BRING AN OLD HAND UP TO SPEED. INCLUDES EXCELLENT TRAINING MODULES AND AN ARCADE-TYPE MODE TO LIVEN THINGS UP AND PUT SOME PRESSURE ON.

TYPING STRATEGY/LETTER MAN

BEH.....(D).....34.95 EACH.....****+
 BOTH OF THESE TYPING 'TUTORS' USE BEHAVIORAL ENGINEERING'S 'NEURO-LINGUISTIC PROGRAMMING' CONCEPTS TO '...INDUCE THE STRATEGY OF EXCELLENCE' IN THE USER'. WHILE THE TENETS OF NEURO-LINGUISTIC PROGRAMMING ARE MILDLY CONTROVERSIAL, AND BY NO MEANS A CORNERSTONE OF ESTABLISHMENT PSYCHOLOGY, WE LIKE THE THOUGHTFULNESS OF THE APPROACH (THO WE COULD NOT VERIFY ANY UNUSUAL BENEFITS TO OUR TYPING SKILLS). SEVERAL OTHER NLP-BASED PROGRAMS ON OTHER SUBJECTS ARE AVAILABLE FROM BEH AT SIMILAR PRICES.

HAPPY TUTOR

PAC.....(T).....19.95.....***
 THIS IS A PRETTY FAIR TYPING TUTOR WHICH USES A HAPPY FACE AND ANNOYING SOUND EFFECTS TO PRESSURE YOU.

TOUCH TYPING TUTOR

TAY.....(T/D).....19.95/24.95.....NA
 19 LESSONS AND 12-PG. MANUAL.

KIDS ON KEYS

SPI.....(R).....(NA).....NA
 FROM SPINNAKER'S LEARNING GAMES SERIES.

TYPD

ROM.....(R).....(NA).....NA
 DEVELOP SPELLING AND TYPING SKILLS WHILE ESCAPING FROM AN EVIL SPACESHIP.

MASTER TYPE

LIG.....(D).....39.95.....NA
 EARNED INFOWORLD'S HIGHEST RATINGS. WE LIKED THE ORIGINAL AD PITCH; "LEARN TO TYPE OR GET BLOWN TO BITS". COMBINES INSTRUCTION WITH ARCADE PLAY.

PROGRAMMING INSTRUCTION

INTRODUCTION TO BASIC: PART 1

CBM.....(T).....21.00.....***+
 TWO CASSETTES, THOROUGH MANUAL, & FLOW-CHART TEMPLATE (!), WELL DONE PACKAGE TAKES THE BEGINNER THRU THE FUNDAMENTALS WITHOUT TEDIOUS TYPING IN OF EXAMPLE PROGRAMS.

COCO

HES.....(D/T).....49.95.....NA
 PROGRAMMING INSTRUCTION SYSTEM

COCO II

HES.....(D/T).....44.95.....NA
 UNIQUE APPROACH TO GAME PROGRAMMING INSTRUCTION: STEPS USER THRU THE STRUCTURE OF A SAMPLE GAME UNTIL THE USER IS ABLE TO ALTER OR TOTALLY RE-WRITE THE GAME.

STEP BY STEP

PDI.....(D).....59.95.....NA
 GRADUATED INSTRUCTION ON BASIC AND PROGRAMMING TECHNIQUE. ABOUT TWENTY HOURS OF INSTRUCTION WITH QUIZZES.

PROGRAMMING IN BASIC

LYN.....(VIDEOTAPE).....49.95.....NA
 CLOSE TO 2 HRS. OF PROGRAMMING INSTRUCTION (BASIC) ON VHS OR BETA CASSETTE.

C64 TUTOR

CSS.....(?).....29.95.....NA
 TUTORIAL LESSONS PLUS SCREEN DISPLAY EDITOR, SPRITE EDITOR, MUSIC SYNTHESIZER, AND PROGRAMMER'S CALCULATOR (HAS HEX, BINARY, AND DECIMAL FUNCTIONS).

CODEPRO-64

SYS.....(D/T).....59.95.....NA
 COVERS PROGRAMMING IN BASIC, GRAPHICS, & MUSIC. INCLUDES SPRITE AND MUSIC EDITORS AS WELL AS DEMONSTRATION PROGRAMS. ONE UNIQUE FEATURE IS THE ABILITY TO SEARCH THRU THE TUTORIAL USING KEYWORDS TO FIND RELATED MATERIAL.

HOW TO OPERATE YOUR

COMMODORE 64

FLP.....(T).....(NA).....NA
 2 SPOKEN AUDIO CASSETTES PLUS ONE CASSETTE OF PROGRAMS & DATA ACCOMPANIED BY A 45 PG. PRINTED MANUAL. COVERS EQUIPMENT, KEYBOARD, PROGRAMMING, GRAPHICS, SOUND, AND SPRITES.

The image shows two screenshots from the CodePro-64 software. The left screenshot is titled 'MUSIC Demonstrator' and shows a piano keyboard with notes being played. Below the keyboard is a table with columns for 'WF', 'PULSE', 'A', 'D', 'S', 'R', 'DUR', 'S/M', and 'OCT'. The right screenshot is titled 'SPRITE GENERATOR' and shows a grid of characters representing a sprite. Below the grid is a table with columns for 'ID', 'ROW', 'COL', 'DATA', and 'RETURN'. The bottom of the image shows a control panel with various buttons and labels like 'NOTE NUMBER', 'MAX NOTE', 'MOVE NOTE UP OR DOWN, LEFT OR R', 'CURSOR KEYS, THEN HIT RETURN', 'PRESS SPACE BAR TO PLAY NOTE', 'NOTE', 'OCTAVE', 'DURATION', 'LOOP', 'F2-PLAY & SHOW MUSIC', 'F4-PLAY ONLY', 'F1-MAIN F3-CURRENT F5-NEXT', and 'F8-P8'.

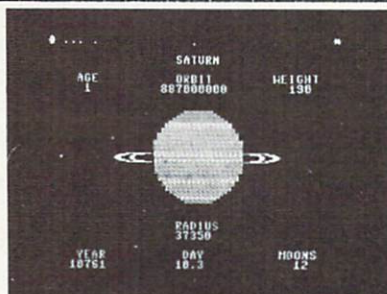
CODEPRO-64

QUIZ-AUTHORING SOFTWARE



PRODUCT NAME	VENDOR CODE	MEDIA	PRICE	RTG.
EASYQUIZ 64				
CBM.....(D).....			19.00.....	***
CREATE LESSONS AND ADMINISTER MULTIPLE CHOICE QUIZZES.				
QUIZMASTER				
RAY.....(T).....			9.95.....	NA
CREATE YOUR OWN QUIZZES OF ANY LENGTH ON ANY SUBJECT.				
QUIZ-KIT				
LOG.....(T).....			14.50.....	NA
CREATE YOUR OWN QUIZZES OF ANY LENGTH ON ANY SUBJECT.				
SPELL-IT!				
LOG.....(T).....			12.50.....	NA
CREATE YOUR OWN SPELLING QUIZZES				
MULTIPLE CHOICE				
MWS.....(D+T).....			29.50.....	NA
CREATE UP TO 150 QUESTION AND ANSWER SETS PER DISK. ANY NUMBER MAY BE EXTRACTED FROM THESE AND SCRAMBLED. TESTS MAY BE CONDUCTED VIA THE SCREEN OR PRINTED OUT.				
QUIZ ME				
SIM.....(NA).....			14.95.....	NA
OMNITEST				
STG.....(D/T).....			29.95.....	NA
DRILLMASTER				
STG.....(D/T).....			17.95.....	NA
QUIZ AND DRILL SYSTEM. COMES WITH STATE CAPITOLS AND VOCABULARY QUIZZES.				
CLAS				
TOU.....(D).....			89.95.....	NA
COURSEWARE AUTHORIZING SYSTEM ALLOWS TEACHERS AND PARENTS WITH NO COMPUTER EXPERIENCE TO CREATE CUSTOM COURSEWARE WHICH USES THE ADVANTAGES OF THE COMPUTER WITHOUT SACRIFICING INDIVIDUAL STYLE AND METHODOLOGY.				

GENERAL EDUCATIONAL SOFTWARE



THE VISIBLE SOLAR SYSTEM				
CBM.....(R).....			<15.00.....	***+
GRAPHIC TOUR THRU THE SOLAR SYSTEM INTRODUCES MANY PLANETARY CONCEPTS EFFECTIVELY AND COLORFULLY.				
MATH TEACHER / SPELLING TEACHER				
CTC.....(T).....			39.95.....	***
FIRST GRADE THRU 9TH. (+ - * /)				
YOU CAN DO MATH!				
MTS.....(D).....			49.95.....	NA
UNIQUE CONCEPT - DESIGNED TO OVERCOME "MATH ANXIETY" BY DETECTING YOUR PROBLEM AREAS AND GIVING THEM SPECIAL ATTENTION.				
ADD/SUB				
BOS.....(NA).....			16.95.....	NA
SINGLE OR MULTIPLE DIGITS. OPTIONAL PICTORIAL REPRESENTATION. SHOWS BORROWING AND CARRYING. AUDIO FEEDBACK.				
NUMER-BECI				
BOS.....(NA).....			16.95.....	NA
NUMBER RECOGNITION / COUNTING / GROUPING / SHAPE, SIZE, & NUMBER DISCRIMINATION				

MATH TUTOR

GTR.....(T).....			15.00.....	NA
K-6 ADDITION AND SUBTRACTION 'ABC'				
THO.....(D/T).....			21.95/18.95.....	NA
THE ALPHABET FOR PRESCHOOLERS. GRAPHICS AND SOUND				
VOCABULARY MASTER				
GAT.....(T).....			20.00.....	NA
500- WORD VOCABULARY BUILDER.				
LANGUAGE TUTOR				
DIG.....(T).....			14.95.....	NA
3 LEVELS EACH: GERMAN OR SPANISH - OR ALL 3 ON ONE DISK FOR 29.95.				
EDUCATION PAK				
COM.....(D/T).....			29.95/24.95.....	NA
4 PROGRAMS: GEOGRAPHY MATCH / MATH ADVENTURE / RULER / MICRO				
ROMAN NUMERALS				
CRG.....(R&D).....			79.95.....	NA
CLASSROOM PACKAGE INCLUDES INSTRUCTOR NOTEBOOK AND STUDENT HANDOUTS.				
THE SPEED READER II				
(2 DISKS)				
DAV.....(D).....			69.95.....	NA
HIGH SCHOOL, COLLEGE, & ADULTS.				
ROCKET LAUNCH/ ADD SPEED/ MATH SQUARES/ NOUNS & VERBS/ ADJECTIVES AND ADVERBS.				
BAN.....(T).....			9.95 EA. (SET; 34.95).....	NA
UNUSUAL ASSORTMENT OF THOUGHT-PROVOKING SOFTWARE COVERING NUMERICAL SEQUENCES, CATEGORIZATION, MATH, & PARTS OF SPEECH.				
PLAYFUL PROFESSOR				
SCR.....(NA).....			29.95.....	NA
ANIMATED LESSONS USE HI-RES AND SPRITES TO INVOLVE CHILDREN IN LEARNING MATH SKILLS. ANIMATED CHALK WRITES VARIOUS INFORMATION TO THE COLORFUL SCREENS.				
PIANO TUTOR/VIOLIN TUTOR				
MES.....(D).....			19.95 EA.....	NA
PUTS NOTES ON A SCALE, SOUNDS NOTE, ASKS FOR NOTE IDENTIFICATION. STUDENT SCORED FOR SPEED AND ACCURACY.				

ADVANCED EDUCATIONAL SOFTWARE

FAST FOURIER TRANSFORM

RED.....(D).....			179.95.....	****
(\$ 59.95 FOR STUDENTS/PROFESSORS) FOR STUDYING OR USING THE FFT./ MULTI-MODE INPUT. TRANSFORM. SAVE. AND HI-RES DISPLAY PLUS UTILITIES AND SAMPLE DATA CASES. INCLUDES EXTENSIVE DOCUMENTATION.				

ALGEBRA ARCADE

WEP.....(D).....			49.95.....	****
GRAPHING OF ALGEBRAIC EQUATIONS (UP TO 40 CHARACTERS) IN HI-RES ON COORDINATE SYSTEM. GAME-MODE HAS YOU ZAPPING 'ALGEBROIDS' WITH THE GRAPHS OF EQUATIONS YOU WRITE. MUCH MORE FUN AND USEFUL THAN IT MAY SOUND.				

NUMBER CRUNCHER

HIN.....(D).....			59.95.....	***+
MENU-DRIVEN STATISTICAL PACKAGE: USER BUILDS DATABASE OF UP TO 3000 LABELED ITEMS/ FOURTEEN TRANSFORMATIONS AVAILABLE/ HANDLES MISSING VALUES/ SECTIONS INCLUDE: UNIVARIATE & BIVARIATE STATISTICS. SCATTER PLOTS. FREQUENCY TABLES & HISTOGRAMS, T TESTS, ONEWAY ANALYSIS OF VARIANCE, MULTIPLE REGRESSION, STEPWISE REGRESSION, & CHI-SQUARE CONTINGENCY TABLE ANALYSIS. CHARACTER GRAPHICS ONLY- WOULD BE MUCH NICER WITH HI-RES GRAPHING.				

STAT

MES.....(D).....			24.95.....	NA
PACKAGE FOR TEACHING STATISTICS INCLUDES: BINOMIAL FREQUENCIES, CONFIDENCE INTERVALS, COMPARISON OF MEANS, CHI-SQUARE, CORRELATION COEFFICIENT, LINEAR REGRESSION, CENTRAL LIMIT THEOREM, ANALYSIS OF VARIANCE, AND BAR GRAPH GENERATOR.				

COMP

MES.....(D/T).....			19.95/14.95.....	NA
DRILL PROGRAM COVERS DECIMALS AND NEGATIVE NUMBERS.				



ADVANCED EDUCATIONAL (CONT'D)

MASTER MATH SERIES (#1-6)

(\$150.00 FOR SET)

- PM1.....(D).....30.00 EACH.....NA
 1- LOGS & ANTILOGS
 2- ALGEBRA & SETS
 3- AREAS & VOLUMES
 4- TEST PROBLEMS: FACTORS, INTEREST, TRIG, CALCULUS, PERCENTS, BASES AND EXPONENTS
 5- TEST PROBLEMS: ALGEBRA, GEOMETRY, STATISTICS, RATIOS, EXPONENTS
 6- TEST PROBLEMS: GEOMETRY, LCM, MAPPINGS, FRACTIONS, ALGEBRA, CURRENCY.
- C-64 WORLD CLOCK**
 RAK.....(D/T).....10.95/7.95.....NA
 SHOWS HI-RES GRAPHIC WORLD MAP AND CALCULATES WORLD TIMES/ CORRECTS FOR DAYLIGHT SAVING TIME & PLOTS APPARENT POSITION OF SUN RELATIVE TO EARTH.
- COLLEGE PAK**
 USE.....(D).....29.95.....NA
 25+ PROGRAMS ASSIST IN STUDY OF COLLEGE-LEVEL MATH, PHYSICS, CHEMISTRY, ENGINEERING, LANGUAGE, HISTORY, & MEDICINE.
- 64-S.A.T.**
 CRQ.....(R&D).....129.95.....NA
 AID PROSPECTIVE COLLEGE ENTRANTS IMPROVE S.A.T. SCORES/ CONTAINS A COMPLETE 18-HR. S.A.T. PREPARATION COURSE.
- COMPUTER SAT**
 HBJ.....(D).....79.95.....NA
 1000 VOCAB-BUILDING FLASH CARDS/ 540 DRILL ITEMS/ COMPLETE 470 PG. TEXT BOOK/ 4 FULL-LENGTH EXAMS/ SCORES & TIMES/ DIAGNOSES STRENGTHS & WEAKNESSES/ PRESCRIBES DRILLS AND REVIEWS.
- ACT/SAT REVIEW**
 QIN.....(D).....179.95.....NA
 98+ PROGRAMS WITH 50,000 QUESTIONS.
- MATH SAT / ENGLISH SAT**
 MLI.....(D).....30.00 EA.....NA
- ASTRO POSITIONS**
 MTS.....(D).....49.95.....NA
 FOR BOTH ASTRONOMERS & ASTROLOGISTS. PROVIDES POSITIONAL DATA FOR 92 STARS, THE PLANETS, SUN AND MOON FOR ANY LOCATION ON ANY DATE AND TIME. PRINTS OR DISPLAYS ASTROLOGICAL CHART DATA.
- CONSTELLATION QUIZ**
 GAT.....(T).....15.00.....NA
 ASTRONOMY LESSONS AND QUIZZES
- MATHPAK**
 LOG.....(T).....49.50.....NA
 6 PROGRAMS (AVAILABLE INDIVIDUALLY FOR 12.50 EA.): STATISTICS, LINEAR EQUATIONS, DATA AND FUNCTION PLOTTING, FUNCTION ANALYSIS, COMPLEX FUNCTIONS, AND MATRIX OPERATIONS. SOME INCLUDE PLOT AND GRAPHING ROUTINES FOR PRINTER.
- THE ACCOUNTING TUTOR**
 TWZ.....(D).....64.95.....NA
 TEACHES ACCOUNTING CONCEPTS USING CONCEPTS BORROWED FROM ARTIFICIAL INTELLIGENCE SYSTEMS.

EDUCATIONAL COLLECTIONS

PRODUCT NAME MEDIA PRICE RTG.

64 PUBLIC DOMAIN

- CBM.....(D).....250.00.....***
 646 PROGRAMS ON 52 DISKS WITH INDEX. COVERS BROAD RANGE OF SUBJECTS AND AGE-GROUPS. MOSTLY EDUCATIONAL WITH SOME ENTERTAINMENT, ADMINISTRATIVE, AND DEMONSTRATION SELECTIONS. NOT ORIGINALLY AVAILABLE TO INDIVIDUAL CONSUMERS, EXCEPT THRU SCHOOLS AND CLUBS, THE SET IS BEGINNING TO SHOW UP FOR SALE AT SOME DEALERS NOW.

EDUCATIONAL 4-PACKS

- MED.....(T).....34.95 EA.....NA
 26 SEPARATE PACKAGES; MOST SUBJECTS COVERED (FROM SOCIAL STUDIES TO DRIVER ED), GRADES K THRU COLLEGE. SOLD IN '4-PACKS' OF RELATED MATERIALS.

EDUCATIONAL ASSORTMENT

- MGR.....(T).....12.95-EA.....NA
 OVER 100 PROGRAMS ON WIDE RANGE OF ACADEMIC SUBJECTS GRADES 1 - ADULT. PRICES COME DOWN FOR SIX OR MORE SELECTIONS. DISKS AVAILABLE FOR EXTRA CHARGE.

EDUCATIONAL ASSORTMENT

- PG1.....(T).....8.95.....NA
 FOR AGES 3-9, SOUND AND GRAPHICS. MOST INTERFACE WITH PG1'S EDUMATE LIGHT PEN. ENTIRE SET AVAILABLE ON DISKETTE FOR \$79.95

EDUCATIONAL ASSORTMENT

- MPH.....(D/T).....(NA).....NA
 GRADES 4 THRU COLLEGE. ALL SUBJECTS INCLUDING SAT ANALOGIES, ANAGRAMS, CALCULUS, PHYSICS, AND CHEMISTRY.

EDUCATIONAL ASSORTMENT

- RSL.....(D/T).....19.95 TO 49.95.....NA
 GRAMMAR, PHONICS, ELEMENTARY MATH, FUN PACKS (EDUCATIONAL GAMES).

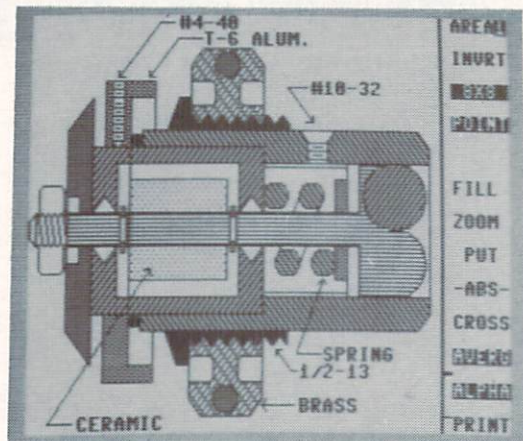
ASSORTED EDUCATIONAL

- DAB.....(D/T).....29.95 TO 39.95.....NA
 AGES 3 TO COLLEGE/ WELL-ROUNDED SELECTION/ SELF-DIRECTING PROGRAMS NEED NO ADULT SUPERVISION/ SELF-CORRECTING & SELF-MOTIVATING. (WE ESPECIALLY LIKE THE SOUND OF 'DISCOVER' FOR 3-5 YRS. AND 'PERPLEXITY'-PROBLEM SOLVING, LOGIC, & ORGANIZATIONAL SKILLS FOR 7 YRS.+)

EDUCATIONAL ASSORTMENT

- EAI.....(D).....(NA).....NA
 WIDE RANGE OF SUBJECTS. BACK-UP DISKS WITH ALL PROGRAMS.

GRAPHICS SOFTWARE



FLEXIDRAW 3

FLEXIDRAW 3

(includes Inkwell's excellent light pen)

- INK.....(D).....150.00.....*****
 COMPREHENSIVE LIGHT-PEN-BASED DRAWING PACKAGE (FOR USE WITH INKWELL SYSTEMS' PROFESSIONAL GRADE LIGHT-PEN) SUPPORTS TRUE HI-RES. (320X200) WITH ELABORATE AREA PATTERN FILLS, UNLIMITED TEMPLATE CREATION, TWO SIZES OF PRINTOUT, SPRITE EDITOR, ANIMATION ROUTINES, COLORING MODE, TELECOMMUNICATIONS MODE FOR TRANSMITTING GRAPHICS VIA MODEM, PROGRAMMING GRAPHICS LANGUAGE/ MORE! NOT A TOY (BUT LOTS OF FUN!) - (SEE REVIEW IN ISSUE #2)

GRAPHICS SOFTWARE (CONT'D)



PRODUCT NAME
VENDOR CODE MEDIA PRICE RTG.

MICRO-ILLUSTRATOR

ISL.....(D).....VARIES.....*****

DIFFERENT VERSIONS OF THIS SOFTWARE ARE FOUND THROUGHOUT A GROWING VARIETY OF SYSTEMS INCLUDING: KOALA PAD, POWERPAD, TECH SKETCH LIGHT PEN, AND SOON TO BE MARKETED BY COMMODORE FOR THE 64 IN A JOYSTICK VERSION.

PAINT MAGIC

DMO.....(D).....35.00.....****

THIS IS A SOLID COLOR GRAPHICS PACKAGE WITH ALL THE USUAL BELLS AND WHISTLES, PLUS SOME UNUSUAL AND DELIGHTFUL EXTRAS LIKE: CREATE HUNDREDS OF YOUR OWN FILL-TEXTURES, CREATE COMPLEX MULTI-COLORED BRUSHES WITH 'GRAB' FUNCTION, MERGE 2 PAGES OF GRAPHICS TOGETHER. SCREEN-DUMPS NOT DIRECTLY SUPPORTED.

DOODLE

CIS.....(D).....39.95.....****

ROUTINES INCLUDE PAINT & ERASE WITH 8 BRUSH SIZES, DUPLICATE, ENLARGE, REDUCE, REVERSE, MIRROR. MENU-DRIVEN / COLOR/ TEXT MAY BE VARIOUS SIZES, ORIENTATIONS, MIXED WITH GRAPHICS, ZOOM, MARVELOUS 'OP ART' FEATURE, BUILT-IN GRAPHICS DUMPS TO PRINTER AT SINGLE OR DOUBLE SIZE.

CADPIC

KIW.....(D).....79.95.....****

IT'S HARD TO RATE THIS PACKAGE BECAUSE IT DOES SO MUCH, BUT DOES IT WITH SUCH DIFFICULTY. CADPIC IS ACTUALLY TWO PROGRAMS (PAINTPIC AND PRINTPIC.) THE DRAWING ROUTINES INCLUDE SUCH UNUSUAL FEATURES AS TILT / PERSPECTIVE LINES / ENDLESS BRUSH PATTERNS / LOAD-SAVE PARTIAL PICTURES / HALVING / DOUBLING / & ROTATION (IN ADDITION, THERE ARE ROUTINES FOR DESIGNING HOOKED RUGS AND 4-COLOR SEPARATIONS!). THE PRINTING ROUTINES PRODUCE GRADUATED GREY-SCALE PRINTOUTS (WHICH CAN TAKE OVER 2 HRS. TO DUMP). ALSO NOTABLE IS CADPIC'S ABILITY TO WORK WITH MICROWEYE IMAGES AND TO TRANSLATE AND DUMP KOALA PICTURE FILES. THE BIG PROBLEMS WITH CADPIC ARE THAT IT DOES EVERYTHING SLOWLY, AND THE MANUAL IS ONE OF THE HARDEST TO READ AND EXTRACT INFORMATION FROM I HAVE EVER SEEN. PAINTPIC AND PRINTPIC ARE AVAILABLE INDIVIDUALLY FOR 39.95 & 44.95, RESPECTIVELY. (MAYBE ALL THESE PROGRAMS REALLY NEED IS A GOOD ERG-CARD!)

GRAPHICS MASTER

PPI.....(R).....59.95.....****

THIS GRAPHICS SOFTWARE ON CARTRIDGE IS COMPERABLE TO MICRO ILLUSTRATOR. THE PRICE INCLUDES THE SUPER SKETCH GRAPHICS TABLET. UNFORTUNATELY, THE TABLET INPUT DEVICE IS TOO SHAKY TO TAKE FULL ADVANTAGE OF THE SOFTWARE. MAYBE THEY SHOULD SELL THE SOFTWARE SEPARATELY AND TAKE THE TABLET BACK TO THE DRAWING BOARD.

PERIPHERAL VISION

(\$59.95 WITH LIGHT PEN)

PGI.....(D).....39.95.....****

FULL-FEATURED LIGHT-PEN-DRIVEN COLOR GRAPHICS PACKAGE. SIMILAR IN DEPTH & FEATURES TO MICRO ILLUSTRATOR. INCLUDES PRINTER DUMP ROUTINE. USE WITH PGI'S EDUATE LIGHT PEN.

COMPUTER CRAYONS

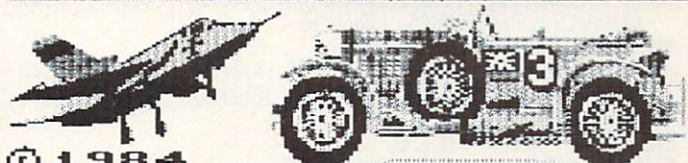
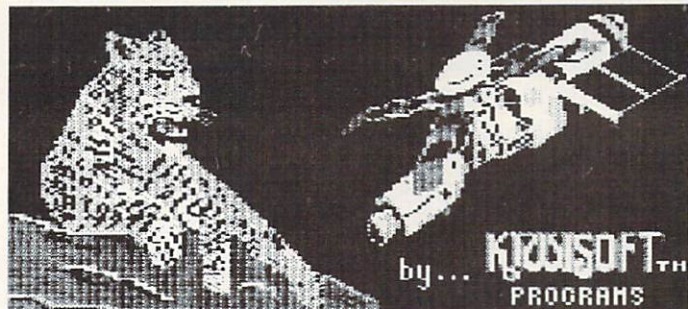
PLA.....(D/T).....29.95.....***

'ELECTRONIC COLORING BOOK' READY TO PAINT PICTURES ON THE SCREEN PLUS ROUTINES FOR DRAWING YOUR OWN: AUTO LINES, CIRCLES, BOXES, ERASING/ STORE & SAVE. AIMED AT YOUNGER CHILDREN; HAS A VERY 'CRAYON-LIKE' FEEL & LOOK.

GRAPHICS DESIGNER 64

ABA.....(D).....32.95.....***+

THIS GRAPHICS PACKAGE IS A LET-DOWN & DOESN'T LIVE UP TO THE QUALITY OF ABACUS' OTHER 3-4 STAR SOFTWARE. COMPLEX, AWKWARD TO USE, AND SLOW. TAKE THIS ONE BACK TO THE DRAWING BOARD.



CADPIC

'64 GRAFIX SAMPLER

MID.....(T).....19.95.....**

SIMPLE SPRITES AND SIMPLER HIGH-RES. ROUTINES. THE PUBLIC DOMAIN STUFF GOING AROUND IS MUCH MORE IMPRESSIVE.

CADPAK-64

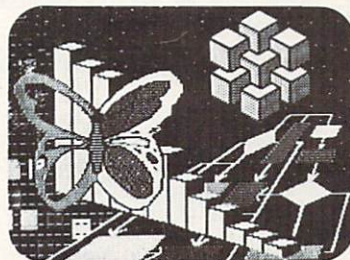
ABA.....(D).....49.95.....NA

LIGHTPEN-BASED HI-RES DRAWING PACKAGE SUPPORTS TEMPLATE DEFINE, SAVE, RECALL, SCALE, & ROTATE / ZOOM / AUTOMATIC SHAPES / COPY / AND HARD-COPY TO POPULAR PRINTERS. LIGHTPEN NOT INCLUDED (THEY RECOMMEND MADISON COMPUTER'S MCPEN AVAILABLE FROM ABACUS FOR \$49.95).

GIBSON LIGHT PEN SYSTEM

KOA.....(D).....(250.00).....NA

SOON TO BE RELEASED FOR THE 64, THIS LIGHT PEN WILL INCLUDE 5 SOFTWARE SUB-SYSTEMS INCLUDING: PENPAINTER (FREEHAND SKETCHING), PENDESIGNER (TEMPLATE DRAFTING), PENANIMATOR (ANIMATION ROUTINES), PENMUSICIAN, AND PENTRAK LANGUAGE SYSTEM (FOR DEVELOPING YOUR OWN APPLICATIONS.) I HAVE SEEN THE PROTOTYPE AND WAS ESPECIALLY PLEASD WITH THE MAC-LIKE PULL-DOWN MENUS.



GIBSON LIGHT PEN SYSTEM



PERIPHERAL VISION



GRAPHICS SOFTWARE (CONT'D)

PICTURE PERFECT

MWE.....(D).....24.95.....NA
 JOYSTICK DRAWING/ 15 COLORS/ AUTO CIRCLES, LINES, BOXES/
 MIX WITH TEXT/ SAVE PICTURES TO DISK

COLORING BOOKS 1 & 2

KOA.....(D).....24.95 EA.....NA
 PRE-DRAWN DESIGNS WHICH MAY BE COLORED IN USING THE
 KOALA-PAD.

LOGO DESIGN MASTER

KOA.....(D).....(NA).....NA
 GRAPHICS & PROGRAMMING LANGUAGE

MEGA DRAW

MEG.....(D/T).....15.95/12.95.....NA
 16 COLOR 'HI-RES' DRAWING - JOYSTICK OR KEYBOARD,
 HARDCOPY.

SLIDE SERVICE

FOR KOALA PICTURES

VIS.....(NA).....(NA).....NA
 THIS OUTFIT WILL MAKE COLOR SLIDES OF YOUR KOALA-PAD
 SCREENS. SIMPLY MAIL IN THE DISKETTES CONTAINING THE
 PICTURES YOU WANT...GET BACK SLIDES!

TRI GRAPH

TRI.....(NA).....34.95.....NA
 SKETCH IN COLOR/ CREATE CHARTS/ ANIMATE CHARACTERS/
 BUILD SHAPE-SCREEN LIBRARIES

MOVIEMAKER

RES.....(D).....(NA).....NA
 THIS ANIMATION CREATION SYSTEM CAUSED QUITE A STIR AT
 CES: IT WILL BE AVAILABLE SOMETIME LATER THIS YEAR FOR
 THE 64- SHOULD BE GOOD.

HESFONT

HES.....(R).....19.95.....NA
 FONT EDITOR FACILITATES CREATION AND EDITING OF TEXT AND
 GRAPHICS CHARACTERS. HELPS TESTING OF ANIMATION
 SEQUENCES. INCLUDES SEVERAL READY TO USE FONTS.

THE GRAPHICS MAGICIAN

PEN.....(D).....59.95.....NA
 CLAIMS THAT ANIMATION AND DRAWING ROUTINES IN THIS
 PACKAGE ARE USED BY SIERRA ON-LINE, SPINNAKER, ADVENTURE
 INT'L, AND OTHERS IN THEIR SOFTWARE. GRAPHICS FILES
 DONE ON THE 64 WITH THIS SYSTEM ARE SAID TO BE
 TRANSFERABLE BETWEEN THE 64 AND THE MAC, IBM, & ATARI.

VIDEO VAN GOGH

ACA.....(D).....21.95.....NA
 USE JOYSTICK TO CREATE 'HI-RES' COLOR DRAWINGS. STORE
 ON DISK.

* 64 PENCIL

DUN.....(D/T).....24.95.....NA
 M.L. HIGH-RES DRAWING. SINGLE-KEY COMMANDS / JOYSTICK
 'PENCIL' / 10 SPEEDS / BLOCK DUPLICATION / ERASE / 1525
 PRINTER DUMP / SAVE TO DISK OR TAPE

SCRIBBLER

SNX.....(T).....35.95.....NA
 HIGH-RES. DRAWING IN MULTI-COLOR MODE, MAGNIFY, PAINT, &
 CIRCLE COMMANDS; JOYSTICK REQUIRED.

PAINT WIZARD

DMO.....(R/D).....< 40.00.....NA
 DRAW ON THE SCREEN. AUTOMATIC CIRCLES, LINES, PATTERNS.

DELTA DRAWING

SPI.....(R).....(NA).....NA

SCREEN-GRAPHICS-64

ABA.....(D/T).....27.95/24.95.....NA
 ADDS 20+ COMMANDS TO BASIC ALLOWING SIMPLE MEANS FOR
 DRAWING POINTS, LINES, BOXES, AND SPRITES. DISPLAYS CAN
 BE SAVED TO TAPE OR DISK.



PLOTTING & PRINTER GRAPHICS

PRODUCT NAME	VENDOR CODE	MEDIA	PRICE	RTG.
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DOODLE

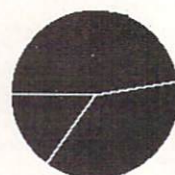
CIS.....(D).....39.95.....****

I REPEAT THE LISTING OF DOODLE HERE BECAUSE I USE IT
 PRIMARILY FOR PRINTER GRAPHICS (MANY OF THE TITLES &
 LABELS IN THIS ISSUE) AND IT IS VERY POWERFUL IN THAT
 APPLICATION-THE OTHER FEATURES (COLOR, FREE-FORM
 SKETCHING ETC.) ARE LESS IMPRESSIVE BONUSSES.

CHARTPAK-64

ABA.....(D).....42.95.....****

TAKES DATA INPUT (MANUALLY OR FROM BUSICALC) TO PRODUCE
 A WIDE VARIETY OF BUSINESS CHARTS & GRAPHS TO SCREEN OR
 PRINTER. AUTO-SCALING/ PIE, LINE, BAR, & COMPARATIVE
 CHARTS/ DISPLAYS UP TO 4 DATA SETS SIMULTANEOUSLY/
 COLOR & SHADING SELECTION/ 2 PRINT SIZES/ SAVE TO DISK.



FLEXILOT

INK.....(SEE FLEXIDRAW IN GRAPHICS SECTION)

NOW INCLUDED WITH FLEXIDRAW, PLOTTING ROUTINES CURRENTLY
 SUPPORT THE CBM 1520 PLOTTER AND SWEET-P MODEL 100
 PLOTTER.

PRINTER UTILITY PROGRAMS

CAR.....(D/T).....24.95/19.95.....****+

ALLOWS SCREEN DUMPS (NORMAL OR REVERSED) TO ALMOST ALL
 DOT MATRIX PRINTERS. ALSO ALLOWS PRINTING OF ENTIRE CBM
 CHARACTER SET (GRAPHICS SYMBOLS TOO). ALSO INCLUDES TWO
 LARGE PRINTER FONTS FOR BANNERS OF VARIOUS SIZES.

Shakespeare Writer

SHAKESPEARE WRITER

ACA.....(D/T).....21.95/16.95.....NA

SIMPLE WORDPROCESSOR UTILITY AND CUSTOM FONT SET ALLOWS
 COMPOSING AND PRINTING OUT TEXT IN OLD-ENGLISH
 TYPE-STYLE.

MATH GRAPH

SIM.....(NA).....19.95.....NA

* 64 BANNER/HEADLINER

MID.....(T).....19.95.....(NA).....NA

USE TO CREATE LARGE BANNERS ON A VARIETY OF PRINTERS.

BOLDFACE

LOG.....(T).....18.00.....NA

ALLOWS USE OF 3 CUSTOM FONTS FOR SPECIAL EFFECTS
 PRINTING.

THE GRAPHICS ASSISTANT

RAI.....(D).....79.95.....NA

BUSINESS GRAPHICS PACKAGE INTERFACES WITH RAINBOW'S
 BUSINESS SOFTWARE FOR CHARTS, GRAPHS, ETC. BAR, LINE, &
 PIE CHARTS GENERATED FROM BUSINESS DATA/ MIXED TEXT &
 GRAPHICS SUPPORTED.

THE BANNER MACHINE

VIR.....(D/T).....49.95.....NA

PRODUCES 8 SIZES OF TEXT PRINT-OUT TO YOU EPSON,
 COMMODORE, OKIDATA, OR PRO-WRITER PRINTER. TEXT FROM
 3/4" TO 8" HIGH. ALSO PRINTS BORDERS.

INSTA-GRAPH

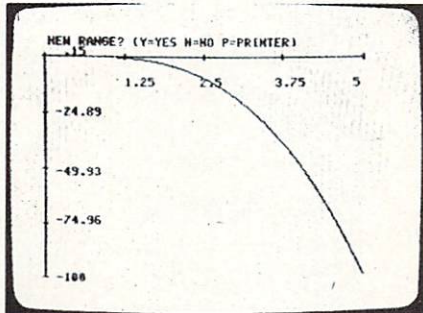
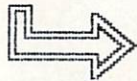
CIM.....(NA).....(NA).....NA

CHARTPLOT-64

ABA.....(D).....84.95.....NA
 SAME FEATURES AS 'CHARTPAK', ABOVE, BUT DRIVES VARIOUS PLOTTERS (INCLUDING; AMDEK, HP, HOUSTON INST., STROBE, SWEET-P, & ROLAND)

GRAF 64

HAN.....(NA).....29.95.....NA
 CONVERTS MATH FUNCTIONS INTO GRAPHICAL ANALYSIS. DEFINE A FUNCTION, SET LIMITS, PLOT GRAPH WITH EXTREMES, INTERSECTIONS, ETC.



SPRITES & CHARACTER EDITORS

PRODUCT NAME	VENDOR CODE	MEDIA	PRICE	RTG.
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SPRITEMASTER 64

ACC.....(D).....35.95.....****

JOYSTICK OR KEYBOARD SPRITE CREATION/ MULTI-COLOR/ SAMPLES INCLUDED/ ANIMATION ROUTINES INCLUDED/ SPRITES MAY EASILY BE APPENDED TO USER PROGRAMS.

SPRYTEBYTER

MTS.....(D).....34.95.....****

MENU-DRIVEN / SUPPORTS MULTI-COLOR / JOYSTICK OR KEYBOARD / M.L. ROUTINES / OVER 60 COMMANDS / ROTATE, INVERT, OVERT, SYMMETRY, AND/OR, REVERSE, ETC. / MOVIE MODE / CREATE UP TO 128 SPRITES PER FILE. RUNS VERY FAST. MENUS ARE EFFECTIVE. PRINTOUTS SHOW SPRITE STRUCTURE AND ALL NECESSARY DATA TO USE IN PROGRAMS.

DELUXE SPRITE SHAPER

QUA.....(T/D).....29.95/31.95.....***

MULTI-COLOR SPRITE EDITOR.

SPRITE DESIGNER

ACA.....(NA).....16.95.....NA

BOASTS ELABORATE MANIPULATIONS FOR SPRITES INCLUDING: MERGE, ROTATE, SHEAR, TRANSLATE, REVERSE, REFLECT, INTERSECT, ETC.

SPRITE-64

CRO.....(NA).....49.95.....NA

ASSEMBLY LANG. / SUPPORTS 64 SPRITES ON SCREEN AT ONE TIME / USE JOYSTICK OR PADDLES / ADDS VARIABLES TO BASIC (SPRITE %, SXZ, SYZ ETC.) NO POKES NEEDED.

SPRITE-AID

ABA.....(T/D).....14.95/17.95.....NA

FULL-FEATURED SPRITE EDITOR: SAVES SPRITES AS READY-TO-USE DATA STATEMENTS. SUPPORTS JOYSTIKS, KEYBOARD, AND MULTI-COLOR.

SPRITE EDITOR

LUN.....(T).....32.95.....NA

CREATE MULTI-COLORED SPRITES.

CHARACTER GENERATOR

WEO.....(D).....24.95.....NA

"...POWERFUL HI-RES GRAPHICS & TEXT THRU REDEFINED CHARACTERS."

SPRITE GENERATOR

WEO.....(D).....24.95.....NA

GAME DESIGNER 64

ENT.....(D/T).....35.95.....NA

DESIGN GAME CHARACTERS, BACKGROUNDS, SCREENS/ ANIMATE UP TO 16 SPRITES/ LINK WITH OTHER PROGRAMS/ COMBINES WITH ENTECH'S STUDIO 64 (FOR ADDING SOUND ROUTINES).

SPRITE WRITER

ACS.....(NA).....19.95/24.95.....NA

SPRITEWRITER

PIX.....(T).....18.95.....NA

SPRITE FUN 64

ENT.....(NA).....30.00.....NA

SPRITE GEN

FAN.....(D/T).....17.95/15.95.....NA

SPRITEMAKER

GTR.....(T).....10.00.....NA

SUPER SPRITE

LIT.....(D).....(NA).....NA

MULTI-COLOR CHAR. EDITOR

JUS.....(D/T).....21.95/19.95.....NA

CREATE YOUR OWN CHARACTER SETS. LOAD AND SAVE / 192 CHARS. AT A TIME / ROTATION AND SHIFTS / CURSOR CONTROLLED

SPRITE GRAPHICS

DEV. PACKAGE

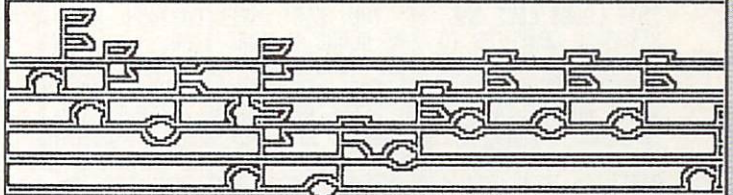
TSI.....(D/T).....19.95.....NA

EDIT 128 NORMAL OR MULTI-COLOR SPRITES/ 'HELP' FEATURE/ 35 COMMANDS/ MACHINE CODE ROUTINES/ 32 SPRITES DISPLAYABLE AT ONE TIME.

MUSIC



SEE 'GALLERY' SECTION FOR A LOOK AT WHAT'S ROCKIN' ON THE 64 LATELY!



PERSONAL ENRICHMENT

DIET CALC

MYS.....(D/T).....24.95/19.95.....***

TELL THE COMPUTER WHAT YOU ATE AND WHAT YOU DID, AND IT WILL CALCULATE YOUR GAIN (OR LOSS)

MODEL DIET

SFS.....(D/T).....29.95/24.95.....***

"ANALYZES YOUR DIET...BASED ON GOVERNMENT RESEARCH...TRACKS CALORIE INTAKE..." (SEE REVIEW IN ISSUE #3).

THE HYPNOTIST

PSY.....(D/T).....87.95/79.95.....NA

INTENDED FOR SELF-ADMINISTERED BEHAVIOR MODIFICATION/ PROGRAM YOUR OWN POST-HYPNOTIC SUGGESTIONS/ INCLUDES PSYCOM'S BIOFEEDBACK DEVICE. (SEE REVIEW THIS ISSUE.)

PERSONALITY ANALYZER

PSY.....(D/T).....32.95/27.95.....NA

ANALYZE SELF & OTHERS REGARDING PERSONALITY TYPE, CAREER POTENTIAL, TENDENCIES, COMPATIBILITIES ETC. - REQUIRES JOYSTICK. (SEE REVIEW THIS ISSUE.)



PERSONAL ENRICHMENT (CONT'D) ↓

EXPANDO-VISON PROGRAMS

STI.....(NA).....39.95 EA.....NA
 SUBLIMINAL PROGRAMMING SYSTEM (REQUIRES \$89.00 INTERFACE). CHOOSE FROM 8 PROGRAMS: WEIGHT CONTROL/EXERCISE, SMOKING/CALM NERVES, STRESS/POSITIVE THINKING, DRINKING/RESPONSIBILITY, ATHLETIC CONFIDENCE/GOLF, STUDY HABITS/MEMORY, CAREER/SUCCESS, SEXUAL CONFIDENCE. SYSTEM FLASHES MESSAGES TO YOUR TELEVISION FOR 1/30 SECOND WHILE WATCHING YOUR FAVORITE SHOWS - TOO FAST TO NOTICE, BUT LONG ENOUGH TO BE ABSORBED BY THE SUBCONSCIOUS. MESSAGES MAY BE VIEWED IN SLOW-MOTION IF YOU WANT TO KNOW WHAT YOU'VE BEEN 'READING'. (SEE REVIEW THIS ISSUE.)

AEROBICS

SPI.....(D).....(NA).....NA
 LEADS YOU THROUGH WARM-UPS, STRETCHES, AEROBICS, & COOL-DOWN.

TOTAL HEALTH

CSA.....(NA).....<30.00.....NA
 GUIDE TO DIET & EXERCISE: MONITOR FOOD INTAKE/ PLOT EFFECTS OF VARIOUS EXERCISE & EATING COMBINATIONS/ DATA ON 200 FOODS INCLUDES COVERING CALORIES, CARBOHYDRATES, SODIUM, FAT, AND PROTEIN/ CALCULATES DAYS TO REACH WEIGHT GOAL BASED ON USERS PLAN.

BIORHYTHM+

NLI.....(T).....14.50.....NA
 CLASSIC BIORHYTHM WITH AUDIO FEEDBACK & COMPATABILITY COMPARISONS/ GENERATES PRINTOUTS.

I-CHING PROGRAM

CY6.....(D/T).....29.95/24.95.....NA
 HAVE YOUR 64 'THROW' AND INTERPRET HEXAGRAMS FROM THE ANCIENT CHINESE 'BOOK OF CHANGES'

IQ64

SNS.....(D/T).....24.95/19.95.....NA
 45-MINUTE, 60-QUESTION PROGRAM FOR AGES 9 & UP TESTS AND CALCULATES IQ/ INCLUDES EXPLANATIONS/ CLAIMS TO HELP IMPROVE IQ TEST PERFORMANCE.

RELAX STRESS-REDUCTION SYSTEM

SYN.....(D).....99.95.....NA
 THIS LOOKS LIKE ONE OF THE BEST APPLICATIONS FOR A PERSONAL COMPUTER TO COME ALONG IN SOME TIME. A TOTAL STRESS REDUCTION SYSTEM INCLUDING A THREE-SENSOR HEADBAND CONNECTED TO AN EMG (ELECTROMYOGRAPH) CONTROL UNIT, AUDIO TAPE WITH DEEP RELAXATION EXERCISES, A PERSONAL PROGRESS WORKBOOK, AND SOFTWARE PROVIDING GRAPHICAL REPRESENTATION OF STRESS VS. TIME WHICH CAN BE DIRECTED TO SCREEN & PRINTER AS WELL AS THREE TENSION--RELAXATION "GAMES" AND PROVISIONS FOR PROGRAMMING-IN SUBLIMINAL MESSAGES TO FURTHER AID IN STRESS-REDUCTION. DEVELOPED WITH THE AID OF SEVERAL DISTINGUISHED EXPERTS IN THE FIELD.

DIETRON

TMM.....(D).....(NA).....NA
 WEIGHT REDUCTION & CONTROL: CALCULATES POTIMAL DAILY CALORIC INTAKE / HELPS PLAN MENUS / CHECKS PROPOSED MEAL PLANS AGAINST 250 ITEM FOOD DATABASE AND OUTPUTS PERTINENT STATISTICS ON YOUR CHOICE / KEEPS CUMULATIVE RECORD OF EACH FAMILY MEMBER'S ACTUAL INTAKE.

MISCELLANEOUS SOFTWARE ↓

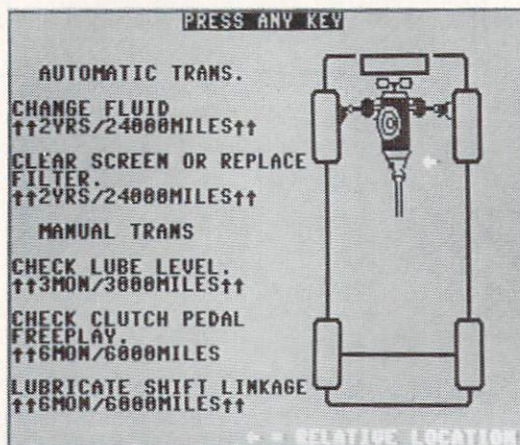
PRODUCT NAME	MEDIA	PRICE	RTG.
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36 HORSE RACE HANDICAPPER

36C.....(D/T).....29.95.....***
 USES 10 OF THE MOST IMPORTANT FACTORS IN RACE OUTCOMES TO CALCULATE ODDS. USE DAILY RACING FORM TO PROVIDE PROGRAM WITH NECESSARY DATA. MANUAL INCLUDES TIPS ON USING THE ODDS GENERATED BY THIS SYSTEM.

COMPUTER MECHANIC

SFS.....(D/T).....26.95/21.95.....***
 ANALYZES WIDE RANGE OF SYMPTOMS BASED ON USER INPUT: TROUBLE-SHOOTING GUIDE / GENERATES MAINTENANCE SCHEDULES/ HI-RES GRAPHICS SHOW CAR LOCATIONS BEING REFERED TO
 (SEE REVIEW IN ISSUE #3)



COMPUTER MECHANIC

THE HANDICAPPER

(THOROUGHbred & HARNESS VERSIONS)

FED.....(T).....29.95 EACH.....NA
 CONSIDERS SPEED, DISTANCE, CLASS, TRACK CONDITION, POST POSITION, PAST PERFORMANCE, JOCKEY OR DRIVER ABILITY, ETC. TO RANK HORSES FOR EACH RACE. HANDICAP A RACE IN MINUTES. A WHOLE CARD IN LESS THAN AN HOUR. FOR BEGINNERS & VETERANS ALIKE. (44.95 FOR BOTH)

FOOTBALL SCOUT

MMS.....(D).....79.50.....NA
 GET THE JUMP ON YOUR RIVALS: ANALYZE OTHER TEAM'S OFFENSE / UP TO 50 PLAYS PER GAME STORED / 6 GAMES MAY BE LINKED FOR A 300- PLAY COMPOSITE REPORT. 3 REPORTS: INDIVIDUAL PLAYS, TENDENCIES, ZONE- HASH- DOWN- DISTANCE CHART.

PRO-GENY

ACS.....(?).....49.95.....NA
 GENEALOGY PROGRAM/ CONFORMS TO LDS STANDARDS/ RECORDS FOR 4 GENERATIONS OF UP TO 10 CHILDREN EACH GENERATION.

THE WORD

BRS.....(D).....199.95.....NA
 COMPLETE KING JAMES V BIBLE ON DISK.

TOPICS

BRS.....(D).....49.95.....NA
 DISK-BASED INDEX TO OVER 200 SCRIPTURE SUBJECTS- COMPANION PRODUCT TO 'THE WORD', ABOVE.

ACTI-TRIP/SPEND/MENU

SEI.....(NA).....24.95.....NA
 3 PROGRAMS IN ONE PACKAGE: TRIP PLANNING, SPENDING, & MENU (FOOD) PLANNING.

64 PAK

CSA.....(NA).....(NA).....NA
 TEN-PROGRAM BUNDLE FOR THE WHOLE FAMILY: 'FLASH CARDS' USER-DEFINED FLASH CARDS FOR DRILLS ON MATH, VOCAB ETC. / 'SPEED READ' RE-TYPE PHRASES (USER-DEFINABLE) FLASHED BRIEFLY ON THE SCREEN / 'SIGN TALK' TEACHES THE SIGNING HAND-CODE OF THE HEARING-IMPAIRED / 'LIFE EXPECTANCY' / 'PERPETUAL CALENDAR' DISPLAY ANY MONTH FROM B.C. TO 9999 A.D. / 'WORLD CLOCK' / 'STATES & CAPITALS' / 'MORTGAGE CALCULATOR' / 'BIG TIME' LARGE ON-SCREEN COLOR DIGITAL CLOCK / 'CASH REGISTER' SHOPPING SIMULATION TEACHES CHILDREN TO MAKE CHANGE.

PRO-BOWL

ACS.....(D).....199.95.....NA
 RECORD KEEPING AND HANDICAPPING FOR BOWLING LEAGUES (...WE WOULD ADD 'WELL-FUNDED' BOWLING LEAGUES)

MISCELLANEOUS (CONT'D)

INSTA-SCHED

CIM.....(NA).....(NA).....NA

PERPETUAL CALENDAR

GTR.....(NA).....10.00.....NA

THE MONTHLY MANAGER

(TIME & BUDGET MGR.)

COC.....(NA).....29.95.....NA

RECIPES SUPREME

MES.....(D).....29.95.....NA

COMES WITH FORTY RECIPES ON DISK. USERS MAY STORE THEIR OWN RECIPES. RECIPES CAN BE AUTOMATICALLY RE-SIZED BASED ON DESIRED NUMBER OF SERVINGS.

RECIPE BOX

ARI.....(D).....19.95.....NA

MENU-DRIVEN 'KITCHEN DATA BASE': SEARCH BY INGREDIENT / SEARCH BY CATEGORY / SEARCH BY BOTH / MEASUREMENT & SERVING CALCULATIONS / DUMP TO PRINTER

DECISION MAKER

CRE.....(D/T).....19.95/14.95.....NA

CAR COSTS

CRE.....(D/T).....19.95/14.95.....NA

HOME INVENTORY SYSTEM

GAT.....(T).....9.95.....NA

HOME INVENTORY

CRE.....(D/T).....19.95/14.95.....NA

HOME INVENTORY

MIQ.....(NA).....29.95.....NA

UTILITY TRACKER & FORECASTER

MIQ.....(NA).....29.95.....NA

C*A*R*S

NLI.....(D/T).....27.50/24.50.....NA

GRAPH & MONITOR CAR COST & EFFICIENCY/ INCLUDES INSURANCE, PAYMENTS, TAXES, LICENSE FEES & REPAIRS/ PRINTED OR SCREEN REPORTS.

BASKETBALL STATS

MWS.....(D).....39.50.....NA

MENU-DRIVEN AID FOR COACHES: TRACK 18 PLAYERS THRU 30 GAMES / REPORTS ON FIFTEEN STATISTICS (ELEVEN ARE PRE-DEFINED) / PRINTER SUPPORTED

ARCADE & ACTION GAMES

ZEPPELIN

SYN.....(D/T).....34.95.....*****

A WONDERFULLY ANIMATED, CONVOLUTED GAME! THIS MAY LOOK LIKE SOME OTHER FLY-THRU-THE-TUNNELS GAMES, BUT THIS ONE IS REALLY ADDICTIVE.

(SEE 'GALLERY' ISSUE #3)

WIZARD

PRG.....(D).....39.95.....*****

THIS SENSATIONAL 50-SCREEN SIZZLER IS SURE TO DELIGHT ANYONE WHO ENJOYS THE JUMPMAN GENRE. GOING MUCH FURTHER WITH THE ROPES AND LADDERS THEME, WIZARD SPARKLES WITH BRILLIANT ANIMATION, VISUAL HUMOR, CREATIVE SPELLS, AND PROFESSIONAL SOUND EFFECTS. BEST OF ALL, THE GAME HAS A FULL-BLOWN CONSTRUCTION SET MODE WHICH ALLOWS TOTAL CONTROL OVER ALL THE GAME PARAMETERS, AND PROVIDES THE USER WITH THE TOOLS TO CREATE 50-SCREEN DISKS OF THEIR OWN DESIGN.

JUMPMAN

EPY.....(D).....39.95.....*****

ONE OF THE ALL-TIME GREATS / YOU CAN PLAY THIS GAME FOR MONTHS WITHOUT GETTING BORED.

(SEE 'GALLERY'- ISSUE #1)

NIGHT MISSION PINBALL

SUB.....(D).....49.95.....*****

AWARD-WINNING PINBALL SIMULATION WITH TEN LEVELS OF PLAY/ ALSO FEATURES AN EDITOR FEATURE FOR CUSTOMIZING THE GAME.

DAVID'S MIDNIGHT MAGIC

BRO.....(D).....34.95.....*****

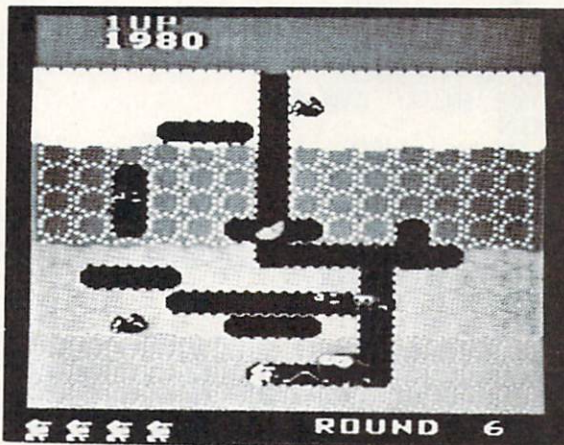
CONVINCING PHYSICS MAKE THIS PINBALL SIMULATION STAND OUT. (SOUND EFFECTS COULD HAVE BEEN MUCH BETTER). (SEE 'GALLERY'- PREMIERE ISSUE.)

DIG-DUG

ATA.....(R).....44.95.....*****

ATARI IS ESPECIALLY PROUD OF THIS CONVERSION TO THE 64/ WE LIKE IT TOO!

(SEE 'GALLERY'- ISSUE#3)



DIG-DUG

DONKEY KONG

ATA.....(R).....44.95.....*****

THE ORIGINAL NINTENDO ARCADE GAME BROUGHT TO COMMODORE BY ATARI! IF YOU NEED THIS GAME DESCRIBED, YOU HAVE BEEN OFF THE PLANET FOR THE LAST COUPLE OF YEARS. THE 64 VERSION OUTSHINES EVEN THE ATARI VERSION.

(SEE 'GALLERY'- ISSUE #2)

CENTIPEDE

ATA.....(R).....44.95.....*****

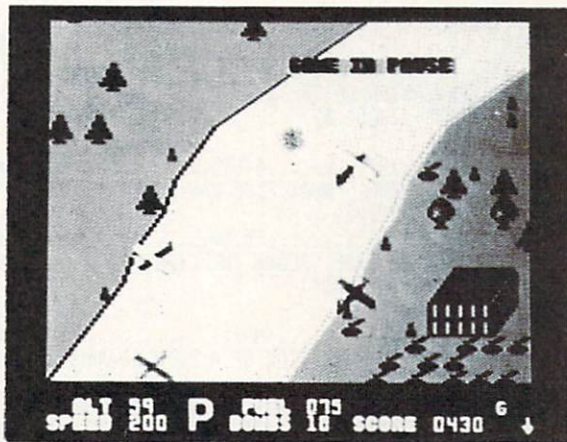
ONCE AGAIN, A COMPLETELY CONVINCING ADAPTATION OF THE CLASSIC, WITH ALL THE NUANCES OF THE ORIGINAL.

BLUE MAX

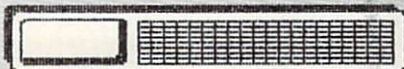
SYN.....(D/T).....34.95.....*****

STRAFING & BOMBING ACTUALLY MADE FUN. VERY DETAILED ANIMATION, GRAPHICS, AND SOUND. BLUE MAX IS LIKE A WORLD WAR I VERSION OF 'ZAXXON', WITH ANGLED SCROLLING, AND REALISTIC SHADOW UNDER PLANES. READOUTS FOR FUEL, DAMAGE, WIND, LANDING GEAR, ETC.

(SEE 'GALLERY' ISSUE #3)



BLUE MAX



ARCADE & ACTION GAMES CONT'D

Q*BERT

PAR.....(R).....44.95.....*****
 ABSOLUTELY FAITHFUL RENDITION OF THE COIN-OP FAVORITE.
 THE 64 VERSION SURPASSES ALL OTHERS/ SUPERB ANIMATION,
 SOUND, GRAPHICS AND GAME-PLAY.
 (SEE 'GALLERY'- ISSUE #2)

BUGABOO

QUI.....(D/T).....29.95/24.95.....*****
 HIGH MARKS FOR ORIGINALITY! WHIMSICAL FANTASY GAME IN
 WHICH YOU ARE A CUTE LITTLE FLEA TRYING TO AVOID A
 FLEA-EATING PRTERODACTYL!
 (SEE 'GALLERY' ISSUE #3)

ZAXXON

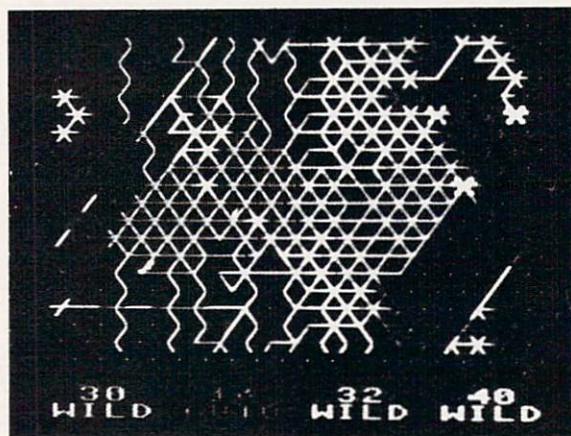
SYN.....(D/T).....34.95/39.95.....*****
 3-D EFFECT WITH ANGLED SCROLLING, SHADOWS; A WINNER.

GRIDRUNNER

HES.....(R).....39.95.....*****+
 FAST & COLORFUL SOMEWHAT REMINISCENT OF ATARI'S
 'CENTIPEDE' BUT WITH MANY ORIGINAL TWISTS.
 (SEE "GALLERY"- PREMIERE ISSUE .)

WORMS

ELE.....(D).....35.00.....*****+
 UNIQUE GAME IN WHICH PLAYERS (UP TO 4) PROGRAM THEIR
 COLORFUL, MUSICAL "WORMS" TO TAKE OVER AND DOMINATE THE
 GAME GRID. THE 64 WILL PLAY THE PARTS OF ANY MISSING
 PLAYERS.
 (SEE 'GALLERY' ISSUE #3)



WORMS

ROBOTRON: 2084

ATA.....(R).....44.95.....*****+
 IF YOU LIKED IT IN THE ARCADES, YOU'LL BE HAPPY WITH
 THIS ATARI CONVERSION OF THE WILLIAMS GAME FOR THE 64.
 (SEE 'GALLERY'- ISSUE #2)

PAC-MAN

ATA.....(R).....44.95.....*****+
 IT'S THE 'REAL' THING. WHAT ELSE CAN WE SAY?

HARD HAT MACK

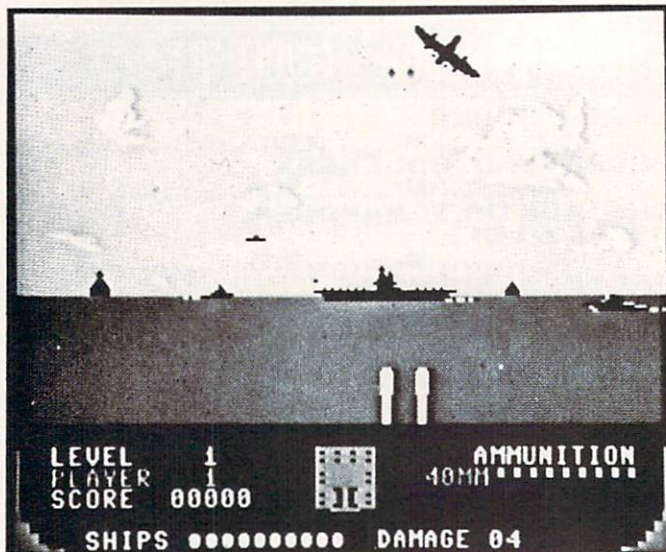
ELE.....(D).....35.00.....*****
 ENTERTAINING ARCADE GAME, ALONG THE LINES OF, BUT NOT
 QUITE AS GOOD AS 'JUMPMAN'.

FROGGER

PAR.....(R).....(NA).....*****
 AGAIN, A VERY GOOD TRANSLATION OF A POPULAR ARCADE GAME.

BEACH-HEAD

ACC.....(D).....34.95.....*****
 FIRST-RATE NAVAL BATTLE SIMULATION WITH MULTIPLE
 SCREENS, SMOOTH 3-D MACHINE-LANG. ARCADE-QUALITY
 ANIMATION AND SOUND.
 (SEE 'GALLERY'- ISSUE #2)



BEACH-HEAD

REPTON

SIR.....(NA).....39.95.....****
 A FIRST-RATE DEFENDER TYPE GAME! M.L. OF COURSE. GREAT
 ACTION, ANIMATION, SOUND, AND PLAY FEATURES.

BRISTLES

FIR.....(D).....<40.00.....****
 LIVELY GAME STARS PETER THE PAINTER. FOUR PLAYERS CAN
 TRY TO PAINT THE MANY ROOMS, DECIPHER THE SECRET
 MESSAGE, ACTION, ROMANCE, ELEVATORS... WHAT MORE COULD
 A JOYSTICK-JOCKEY ASK FOR.
 (SEE 'GALLERY' ISSUE #3)

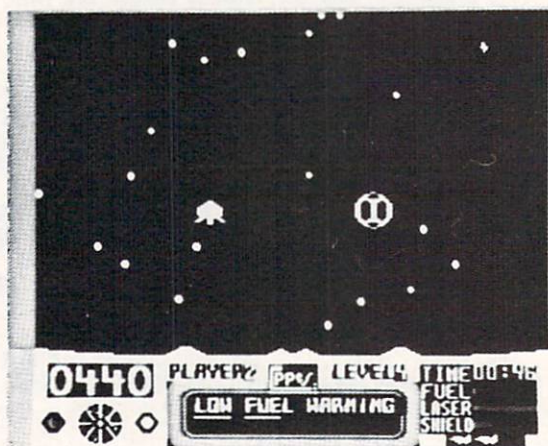
THE BALL'S REVENGE

TQL.....(D).....29.95.....*****
 ENGAGING LOCKER-ROOM HI-JINX. BOP VARIOUS JOCKS WITH
 YOUR BEACH-BALL AS THEY SCOOT ACROSS THE SCREEN. GREAT
 MUSIC! (THIS IS THE BEST SELECTION OF A 5-PROGRAM DISK
 CALLED 'QUANTUM CACHE')

(SEE 'GALLERY' ISSUE #3)

PERPLEXIAN CHALLENGER

PRG.....(D/T).....29.95.....*****
 THE BEST 'FLYING THRU SPACE, LOOKING THRU THE
 VIEWSCREEN' GAME WE'VE SEEN. THIS NIFTY RENDITION HAS
 LOTS OF LITTLE GOODIES, ESPECIALLY THE CUNNING SOUND
 EFFECTS! EVEN THE 'GAME-OVER' SEQUENCE IS A GEM.
 (SEE 'GALLERY' ISSUE #3)



PERPLEXIAN CHALLENGER

ARCADE & ACTION GAMES CONT'D

POGO JOE
SCR.....(D).....<40.00.....****
3-D, FULLY ANIMATED, MULTIPLE-SCREEN GAME OF THE 'DIBERT' PERSUASION. IF YOU CAN FINISH THE 10TH SCREEN AND CORRECTLY REPORT THE WORD THAT APPEARS, YOU GET TO ENTER SCREENPLAY'S DRAWING FOR \$10,000! EVEN IF YOU DON'T GET THE CASH, YOU'LL HAVE FUN.
(SEE 'GALLERY' ISSUE #3)

WAYOUT
SIR.....(D).....39.95.....****
BEST 3-D MAZE GAME WE HAVE SEEN/ FLOWING ANIMATION/ FREE 'WAYOUT' GLASSES!

BANDITS
SIR.....(D).....39.95.....****
GOOD SPACE GAME OF THE 'GALAXIAN' GENRE.

AXIS ASSASSIN
ELE.....(D).....35.00.....****
SURVIVE THE WEB-SPINNING 'MASTER ARACHNID' AND RESCUE EXTRA MEN FROM ITS NEST.

MOTOR MANIA
UMI.....(D/T).....29.95.....****
ONE OF THE EARLIEST M.L. GAMES THAT CAME OUT FOR THE 64 / IT'S STILL FUN AFTER ALL THESE MONTHS!
(SEE 'GALLERY'- PREMIERE ISSUE.)

FROGGER
SIE.....(D).....34.95.....****
(SEE 'GALLERY'- PREMIERE ISSUE.)

FLIP & FLOP
FIR.....(D).....<40.00.....****-
INVENTIVE ANIMATED GAME HAS YOU HOPPING ALL OVER THE PLACE (THEN, JUST WHEN YOU GET THE HANG OF THINGS, YOU'RE SUDDENLY UPSIDE DOWN!)

DEFENDER
ATA.....(R).....44.95.....****-
A CLASSIC IN THE ARCADES (I'M GLAD ATARI SPENT SOME OF MY QUARTERS ON THE R&D TO BRING THIS OUT ON CARTRIDGE FOR THE 64!), THE CONTROLS LACK THE ORIGINAL'S RESPONSIVENESS, AND LEAVE THE EARTH IN MUCH GREATER DANGER!

FORT APOCALYPSE
SYN.....(D/T).....34.95.....****-
TAKE YOUR JET COPTER DOWN THRU TUNNELS AND CAVE. GOOD ARCADE ACTION, BUT THE DIFFICULTY OF SURVIVING MAKES THIS GAME A BIT FRUSTRATING: JOYSTICK.

CENTROPODS
CDC.....(T/D).....19.95/23.95.....****+
CENTIPEDE THEME/ M.L. / JOYSTICK.

NEUTRAL ZONE
ACC.....(T/D).....34.95.....****+
DEEP SPACE COMBAT/ ALL M.L. HI-RES. SMOOTH SCROLLING (360 DEG.) / 3-D REALISM / GREAT SOUND EFFECTS.

KONGO KONG
VCT.....(T/D).....19.95/22.95.....****+
ROLLING BARRELS, LADDERS, & THE FAMOUS GORILLA.

ATTACK OF THE PHANTOM KARATE DEVILS!
PHA.....(D/T).....34.95.....****+
LOVE THE NAME! MARTIAL-ARTS THEME/ SEND YOUR BLACK-BELTED WARRIOR UP AGAINST DEADLY NINJAS. PUNCHES, KICKS & LEAPS CONTROLLED BY JOYSTICK/ LOOK OUR FOR ASSORTED DEADLY PROJECTILES. GOOD SPRITE ANIMATION.
(SEE 'GALLERY'- ISSUE #2)

MAN FROM N-10 / FLASHMAN
TOL.....(D).....19.95.....****+
'MAN FROM N-10' IS A WELL-DONE 'MISSION-IMPOSSIBLE' TYPE GAME. 'FLASHMAN', ON THE OTHER HAND,... WELL, THINK OF IT AS A FREE GIFT.

KILLER PILLER
CAS.....(D).....9.99.....****+
SIMILAR TO 'CENTIPEDE' WITH SOME INTERESTING TWISTS/ GOOD GRAPHICS AND SOUND (NO, THE PRICE IS NOT A MISPRINT).
(SEE 'GALLERY'- ISSUE #2)

METAMORPHOSIS
VCT.....(D/T).....19.95.....****+
MULTI-SCREEN GAME REMINISCENT OF 'ROBOTRON'
(SEE 'GALLERY'- ISSUE #2)

PURPLE TURTLES
QUI.....(T).....29.95.....****+
ENTERTAINING WELL-ANIMATED NON-VIOLENT GAME HAS YOU CROSSING A STREAM ON THE BACKS OF UNPREDICTABLE DIVING TURTLES (SORT OF LIKE 'FROGGER' IN CROSS-SECTION)
(SEE 'GALLERY' - ISSUE #2)

RETRO BALL
HES.....(R).....39.95.....****+
M.L. AIR-HOCKEY SIMULATION. JOYSTICKS REQ'D.

PAKACUDA
CDC.....(T/D).....19.95/23.95.....****+
THIS PAC-MAN CLONE WITH AN AQUATIC THEME IS WELL DONE.
(SEE 'GALLERY'- PREMIERE ISSUE.)

GRIDDER
MDG.....(D/T).....24.95/19.95.....****

LASER STRIKE
ISI.....(D/T).....29.95/24.95.....****
ORIGINAL GRAPHICS ADD APPEAL TO THE FAMILIAR CRUISE, SHOOT, & BOMB THEME.
(SEE 'GALLERY'- ISSUE #2)

FAST EDDIE
SIR.....(D).....34.95.....****
CUTSIE GAME GETS OLD FAST. NONETHELESS, THE GRAPHICS ARE SMOOTH AND EVERYTHING WORKS.

ANNIHILATOR
VCT.....(NA).....19.95.....****
SMART-BOMBS & BLASTERS, ANIMATION

CANDY-MAN
STA.....(T).....24.95.....****
MUNCH THRU THE FAMILIAR MAZE. M.L. W/ SCROLLING WINDOW. USES KEYBOARD GRAPHICS.

ARCADE PAK
COM.....(T).....24.95.....****
3 GAMES:
HEAD ON, ALIEN INVASION, & TARGET COMMAND.

GAME PAK
COM.....(T).....14.95.....****
3 GAMES:
DRAGON CHASE, DEFLECT, & FLIP-IT.

CONVENTIONAL GAMES

VENDOR CODE	MEDIA	PRICE	RTG.
ODESTA'S "MIND OF MAN" SERIES IS NOW AVAILABLE FOR THE 64. THESE ARE ABSOLUTELY THE BEST! (MAY BE PURCHASED SEPARATELY OR TOGETHER IN A CLASSY BOX AT A REDUCED PRICE.) (INCLUDES CHESS 7.0 / ODIN / & CHECKERS 2.1).			
HOW ABOUT A NICE GAME OF CHESS?			
ODE.....(D).....		29.95.....	*****
SAME ANALYTICAL FEATURES & PLAYS THRU ALL BUT THE HARDEST LEVELS OF CHESS 7.0. INCLUDES SEVERAL ON-SCREEN GRAPHICALLY ILLUSTRATED CHAPTERS OF INSTRUCTION FROM PIECE IDENTIFICATION & OPENINGS TO DEVELOPMENT AND ENDGAMES. THIS IS PROGRAMMING DESIGN, EXECUTION, AND DOCUMENTATION AT ITS FINEST! (SEE 'GALLERY' ISSUE #3)			
CHESS 7.0			
ODE.....(D).....		69.95.....	*****
THESE GAMES DON'T JUST PLAY AGAINST YOU, THEY TEACH AND HELP YOU ANALYZE THE GAME AND YOUR PLAYING STYLE. YOU CAN SET UP SITUATIONS, REPLAY GAMES, SWITCH SIDES, REVEAL GRAPHICALLY WHICH PIECES AFFECT OR ARE AFFECTED BY OTHER PIECES, WATCH THE COMPUTER 'THINK', GET ADVICE FROM THE COMPUTER IF YOU'RE STUCK. 3 KEYS CONTROL ALL FUNCTIONS. LEVELS OF PLAY FROM BEGINNER TO MASTER.			
CHECKERS 2.1			
ODE.....(D).....		49.95.....	NA
ODIN (OTHELLO)			
ODE.....(D).....		49.95.....	NA

ERG-CARD™ REFERENCE CARDS

WELL, BY NOW YOU ALL HAVE YOUR ERGBOARDS, RIGHT? (NO? SEE INSIDE BACK COVER FOR DETAILS ON THE AMAZING ERGBOARD... BE THE FIRST IN YOUR USER GROUP TO OWN ONE... ORDER YOURS TODAY!) ACTUALLY YOU CAN USE THESE REFERENCE CARDS WITHOUT THE ERGBOARD (IT'S JUST

NOT AS HANDY- TAPING THEM TO YOUR MONITOR). INSTRUCTIONS: CAREFULLY REMOVE CENTERFOLD FROM STAPLES, CUT ALONG COLORED BORDERS, POSITION IN ERGBOARD REFERENCE WINDOW, USING THE ORIGINAL CARDS FOR SUPPORT (OR TAPE 'EM TO YOUR MONITOR). USE THE BLANK BACKSIDES FOR MAKING YOUR OWN REFERENCE CARDS. KEEP SENDING YOUR SUGGESTIONS FOR ERG-CARDS YOU'D LIKE TO SEE. -THE EDITOR.

ERG-CARD™ FOR PAPERCLIP™

CARD B

() INDICATES SHIFTED KEY

TABS
ctrset/clear
r/stab
ctr N.....set/clear numeric
← r/stab numeric
ctr **ctr**clear all

PaperClip is a trademark of
 BATTERIES INCLUDED.

VARIABLE BLOCKS
ctr Bdefine
ctr (F).....find next
ctr (N).....empty all
ctr (B).....fill next
ctr (V).....fill all
ctr Zsave data
ctr (Z).....change filename
ctrdata separator
↔data separator

HEADER / FOOTER
↔ HDN.....N lines header to text
↔ PHN.....header pitch
↔ HLN... HRN...L&R header margins
↔ MLOunlock hdr margins
↔ ML1lock header margins
↔ FTN.....foot N lines to bottom
↔ FLN... FRN...L&R footer margins
↔ PFN.....set footer page number

DISK COMMANDS
ctr L/S.....load/save
ctr J/Z.....SEQ load/save

ctrl <display error message
ctrl >disk command mode
 N<dr#>:<diskname>,<id>.....format
 S<dr#>:<filename>.....scratch
 D<dest dr#>=<source dr#>.....duplicate
 V<dr#>.....validate
 R<dr#>:<newname>=<oldname>.....rename
 C<dest dr#>=<source dr#>.....copy all
 C<dr#>:<dest dr#>=<srce dr#>.....copy specific file
ctr A.....append
ctr 0 or 1.....display directory 0 or 1
ctr 2.....display both 0 & 1
ctr 3.....load directories
ctr 6.....global copy
ctr U.....verify

COLUMNS
ctr (C).....set: **↔** or S
ctr (M).....move
ctr (S).....shift/replace target
ctr (D).....delete
ctr (E).....erase with blanks
ctr (I).....insert spaces
ctr (R).....replicate/replace
ctr (=).....add
ctr (H).....add a row
ctrset decimal pt.
ctr (A).....sort
ctr (W).....create delimiter
ctr (Q).....set delimiter
ctr (L).....change line length

FILES
↔ EP:file....external file to printer
↔ EX:file....external file link
↔ LK.....global file link:any
↔ NX:file....global file link:specific

TABLE OF CONTENTS
↔ TF:<dr#>:file...open table of contents file
↔ TB:entry.....to table of contents

SPELLING CHECKER
ctr (Y)....start
f1skip word
f3skip and ignore
f5replace word in text
f7add word to dictionary

ERG-CARD™ FOR EASY SCRIPT™

FORMAT COMMANDS

f3 NB.....comment line
f3 LPxx.....lines per inch
f3 PTxx.....pitch
f3 LMxx.....left margin
f3 RMxx.....right margin
f3 MAxx.....margin backset
f3 OFxx.....margin offset
f3 HLxx:HRxx.....head&footer margin
f3 HDxx:aa,bb,cc..header> (use **f1** # for
f3 FTxx:aa,bb,cc..footer> {auto page no.
f3 P#xx.....begin numbering with #xx
f3 VPxx.....vertical offset
f3 LNxx.....xx blank lines
f3 FPxx.....xx forced pages
f3 PLxx.....paper length

f3 TLxx.....text length
f3 LFxx..(xx=1or0)..linefeed on or off
f3 CNxx..(xx=1or0)..centering on or off
f3 JUxx..(xx=1or0)..rt. justify on or off
f3 RAxx..(xx=1or0)..right align on or off
f3 SPxx...0,1,or2...line spacing
f3 PS.....printer pause
f3 LK:nextfilename..file link

TABS (PLACE CRSR 1ST)
f1 TH or V.....set Horizontal
f1 CH or V.....clear one or
f1 ZH or V.....clear all Vertical
f1 P.....display
 to file with tabs..end filename with +
 to indent text, reset margins

OUTPUT
f1 O<option>P or V
 <option>=C.....continuous
 =L.....linked file
 =F.....fill file
 =X.....multiple copies
 =Dxx...xx=device number

VIDEO OUTPUT CONTROL
↔down
↔left/right scroll
f5jump 40 columns
f7jump 20 columns
return.....jump to column 1
spacetoggle fast scroll
 C or V.....cont to next page
r/s.....abort

OPERATIONS

f1 L.....load file
f1 F.....save file
f1 **inst**...insert a blank line
f1 **del**...delete a line
f1 ES.....erase a sentence
f1 EP.....erase a paragraph
f1 ER.....erase remainder of text
f1 EA.....erase all text
f1 r/s.....reset to start up
f1 -.....conditional hyphen
f1 U.....change letter case
f1 *.....toggle sound
f1 #.....auto page number

HUNT/SEARCH & REPLACE

f1 S.....to enter target text, then:
f1 HM...to hunt each occurrence, or
f1 EM...to srch & replace all targets
 use L instead of M for linked files
f1 at "replace" prompt deletes targets

RANGE MODE

f1 R...set range of text followed by:
f1 A...to duplicate range
f1 D...to delete range
f1 X...to move range

GOTO MODE

homegoto home
ctr **home**goto ln 1 col 1
ctr W.....goto next word
ctr **←**goto prev word
shft **ctr**goto next line
←goto prev line
f1 **SPC**goto next screen
f1 **shft** **SPC**goto prev screen
f1 6xx.....goto line #xx
f1 GE.....goto text end
r/s **restore**goto set up menu
f1 **↔**pan screen
r/span terminate
SPCpan on/off

f1 ACTIVATE
 COMMAND MODE
f2 LOAD QUOTED ITEM
 TO STATUS LINE
f3 FORMAT/COMMENT
 LINE SYMBOL
f4 DISK MODE
f5 CAPS LOCK
 ALPHA KEYS ONLY
f6 DECIMAL TAB
 SET MODE
f7 MOVE CURSOR TO
 NEXT TAB
f8 EASY SCRIPT-TRADEMARK
 PRECISION SOFTWARE LTD.

ERG-CARD™ FOR PAPERCLIP™

CARD A

FORMAT CONTROL

↔ LSN.....N lines per inch
↔ PGN.....N lines text per page
↔ PPN.....N lines paper length
↔ PTN.....pitch N char per inch
↔ P#N.....set page number
↔ SPN.....N spaces between lines
↔ VPN.....N spaces to top of text
↔ CNO or 1.....centering off or on
↔ AI+/-N.....indent each paragraph
↔ JUO or 1.....justification off or on
↔ RAO or 1.....right alignmt off or on
↔ OFN.....offset printer output
↔ FP.....force page uncond.
↔ FPN.....force at N lines left
↔ LNW.....print N blank lines

↔ PS:cmnt.....pause printer: comment
↔ CM:cont.....comment
↔ N=ASCII.....digit equals ASCII value
↔ ltr=phrase...set a letter-to a phrase

MISCELLANEOUS
homegoto home
home **home**goto ln 1 col 1
shft **r/s**goto end of text
ctr **↔**rapid scroll
ctr **↔**load character set
ctr Xquit
f840/80 character
r/sscreen read
↔caps lock
↔✓

MARGINS

↔ !mN.....left margin
↔ !m+/-N.....alter !m +/-N
↔ !rM.....right margin
↔ !rm+/-N.....alter !rm +/-N
↔ !m+/-N.....margin rel (one line)

SPECIAL PRINTING

↔ (/)boldface on/off
↔ < / >italics on/off
↔ ! / *subscripting on/off
↔ \$subscript one character
↔ % / 'superscript on/off
↔ #suprsctpt one character
↔ [/]underline on/off
↔underline one character

() INDICATES SHIFTED KEY

SEARCH

ctr @search and replace
↔match any character
 ?match any alpha char
 ?match exactly:
 [the].....match "the____"
 [the].....match "____the"
 [the].....match "the" only
shft **r/s**recall search string
ctr F.....find string
ctr H.....hunt (prev string)
ctrabort search

PaperClip is a trademark of
 BATTERIES INCLUDED.

LINES

↔insert mode
ctr +insert one line
ctr Iinsert lines
ctr -delete one line
ctr Eerase to text end
↔break with hyphen
ctr !break no hyphen
shft **SPC**indivisible phrase
shft **ctr**goto next line

OUTPUT

ctr Vto screen
ctr Oto printer, with options
ctr (O).....to printer, no options
ctr #set printer device no.
ctr (P).....restart output
ctr "set for RG-232
ctr ;send spec character
ctr W.....load printer file

LINE RANGES

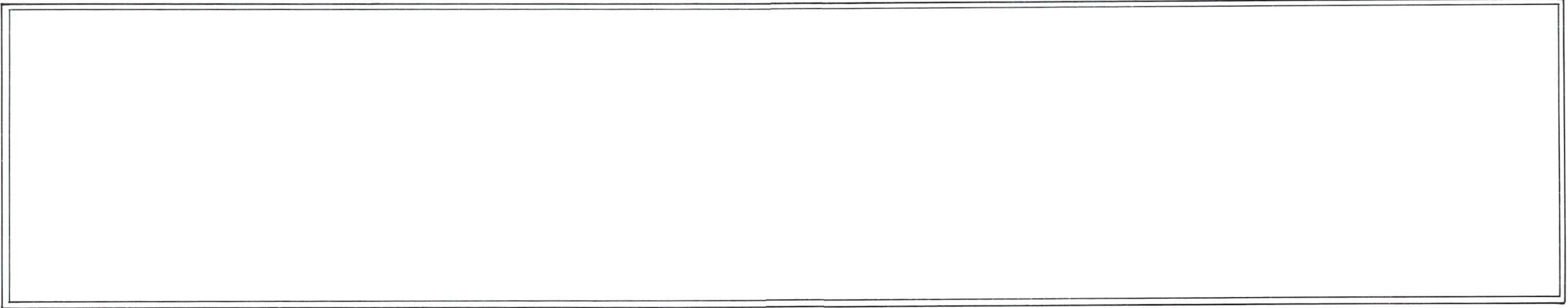
ctr R.....set range using:
↔ ;
 end with **ctr** **↔**
ctr C.....copy/replace target
ctr T.....transfer/insert
ctr D.....delete
ctr E.....erase (leave blank)
ctr Q.....save to a file

PHRASES

ctr P.....set phrase using:
↔ ;
 S (sentence), or
 W (word);
 end with **ctr** **↔**
ctr M.....move
ctr K.....kill
ctr Y.....set and delete
ctr (K).....change letter case

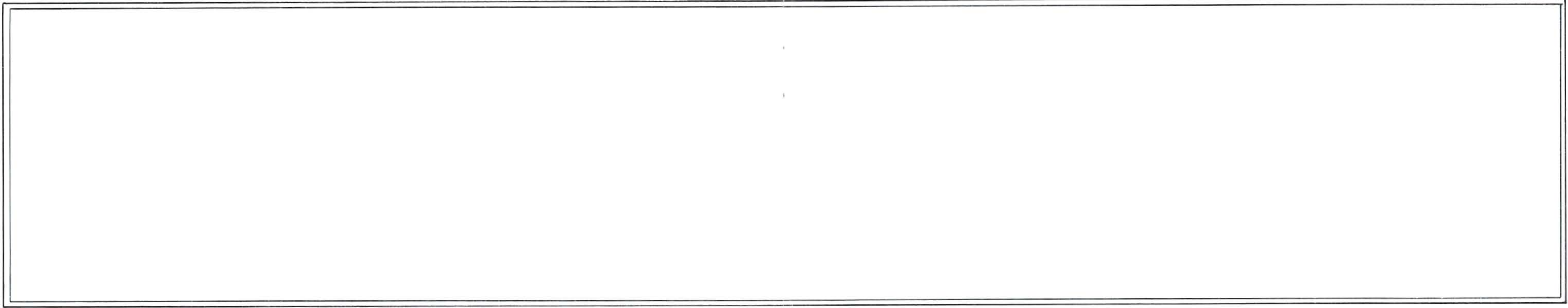
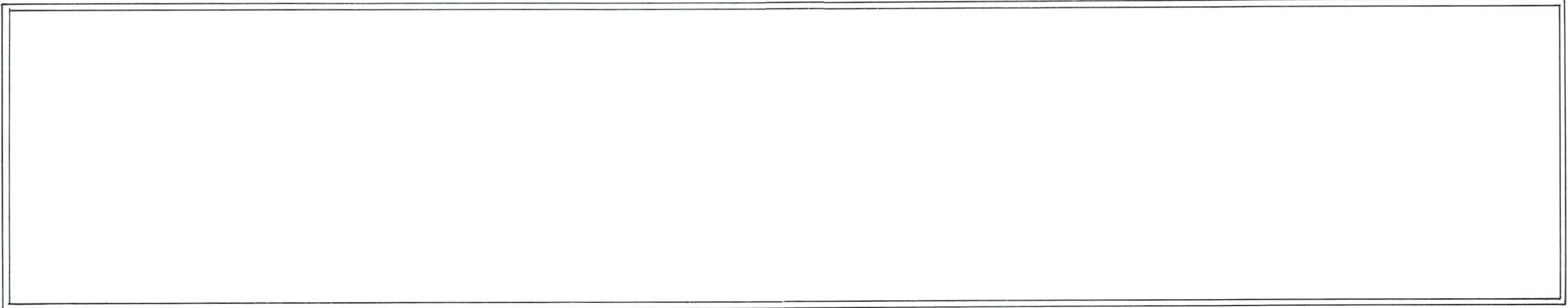
ERG-CARDSM REFERENCE CARDS

(DO-IT-YOURSELF SIDE)

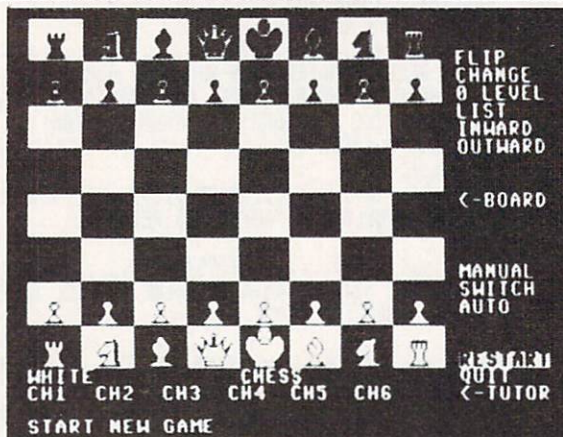


ERG-CARDSM REFERENCE CARDS

(DO-IT-YOURSELF SIDE)



CONVENTIONAL GAMES CONT'D



HOW ABOUT A NICE GAME OF CHESS?

BACKGAMMON

ODE.....(D).....(NA).....NA

NEW FROM THE 'MIND OF MAN' FOLKS. YOU CAN EXPECT THIS TO BE THE DEFINITIVE COMPUTER BACKGAMMON PRODUCT FOR SOME TIME.

RENAISSANCE (OTHELLO)

UMI.....(T).....29.95.....****

(SEE "GALLERY"- PREMIERE ISSUE)

GRANDMASTER (CHESS)

UMI.....(T).....32.95.....****

(SEE "GALLERY"- PREMIERE ISSUE)

CASINO 64 (SLOTS & POKER)

TOL.....(D).....19.99.....****

'SLOTS' IS WELL DONE WITH SMOOTH ANIMATION AND GREAT SOUND-EFFECTS. WE FOUND IT VERY CLOSE TO THE VIDEO SLOTS IN VEGAS (BOTH IN PLAY AND ODDS). 'POKER' IS A DECENT SIMULATION OF THE NEW VIDEO POKER GAMES IN THE CASINOS.

(SEE 'GALLERY'- ISSUE #3)

BRIDGE

HAN.....(NA).....39.95.....****

FULL COLOR / HI-RES GRAPHICS / PLAYS A SNAPPY HAND OF BRIDGE.

WORDRACE

DON.....(D/T).....24.95/19.95.....****+

FOR 1-4 PLAYERS/ 2000 WORDS AND DEFINITIONS/ MULTIPLE CHOICE GUESSING GAME/ WORDS, SPORTS, & FAMOUS PERSONS SECTIONS.

COMPELLO (OTHELLO)

FAN.....(D/T).....17.95/15.95.....NA

SARGON II

HAY.....(D/T).....(NA).....NA

ONE OF THE ORIGINAL COMPUTER CHESS PACKAGES FOR MICRO-COMPUTERS.

GO

HAY.....(D/T).....(NA).....NA

THE CLASSIC ORIENTAL BOARD GAME.

BANDIT (SLOTS SIMULATION)

CAS.....(NA).....15.99.....NA

CASINO CRAPS

GPM.....(T).....12.95.....NA

64 BLACKJACK

DES.....(T).....18.00.....NA

64 KENO

DES.....(T).....16.00.....NA

ROCKY LARUE'S CASINO

GAT.....(T).....29.95.....NA

SLOTS / BLACKJACK / KENO / POKER / CRAPS / & MADAM MAGENTA'S LOUNGE! ALL INCLUDED.

BACKGAMMON

STC.....(T).....24.00.....NA

64 YAHTZEE

GAT.....(T).....20.00.....NA

SPRITES AND SOUND FOR UP TO 10 PLAYERS.

MONOPOLY

MYS.....(D/T).....24.95/19.95.....NA

KONNECT FOUR

GPM.....(T).....10.95.....NA

CODEBREAKER

GTR.....(T).....20.00.....NA

EUCHRE

HUT.....(D/T).....29.95.....NA

FOUR HANDED EUCHRE: YOU VS. THE 64- GOOD LUCK!

CRIBBAGE 64

LIT.....(D/T).....(NA).....NA

CRIBBAGE

ABA.....(T/D).....14.95/17.95.....NA

SEARCH SERIES

T&F.....(T).....19.95.....NA

FIND WORDS IN GRIDS OF LETTERS: 3 PACKAGES, EACH WITH 3 CATEGORIES: WORDSEARCH (CAPITALS/ JUMBLED/ ANIMALS) - SPORTSEARCH (PRO TEAMS/ COLLEGE TEAMS/ SPORT GAMES) - ARCADESEARCH (HOME VIDEO GAMES/ ARCADE VIDEO GAMES/ FAMOUS VIDEO GAME CHARACTERS).

64 MIND BOGGLER

DES.....(T).....15.00.....NA

SPELLATHON

FAN.....(D/T).....21.95/19.95.....NA

WORDLORD

GTR.....(T).....15.00.....NA

WORD MATCH

SIM.....(NA).....14.95.....NA

SCRAMBLERS (3 WORD GAMES)

RAM.....(T).....19.95.....NA

NUMBER JOTTO

SIM.....(NA).....14.95.....NA

QUIZAGON

CSI.....(NA).....(NA).....NA

"6000 QUESTIONS EXPLORE YOUR KNOWLEDGE" IN THE AREAS OF SCIENCE, SPORTS, ENTERTAINMENT, AND POTPOURRI.

CASINO SPECIAL

(VEGAS ODDS: DRAW POKER/ BLACK JACK/ SLOTS)

SMX.....(D).....29.95.....NA

PUZZLE MANIA

RDS.....(D).....(NA).....NA

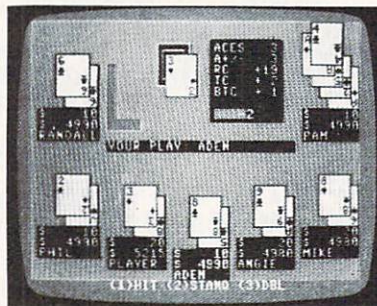
AT LAST, ON-SCREEN COLOR GRAPHICS JIGSAW PUZZLES! COMES WITH 7 PUZZLES INCLUDED, OR CREATE YOUR OWN 16-COLOR PICTURES AND THE PROGRAM WILL TURN THEM INTO PUZZLES (WHICH MAY BE SAVED TO DISK)! SIX LEVELS OF DIFFICULTY. COMPETE OR COOPERATE, SAVE WORK IN PROGRESS. NEAT.

PROFESSIONAL BLACKJACK

KEN USTON'S BJ TUTOR.

SCR.....(D).....(NA).....NA

THE LAST WORD IN BLACKJACK SOFTWARE: DUPLICATES RULES AND VARIATIONS FOR 70 OF THE WORLD'S CASINOS / CREATES OVER 39 MILLION PLAYING SITUATIONS / COLORFUL GRAPHICS AND SOUND / INCLUDES EXTENSIVE CARD-COUNTING EXERCISES. (MR. USTON WAS REPORTEDLY RAKING IN BIG \$\$\$ FROM THE BLACKJACK TABLES AT LAST WINTER'S CES SHOW, WHEN NOT OCCUPIED WITH SOFTWARE MARKETING ACTIVITIES, SO HE MAY KNOW WHAT HE'S TALKING ABOUT!)



PROFESSIONAL BLACKJACK

CONVENTIONAL GAMES (CONT'D)

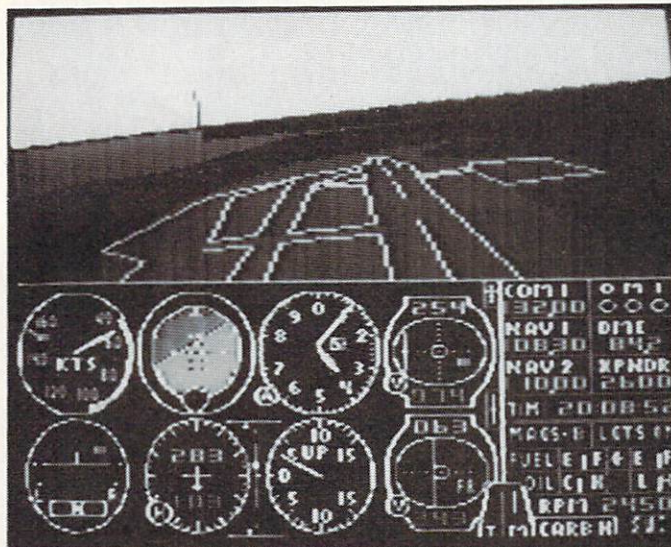
CRYPTOPUZZLES (SIX AVAILABLE)

PZL.....(NA).....11.95 EACH.....NA
EACH IS A SET OF ENCRYPTED MESSAGES WHICH YOU MUST
DECODE BY WRITING PROGRAMS THAT WILL BREAK THE CODE.

CASINO ROULETTE

POR.....(D/T).....19.95.....NA
SOUND, COLOR, GRAPHICS. BOARD DISPLAY SHOWS CHIPS
PLACED / AMERICAN OR EUROPEAN STYLE RULES / MULTIPLE
PLAYERS.

STRATEGY & SIMULATION GAMES



FLIGHT SIMULATOR II

PRODUCT NAME	VENDOR CODE	MEDIA	PRICE	RTG.
--------------	-------------	-------	-------	------

FLIGHT SIMULATOR II

SUB.....(D).....49.95.....*****
HI-RES REAL-TIME COLOR ANIMATED FLIGHT SIMULATOR;
PRACTICE TAKEOFFS, LANDINGS, & AEROBATICS IN YOUR PIPER
181 CHEROKEE ARCHER, OR FLY INTO A WORLD WAR I DOGFIGHT.
INCLUDES 80 AIRPORTS IN N.Y., CHICAGO, SEATTLE, AND
L.A./ ADJUSTABLE WEATHER CONDITIONS/ COMPLETE
INSTRUMENTATION.

COMBAT LEADER

STR.....(D).....39.95.....*****
SCROLLING HI-RES BATTLEFIELD SHOWS TREES, ROCKS,
TOPOGRAPHY, ENEMY ARMOR. COMMAND YOUR 5 TANKS TOGETHER,
OR INDIVIDUALLY, DEPLOY FOOT TROOPS, SEND COMMANDS VIA
RADIO (ON SCREEN COMMAND LINE.) DESIGN MODE ALLOWS YOU
TO CREATE YOUR OWN SCENARIOS. SIMPLE OR VERY ELABORATE
VERSIONS MAY BE PLAYED.

DRAGONRIDERS OF PERN

EPY.....(D).....40.00.....*****
BASED ON THE POPULAR ANNE MCCAFFREY FANTASY NOVELS. YOU
ARE ONE OF THE WEYR LEADERS, RIDING YOUR DRAGON,
FIGHTING THE DEADLY 'THREAD' AND MANEUVERING THRU THE
DELICATE POLITICS OF THE LORD HOLDERS.
(SEE 'GALLERY'- ISSUE #3)

DR. J & LARRY BIRD GO ONE-ON-ONE.

ELE.....(D).....40.00.....*****
1 OR 2 PLAYERS MAY SWITCH PERSONALITIES WITH THESE
SIMULATED SUPERSTARS. MASTER YOUR JOY-STICK DRIBBLING
(& EASY ON THE BACK-BOARD... IT'S BREAKABLE!)

IFR (FLIGHT SIMULATOR)

ACA.....(D/T).....29.95.....*****
THIS FLIGHT SIMULATOR, WHILE LACKING A TERRAIN VIEW, IS
DETAILED FUNCTIONALLY WITH APPARENTLY ACCURATE
INSTRUMENTATION AND RESPONSES (I'M NO PILOT SO HOW DO I
KNOW?). YOU GET RATED FOR YOUR PERFORMANCE LANDING AT
VARIOUS AIRPORTS. (MAKE SURE YOU'VE GOT THE LANDING
GEAR DOWN!)

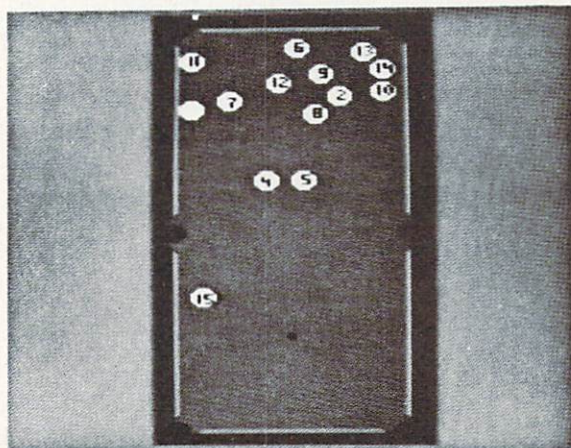
(SEE 'GALLERY'- ISSUE #3)

SOLO FLIGHT

MPS.....(D/T).....34.95.....*****
GREAT-LOOKING REAL-TIME LIGHT AIRPLANE SIMULATION. 3-D
TERRAIN GRAPHICS, MULTIPLE AIRPORTS, VARYING CONDITIONS,
FULL INSTRUMENTATION, AIR-MAIL GAME MODE, VFR & IFR
FLYING.

POOL 64

ABA.....(D/T).....17.95/14.95.....*****-
PRETTY NICE POOL SIMULATION. AIMS & SHOOT WITH
KEYBOARD / REALISTIC PHYSICS
(SEE 'GALLERY'- ISSUE #3)



POOL 64

STOCK MARKET SIMULATION WALL STREET

TMW.....(T/D).....24.95.....NA

FUR TRAPPER

BRI.....(T).....14.95.....NA

HIGH SEAS

BRI.....(T).....14.95.....NA

HELLCAT ACE

MPS.....(R/T).....29.95.....NA

3-D COMBAT FLYING SIMULATION.

WINGMAN / MIG ALLEY ACE

MPS.....(R/T).....34.95.EACH.....NA

*PLAYER VS. PLAYER, HEAD TO HEAD, SPLIT SCREEN 3-D COMBAT FLYING SIMULATIONS

JURY TRIAL

NAV.....(NA).....29.00.....NA

YOU ARE THE PROSECUTOR/ THE COMPUTER IS THE JURY/
THOUSANDS OF CASES POSSIBLE IN THIS COURTROOM
SIMULATION.

EAGLES

STR.....(D).....39.95.....NA

FLY THE CLASSIC WAR-PLANES, OR DESIGN AND FLY YOUR OWN

CHAMPIONSHIP GOLF

HAY.....(D/T).....(NA).....NA

RINGSIDE SEAT

STR.....(D).....39.95.....NA

SEMI-ANIMATED BOXING SIMULATION- ARRANGE THE MATCH-UPS
OF THE CENTURY, SEE WHO WOULD HAVE WON.

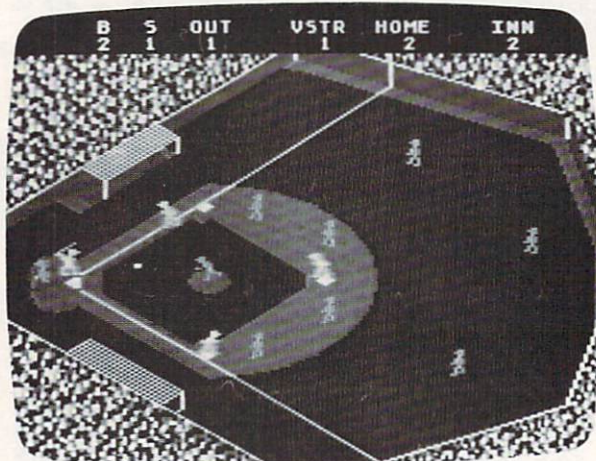
NATO COMMANDER

MPS.....(D/T).....34.95.....NA

ON-SCREEN SCROLLING EUROPEAN WAR MAP / REAL-TIME / FIVE
SCENARIOS / NEWS SERVICE UPDATES / YOU COMMAND INFANTRY,
MECHANIZED ARMOR, AND HELICOPTERS.



STRATEGY & SIMULATION CONT'D ↓



STAR LEAGUE BASEBALL

STAR LEAGUE BASEBALL

GAM.....(D).....(NA).....NA	
IMPRESSIVE LOOKING PHOTOS SUGGEST A CONVINCING 3-D EFFECT SIMULATION. ALSO PROMISED SOON ARE FOOTBALL AND TENNIS.	
PANZER-JAGD (TANK HUNT)	
AHG.....(D).....25.00.....NA	
WWII EASTERN FRONT GRAPHIC WAR GAME.	
T. A. C.	
AHG.....(D).....40.00.....NA	
TACTICAL ARMOR COMMAND IN WORLD WAR II. HI-RES GRAPHICS & SOUND. FIVE SCENARIOS. CONTROL EIGHT VEHICLES, GUNS, & SQUADS SIMULTANEOUSLY.	
COMPUTER STOCKS AND BONDS	
AHG.....(D).....20.00.....NA	
PLAY THE STOCK MARKET (WITH THE COMPUTER'S MONEY).	
SILICON WARRIOR	
EPY.....(D).....<40.00.....NA	
3-D CHESS-LIKE ACTION/STRATEGY GAME. GOOD GRAPHICS.	
KENTUCKY DERBY	
SIM.....(NA).....19.95.....NA	
64 FINANCE	
DES.....(T).....20.00.....NA	

GAMES COLLECTIONS ↓

64 COLLECTION (#1 - #8)	
PUB.....(T/D).....10.00 EACH.....****+	
AN EXCELLENT VALUE: AT LEAST 25 PROGRAMS PER DISK OR TAPE.	

TEXT ADVENTURE GAMES ↓

PRODUCT NAME			
VENDOR CODE	MEDIA	PRICE	RTG.

====>> THE INFOCON ADVENTURE SERIES ARE THE LEADING TEXT-BASED ADVENTURE GAMES. THEY ALL INCORPORATE A VERY POWERFUL LANGUAGE INTERPRETER (PARSER) WHICH HAS A VOCABULARY OF ABOUT 600 WORDS, ALLOWING INPUT OF WHOLE AND MULTIPLE SENTENCES INCLUDING ADJECTIVES (IE: TAKE THE ROUGH OBJECT AND THE LONG DEVICE. PUT THE OBJECT AND THE DEVICE IN THE OPEN CONTAINER.). THIS IS VERY IMPRESSIVE TO EXPERIENCE AND GIVES AN UNCANNY SENSE OF INTELLIGENCE IN THE MACHINE. (INFOCON EMPHASIZES THAT GRAPHICS HAVE BEEN DELIBERATELY OMITTED TO ENHANCE THE USE OF THE IMAGINATION. WE FEEL IT IS MORE LIKELY DUE TO THE DIFFICULTY & EXPENSE OF WRITING GRAPHICS ROUTINES FOR THE WIDE NUMBER OF SYSTEMS WHICH THEIR GAMES WILL RUN ON NOW. WE FEEL THAT SIMPLE GRAPHIC ON-SCREEN MAPPING WOULD AD TREMENDOUSLY TO THESE OTHERWISE EXCELLENT GAMES AND MAIL A 5-STAR RATING TO BOOT!)

(* NOTE: MANY OF THE INFO-DESIGNS GAMES ARE NOW AVAILABLE UNDER THE COMMODORE LABEL AT LOWER PRICES AND IN LESS ATTRACTIVE PACKAGING.)

DEADLINE

INF.....(D).....39.95.....****+	
YOU ARE THE DETECTIVE SOLVING A MURDER IN THIS EXCITING ADVENTURE. VERY REALISTIC CHARACTERS WITH DISTINCT PERSONALITIES	

SUSPENDED

INF.....(D).....39.95.....****+	
(SEE "GALLERY"- PREMIERE ISSUE.)	

ZORK-I (ALSO II & III)

INF.....(D).....39.95.EACH.....****	
THE ORIGINAL ADVENTURE CLASSIC (AND 2 SEQUELS).	

STARCROSS

INF.....(D).....39.95.....****	
SCIENCE FICTION THEME.	

INFIDEL/ ENCHANTER THE WITNESS/ PLANETFALL SORCERER/ CUTTHROATS/

INF.....(D).....39.95 EACH.....NA	
MORE "INTERACTIVE FANTASIES" FROM THE COMPANY THAT WROTE THE BOOK ON INTERACTIVE FANTASY.	

DUNGEONS OF DEATH /

ESCAPE FROM MARS / PYRAMID	
AAR.....(D/T).....19.95/14.95.EA.....NA	

TREASURE PAK:

(ADVENTURE / CAVES OF SILVER / SHUTTLE VOYAGE)	
COM.....(D/T).....19.95/14.95.....NA	

CARNAC CAVERNS

LIT.....(NA).....(NA).....NA	
------------------------------	--

EERIE MANSION

MYS.....(D/T).....24.95/19.95.....NA	
--------------------------------------	--

WHO-DUN-IT/BANSHEE CASTLE

RAM.....(NA).....19.95 EA.....NA	
----------------------------------	--

ADVENTURE PAK 1:

(JACK AND THE BEANSTALK / COMPUTER ADVENTURE / MOON BASE ALPHA	
VCT.....(D/T).....22.95/19.95.....NA	

ADVENTURE PAK 2:

(AFRICAN ESCAPE / HOSPITAL ADVENTURE / BOMB THREAT)	
VCT.....(D//T).....22.95/19.95.....NA	

GRAPHIC ADVENTURE GAMES ↓

MURDER ON THE ZINDERNEUF

ELE.....(D).....40.00.....****	
LIKE STARRING IN A DETECTIVE NOVEL INSTEAD OF JUST READING IT, THERE IS A DIFFERENT CASE TO SOLVE EACH TIME, AND YOU CONDUCT THE INVESTIGATION YOUR WAY.	

BACK ISSUES!

WHILE SUPPLIES LAST !!!



PREMIERE ISSUE REVIEWS:

- * SORCERER'S APPRENTICE
- * FLEX-FILE 2.1
- * CALC RESULT (ADVANCED)

ALSO:

- * HOT-WIRING THE 1701
- * DOUBLE-TAKE
- * GALLERY
- * NEWS & VIEWS

ISSUE #2 REVIEWS:

- * KOALA PAD
- * MICRONEYE CAMERA
- * FLEXIDRAW LIGHT PEN
- * UTRABASIC-64
- * 2 BOOKS

ALSO:

- * "CRASH" GAME IN BASIC
- * GALLERY
- * DOUBLE-TAKE
- * NEWS & VIEWS

ISSUE #3 REVIEWS:

- * SUPERBASE 64
- * COMMODORE LOGO
- * C64 FORTH
- * MODEL DIET
- * COMPUTER MECHANIC

ALSO:

- * "LUNAR TURTLE" GAME IN LOGO
- * ERG-CARDS FOR:

SUPERBASE 64
LOGO
DOODLE

- * APPLICATIONS GENERATORS-
(WHY YOU DON'T NEED THEM)

ENLOSE CHECK OR MONEY ORDER- ----SEND TO:

<input type="checkbox"/>	PREMIERE ISSUE (#1)
<input type="checkbox"/>	ISSUE #2
<input type="checkbox"/>	ISSUE #3
<input type="checkbox"/>	ISSUE #4 (THIS ONE)

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NAME: _____

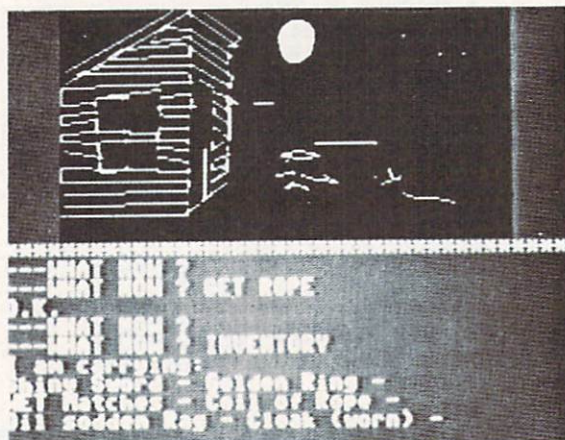
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CITY: _____ STATE: _____ ZIP: _____



GRAPHIC ADVENTURES CONT'D

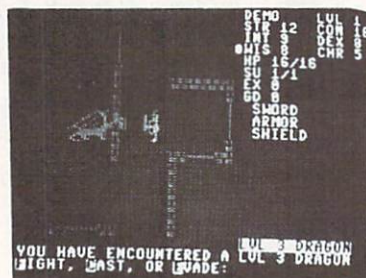
PRODUCT NAME	VENDOR CODE	MEDIA	PRICE	RTG.
TEMPLE OF APSHAI	EPY..... (D/T).....		39.95.....	****+
(SEE "GALLERY"- PREMIERE ISSUE.)				
UPPER REACHES OF APSHAI	EPY..... (D/T).....		19.95/10.95.....	****
CURSE OF RA EXPANSION MODULES FOR "TEMPLE" ABOVE.				
SWORD OF FARGOAL	EPY..... (D/T).....		29.95.....	****
"JUNIOR" VERSION OF TEMPLE GAMES. SIMPLER COMMAND INTERFACE FOR YOUNGER OR LESS PATIENT PLAYERS.				
GOTMOG'S LAIR (SEMI-GRAPHIC)	PRG..... (D/T).....		39.95.....	****
OCCASSIONAL HI-RES GRAPHICS, CUSTOM SCRIPT FONTS, AND SOUNDS HIGHLIGHT THIS DETAILED ADVENTURE GAME.				
INSTITUTE	SCR..... (D).....		29.95.....	****
YOU'VE BEEN COMMITTED AGAINST YOUR WILL. IF YOU CAN JUST TALK YOUR WAY, FIND YOUR WAY, OR CLAW YOUR WAY OUT OF HERE!!!				
UNICORN ADVENTURE	LGN..... (D/T).....		29.95.....	****+
6TH GRADER DAWN LOGGINS & HER MOM WROTE AND NOW MARKET THIS INTERESTING GRAPHIC ADVENTURE CONCERNED WITH A BABY UNICORN. WRITTEN ALL IN BASIC WITH CHARACTER GRAPHICS.				
THE GOLDEN BATON	CDC..... (D).....		27.95.....	****+
A NOTICEABLY BRITISH ADVENTURE (WITH ITS PETROL AND SPANNERS) INTERESTING SCENES WITH A SORT OF 'GRAPHICS ON DEMAND', THAT ONLY DRAWS PICTURES WHEN YOU WANT TO SEE WHERE YOU ARE. ONLY PROBLEM IS, THE DRAWING IS A BIT SLOW AND MAY FRUSTRATE LESS PATIENT ADVENTURERS. (SEE 'GALLERY'- ISSUE #3)				



THE GOLDEN BATON

GRAVE ROBBERS	VCT..... (T).....		14.95.....	***
NOW INCLUDES A BONUS GAME WHICH YOU CAN ACCESS UPON SOLVING THE ADVENTURE.				
GATEWAY TO APSHAI	EPY..... (R)..... (NA).....			NA
CARTRIDGE SEQUEL TO "TEMPLE" SERIES.				
ROBBERS OF THE LOST TOMB	TNW..... (T/D).....		24.95.....	N.A.
WARRIOR OF RAS SERIES	INS..... (D/T).....		29.95 EA.....	NA
(DUNZHIN / KAIV / WYLDE / ZIGURAT) REAL-TIME ADVENTURES IN M.L. WITH HI-RES COLOR GRAPHICS, SOUND.				

GYPSUM CAVES	ADI..... (D/T).....		16.95/14.95.....	NA
THE WIZARD'S TOWER	AAR..... (D/T).....		19.95/14.95.....	NA
MOUNTAIN KING	CBS..... (NA)..... (NA).....			NA
TELENGARD	AHG..... (D).....		23.00.....	NA
REAL-TIME FANTASY ROLE-PLAYING GAME. MONSTERS & MAGIC ABOUND.				

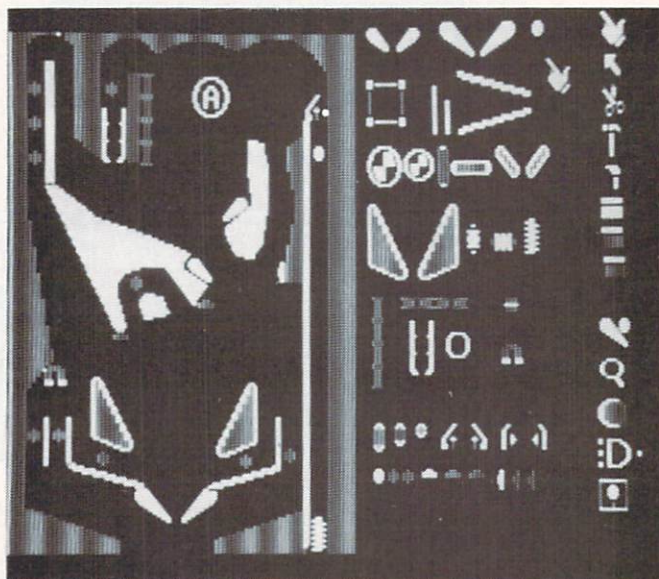


TELENGARD

S.A.G.A. SERIES
(SCOTT ADAMS GRAPHIC ADVENTURE)
ADV..... (NA)..... (NA)..... NA
THESE HI-RES GRAPHICS ADVENTURES ARE COMPATIBLE WITH THE VOTRAX VOICE SYNTHESIZER (ENABLING THEM TO TALK!).

OTHER RECREATIONAL SOFTWARE

PINBALL CONSTRUCTION SET
ELE..... (D)..... 40.00..... *****
INFO-64'S CHOICE FOR BEST RECREATIONAL SOFTWARE OF 1983. MUCH MORE THAN A GAME. YOU CAN BUILD ALMOST ANY PINBALL GAME YOU CAN IMAGINE USING A SUPER PARTS BOX OF COMPONENTS, THEN GO TO A SCREEN THAT LETS YOU CONTROL GRAVITY, REBOUND STRENGTH ETC. NEXT, YOU CAN GRAPHICALLY HOOK UP THE TARGETS AND SOUND EFFECTS FROM A GRAPHIC WIRING DIAGRAM SCREEN. FINISHED GAMES MAY BE OFF-LOADED TO DISK AND RUN INDEPENDENT OF THE ORIGINAL PROGRAM. COMES WITH SEVERAL PRE-DESIGNED GAMES FOR INSTANT PLAY. WE WANT TO SEE MORE OF THIS GOLD FROM BILL BUDGE!
(SEE 'GALLERY'- ISSUE #3)



PINBALL CONSTRUCTION SET

OTHER RECREATIONAL (CONT'D)

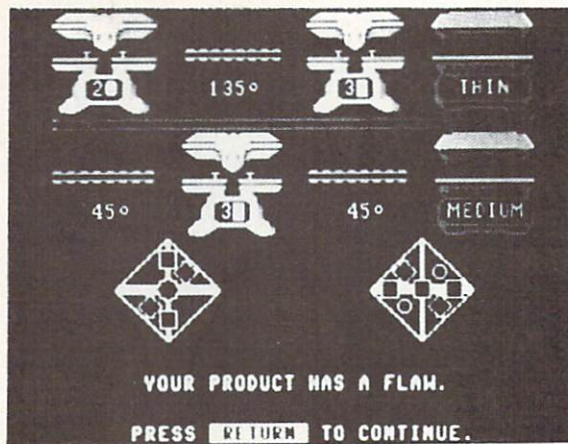
MOONDUST

CRE.....(R).....34.95.....NA
UNUSUAL GAME WHICH CREATES MUSIC AND PLEASING GRAPHICS
IN SEARCH OF THE MOST AMAZING THING
SPIN.....(D).....39.95.....NA
ANOTHER UNUSUAL GAME WHICH EXPOSES CHILDREN TO
PROBLEM-SOLVING (WITH ALIENS), ECONOMICS, NAVIGATION,
ETC.

EDU-GAMES

THE FACTORY

SNB.....(D).....39.95.....*****
'THE FACTORY' IS A WONDERFUL EDU-GAME WHICH STIMULATES
PROBLEM-SOLVING, VISUALIZATION, AND SPATIAL
COMPREHENSION. PLAYERS MUST USE A VARIETY OF MACHINES
TO CREATE SIMPLE TO COMPLEX PARTS. (I JUST WISH THERE
WERE A FEW MORE OF THE DELIGHTFUL ANIMATED MACHINES)
(SEE 'GALLERY'- ISSUE #3)



THE FACTORY

UP FOR GRABS

SPI.....(R).....34.95.....*****
FUN CROSSWORD-TYPE PUZZLE FOR UP TO FOUR PLAYERS OF
VARIOUS AGES AND SKILLS. JOYSTICKS OR PADDLES. GOOD
GRAPHICS.

LITTLE RED RIDING HOOD

PLA.....(D).....29.95.....*****
ONE OF A SERIES OF BEDTIME STORIES. REQUIRES 'EDUMATE
LIGHT PEN'. FEATURES SOFTWARE-SYNTHESIZED VOICE (FROM
FREDDY THE FROG AKA "S.A.M."- THE SOFTWARE ANIMATED
MOUTH.)

(SEE 'GALLERY'- ISSUE #3)

M-SS-NG L-NKS

SNB.....(D).....39.95.....*****
A PAGE OF TEXT (81 CHOICES) FROM POPULAR LITERATURE
APPEARS WITH MISSING LETTERS (9 SKILL LEVELS). AS THE
PLAYER FILLS IN BLANKS WITH LETTERS AND THE PASSAGE
UNFOLDS. WRITING, READING, SPELLING, GRAMMAR, AND
COMPREHENSION SKILLS ARE PAINLESSLY ABSORBED AND
SHARPENED. SEE YOUR LIBRARY FOR THE REST OF THE STORY.

PERPLEXITY

DAB.....(D/T).....29.95.....*****
A SERIES OF CLASSIC 'THINKING PUZZLES' THE BEST OF WHICH
IS 'ELECTRO-CONNECTION' WHICH HAS YOU TRYING TO
'WIRING' ACROSS THE SCREEN WITHOUT CROSSING OVER
YOURSELF (LIKE CIRCUIT DESIGN).

(SEE 'GALLERY'- ISSUE #3)

FLOWER POWER

SOW.....(D).....19.95.....***+
WHILE WORKING ON YOUR VARIOUS AREAS OF MATH, YOU WILL BE
GROWING A COLORFUL GARDEN OF FLOWERS (WRONG ANSWERS GROW
WEEDS).

(SEE 'GALLERY'- ISSUE #3)

THE POND

SNB.....(D).....39.95.....***+
GETTING YOUR FROG ACROSS THE POND STIMULATES
EXPERIMENTATION AND VISUAL REASONING.

FRACTION FEVER

SPI.....(R).....34.95.....***+
HOP YOUR POGO STICK ONTO THE RIGHT FRACTION SQUARES, AND
AN ELEVATOR WILL LIFT YOU UP TO HIGHER (AND MORE
DIFFICULT) LEVELS. GUESS WRONG AND YOU MAY BE IN FOR A
FALL.

(SEE 'GALLERY'- ISSUE #3.)

THE TRIVIA ARCADE

SCR.....(D).....34.95.....*****
3500 QUESTIONS IN 5 CATEGORIES (ADDITIONAL QUESTION PACK
AVAILABLE @ \$9.95). INTERESTING ARCADE SCREEN IDEA FOR
CHOOSING QUESTION CATEGORIES. UP TO 4 PLAYERS.

LEARNINGWARE /

WIZARD OF WORDS/THE GAME SHOW (ETC.)

CAI.....(D).....(NA).....NA
COMPREHENSIVE-SOUNDING LINE OF EDUCATIONAL SOFTWARE: ALL
INCLUDE COLOR ANIMATION, BUILT-IN LIBRARY OF SUBJECTS,
AND AUTHORIZING FEATURES FOR INDIVIDUAL TAILORING. FREE
BACKUP DISK & GUARANTEED. (WE ARE INTRIGUED WITH THE
GAME-SHOW FORMAT OF THREE OF THESE PACKAGES- THE STUDENT
BECOMES A GUEST ON A TV GAME SHOW PRESUMABLY MASTERING
THE SUBJECT IN THE COURSE OF PERFORMING WELL ON THE 'TV
SHOW'- SOUNDS LIKE A GREAT APPROACH!)

PINBALL MATH

TAY.....(D/T).....24.95/19.95.....NA
TRIVIA!

DIG.....(T/D).....14.95/19.95.....NA
YOUR CHOICE OF GENERAL & MOVIES / SCIENCE & HISTORY /
LITERARY & QUOTATIONS.

EARLY GAMES SERIES

CSI.....(?).....(NA).....NA
FUN LEARNING ACTIVITIES FOR 2 1/2 TO 12 YRS. THESE USE
PICTURE MENUS AND GRAPHICS AND COVER SHAPE, NUMBER, &
LETTER EXPOSURE/ MUSIC/ ELEM. MATH/ FRACTIONS ETC.

MICRO HABITATS

LITTLE PEOPLE'S PUZZLES

ALPHABET BEASTS

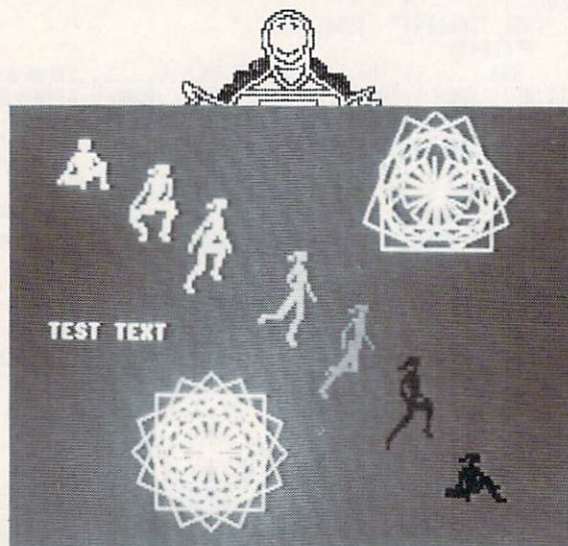
RDS.....(D).....(NA).....NA
SOME OF THE INTERESTING-LOOKING SOFTWARE COMING OUT OF
READER'S DIGEST FOR KIDS. WHAT WE HAVE HERE ARE
PUZZLES, A CREATIVE CONSTRUCTION SET, AND 'KOOKY,
UNSPOOKY' ALPHABET CRITTERS / ALL WITH COLOR, SOUND,
ANIMATION, AND MUSIC.



THE TOY BOX

M&M.....(D).....34.95.....NA
COOPERATIVE PLAY ENVIRONMENT OFFERS DRAWING, AND
GAME-PLAYING TO TEACH COOPERATION AND COMMUNICATION
SKILLS AS WELL AS ABC'S NUMBERS, WORDS, SHAPES &
PATTERNS.

PROGRAMMING LANGUAGES



LOGO

CBM.....(D).....<50.00.....*****
 A NO-CONTEST BEST BUY, AND PROBABLY THE FINEST PIECE OF SOFTWARE TO BEAR THE COMMODORE LABEL TO DATE.
 (SEE REVIEW- ISSUE #3)

VANILLA PILOT

TAM.....(D/T).....29.95.....***+

PILOT II

TAM.....(D).....49.95.....NA
 ENHANCED VERSION OF VANILLA PILOT: 25 EDITING COMMANDS, 29 TURTLE GRAPHIC COMMANDS, AND 23 PROGRAM COMMANDS/ SIMPLIFIED ROUTINES FOR SPRITES, HIRES, & SOUND/ MIXED TEXT AND HI-RES TURTLE GRAPHICS/ INTEGRAL SPRITE EDITOR.

COMAL

CML.....(D).....19.95.....NA
 (SEE REVIEW OF THIS INTERESTING LANGUAGE ELSEWHERE THIS ISSUE.)

C64 FORTH

PER.....(D).....99.95.....*****+
 FORTH 79 WITH EXTENSIONS. FULL SCREEN EDITOR AND ASSEMBLER, SUPPORTS HI-RES, CHARACTER, AND SPRITE GRAPHICS, SOUND CAPABILITIES, FULL I/O, IEEE AND BASIC DATA FILE COMPATIBILITY, MANUAL WITH EXAMPLES OF BASIC TO FORTH CONVERSIONS, TRACE FOR DEBUGGING.
 (SEE REVIEW- ISSUE #3)

FULLFORTH+

CBR.....(D).....100.00.....NA
 ENHANCED FIG FORTH: STRINGS, FLOATING POINT, EDITOR, COND. ASSEMBLER, INTERPRETER. TARGET COMPILER ABLE FOR 50.00.

FORTH

MIN.....(D/T).....37.95.....NA
 FIG-FORTH WITH ASSEMBLER / EDITOR / FLOATING POINT / GRAPHICS / SOUND / TUTORIAL / SUPPORT. (ALSO ABLE ARE TWO TUTORIALS FOR \$13 EA.: GAMES, GRAPHICS, AND SOUND / ARTIFICIAL INTELLIGENCE.)

SUPER FORTH 64

PAE.....(D).....89.00.....NA
 SUPPORTS SOUND, HI RES, COLOR, & SPRITES/ "SAVE TURNKEY" GENERATES DISTRIBUTABLE APPLICATIONS DISKS/ CONDITIONAL MACRO ASSEMBLER/ SUPPORTS ALL I/O AND 64 PERIPHERALS.

64 FORTH

HES.....(R).....59.95.....NA
 FIG-TYPE IMPLEMENTATION WITH FULL-SCREEN EDITOR AND HORIZONTAL-SCROLLING WINDOW.

TRI FORTH

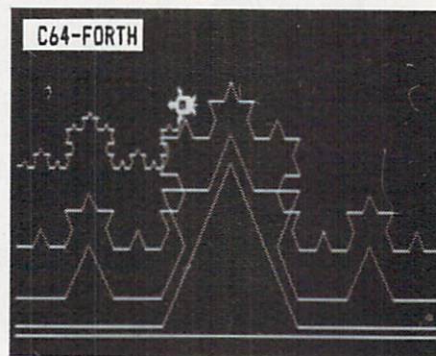
TRI.....(?).....(NA).....NA

TINY FORTH

ABA.....(D/T).....27.95/24.95.....NA

FORTH 64

HAN.....(R).....39.95.....NA
 INCLUDES TEXT EDITOR AND MACRO ASSEMBLER. PRINTER AND DISK I/O SUPPORTED.
KMMM PASCAL
 C6R.....(D).....85.00.....NA
 "...TRUE COMPILER THAT GENERATES MACHINE CODE FROM PASCAL SOURCE...EDITOR, COMPILER, TRANSLATOR INCLUDED."
ZOOM PASCAL
 ABA.....(D).....39.95.....NA
 PRODUCES 6502 MACHINE CODE/ FEATURES: FLOATING POINT, INTEGERS, STRINGS, FILE HANDLING.
OXFORD PASCAL
 LIM.....(D/T).....49.95/29.95.....NA
 5 TO 20 TIMES FASTER THAN BASIC, THIS IMPLEMENTATION OF PASCAL SUPPORTS GRAPHICS AND SOUND.
Z-80 VIDEO PAK WITH CP/M
 DAT.....(R&D).....299.95.....NA
NEVADA COBOL
 CBM.....(D).....<60.00.....NA
 REQUIRES USE OF CP/M CARTRIDGE.
CP/M 2.2
 CBM.....(D).....<75.00.....NA
CP/M
 EST.....(R).....349.00.....NA
NEVADA FORTRAN
 CBM.....(D).....<50.00.....NA
 REQUIRES USE OF CP/M CARTRIDGE (ABOVE).



APPLICATIONS GENERATORS

 THE FOLLOWING TWO PROGRAMS ARE UNUSUAL IN THAT, WHILE WE RESPECT THE EFFORT, QUALITY, CARE, (AND PRESUMABLY SINCERITY) THAT HAVE GONE INTO THEM, WE ARE OF THE OPINION THAT THIS TYPE OF SOFTWARE (AS GOOD AS IT SOUNDS ON PAPER) IS FUNDAMENTALLY A WASTE OF THE CONSUMER'S TIME AND MONEY. THUS THE FOUR STAR RATING FOR PRODUCT QUALITY, ALONG WITH OUR RECOMMENDATION TO APPLY YOUR MONEY AND ENERGY ELSEWHERE (IE: TOWARD A GOOD DATABASE MANAGER PRODUCT).

(SEE 'WHY YOU DON'T NEED AN APPLICATIONS GENERATOR' IN ISSUE #3 FOR ADDITIONAL ELABORATIONS.)

CODEWRITER

DYT.....(D).....(NA).....***
 WRITES FINISHED STAND-ALONE APPLICATIONS IN BASIC. 'WORK IN PLAIN ENGLISH...DRAW ANY SCREEN LAYOUT, ADD ANY CALCULATIONS...OR HELP MESSAGES YOU NEED...CODEWRITER WRITES ALL THE BASIC CODE.'

HOME FILEWRITER

DYT.....(D).....69.00.....NA
 HOME VERSION OF CODEWRITER (ABOVE)/ LACKS MENU AND REPORT GENERATING CAPABILITIES, THO THESE CAN BE ADDED LATER VIA EXPANSION SOFTWARE.

EXTENSIONS TO 'BASIC'



PRODUCT NAME
VENDOR CODE MEDIA PRICE RTG.

SYSRES

SOL.....(D).....95.00.....****

ABSOLUTELY LOADED WITH FEATURES: FAST-SCROLLING/ RE-DEFINE KEYS/ AUTO & RE-NUMBER/ TRUE MERGES/ FIND-CHANGE WITH WILD-CARDS/ SPACE AND REM REMOVAL/ 3 TRACE MODES TO NAME A VERY, VERY FEW. MAY NOT BE SUITABLE FOR THE CASUAL USER DUE TO COMPLEXITY (THO WE KNOW SEVERAL PEOPLE WHO USE ONLY THREE OR FOUR OF THE SCORES OF COMMANDS AND FUNCTIONS AND FEEL THEY HAVE GOTTEN MORE THAN THEIR MONEY'S WORTH).

POWER 64

PRL.....(D).....49.95.....****

ADDS DOZENS OF COMMANDS LIKE: MERGE, SEARCH AND REPLACE, RENUMBER, ETC.

ULTRABASIC-64

ABA.....(D/T).....42.95/39.95.....****

ADDS 50 COMMANDS TO BASIC INCLUDING GRAPHICS, MUSIC, AND TURTLE COMMANDS. BUILT-IN SCREEN-DUMP ROUTINES FOR MOST PRINTERS.

(SEE REVIEW: ISSUE #2)

GRAPHDOS

INT.....(D).....39.95.....NA

ADDS 12 DOS COMMANDS / 11 HI-RES GRAPHICS COMMANDS / 5 LO-RES GRAPHICS COMMANDS / & 12 MISC. COMMANDS TO BASIC. INCLUDES 20-COMMAND MINI-MON.

BASIC AID

MTS.....(D).....29.95.....NA

DISK UTILITIES INCLUDE: RENUMBER/ SEARCH & REPLACE/ SUBROUTINE EXTRACT/ PROGRAM MERGE/ LINE NUMBER & VARIABLES CROSS-REF.

SCREEN GRAPHICS 64

ABA.....(D/T).....27.95/24.95.....NA

ADDS OVER 20 COMMANDS TO BASIC FOR DRAWING LINES, BOXES, PLOTTING POINTS, MANIPULATING SPRITES, HI-RES & MULTI-COLOR MED.-RES. MODES.

SIMON'S BASIC

CBM.....(R).....(NA).....NA

THIS CARTRIDGE IS IN LIMITED PRODUCTION, BUT HARD TO FIND. THOSE WHO HAVE FOUND A COPY HAVE LOTS OF GOOD THINGS TO SAY ABOUT IT: ADDS 114 COMMANDS TO BASIC. HI-RES / STRUCTURED PROGRAMMING / MUSIC COMMANDS / & PROGRAMMING AIDS SECTIONS.

D.A.M. (DISK ACCESS MANAGER)

CAN.....(D).....99.95.....NA

PROVIDES FOR ADVANCED DISK-ACCESSING: SUPPORTS SEQUENTIAL ACCESS WITH FIXED AND VARIABLE LENGTH RECORDS/ DIRECT ACCESS BY RECORD #/ INDEXED ACCESS/ KEYS TO 256 BYTES/ MULTIPLE INDICES PER FILE/ RECORDS TO 32,000 BYTES/ 65,000 RECORD PER FILE/ MULTIPLE VOLUMES EXCEEDING DISKETTE CAPACITY/ FILE UTILITIES/ INTERFACES TO BASIC, ASSEMBLER, & OTHER LANGUAGES.

SUPER BASIC

RTC.....(D).....<35.00.....NA

ADDS: BASIC 4.0 COMMANDS/ ADDS EXTENDED GRAPHICS & SOUND COMMANDS/ ADDS "B"-SERIES BASIC EXTENSIONS

BASIC AID

RTC.....(D).....39.95.....NA

ADDS 33 COMMANDS TO BASIC INCLUDING: FIND, CHANGE, MERGE, MOVE, HEX & BINARY CONVERSIONS, ETC.

GRAPHICS BASIC

HES.....(R).....49.95.....NA

SUPPORTS HI-RES GRAPHICS, SPLIT-SCREENS, WINDOWS, SPRITES & MUSIC.

HESKIT 64

HES.....(R).....49.95.....NA

ADDS 22 SINGLE-STROKE EDITING COMMANDS PLUS 30 EXTENSIONS TO BASIC INCLUDING AUTO NUMBERING, SEARCH & REPLACE, COMPRESSION, AND REDEFINITION OF KEYS.

MASTER-64

ABA.....(D).....84.95.....NA

ADDS NEARLY 100 COMMANDS TO BASIC COVERING: SCREEN MANAGEMENT, ISAM FILE MANAGEMENT, PRINTER, BASIC 4.0, MACHINE LANGUAGE MONITOR, DIRECT DISK ACCESS, 22 DIGIT PRECISION MATH, DATE CONTROL, AUTO & RENUMBER, PRINT USING, TRACE, ETC. 160 PG. MANUAL.

COMPILERS



PETSPEED

LIM.....(D).....150.00.....NA

POPULAR COMPILER USED BY MANY SOFTWARE DEVELOPERS CURRENTLY. CBM APPROVED.

TINY BASIC COMPILER

ABA.....(T/D).....19.95/22.95.....NA

FLOATING POINT COMPILER SUPPORTS IF/THEN, END, INPUT, GOSUB, GOTO, PRINT, REM, RETURN, STOP, USR, PEEK, AND ALL MATH FUNCTIONS. PRODUCES A COMMENTED LISTING OF EQUIVALENT 6502 CODE TO SCREEN OR PRINTER.

BASM (COMPILER/ ASSEMBLER)

COA.....(D).....99.95.....NA

"...UP TO 130 TIMES FASTER THAN BASIC...USES THE SYNTAX OF BASIC WITH ASSEMBLY LANGUAGE DATA TYPES AND ADDRESSING MODES."

DTL COMPILER 64

CIM.....(NA).....(NA).....NA

64 COMPILER

DES.....(NA).....100.00.....NA

BASIC COMPILER

JOU.....(?).....29.95.....NA

INSTA-SPEED

CIM.....(D).....(NA).....NA

PROGRAMMING ENVIRONMENT



MAE (MACRO ASSEMBLER EDITOR)

EAS.....(D).....99.95.....NA

COMPLETE 6502 DEVELOPMENT SYSTEM/ WIDELY USED IN THE SOFTWARE INDUSTRY. INCLUDES WORDPROCESSOR.

PAL 64 (6502 ASSEMBLER)

PRL.....(D).....49.95.....NA

BRAD TEMPLETON'S 'FASTEST & EASIEST TO USE' ASSEMBLER SUPPORTS STANDARD MOS MNEMONICS.

DECMON

GOS.....(NA).....14.95.....NA

EDIT & INSPECT CONTENTS OF MEMORY. CONVERT BETWEEN FOUR NUMBER BASES.

MACROFIRE

EPI.....(?).....89.00.....NA

70-COMMAND SCREEN EDITOR/ 3-PASS ASSEMBLER WITH MACRO-1000+ LABELS/ M.L. MONITOR.

PTD-6510

PTE.....(D).....65.10.....NA

ADVANCED DEBUGGER: STEP, BREAKPOINTS, WINDOWING, SUPER COMPLEX CONDITIONAL BREAKS, SYMBOLIC DEBUGGING, PATCH, SHOW PRIOR 128 STEPS, COMPILED BASIC-LIKE LANGUAGE

6502/6510 PROFESSIONAL DEVELOPMENT SYSTEM

HES.....(T).....29.95.....NA

ONE- OR TWO-PASS ASSEMBLER USING STANDARD MOS MNEMONICS AND OPERAND FORMATS.

HESMON 64

HES.....(R).....39.95.....NA

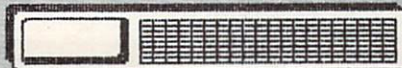
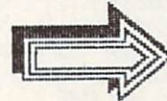
6502/6510 M.L. MONITOR WITH MINI-ASSEMBLER.

MINI-MON

INT.....(T/D).....24.95.....NA

DEVELOP 64

FRE.....(D/T).....59.95/54.95.....NA



PROGRAMMING ENVIRONMENT (CONT'D)

GLOUCESTER COMPUTER C-64 CODEFAX 6502
BY STEVE BOLGER COPYRIGHT 1983

```

1FFE 00 BRK
1FFF 00 BRK
2000 2000 A9 LDA #004
2001 2001 04
2002 2002 BD STA SCRNCLR
2003 2003 21
2004 2004 03
2005 2005 3 RTS
2006 2006 A9 TSTPROG LDA #>TSTPROG
2007 2007 FF 4
2008 2008 4B PHA
2009 2009 A9 LDA #<TSTPROG-1
200A 200A FF 5
200B 200B 20 JSR TSTPROG-6
200C 200C FF 6
200D 200D FF
200E 200E 00 BRK
    
```

A.10 DE ORIGIN A.8: 2000 END A.9: 3FFF

7 LINK CDE END AT: ENDCDE \$2100

CODEFAX 6502

GL0.....(D).....69.00.....NA
FIRST IN THE NEW CODEFAX FAMILY OF DEVELOPMENT SOFTWARE: 100% M.L. PROGRAM OPENS AN INTERACTIVE WINDOW ANYWHERE IN MEMORY/ DETAILED WINDOW DISPLAY SHOWS: ACTUAL ADDRESS, WORK ADDRESS, MACHINE CODE, 7-CHAR. LABELS, ASSEMBLY CODE, REFERENCES & OPERANDS, PROMPTS & ERRORS, START OF WORKSPACE, END OF WORKSPACE, & MODE. EXTENSIVE I/O SUPPORT AVAILABLE FROM THE WINDOW ENVIRONMENT. MAKES STEP BY STEP, TRIAL & ERROR EXPERIMENTATION A SNAP WITHOUT CONFUSING 'PSEUDOOPS', 'CONDITIONALS', 'MACROS', ETC. "SIMPLER TO USE THAN 'MONITOR' PROGRAMS, YET MORE POWERFUL THAN THE USUAL TWO PASS ASSEMBLER...MAKES MACHINE CODE PROGRAMMING FUN!"
(ALSO AVAILABLE ON EPROM FOR OWNERS OF GLOUCESTER'S 'PROMQUEEN' @ \$39.00)

CODEFAX 8085 & 6800 CROSS ASSEMBLERS

GL0.....(D).....(NA).....NA
COMING SOON: TWO 'CODEFAX' CROSS-ASSEMBLERS WILL LET YOU USE THE C64 FOR DEVELOPING CODE FOR OTHER PROCESSORS

BACKUP & COPY SOFTWARE

GEMINI

COB.....(D).....49.95.....***
EASY-TO-USE, MENU-DRIVEN FAST BACKUP PROGRAM COPIES VIRTUALLY ALL DISKS, INCLUDING ALMOST ANY COMMERCIAL PROGRAM AVAILABLE FOR THE 64. UNIQUE FEATURE: CAN BE USED TO PUT A SOFTWARE WRITE PROTECT ON YOUR OWN DISKS (INSTEAD OF THOSE LITTLE ADHESIVE TABS.)

THE CLONE MACHINE + UNGUARD

MWD.....(D).....49.95.....***
COPIES ALL FILE TYPES, INDIVIDUALLY OR ENTIRE DISK/ SUPPORTS UP TO FOUR DRIVES. WE FOUND THE OPERATION CONVENIENT AND DEPENDABLE (THO NO FASTER THAN MOST STANDARD BACK-UPS)/ THE EDITING FEATURES ARE GREAT: DETAILED DIRECTORIES ARE DISPLAYED WITH TRACK, FILE, & RECORD INFO- CHANGES ARE MADE TO TITLES, ID'S, HEADERS ETC. BY SIMPLY TYPING OVER OLD TEXT- MANY OTHER FUNCTIONS AVAILABLE USING SPECIAL FUNCTION-KEY ASSIGNATIONS. 'UNGUARD' IS A SEPARATE PROGRAM ALLOWING ANALYSIS AND RECONSTRUCTION OF THE DELIBERATE ERROR TRACKS USED IN MOST COPY-PROTECTION SCHEMES. THE TECHNIQUE IS SOMEWHAT INVOLVED AND TAKES A GOOD DEAL OF USER INTERVENTION AND TIME.

CANADA A/M	
COPY STATUS OK	
FUNCTION LOADING-	POSITION TRACK: 8 SECTOR: 8
WARNINGS NONE	
SECTORS IN MEMORY 155 OF POSSIBLE 172	SECTORS COPIED 000 OF 683
PASSES COMPLETED OF 4 0.4	FOR ARCHIVAL PURPOSES ONLY!!!
USER INSTRUCTIONS -STANDBY -- PRESS SPACE TO ABORT COPY-	
COPYRIGHT (C) 1984 BY: DAVID FILLMORE	

CANADA A/M

SKY.....(D).....39.99.....***
THIS IS AN EASY TO USE BACKUP SYSTEM THAT WILL BREAK MUCH OF THE COPY-PROTECTION IN USE. INFORMATIVE ON-SCREEN STATUS READOUTS, USER SIMPLY SWAPS DISKS WHEN PROMPTED, CANADA A/M DOES THE REST (A NEW VERSION IS ON THE WAY THAT PROMISES TO DO SINGLE DRIVE BACKUPS IN UNDER 3 MIN.).

COPY Q

RAD.....(D).....45.95.....***
FAST COPIES, AND WORKS WITH SINGLE, TWO SINGLE, OR DUAL DRIVES. GENERATES GRAPHIC DISPLAY OF TRACK & SECTOR ACTIVITY WHILE PROCESSING. CRACKS MOST ALL COPY-PROTECTIONS. CAN ALSO RECOVER DAMAGED DATA AND FILES

INFO-64 DOES NOT CONDONE UNAUTHORIZED COPYING OF SOFTWARE WHETHER FOR PROFIT OR FUN. WE DO, HOWEVER, SUPPORT THE SOFTWARE PURCHASER'S RIGHT TO HAVE PERSONAL BACKUPS OF VALUABLE SOFTWARE. AND TO THAT END LIST THE FOLLOWING COMMERCIAL PROGRAMS WHICH PROVIDE THIS CAPABILITY TO VARYING DEGREES.

SUPER COPY 64

RTC.....(D).....39.95.....***-
BULLET COPY

VAL.....(D).....19.95.....***
3-PASS, 5-MIN, SINGLE-DRIVE BACKUP. THIS ONE KEEPS THE DRIVE SPINNING DURING DISK SWAPS, WHICH I FOUND VERY DISCONCERTING, THO I DON'T SUPPOSE IT HURTS ANYTHING.

MEGABYTE

MGS.....(D).....29.95.....***
MULTI- PROGRAM, 4-MIN. COPY PACKAGE. EXAMINS DISK ERRORS, WRITES NECESSARY ERRORS QUICKLY, TESTS SECTORS, SECTOR COPY, DISK NAME CHANGE, AND ID NUMBER CHANGE.

DISKIT 64

PTE.....(D).....75.00.....NA
FAST SINGLE DISK BACKUP WITH UTILITIES.

64 DISK CLONE

DES.....(D).....15.00.....NA
ONE-PASS BACKUP FOR 2 SINGLE DRIVES.

COPY CAT 64

VIM.....(D).....19.95.....NA

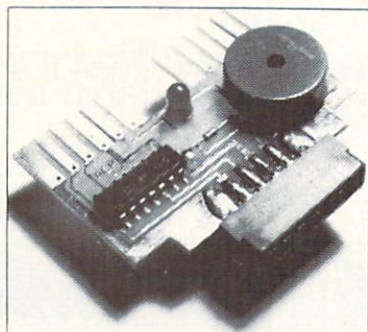
COPYMAKER

CGR.....(D).....30.00.....NA
FAST SINGLE DRIVE BACKUP ROUTINE.

BACKUP/COPY SOFTWARE CONT'D

ULTRA COPY 64
 ULT.....(D).....39.95.....NA
 CLAIMS TO COPY 98% OF ALL DISK SOFTWARE (INCLUDING MUCH COPY-PROTECTED). RECREATES ERRORS: 20,21,22,23,27, & 29.

BACKUP V1.0
 SWP.....(T).....24.95.....NA
 CASSETTE BACKUP ROUTINES.



TB-1 DATA CASSETTE COPIER

TB-1 DATA CASSETTE COPIER.
 T&M.....24.95.....NA
 HARDWARE DEVICE ALLOWS COPYING OF COPY-PROTECTED TAPES, INCLUDING MACH. LANG.

MISCELLANEOUS UTILITIES



AXE/RECOVER
 HAC.....(D).....23.99.....****
 † THIS IS A COMBINATION HARDWARE & SOFTWARE PRODUCT. THE AXE IS A SMALL CARTRIDGE WHICH PLUGS IN WHERE YOUR MODEM USUALLY GOES- IT HAS A PUSHBUTTON SWITCH WHICH IS PUSHED TO REACTIVATE THE 64 WITHOUT CLEARING MEMORY. THE M.L. RECOVER SOFTWARE ALLOWS RECOVERY OF PROGRAM IN MEMORY AT THE TIME THE AXE IS ACTIVATED. USES: 'UN-NEW' A PROGRAM, CIRCUMVENT PROTECTED PROGRAMS (FOR LEGITIMATE PURPOSES OF COURSE) WHICH USE LIST, SAVE, & RUN/STOP DISABLING/ STOP 'RUNAWAY' DISKS/ RESTART CARTRIDGES & SIMILAR OPERATIONS.

PRINTER UTILITY PROGRAMS
 CAR.....(T).....19.95.....****
 ALLOWS SCREEN DUMPS TO EPSON, GEMINI, OR PROWRITER PRINTERS. REVERSE DUMPS / FROM PROGRAM OR KEY-TRIGGERED. ALSO PROVIDES FOR PRINTING OF GRAPHICS CHARACTER SET. INCLUDES LARGE-FONT BANNER ROUTINES FOR PRINTER.

PET LOADER
 EC1.....(T).....23.95.....NA

PET EMULATOR
 CBM.....(D).....19.95.....***+

RE-CREATE
 RTC.....(D).....<35.00.....NA
 READS ANY ASCII FILES AND CONVERTS THEM TO FORM READABLE BY RICHVALE'S "SCRIPT-64" WORDPROCESSOR.
 ADDS TWELVE DISK COMMANDS (SIMILAR TO COMMODORE WEDGE).
EZ/DISK
 SFT.....(D).....29.95.....NA
 DISK UTILITIES/ SIMILAR FEATURES TO COMMODORE WEDGE.

DISK RETRIEVER
 H&H.....(D).....9.95.....NA
 ALLOWS FOR RECOVERY OF ACCIDENTALLY SCRATCHED FILES AND PROGRAMS FROM DISK.

SPRINT PRINT
 RAD.....(D).....49.95.....NA
 SOFTWARE PRINTER BUFFER SPEEDS OPERATION OF 1515/1525 PRINTER. ADDS FULL DESCENDERS, & UNDERLINING.

SOFTLOC
 SFP.....(D).....29.95.....NA
 WITH THIS PACKAGE, USERS MAY MODIFY THEIR DISKS TO BE COPY- & LIST-PROTECTED. 3 SYSTEMS: 7-DIGIT ACCESS CODE, ENCODED PROGRAMS, MODIFIED DISKETTE DIRECTORY.

TELECOMPUTING

SMART 64 TERMINAL +3
 MTS.....(NA).....39.95.....****
 USER-DEFINED PARAMETERS (BAUD, PARITY ETC.) / COMPILED BASIC/ ONE-KEY LOG-ON / UP & DOWN-LOAD / 28k SAVE BUFFER / BASIC TO TEXT TO BASIC CONVERSION / PRINTER SET-UPS / BUILT-IN WEDGE COMMANDS / TIMER / WORDPRO-COMPATIBLE / FORMATTED END-OF-LINE / ENTIRE 28K BUFFER DUMPS TO DISK IN 3.5 MIN. / VISUAL INDICATION OF BUFFER SPACE REMAINING / ECHO OF TRANSMITTED DATA / SPECIALLY DESIGNED TO OPTIMIZE ACCESS TO COMPUSERVE & COMMODORE'S COMPUSERVE DATABASE. (THIS IS THE WAY YOU GET FREE SOFTWARE WITH YOUR MODEM.) NOW SUPPORTS 1650 AUTO-DIAL MODEM, DATA-20 80 COLUMN HARDWARE, DOWNLOADS AT UP TO 1200 BAUD (WITH THE RIGHT HOST PROTOCOL), ALSO WORKS WITH MSD DRIVES. CONTINUOUSLY DISPLAYED TIME-OF-DAY CLOCK WITH ALARM.

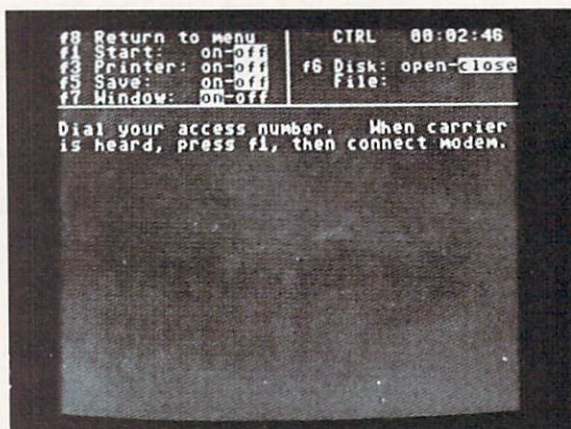
COMPUSERVE 64 EXECUTIVE
 CSV.....(D).....49.95.....****
 COMPUSERVE'S VIDTEX PROGRAM IS A FULL-FEATURED SMART TERMINAL PACKAGE. TWO OPTIMIZED FOR COMPUSERVE'S OWN INFORMATION SERVICE, TERMINAL PARAMETERS CAN BE EASILY MODIFIED FOR USE WITH A WIDE RANGE OF HOST COMPUTERS. SOME FEATURES: 32K SAVE BUFFER/ DUMP TO PRINTER/ DEFINABLE FUNCTION KEYS/ INTERPRETS COMPUSERVE'S COMMANDS FOR SPECIAL VIDEO TEXT AND GRAPHICS EFFECTS/ AUTO LOGON/ "B" PROTOCOL ERROR-PROTECTED FILE TRANSFER.

KTERM VERSION 2
 KAT.....(NA).....14.95.....***+
 30K SAVE BUFFER/ LISTABLE BASIC/ AUDIBLE KEY-CLICK/ KEEP- DISCARD KEYS/ ONE-KEY LOG-ON / UP, DOWN-LOADING.

AVCOR VIDEOTEX SOFTWARE
 AVC.....(D).....UNDER 100.00.....NA
 THIS PROMISES A WHOLE NEW DIMENSION TO TELECOMPUTING AS WE KNOW IT NOW. NAPLPS COMPATIBLE COMMANDS IMPLEMENTED INCLUDE: DOMAIN/ TEXT (SUBCOMMANDS; ROTATION, PATH, INTER-CHARACTER SPACING, INTER-ROW SPACING, CHARACTER FIELD DIMENSIONS) / TEXTURE/ SET COLOR/ SELECT COLOR/ WAIT/ RESET/ POINT/ LINE/ ARC/ RECTANGLE/ POLYGON/ FIELD/ INCREMENTAL POINT/ UNDERLINING/ CANCEL/ NULL/ 8 & 7 BIT MODE/ UNPROTECTED FIELDS. INTERPRETS INCOMING COLORS TO THE NEAREST C64 COLOR. USES FULL 320 X 200 HI-RES. PERMITS EITHER 300 OR 1200 BAUD COMMUNICATIONS. THIS SYSTEM APPARENTLY DOES WITH SOFTWARE WHAT COSTS \$400-\$1000 TO DO WITH HARDWARE ON OTHER PERSONAL COMPUTERS.

TELECOMPUTING (CONT'D)

- SUPERTERM '64**
MID.....(T).....99.00.....NA
- TEL-EASY**
COS.....(R).....29.95.....NA
CARTRIDGE TERMINAL SOFTWARE. SUPPORTS AUTO-DIAL MODEMS, HAS 32K BUFFER, REAL-TIME CLOCK W/ ALARM. SAVE TO DISK AS SEQ. OR PROGRAM FILES.
- COMPACK**
CGR.....(NA).....129.00.....NA
THIS IS A SERIAL INTERFACE, CABLE, AND SOFTWARE PACKAGE FOR TELECOMPUTING; FEATURES DOWNLOAD AND FILE-CONVERSIONS (ASCII, BASIC, BINARY, & MAE). YOU SUPPLY THE MODEM.
- CTE "DUMB" TERMINAL**
SOFTWARE, SELECTABLE BAUD RATE)
MSD.....(NA).....(NA).....NA
- SMART TERMINAL**
BYR.....(D/T).....18.95/16.95.....NA
SMOOTH SCROLLING / TRANSMITS ALL ASCII CONTROL CODES / KEY REPEAT / 4 PRE-LOAD LINES / MENU DRIVEN / TRANSMITTED AND RECEIVED CHARACTERS IN DIFFERENT COLORS.
- OMNICOMM**
STG.....(D/T).....34.95.....NA
UP-DOWN LOAD / DUMPS TO PRINTER.
- INTEL-TERM**
RTC.....(D).....<50.00.....NA
SMART TERMINAL SOFTWARE FROM RICHVALE TELECOMMUNICATIONS INCLUDES "COLOR 80" (SEE 'DOUBLE-TAKE' THIS ISSUE), AND EMULATES THE POPULAR VT-100 TERMINAL.



- COMMANDER ULTRA TERMINAL-64**
CRQ.....(R).....69.95.....NA
SELECTABLE TERMINAL PARAMETERS/ DOWNLOAD TO DISK/ DUMP TO PRINTER/ ELAPSED-TIME INDICATOR
- TRANS-TERM**
DAY.....(D).....29.95.....NA
'SMART' TERMINAL PROGRAM/ DOWNLOAD TO DISK
- DIAL-FILE**
DAY.....(D).....14.95.....NA
STORE, RETRIEVE, AND DIAL 140+ PHONE NUMBERS FROM SOFTWARE.
- COMMTERM-64**
M&M.....(D).....39.95.....NA
UP & DOWNLOAD / AUTO DIAL, ANSWER, HANG-UP / INCLUDES SEPARATE TEXT EDITOR FOR PREPARING UPLOAD TEXT. (SEPARATE VERSION AVAILABLE FOR DATA-20 80-COLUMN BOARD)
- VIP TERMINAL**
SFL.....(NA).....49.95.....NA
CLAIMS 40, 64, 80, & 106 COLUMN SOFTWARE DISPLAY / MACHINE CODE / 15 ENTRY PHONE DIRECTORY / 20 PROGRAMMABLE KEYS / AUTO DIAL & REDIAL / USES DISK AND PRINTER SIMULTANEOUSLY / USE FILES AS LARGE AS YOUR DISK.

'WAR GAMES' AUTODIALER

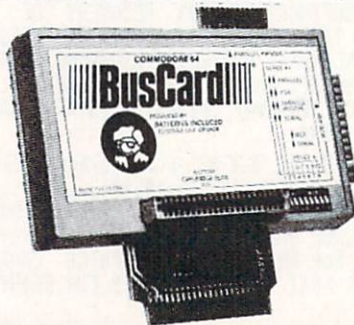
MGS.....(NA).....29.95.....NA
AUTOMATICALLY DIALS SET OF NUMBERS/ REVIEWS NUMBERS ANSWERED BY A COMPUTER/ SAVES & PRINTS NUMBERS ANSWERED BY COMPUTER

BULLETIN BOARD SOFTWARE

- BULLETIN BOARD**
MGS.....(D).....39.95.....NA
SET UP AND RUN YOUR OWN BULLETIN BOARD WITH ONE OR TWO 1541'S.
- ELECTRIC MAGAZINE BULLETIN BOARD**
RSH.....(D).....(NA).....NA
CUSTOMIZE THIS BULLETIN BOARD SOFTWARE TO SUIT YOUR OWN NEEDS. OVER 350 OF THESE ARE CURRENTLY IN USE! (THAT'S QUITE A FEW SYSOPS).
- GENERIC BULLETIN BOARD**
ATL.....(D).....69.00.....NA
REQUIRES 64, 1650 AUTOMODEM, AND ONE 1541. MENU-DRIVEN, BOASTS 5-MIN. TO CUSTOMIZE FOR NOVICES ON UP.

GENERAL INTERFACES

- C64-LINK**
RTC.....150.00.....****
DATA TRANSFER BETWEEN ANY DEVICE AND ANY OTHER DEVICE (IE: SERIAL-PARALLEL, IEEE-SERIAL, PARALLEL-SERIAL ETC. / BASIC 4.0 COMMANDS / SIMPLE NETWORKING OF SEVERAL 64'S / M.L. MONITOR / RESIDENT TERMINAL SOFTWARE / CP/M COMPATIBILITY.
- BUSCARD II**
BAT.....199.95.....****
ADDS 'BASIC 4' COMMANDS / IEEE INTERFACE / FULLY COMPATIBLE WITH OTHER SOFTWARE / BUILT-IN CENTRONICS PRINTER PORT / RESIDENT M.L. MONITOR.
- VICTREE**
SEW.....89.95.....NA
ADDS BASIC 4.0 COMMANDS: PROVIDES PRINTER INTERFACE FROM USER-PORT.
- INTERPOD**
HES.....149.00.....NA
ACCESS UP TO 30 RS232 AND IEEE DEVICES THRU SERIAL PORT OF 64.
- CEENET**
SEW.....(NA).....NA
NETWORKS UP TO 64 CBM 64'S TOGETHER. ALL MAY SHARE COMMON PERIPHERALS. APPLICATIONS SOFTWARE SUPPORTS INTER-NETWORK MAIL, TERMINAL LINKING, FILE PROTECTION, AND DATABASE SUPPORT. UP TO 255 CEENETS CAN BE INTERCONNECTED.
- MULTI-LINK**
RTC.....ABOUT \$100 PER COMPUTER.....NA
WILL CONNECT UP TO SIXTY-FOUR 64'S IN A LOCAL NETWORK UNDER CONTROL OF ONE 'MASTER' 64/ ESPECIALLY SUITED FOR EDUCATIONAL ENVIRONMENT.
- OCTOPUS**
COB.....79.95.....NA
ALLOWS AS MANY AS 8 64'S TO SHARE THE SAME DISK DRIVE OR PRINTER/ MANUAL SWITCHING CONTROLS ACCESS PRIORITY.



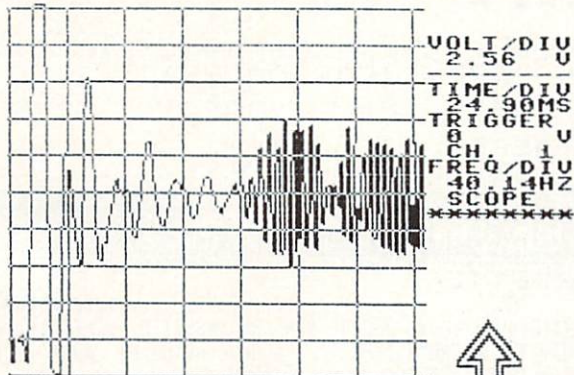
A/D - D/A & DATA ACQUISITION ↓

VIC/64 RELAY CARTRIDGE

HAN.....59.95.....****
 PLUGS INTO USER PORT: 6 RELAY OUTPUTS / 2 OPTOCOUPERS
 FOR INPUTS. TURN APPLIANCES ON/OFF UNDER PROGRAM
 CONTROL.

LOW SPEED OSCILLOSCOPE

MWE.....295.00.....NA
 TURNS YOUR 64 INTO A DIGITAL STORAGE OSCILLOSCOPE. 100
 US SAMPLING. DISPLAYS VOLTAGE WITH 8-BIT RESOLUTION.



DIGITAL STORAGE SCOPE ANALOG INTERFACE

CUU.....285.00.....NA
 BOARD, SCOPE, SOFTWARE. 256 POINTS SAMPLING AT UP TO
 73000 HZ WITH 8 BIT RESOLUTION. TRIGGERING, DUAL
 CHANNEL AVERAGING, PHASE ANALYSIS, PRINTER UTILITIES,
 MORE.

VIC/64/PET/CBM CONTROLLER

PSX.....130.00.....NA
 PLUGS INTO USER PORT: 3 INPUTS (SWITCH CLOSURES) 5
 OUTPUTS (4, 28VDC LAMPS AND 1 HIGH CURRENT (1 AMP)
 OUTPUT). FOR PSYCHOLOGISTS OR OTHERS WHO WORK IN
 24-28VDC ENVIRONMENT. DETAILED MANUAL WITH DEMO
 PROGRAM.

UNIVERSAL LABORATORY INTERFACE

GEM.....750.00.....NA
 2 12-BIT ANALOG OUTPUTS AND INPUTS / 1 8-BIT DIGITAL
 OUTPUT AND INPUT. PROGRAMMABLE FROM BASIC WITH PEEKS AND
 POKES.

TEMPERATURE MEASUREMENT AND CONTROL

AME.....129.00.....NA
 DISPLAY GRAPHICS / HARD COPY OUTPUT / ALARMS AND SET
 POINTS / DISK FILE DATA STORAGE / 1 - 256 SENSORS / .01
 DEG. ACCURACY.

SEQUENCER

GLO.....299.00.....NA
 M.L. ROM SOFTWARE WITH A PLUG-IN HARDWARE INTERFACE
 CONTAINING 16 OPTO-ISOLATED INPUTS AND OUTPUTS WHICH CAN
 BE INDIVIDUALLY ADDRESSED. SOFTWARE PROVIDES FOR
 TESTING OF INPUTS AND OUTPUTS FOR VARIOUS LOGIC AND
 ACTIVITY STATES. STEPPER MOTOR DRIVE ROUTINES UNDER
 TIMED INTERRUPTS / 3 COUNTDOWN TIMERS (1 SEC. TO 18 HRS)

VIC/64 SWITCH A

HAN.....149.95.....NA
 LETS UP TO 8 64'S SHARE DISKS, PRINTERS, ETC.

VICONTROLLER

GEN.....59.95.....NA
 CONTROL UP TO 256 LIGHTS, APPLIANCES, ETC. COMMANDS: ON
 / OFF / ALLON / ALLOFF. USES BSR REMOTE SWITCHES / PLUGS
 INTO USER PORT.

AUTO CLOCK

PRG.....129.95.....NA
 SOFTWARE CONTROL OF AC DEVICES / 256 YEAR CALENDAR / 2K
 CMOS BATTERY BACKED RAM / MENU-DRIVEN SOFTWARE / 19 USER
 ACCESSIBLE SUBROUTINES

BUSSTER A64

CNC.....495.00.....NA
 DIGITAL LINE INPUT MODULE / SELF CONTAINED IEEE BUS-
 COMPATIBLE DEVICE / READS AND STORES DATA FROM UP TO 64
 DIGITAL TTL LEVEL LINES, THEN SENDS INFORMATION BACK TO
 COMPUTER/ PROGRAMMABLE THRU BASIC.

MW-311C UNIVERSAL I/O BOARD

MWE.....225.00.....NA
 16-CHANNEL A/D: 1-CHANNEL D/A OUTPUT: 16 HIGH-CURRENT
 DISCRETE OUTPUTS.

MULTI-LAB

COB.....239.95.....NA
 "LAB ON A CARD...MAKE VOLTMETERS...CONVERTERS...DIGITAL
 SENSORS...FREQUENCY SYNTHESIZERS...MORE"

COMSENSE

GCC.....39.95.....NA
 "READS INPUT FROM THE OUTSIDE WORLD."

HOME SECURITY SYSTEM

JAN.....195.00.....NA
 KIT PROVIDES SOFTWARE, HARDWARE, AND CARTRIDGE FOR
 CONNECTING AND CONTROLLING SWITCHES AND ALARMS IN A
 COMPLETE HOME SECURITY SYSTEM.

HAWS

(HOME AUTOMATIC WEATHER STATION)

VAI.....199.95.....NA
 COMMERCIAL WEATHER-SENSOR PACKAGE AND SOFTWARE FOR
 TRACKING & FORECASTING THE WEATHER. PLOTS HISTORICAL
 TRENDS AND GRAPHICALLY DISPLAYS TRENDS/ MONITORS: DEEW
 POINT, TEMP, HUMIDITY, & ATMOS. PRESSURE. MANUAL PLUS
 METEOROLOGY INSTRUCTIONAL MATERIALS ON DISK & PRINTED.
 SIMPLE CONNECTION/DISCONNECTION.

DATAONE (A/D CONVERTER / DIGITAL I/O)

CGR.....249.00.....NA
 16 CHANNEL, 12-BIT A/D CONVERTER. 12-BIT D/A CONVERTER.
 12 DIGITAL INPUTS. 10 DIGITAL OUTPUTS. C-MOS REAL-TIME
 CLOCK CALENDER WITH BATTERY BACKUP.

STANDARD INTERFACES ↓

CIE (IEEE 488 INTERFACE)

MSD.....(NA).....NA

C232 (RS232 INTERFACE)

MSD.....(NA).....NA

CX-6402 RS232 INTERFACE

ECX.....59.95.....NA

ADA 6410 (RS232 INTERFACE)

CMC.....79.00.....NA

MODEM INTERFACE

BMT.....21.95.....NA

VIDEO ENHANCEMENT ↓



B.I.-80

BAT.....199.95.....****
 HARDWARE 80-COLUMNS. ADDS BASIC 4.0 COMMANDS.
 HIGH-QUALITY, CLEAR 80 COLUMNS (ON A MONOCHROME
 MONITOR). READS OK ON A COMMODORE COLOR MONITOR TOO.

VIDEO PAK 80

DAT.....179.95.....****
 40 COL. COLOR/ 80 COL. MONOCHROME: INCLUDES TERMINAL AND
 SCREEN-PRINT SOFTWARE.

Z-80 VIDEO PAK

DAT.....299.95.....NA
 ABOVE FEATURES PLUS CP/M COMPATIBILITY VIA BUILT-IN Z-80
 MICROPROCESSOR.



VIDEO ENHANCEMENTS (CONT'D)

COLOR-80 SOFTWARE

RTC.....(DISK).....39.95.....***
 80 COLUMNS FROM SOFTWARE. USES NO BASIC RAM /
 COMPATIBLE WITH C-64 LINK. (SEE 'DOUBLE-TAKE' IN ISSUE
 #3).

SCREENMAKER

C6R.....179.95.....NA

80 COL. BOARD WITH SOFTWARE LINK.

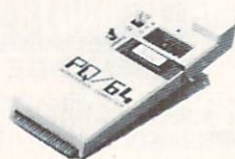
VID (VIDEO IMPROVEMENT DEVICE)

CAC.....29.95.....***

PLUG THIS LITTLE WIDGET INTO YOUR 5-PIN VIDEO PORT AND
 HOOK YOUR T.V. TO THE USUAL RF PLUG. VISIBLE
 IMPROVEMENT OF PICTURE QUALITY ON MANY TV'S (SEE
 'DOUBLE-TAKE' IN PREMIERE ISSUE.)

WAVE 80-COLUMN VIDEO BOARD

WCI.....139.95.....NA



PQ/64

GLD.....299.00.....NA

64 VERSION OF 'PROMQUEEN'- READS, PROGRAMS, EDITS, &
 RUNS 2500 & 2700 SERIES EPROMS. W/ SOFTWARE.

PQ/64 RS

GLD.....49.00.....NA

PERFORMS RS-232 VOLTAGE CONVERSIONS FOR PQ/64.

ROM PACKS (FOR ABOVE)

GLD.....39.00.....NA

DATASPAN (3 SLOTS)

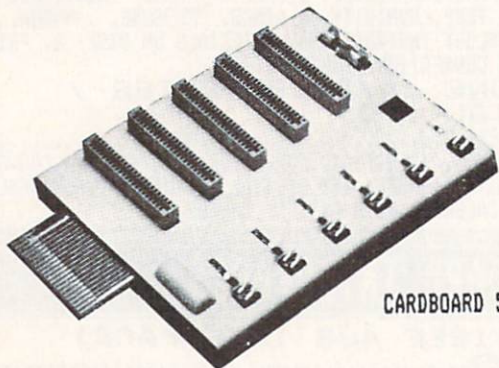
COB.....59.95.....NA

EXPANSION BOARDS

SMARTSLOT

PRG.....99.95.....****

FUSE-PROTECTED HARD-SWITCHED OR SOFTWARE SELECTED
 EXPANSION SLOTS. RESET.



CARDBOARD 5

CARDBOARD 5

CAR.....69.95.....****

ATTRACTIVE, FUSE-PROTECTED 5-SLOT EXPANSION BOARD FOR
 THE 64. EACH SLOT HAS 4 LED STATUS INDICATORS AND TWO
 SWITCHES TO DIRECTLY CONTROL VARIOUS MEMORY AND ACCESS
 FUNCTIONS. TWO MASTER SWITCHES AND INDICATORS ALLOW
 OVERRIDE AT ANY TIME. CAN BE USED TO SIMPLY ELIMINATE
 CONSTANT INSERTION AND REMOVAL OF CARTRIDGES.

EXPANDOPORT 4

MSD.....(NA).....NA

4 PORTS WITH FUSE AND RESET.

DEXPANDER BOARD

(4 / 6 / & 8 SLOT VERSIONS)

DEX.....39.00/49.00/59.00.....NA

SWITCH-SELECTABLE USER SLOTS.

4-SLOT EXPANDER

PTI.....69.95.....NA

4 SLOTS, 4 TOGGLE SWITCHES, RESET & FUSE.

SOFTWARE BOX

SAW.....149.00.....NA

8 SLOTS, EACH SWITCHED, 110 V. OUTLETS, RESET, OPTIONAL
 5 V. POWER SUPPLY.

BUSMASTER (6-SLOT)

RAN.....79.95.....NA

BUSMASTER-II

RAN.....99.95.....NA

SAME AS ABOVE ONLY W/ SOFTWARE SELECTABLE SLOTS (ALLOWS
 MEMORY PAGING TO 6X64 K)

7-SLOT EXPANDER BOARD

BAZ.....69.00.....NA

4-SLOT EPROM CARD

BAZ.....59.00.....NA

MISCELLANEOUS INTERFACES

CARDETTE

CAR.....39.97.....***

INTERFACE ALLOWS USE OF NON-CBM CASSETTE DECKS. IT SEEMS
 THAT THE ECONOMY TYPE TAPE DECKS ACTUALLY WORK BETTER
 WITH THIS THAN THE PREMIUM TYPES.

CBM 64 RABBIT CARTRIDGE

EAS.....39.95.....NA

CLAIMS 6X NORMAL CASSETTE LOAD & SAVE. WITH 12
 ADDITIONAL COMMANDS.

GRIZZLY

EPD.....(NA).....NA

UNINTERRUPTABLE POWER SYSTEM; KEEP COMPUTING FOR TWENTY
 MINUTES AFTER A TOTAL POWER OUTAGE. GIVES YOU TIME TO
 SAVE YOUR FILES, ETC.

LEMON / LIME / PEACH / ORANGE

EPD.....(NA).....NA

LINE OF AC FILTERS AND SURGE PROTECTORS TO PROTECT
 COMPUTER EQUIPMENT.

VIAC

INC.....34.95.....NA

NON-CBM CASSETTE INTERFACE.

SUPER BLOCKSAVER

COB.....34.95.....NA

SOFTWARE AND CARTRIDGE ALLOWS MAKING BACKUP COPIES OF
 C64 CARTRIDGES TO DISK.

CB-2

COB.....39.95.....NA

ALLOWS MAKING BACKUPS OF CASSETTE SOFTWARE- USES ONE OR
 TWO CASSETTE DRIVES.

1540 UPGRADE ROM

CBY.....<40.00.....NA

AS FAR AS WE KNOW, THIS IS THE ONLY PUBLIC SOURCE OF
 THIS PRODUCT. TURNS A 1540 DISK DRIVE INTO A 1541.

PRINTER INTERFACES

EASY-PRINT WITH GRAPHICS

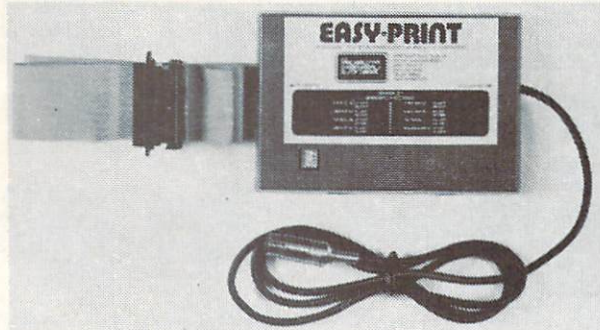
PRG.....119.95.....*****

NOW WE'RE TALKIN'! NOT THE CHEAPEST, BUT EASILY OUR
 FAVORITE PRINTER INTERFACE TO DATE. SWITCHES (ON THE
 OUTSIDE) ALLOW EASY CONFIGURATION FOR YOUR PRINTER.
 STEEL DIN PLUG, EXTERNAL RESET SWITCH, POWER CORD TO
 JOYSTICK PORT, BUILT-IN SELF-TEST, EXTENSIVE MANUAL
 PRINTS OUT FROM UTILITY DISK (INCLUDED) DOES SHADED
 GREY-SCALE PRINTOUTS OF COLOR SCREENS. OPTIONAL 4K
 BUFFER (RECOMMENDED) GREATLY ENHANCES SPEED.

EASY-PRINT (NO GRAPHICS)

PRG.....79.95.....NA

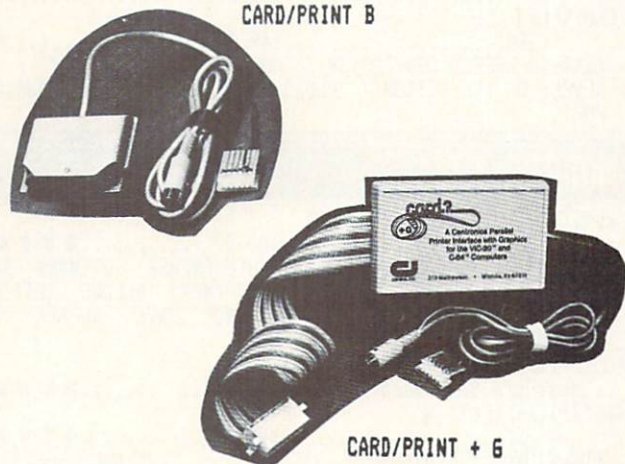
PRINTER INTERFACES (CONT'D)



EASY-PRINT INTERFACE

CARD/PRINT B

CAR.....49.95.....****
 ENHANCED REPLACEMENT FOR THE OLD CARD/PRINT 'A' AT A MUCH LOWER PRICE. FEATURES INCLUDE NEW HOUSING WHICH MOUNTS NEATLY TO BACK OF THE PRINTER INSTEAD OF HANGING OUT AT THE END OF THE CABLE / 3 MICRO-SWITCHES FOR LOCKING THE PRINTER AND INTERFACE IN VARIOUS CONFIGURATIONS.



CARD/PRINT B

CARD/PRINT + G

CARD/PRINT + G

CAR.....79.95.....****
 FULL COMMODORE CHARACTER SET TRANSLATION (AS WELL AS ASCII VALUES FOR NON-IMPLEMENTED CHARACTERS). THIS AT THE SAME PRICE THAT MADE THE OLD CARD/PRINT A GREAT VALUE IN PRINTER INTERFACES. (SUITABLE FOR USE WITH: OKIDATA 82, 94, 92, 94, EPSON MX 80, RX 80, FX 80, GEMINI 10X, PROWRITER, CITOH 8510, NEC 8023, AXIOM GP 100, AND BANANA PRINTERS.) THERE ARE SOME PROBLEMS WITH SOME GEMINI PRINTERS DUE TO ROM CHANGES WHICH CARDCO SAYS CAN BE FIXED BY CONTACTING STAR MICRONICS FOR A REPLACEMENT ROM. WE DON'T LIKE THE INTERNAL DIP SWITCHES WHICH ARE HARD TO GET AT (YOU HAVE TO COMPLETELY OPEN THE HOUSING) AND NEED SOME FIDDLING WITH TO GET SET UP PROPERLY. OTHERWISE, THIS IS A PRETTY GOOD VALUE.

GRAPPLER CD

ORA.....<120.00.....NA
 A RESPECTED NAME IN APPLE CIRCLES, ORANGE MICRO IS RELEASING A 'GRAPPLER' FOR THE C64. CONNECTS TO BOTH THE SERIAL PORT AND THE EXPANSION SLOT (WITH FEED-THRU FOR BOTH) AND PROVIDES MANY MODES OF PRINTER OPERATION INCLUDING: EXACT 1525 EMULATION INCLUDING GRAPHICS CHARACTERS FOR EPSON, STAR, OKIDATA, PROWRITER, NEC AND OTHERS / MULTIPLE SCREEN-DUMP ROUTINES FOR HI-RES AND BLOCK GRAPHICS, DOUBLE SIZED, INVERTED, ROTATED, EMPHASIZED GRAPHICS, & INTEGRAL TEXT FORMATTING COMMANDS.

TYMAC 'CONNECTION'

MWD.....119.00.....NA
 INTELLIGENT PARALLEL INTFC. USES DISK/SERIAL PORT / DISPLAYS FULL GRAPHICS SET OR CONVERTS TO TEXT EQUIVALENT / PRINTER RESET SWITCH / LED INDICATORS/ FACTORY CONFIGURED TO YOUR PRINTER MODEL.

TYMAC PARALLEL CABLE W/ DRIVER

MWD.....29.95.....NA
 PRINTER SPECIFIC 'ECONOMY' INTERFACE: SOFTWARE ABLE ON DISK TO SUPPORT GRAPHICS PRINTING.

SMART ASCII

MID.....59.95.....NA
 USES THE MODEM PORT, SO YOU CAN'T CONVEIENTLY USE YOUR PRINTER MODEM AT THE SAME TIME. WE CONSIDER THIS TO BE A SERIOUS LIMITATION.

PRINT-MASTER

IPS.....39.95.....NA
 CARTRIDGE ENHANCES PRINTER OPERATIONS. ADDS 12 NEW BASIC COMMANDS, ALLOWS HIGH RES. SCREEN DUMPS, FORMATTED LISTINGS, CBM CHAR. SET. INCLUDES DOS WEDGE WITH 8 COMMANDS. WORKS WITH EPSON & EPSON-COMPATIBLE PRINTERS ONLY.

PRINTMASTER-64

COB.....89.95.....NA
 CENTRONICS-TYPE PARALLEL INTERFACE FOR EPSON OR GEMINI: PRINTS THE FULL COMMODORE GRAPHICS SET/ ADDS 16 COMMANDS TO BASIC/ TEXT & GRAPHIC SCREEN DUMPS/ UN NEW COMMAND.

PRINT-64

COB.....69.95.....NA
 SIMILAR TO PRINTMASTER ABOVE/ PRINTS GRAPHICS CHARACTERS.

L&L PRINTER INTERFACE

L&L.....70.00.....NA
 FOR GEMINI 10X PRINTER/ INCLUDES COMMODORE SPECIAL CHARACTER LISTING MODE.

MW-302 PRINTER INTFC.

MWE.....119.95.....NA
 CONNECTS 64 SERIAL PORT TO CENTRONICS-TYPE PARALLEL PRINTERS. TRANSLATES CBM ASCII TO STANDARD ASCII.

DATA 20 PRINTER INTERFACE

(CONNECTS TO MODEM PORT)
 DAT.....69.95.....NA
 CPI (PARALLEL PRINTER INTFC.)
 MSD.....79.95.....NA

MASS STORAGE



MSD SINGLE DISK DRIVE

MSD DUAL DISK DRIVE

MSD DUAL DISK DRIVE

MSD.....695.00.....****
 DEPENDABLE DUAL DRIVE CAN BE CONFIGURED AS EITHER A DUAL DRIVE OR TWO SINGLE DRIVES. IEEE INTERFACE AT ADDITIONAL COST. (SEE MINI-REVIEW THIS ISSUE)

MSD SINGLE DISK DRIVE

MSD.....399.00.....****
 HIGH DEGREE OF COMPATIBILITY WITH 1541 DISK SOFTWARE / SOFTWARE- RECONFIGURABLE OPERATING SYSTEM / SERIAL & IEEE INTERFACES (IEEE INTERFACE AT EXTRA COST).



MASS-STORAGE (CONT'D)

QUICKDISK

(5", 8", SINGLES & 3.5" DUAL)

C6R.....595.00, 1095.00, 995.00.....NA

10 X SPEED OF 1541 DRIVES. (CHECK COMPATIBILITY WITH COMMERCIAL SOFTWARE BEFORE BUYING).

UNITRONICS WAFERDRIVE

UNI.....UNDER 100.00.....NA

THIS IS AN IMPLEMENTATION OF THE EXATRON STRINGY-FLOPPY TECHNOLOGY IN A 64-COMPATIBLE PLUG-IN (USER PORT) WAFER DRIVE. CLAIMS SOME OPERATIONS AS FAST AS 1541 (NOT HARD TO BELIEVE). COMES WITH 2 BLANK WAFERS AND ONE GAME (MINER 2049ER) ON WAFER. COMPANY HOPES TO HAVE 30-40 COMMERCIAL PROGRAMS AVAILABLE ON WAFER THIS FALL.

ACCESS-M (RAM EXPANSION)

MOS.....250.00.....NA

COMES WITH 64K RAM WHICH MAY BE EXPANDED IN 64K INCREMENTS UP TO 1 MEGABYTE. PROPRIETARY MEMORY-MANAGEMENT TECHNIQUE (NOT BANK SWITCHED)/ COMES WITH DISK-EMULATION SOFTWARE (RAMDISK) AND MEMORY MANAGEMENT SOFTWARE. PLUGS INTO CARTRIDGE SLOT AND PROVIDES 2 FREE EXPANSION SLOTS PLUS 4 RAM BOARD SLOTS (EACH RAM BOARD CAN HOLD 256K (4 64K CHIPS). SOME 3RD PARTY SOFTWARE HOUSES ARE ALREADY WORKING WITH MOSAIC ON NEW SOFTWARE PACKAGES WHICH WILL TAKE ADVANTAGE OF THIS HUGE AMOUNT OF RAM.

(SEE ARTICLE IN ISSUE #2)

C-321P DUAL DRIVE

CPS.....358.00.....NA

STILL WAITING FOR THIS PROMISED NEW ENTRY INTO THE EXPANDING 3RD PARTY HARDWARE FIELD. PARALLEL INTERFACE BUILT-IN AND READY TO GO. CAN SUPPORT UP TO 3 SLAVE UNITS FOR A 4-DRIVE MAXIMUM SYSTEM. (SLAVES WILL COST LESS THAN THE MASTER UNIT). 174K STORAGE CAPACITY.

DF-2000 CASSETTE DECK

EDC.....(NA).....NA

COMES WITH CONNECTING CABLE FOR C64 BUT CAN BE USED WITH OTHER COMPUTERS, OR AS A CONVENTIONAL CASSETTE RECORDER WHEN NOT NEEDED AT THE COMPUTER. GOOD IDEA.

SENSORY PERIPHERALS



MICRON EYE CAMERA

MICRONEYE CAMERA

MTI.....295.00/485.00.....****

TWO MODELS OF SOLID STATE IMAGING DEVICE (THE DIFFERENCE BEING IN THE MAXIMUM DISTANCE DEVICE MAY BE FROM COMPUTER). BOTH CONNECT TO EXPANSION PORT OF 64. SOFTWARE INCLUDED ALLOWS DISPLAY OF IMAGES TO SCREEN. GRAY-SCALE / SOFTWARE CONTROLLED SHUTTER / FRAME STORE & RECALL.

(SEE REVIEW IN ISSUE #2)

VOTRAX SPEECH SYSTEM

VDT.....395.00.....****

255 PROGRAMMABLE FREQUENCIES FOR SOUND EFFECTS / 16 AMPLITUDES / SIMULTANEOUS SPEECH AND EITHER MUSIC OR SOUND EFFECTS / 8-OCTAVE 3-VOICE MUSIC / SERIAL AND PARALLEL INTFCs. INCLUDED / BUILT-IN PROGRAMMABLE CLOCK / EXCEPTION TABLES / PROGRAMMABLE RATE AND INFLECTION / 3500 CHAR. BUFFER / REAL TIME CLOCK WITH 8 USER-DEFINED ALARMS / BAUDS FROM 75 TO 9600 / MORE!

S.A.M.

(SOFTWARE ACTIVATED MOUTH)

DON.....(D).....34.95.....****

SOFTWARE SPEECH SYNTHESIZER: NATURAL (WELL...) SOUNDING SPEECH/ VARIABLE PITCH, SPEED, INFLECTION/ ENGLISH TEXT-TO-SPEECH CONVERSION/ EASY TO USE IN PROGRAMS.

VOICEBOX

ALI.....129.95.....NA

"WORLD'S ONLY SINGING SPEECH SYNTHESIZER": UNLIMITED VOCABULARY/ NATURAL SOUNDING/ INFLECTION CONTROL/ TEXT-TO-SPEECH & PHONEME INPUT/ PLUGS INTO USER PORT/ INCLUDES BUILT IN SPEAKER, VOLUME & PITCH CONTROLS. (WORKS WITH 'WHEN I'M 64' MUSIC AND SINGING SYSTEM)

SMARTVOICE

UFS.....199.00.....NA

SPEECH SYNTHESIZER PLUGS DIRECTLY INTO MODEM PORT AND RESPONDS TO SIMPLE BASIC STATEMENTS. SPEED AND PITCH CONTROL, AUTOMATIC INFLECTION, EXTERNAL VOLUME CONTROL.

SPEAKEASY

PPP.....91.95.....NA

COMVOICE

GEN.....149.00.....NA

TEXT-TO-SPEECH CONVERSION / UNLIMITED VOCABULARY / 4 LEVELS OF INFLECTION / PLUGS DIRECTLY INTO EXPANSION PORT.

MODEMS ETC.

1650 AUTO-MODEM

CBM.....<100.00.....****

300 BAUD/ INCLUDES AUTO-DIAL, AUTO-ANSWER SOFTWARE AND TERMINAL SOFTWARE (TERMINAL SOFTWARE ALLOWS SETTING TERMINAL PARAMETERS, BUT HAS NO SAVE BUFFER OR UP/DOWN-LOADING)

VICMODEM

Commodore Bus. Machines.....49.95.....****

HESMODEM I

HES.....69.95.....****

FUNCTIONALLY SIMILAR TO VICMODEM / TERMINAL SOFTWARE INCLUDED FOR 64.



AIR-1

AIR-1

MRC.....199.00.....NA

CARTRIDGE CONNECTS TO SHORTWAVE RADIO, & CONVERTS MORSE CODE OUTPUT TO PRINTED TEXT ON SCREEN / SENDS AND RECEIVES RTTY / FEATURES ON-SCREEN TUNING & HARDCOPY OUTPUT.

MODEMS ETC. (CONT'D)

AM FM LOADER

MIP.....<70.00.....NA
 THIS UNIQUE RECEIVE-ONLY MODEM IS CAPABLE OF ACCEPTING COMPUTER DATA FROM COMMERCIAL RADIO OR CABLE TV TRANSMISSIONS AT SPEEDS UP TO 4800 BAUD USING PROPRIETARY TECHNOLOGY. THEORETICALLY, SPEEDS OF 9600 BAUD CAN BE ACHIEVED- ALLOWING DOWNLOADING OF A TYPICAL VIDEO GAME IN ABOUT 4 SECONDS. (THIS OPENS UP A WHOLE NEW MARKET FOR CABLE TV.)

AUTO-PRINT MICROCONNECTION

MIP.....149.00.....NA
 DIRECT CONNECT, AUTODIAL, AUTOANSWER MODEM SIMULTANEOUSLY DIRECTS DATA TO YOUR PRINTER AS WELL AS YOUR SCREEN. INCLUDES TERMINAL SOFTWARE.

HESMODEM II

HES.....99.95.....NA
 AUTO ANSWER/DIAL MODEM INCLUDES TERMINAL SOFTWARE.

MIGHTY MODEM

PPP.....79.95.....NA

300 BAUD MODEM

WITH TERMINAL SOFTWARE
 BAZ.....89.00.....NA

USER INPUT DEVICES



KOALA PAD (WITH SOFTWARE)

KOA.....99.00.....*****
 MEDIUM-SIZED INPUT PAD RESPONDS TO FINGER OR STYLUS PRESSURE. RUGGED PLASTIC/ COMES WITH 'KOALA PAINTER' COLOR DRAWING SOFTWARE. 'KOALA PAINTER' IS AN EXCELLENT IMPLEMENTATION OF ISLAND GRAPHICS' 'MICRO-ILLUSTRATOR' SOFTWARE: USES THE 64'S 16 COLORS PLUS 136 MIXED-COLORS. FEATURES 'OOPS' MISTAKE CORRECTION, SOPHISTICATED BLOCK MOVES, QUAD-SYMMETRIC MIRROR MODE, COLOR SWAPS, & MANY OTHER DAZZLING EFFECTS! THIS IS ONE OF THE 10 BEST PRODUCTS OF 1983!

(SEE REVIEW: ISSUE #2)

FLEXIDRAW LIGHT PEN

(WITH 'PENWARE' DRAWING SOFTWARE)
 INK.....<150.00.....*****

PROFESSIONAL GRADE LIGHT PEN (WITH SINGLE PIXEL RESOLUTION). THIS IS NOT A TOY (ALTHOUGH IT IS LOTS OF FUN & THE SOFTWARE IS EXTREMELY EASY TO USE). INCLUDES SOPHISTICATED MACHINE LANG. DRAFTING SOFTWARE/ A SEPARATE BASIC ROUTINE FOR PROGRAMMABLE GRAPHICS/ SPRITE EDITOR AND ANIMATOR/ READY-TO-USE TEMPLATES FOR ELECTRONIC CIRCUITS, GREEK SYMBOLS, & MUSIC COMPOSITION, LIGHT PEN MUSIC SYNTHESIZER/ AND A LIBRARY OF SAMPLE DRAWINGS.

(SEE REVIEW: ISSUE #2)

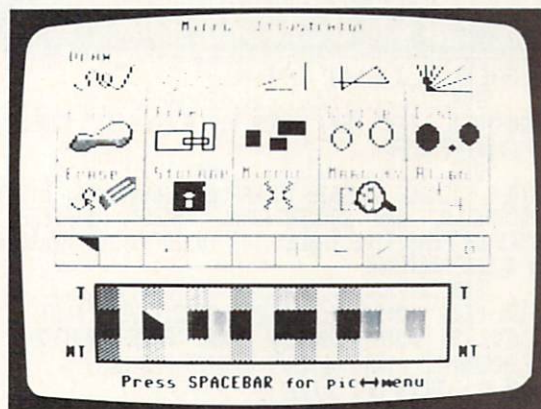
(SEE ALSO: GRAPHICS SECTION)

TECH-SKETCH LP-10S LIGHT PEN

TEC.....39.95.....*****
 THIS LOW-COST LIGHT PEN DOES A NICE JOB WITH TECH SKETCH'S NEW VERSION OF MICRO ILLUSTRATOR.

QUICKSHOT JOYSTICK

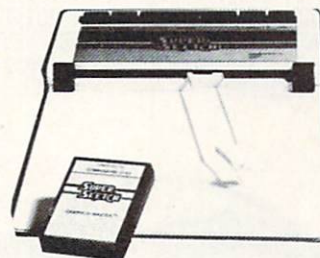
(SUCTION-CUP BASE / DUAL FIRE BUTTONS)
 SVI.....12.95.....*****



LP-10S LIGHT PEN

KP-1 NUMERIC KEYPAD

BTI.....59.95.....*****
 HARD-WIRED NUMERIC KEYPAD. HARD-WIRING MEANS THE COMPUTER CAN'T TELL THE DIFFERENCE BETWEEN THE KEYPAD AND THE 64 KEYBOARD. THIS GUARANTEES COMPATIBILITY WITH ALL SOFTWARE. THE MODIFICATIONS ARE SIMPLE- JUST PLUG IN THE CABLE BETWEEN THE KEYBOARD AND THE CIRCUIT BOARD. THE FIT IS A BIT TIGHT, BUT IT WORKS.



SUPER SKETCH

SUPER SKETCH

INCLUDES GRAPHICS MASTER SOFTWARE CARTRIDGE.

PPI.....59.95.....*****
 DIFFERENT APPROACH TO GRAPHICS INPUT. USES A STYLUS ARM ATTACHED TO A PLASTIC 'CLIP-BOARD'. UNFORTUNATELY, WHILE THIS ARRANGEMENT HAS DEFINITE APPEAL, THERE IS TOO MUCH MECHANICAL PLAY IN THE STYLUS ARM TO TAKE ADVANTAGE OF THE GOOD GRAPHICS CAPABILITIES OF THE SOFTWARE. I DON'T KNOW IF THIS CAN BE REMEDIED AT SUCH A LOW PRICE.

EDUMATE LIGHT PEN

PGI.....29.95.....*****
 THIS ENTRY-LEVEL PEN IS COMPATIBLE WITH P.I.'s CHILDREN'S EDUCATIONAL SOFTWARE AND THEIR PERIPHERAL VISION GRAPHICS SOFTWARE.

GIBSON LIGHT PEN SYSTEM.

KOA.....<250.00.....NA
 (SEE GRAPHICS SECTION)

POWERPAD

CBI.....99.95.....NA
 12" X 12" TOUCH-SENSITIVE INPUT PAD USES OVERLAYS ALONG WITH ASSORTED APPLICATIONS CARTRIDGES COVERING A WIDE RANGE OF ART, MUSIC, AND EDUCATIONAL PROGRAMS. THE PAD HAS A UNIQUE SENSING ARRANGEMENT THAT RECOGNIZES SIMULTANEOUS ACTIVATION OF MULTIPLE POINTS ON THE ACTIVE SURFACE.

USER INPUT DEVICES CONT'D



- HI-RES LIGHT PEN**
 SYM.....150.00.....NA
 INDUSTRIAL LIGHT PEN. TOUCH-TIP & PUSH-TIP MODELS.
- DATAWAFFER**
 DIC.....(NA).....NA
 UNIQUE PACKAGE IS SAID TO REPLACE JOYSTICKS, LIGHT PENS, TRACKBALLS, AND CONVENTIONAL 'MICE', WIRELESS MOUSE WORKS ON SENSITIVE TABLET (UP TO 20" X 20" AVAILABLE).
- JOY*SENSOR**
 SUN.....34.95.....NA
 STICK-LESS JOYSTICK. TOUCH-SENSITIVE FLAT-PANELS ACCOMPLISH BOTH MOVEMENT AND 'FIRE-BUTTON' TASKS. ACCOMMODATES RIGHT OR LEFT HANDED PLAYERS.
- KRAFT JOYSTICK**
 KSC.....14.95.....NA
- ENJOYSTICK**
 (RIGHT OR LEFT-HAND JOYSTICK)
 TGP.....(NA).....NA
- ZIRCON TRACKBALL**
 ZIR.....29.95.....NA
- FREEDOM**
 5' REMOTE KEYBOARD.
 PRS.....59.95.....NA
 KIT PUTS YOUR KEYBOARD IN A SEPARATE LOW-PROFILE HOUSING AT THE END OF A 5' CABLE. COMPUTER CAN THEN BE TUCKED AWAY OUT OF SIGHT OR UNDER MONITOR.
- FREEDOM PLUS**
 PRS.....59.95.....NA
 LIKE FREEDOM ABOVE, BUT WITH 15-KEY NUMERIC PAD.
- CARDKEY / 1**
 CAR.....39.95.....NA
 16 KEYS / CAN BE PLUGGED INTO JOYSTICK PORT OR PIGGY-BACKED WITH KEYBOARD CONNECTOR ELIMINATING THE NEED FOR DRIVER SOFTWARE, AND AVOIDING SOFTWARE COMPATIBILITY PROBLEMS.



FLEXIKEY SYSTEM

- FLEXIKEY SYSTEM**
 GSS.....69.95.....NA
 20-KEY NUMERIC PAD. EACH KEY MAY BE DEFINED TO HAVE 3 VALUES/ DRIVER SOFTWARE IN BASIC
- 10-KEY PAD**
 QUA.....69.95.....NA
- NUMERIC KEYPAD**
 COP.....69.95.....NA

CABLES, GADGETS, ETC.



- MONITOR CABLE**
 (5-PIN/ CHROMA, LUMA, AUDIO, AUDIO RETURN)
 MSD.....29.95.....****
- TB-1 DATA CASSETTE COPIER**
 T&M.....24.95.....****
 CONNECTS TWO DATA CASSETTES TO MAKE BACKUP COPIES OF CASSETTE SOFTWARE INCLUDING MACHINE LANGUAGE AND COPY--PROTECTED PROGRAMS. GOLD-PLATED CONTACTS.
- SOUND BOX**
 HES.....14.95.....***
 PROVIDES STANDARD RCA PHONO CONNECTIONS FOR EASY HOOK UP TO STEREO ETC.
- COM-COOL / COM-COOL PLUS**
 CIS.....NA.....NA
 FILTERED BLOWER COOLING UNIT FOR 1541 DISK DRIVES. COM-COOL PLUS INCLUDES INTEGRAL SURGE/SPIKE PROTECTOR.
- VIDEO CABLE (5-PIN TYPE)**
 DAT.....12.95.....NA
- AUDIO/VIDEO CABLE**
 (5-PIN TYPE)
 QUA.....9.95.....NA
- UNIVERSAL TAPE INTERFACE & DUPLICATOR**
 MWD.....49.50.....NA
- POWERMASTER**
 (RUN YOUR 64 OFF YOUR CIGARETTE LIGHTER)
 RAN.....(NA).....NA
- SOFTWARE PROTECTION DEVICES**
 SOF.....5.98 TO 18.60.....NA
 LINE OF SECURITY 'DONGLES' WHICH USE THE SECOND JOYSTICK PORT.
- THE SIGNAL**
 ZAX.....29.95.....NA
 CONVENIENCE DEVICE GIVES AUDIO SIGNAL WHEN VARIOUS CASSETTE OPERATIONS ARE COMPLETED/ ALLOWING UNATTENDED CASSETTE USE.
- VAAB**
 INC.....19.95.....NA
 PROVIDES FOR EASY CONNECTION TO AUDIO AND VIDEO COMPONENTS- USES STANDARD RCA PLUGS.
- FIREFLY- PORTABLE POWER**
 GMA.....(NA).....NA

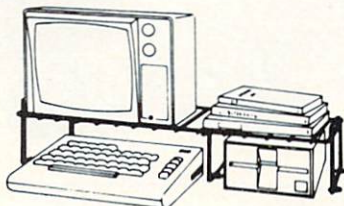
FURNITURE & ENCLOSURES



- DISKBANK**
 AMA.....7.95.....*****
 HANDY INTERLOCKING DISK- STORAGE MODULES.
- ROLLTOP 100**
 MCA.....36.00.....*****
 CONVENIENT AND SPACE-EFFICIENT LARGE-CAPACITY DISK STORAGE SYSTEM. HOLDS 100 DISKETTES BETWEEN 11 DIVIDERS. LOCKING SECURITY VERSION ALSO AVAILABLE (\$46.00).
- CT130 COMPUTER DESK**
 BUS.....169.95.....****
- CTA131 HUTCH**
 (GOES ON TOP OF CT130)
 BUS.....99.95.....****
- CT120 ROLL-ABOUT TABLE**
 BUS.....79.95.....****
 THIS WILL HOLD EITHER A 64 AND DISK DRIVE (MONITOR RAISED OVER KEYBOARD) OR A VERY LARGE PRINTER.
- CTA132 MONITOR/PRINTER STAND**
 BUS.....17.95.....****
- SOUND TRAP**
 TRC.....129.00.....****
 WELL-DESIGNED AND ATTRACTIVE SOUND REDUCTION ENCLOSURE FOR WIDE RANGE OF PRINTERS. FITS EPSON & GEMINI. SOUND ATTENUATION IS GOOD. CAN BE POSITIONED TO DO DOUBLE DUTY AS A COPY HOLDER.

MORE FURNITURE & ENCLOSURES

- TRAVELMASTER**
 SOC.....79.00.....****
 LOCKING MOLDED POLYETHYLENE CASE SIZED & FOAM-PADDED FOR ONE 64 AND DRIVE.
- CM703 CASE**
 (HOLDS 64 AND DISK DRIVE)
 CCC.....129.00.....NA
- CS1632 STORAGE CABINET**
 HYT.....89.95.....NA
 LOCKING CABINET WITH ROOM FOR YOUR KEYBOARD AND DISK-DRIVE.
- DESKTOPPER**
 MAD.....49.95.....NA
 OAK STAND HOLDS TWO DRIVES ABOVE KEYBOARD. TV OR MONITOR GOES ON TOP.
- CLUTTERBUSTER (MONITOR STAND)**
 CMU.....19.95.....NA
- SYSTEM ORGANIZER**
 CPI.....79.95.....NA
 (ADD \$20 FOR MONITOR TURNTABLE) THIS UNIT HOLDS MONITOR AND DISK DRIVES ABOVE KEYBOARD WITH EXTRA CUBBY-HOLES FOR OTHER GOODIES. OAK VENEER.
- PRINTER STAND**
 (OAK VENEER / MATCHES ORGANIZER)
 CPI.....44.95.....NA
- DISK-DEX**
 (MATCHING OAK VENEER- HOLDS 50 DISKETTES)
 CPI.....29.95.....NA
- COMPUTATE 101**
 (OVER-KEYBOARD ACRYLIC MONITOR STAND)
 PCT.....39.95.....NA
- MAG-RAK**
 R&L.....34.95.....NA
 HANDY-LOOKING GADGET FOR HOLDING MAGAZINES & BOOKS NEAR YOUR WORK-STATION.



THE ORGANIZER

- THE ORGANIZER**
 BRG.....29.95.....NA
 WIRE-FRAME STYLE HOLDER FOR MONITOR ETC.
- SOLID OAK FURNITURE**
 FIN.....VARIES.....NA
 VERY HANDSOME- SEND OR CALL FOR THEIR BROCHURE.

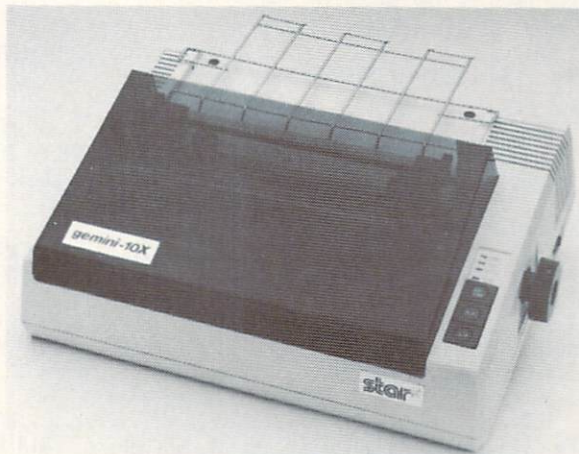
DOT MATRIX PRINTERS

- C. ITOH 8510S**
 CIT.....794.00.....*****
 180 CPS DRAFT MODE. 120 CPS NEAR-LETTER QUALITY MODE. NLQ PROPORTIONAL CHARACTER SET LOOKS VERY CONVINCING. TRACTOR/ FRICTION/ ROLL FEED. DOES NOT HANDLE SHIPPING LABELS WITH THE SAME RELIABILITY AS SOME DUE TO HIDDEN TRACTOR BEFORE PLATTEN (PUSHES PAPER THRU, RATHER THAN PULLS); NONETHELESS, A SUPERIOR PRINTER.

This is a sample of 10 cpi proportional printout (near letter quality mode) from the C.Itoh 8510S dot-matrix printer.

GEMINI DELTA 10

- SMI.....549.00.....*****
 160 CPS / SERIAL & PARALLEL INTFACES INCLUDED. HAS ALL FEATURES OF THE 10-X (BELOW) PLUS LARGER BUFFER. CURRENTLY, MUCH OF INFO-64 IS BEING PRINTED ON THIS PRINTER. WE HAVE BEEN VERY IMPRESSED BY ALL OF STAR'S PRODUCTS SO FAR, AND THEY KJUST KEEP GETTING BETTER.

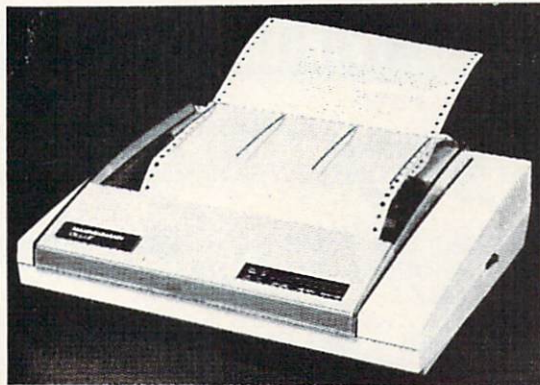


GEMINI 10-X

- GEMINI 10-X**
 SMI.....399.00.....****
 120 CPS / DOWNLOADABLE CHARACTER SETS / FRICTION. TRACTOR, & ROLL FEEDS / USER- REPLACEABLE PRINT-HEAD / STANDARD RIBBONS / WIDE VARIETY OF FONTS & CHAR. SIZES / EPSON FX-80 CODE COMPATIBLE. BECAUSE OF ITS PRICE & PERFORMANCE, WE CONSIDER THIS PRODUCT TO BE THE LEADING 'PRINTER OF THE MASSES'.

MANNESMANN TALLY MT 160

- MAN.....699.00.....****
 A FAST, HIGH-QUALITY PRINTER WITH VERY GOOD CORRESPONDENCE- GRADE PRINT & GRAPHICS. CONSTANT OPERATION AT FULL SPEED NOT RECOMMENDED DUE TO OVERHEATING POSSIBILITY.



TALLY SPIRIT-80

- MANNESMANN TALLY SPIRIT-80**
 MAN.....399.00.....****
 ONLY 80 CPS, BUT COMPACT & QUIET
- VP42 THERMAL PRINTER**
 ALP.....209.95.....****
- EPSON FX-80**
 EPS.....599.00.....****
 160 CPS/ WIDELY-SUPPORTED POPULAR PRINTER WITH VARIOUS FONTS AND PITCHES/ DOT-GRAPHICS/ DOWNLOADABLE FONTS/ SHEET AND PIN-FED PAPER HANDLING.

DOT MATRIX PRINTERS (CONT'D)

RADIX-10
SMI.....849.00.....NA
200 CPS DRAFT MODE / 50 CPS NEAR LETTER QUALITY. ALL THE FEATURES OF THE DELTA-10, ABOVE.

GEMINI STX-80
SMI.....199.00.....NA
THERMAL / 80-COLUMN / GRAPHICS CAPABLE.

M120/10
BCE.....349.00.....NA
120 CPS / CORRESP. QUALITY MODE / CONNECTS DIRECTLY TO C64 WITHOUT SEPARATE INTERFACE / BI-DIRECT., LOGIC-SEEKING / TRACTOR OR SHEET-FEEDER MODELS AVAILABLE.

CARDPRINTER/DM1
CAR.....149.05.....NA
DOT MATRIX IMPACT / 40 COLUMN / 50 CPS / STANDARD ADDING MACHINE (NOT THERMAL) PAPER / 2-COLOR PRINTING / BUILT-IN 64 INTERFACE / FULL CBM GRAPHICS CHARACTER SET INCLUDING REVERSED / HI-RES GRAPHICS / EXPANDED PRINT / UTILITY SOFTWARE INCLUDED.

IMP
ICD.....129.95.....NA
30 CPS / 64 INTERFACE BUILT-IN / 24 COLUMN / PRINTS ENTIRE CBM GRAPHICS SET / GRAPHICS CAPABLE.

PRINTELEX
CPE.....145.00.....NA
COMPACT 40-COLUMN, 160 CPS THERMAL PRINTER. SERIAL-PARALLEL BUILT-IN / DOT GRAPHICS.

RITEMAN
INR.....399.00.....NA
EPSON WORK-ALIKE, LOOK-ALIKE WITH 120 CPS.

IMPACT "40" THERMAL PRINTER
FID.....160.00.....NA
DIRECT-CONNECT TO 64; NO EXTRA INTERFACING/ 40-CHARACTER LINE/ USES STANDARD ADDING MACHINE PAPER/ 65 CPS PRINT SPEED.

LEGEND 800
LPP.....<350.00.....NA
80 CPS / RO SOFTWARE SELECTABLE TYPE STYLES / BIT GRAPHICS / BI-DIRECTIONAL LOGIC SEEKING / SQUARE DOT NLQ PRINT-HEAD / TRACTOR & FRICTION FEED.

DAISYWHEEL PRINTERS

TRANSTAR 130
TRA.....895.00.....NA
16 CPS / BI-DIRECTIONAL / DIABLO CODE COMPATIBLE / WORDPRO-3 FEATURES COMPLETELY SUPPORTED / FRICTION FEED

TRANSTAR 120
TRA.....NA.....NA
14 CPS / DIABLO CODE COMPATIBLE / WORDPRO-3 FEATURES COMPLETELY SUPPORTED / FRICTION FEED

CARDCO LQ/1
CAR.....599.95.....NA
14 CPS DAISY WHEEL / COMES FULLY INTERFACED FOR 64 AS WELL AS STANDARD PARALLEL / SUPPORTS UNDERLINING, BOLD & SHADOW PRINT / TRUE PROPORTIONAL CHARACTER SPACING. SOFTWARE SUPPLIED FOR TYPEWRITER EMULATION / CAN ALSO BE USED AS A TWO COLOR DOT GRAPHIC PRINTER FOR CUSTOM LETTER HEADS AND LOGOS.

TTX-1014
TTX.....649.00.....NA
COMPACT DAISYWHEEL / 140 WPM / SERIAL & PARALLEL INTERFACES BUILT-IN

POWER TYPE
SMI.....499.00.....NA
STAR'S FIRST DAISYWHEEL ENTRY: 18 CPS / 10, 12, 15 CPI, AND PROPORTIONAL SPACING / 100 TYPE FONTS AVAILABLE / REVERSE PAPER FEED / BOTH SERIAL AND PARALLEL INTERFACES.

COLOR PRINTERS

C.I.TOH 8510SC
CIT.....895.00.....NA
THIS IS THE COLOR EDITION OF THE 180 CPS C.I.TOH (SEE-EE-TOE) 8510. FOUR-COLOR RIBBON CARTRIDGE CAN PRODUCE SIXTEEN SOLID COLORS.

TRANSTAR 315 COLOR
TRA.....599.00.....NA
30 SHADES OF COLOR IN A SINGLE (IF SOMEWHAT SLOW (50 CPS)) PASS.

EPSON JX-80
EPS.....NA.....NA
160 CPS IN 7 COLORS.

OKIMATE 10
OKI.....239.00.....NA
40 SHADES OF COLOR POSSIBLE FROM 4-COLORRIBBON. LIGHT-WEIGHT & COMPACT. RIBBONS ARE GOOD FOR ONE PASS ONLY, SO PRINTING CAN GET RATHER EXPENSIVE (RIBBONS ARE ABOUT \$9.00 EA. AND ARE GOOD FOR ABOUT 10 PAGES OF OUTPUT.) THE COLOR QUALITY IS GOOD (FROM THE SAMPLES WE'VE SEEN) AND PRINTING CAN BE DONE ON ACETATE FOR DIRECT TRANSPARENCIES.



OKIMATE-10

INFORMATION SERVICES

COMPUSERVE
CSV.....30.00.....6.00.....****

SOURCE
SRC.....100.00.....7.75.....****

DELPHI INFORMATION SERVICE
DEL.....49.95.....5.00.....NA

PUBLICATIONS

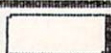
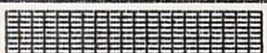
RUN (VIC & 64)
WGI.....2.95.....12....****+

COMPUTE!
(COVERS MANY MICROS. 64 GETS PRETTY GOOD COVERAGE)
CPU.....2.95.....12....****

COMPUTE!'S GAZETTE
(VIC & 64 MAG)
CPU.....2.95.....12....****

TRANSACTION (COMMODORE ONLY)
TRX.....NA.....24....****

AHOY! (COMMODORE ONLY)
III.....2.50.....12....****+



DISPLAYS



1702 COLOR MONITOR

CBM.....299.00.....*****

THIS IS ONE OF THE NICEST THINGS COMMODORE HAS DONE SINCE INTRODUCING THE 64. MAKE SURE YOU TAKE ADVANTAGE OF THE HI-PERFORMANCE BACK-PANEL INPUTS.

TV/MONITOR COMBINATIONS:

IF YOU CAN'T JUSTIFY THE COST OF A DEDICATED COLOR MONITOR, YOU MAY WANT TO BUY A COMBINATION TV/MONITOR WITH DIRECT VIDEO/AUDIO INPUTS/OUTPUTS. DON'T GET THE SONY WITH THE SPECIAL "COMPUTER INPUT" ON THE FRONT- THIS IS ONLY AN RF CONNECTION AND WILL NOT GIVE THE SAME QUALITY PICTURE AS DIRECT COMPOSITE VIDEO UNITS.

OF ALL THE COMBOS WE HAVE SEEN, THE BEST BY FAR IS THE MONTGOMERY WARDS 13" WITH ELECTRONIC REMOTE & CABLE-READY FOR \$250.00. IF YOU'RE SHOPPING FOR A COLOR MONITOR, THE 1702 AND THE WARDS ARE YOU'RE TWO BEST BETS.

MONOCHROME MONITORS:

THERE ARE MANY GOOD QUALITY MONOCHROME MONITORS AVAILABLE FROM COMPANIES LIKE ANDEK, BNC, PANASONIC, LEADING EDGE, ZENITH, ETC. THESE COME IN VARIOUS HUES LIKE GREEN, AMBER, YELLOW, & B&W. ONE OF THE NICEST, THE SANYO 9" B&W, IS APPARENTLY NOT MADE ANYMORE. IF YOU GET A CHANCE TO PICK UP A USED ONE, DON'T PASS IT UP.



CBM 1702 COLOR MONITOR

TOTALLY MISCELLANEOUS



PAL

PMP.....9.95.....****

YOU REALLY GET YOUR MONEY'S WORTH WITH THIS PAD OF PRINTED AIDS. KEYBOARD TEMPLATES / SCREEN LAYOUT GRIDS / LOG SHEETS / BASE CONVERSION CHARTS / SPRITE GRIDS / SOUND AND BASIC LANGUAGE REFERENCES.

THE PROMPTER

(PLASTIC FUNCTION KEY OVERLAYS)

TRN.....3.95 (PKG OF 4)***

DATA LOSS INSURANCE

ACU.....NA.....NA

SOFTWARE TRADING GROUP

TSE.....9.95.....NA

YOU SEND IN A TAPE WITH A PROGRAM YOU WROTE, THEY COPY IT AND ADD 5 PROGRAMS TO YOUR TAPE AND RETURN IT TO YOU.

★ ★ THE END ★ ★

DON'T MISS IT!

ISSUE #5

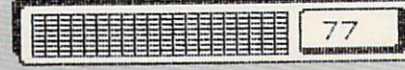
SPECIAL
GAMES ISSUE!

ON-SALE
NOVEMBER 84

INDEX TO VENDORS

36C - 36 COMPANY INC.	RT 3 / BOX 28A	GASTON	OR 97119	503 662-4492
3RI - 3R IMPORT AND EXPORT CORP.	731 JAMES ST.	SYRACUSE	NY 13203	315 475 2224
AAR - AARDVARK	2352 S. COMMERCE	WALLED LAKE	MI 48088	313-669-3110
ABA - ABACUS SOFTWARE	PO BOX 7211	GRAND RAPIDS	MI 49510	616-241-5510
ACA - ACADEMY SOFTWARE	PO BOX 9403	SAN RAFAEL	CA 94912	415-499-0850
ACC - ACCESS SOFTWARE	925 EAST 900 SOUTH	SALT LAKE CITY	UT 84105	801-532-1134
ACS - A-1 COMPUTER SERVICES	7103 2. CLEARWATER	KENNEWICK	WA 99336	509-783-4980
ACU - ASSOCIATION OF COMPUTER USERS	PO BOX 9003	BOULDER	CO 80301	
ADA - ADVANCED ARCADEWARE	PO BOX 845	THOMASVILLE	NC 27360	919-431-3231
ADI - ADVENTURES INC.	8718A RICHMOND HIGHWAY	ALEXANDRIA	VA 22309	800 835 2222
ADV - ADVENTURE INTERNATIONAL	BOX 3435	LONGWOOD	FL 32750	305-862-6917
AHG - AVALON HILL GAME CO.	MICROCOMPUTER GAMES DIVISION	BALTIMORE	MD 21214	301-254-5300
ATR - ARTIFICIAL INTELLIGENCE RESEARCH 6	921 NORTH LA JOLLA AVE.	LOS ANGELES	CA 90046	213 656 7368
ALI - ALIEN GROUP	27 W. 23RD ST.	NEW YORK	NY 10010	
ALP - ALPHACOM	2323 SOUTH BASCOM AVENUE	CAMPBELL	CA 95008	
AMA - AMARAY CORPORATION	2251 GRANT ROAD	LOS ALTOS	CA 94022	415 968 2840
AMD - AMDEK CORP.	2201 LIVELY BLVD.	ELK GROVE VILLAGE	IL 60007	312-364-1180
AME - AMERICAN DATA CABLE INC.	2864 RAY LAWYER DRIVE	PLACERVILLE	CA 95667	916-622-3465
AMI - AMIGA CORPORATION	3350 SCOTT BOULEVARD	SANTA CLARA	CA 95051	408 748 0222
ANI - ANIMAX COMPUTER	1111 LAS VEGAS BLVD. SOUTH	LAS VEGAS	NV 89104	702 384 0746
ARI - ARIES MARKETING CO.	PO BOX 4196	BALTIMORE	MD 21205	
ARK - ARKTRONICS	113 SOUTH FOURTH AVENUE	ANN ARBOR	MI 48104	800 CALL ARK
ART - ARTWORX SOFTWARE CO. INC.	150 N. MAIN ST.	FAIRPORT	NY 14450	800 828 6573
ATA - ATARISOFT	PO BOX 2943	SO. SAN FRANCISCO	CA 94080	408 745 2000
ATL - ATLAS SOFTWARE	4120 LAKELAND AVE.	MINNEAPOLIS	MN 55422	
AVC - AVCOR	512 KING STREET EAST	TORONTO	ON M5A-1M1	416 864 9240
B&B - BYTES & BITS	524 EAST CANTERBURY LANE	PHOENIX	AZ 85022	602 942 1475
B&P - BYTES & PIECES	550 W. 68TH STREET	WAUWATOSA	WI 53213	414 257 3562
BAB - BASIC BYTE INC.	PO BOX 924	SOUTHFIELD	MI 48037-0	800-835-2246
BAN - BANED SOFTWARE	113 TENTH ST.	WEST KEANSBURG	NJ 07734	201 495 0900
BAT - BATTERIES INCLUDED	186 QUEEN STREET WEST	TORONTO	ON M5V 1Z1	416-596-1405
BAZ - BAZ ELECTRONICS	PO BOX 4895	FEDERAL WAY	WA 98003	206 874 3029
BCE - BLUE CHIP ELECTRONICS, INC.	7406 EAST BUTHERUS DRIVE	SCOTTSDALE	AZ 85260	602 991 9833
BEH - BEHAVIORAL ENGINEERING	230 MT. HERMON RD.	SCOTT'S VALLEY	CA 95066	408 438 5649
BES - BOSTON ELECTRONIC SYSTEMS TRAINING	24 MUNROE ST.	NEWTONVILLE	MA 02160	
BIB - BIBLE SOFTWARE	4169 SE DAVIDSON	ALBANY	OR 97321	
BIT - BITCARDS	120 SOUTH UNIVERSITY DRIVE	PLANTATION	FL 33317	305 473 4741
BIZ - BIZWARE INC.	5014 HWY 29	LILBURN	GA 30247	800 221 7171
BLU - BLUE CHIP SOFTWARE	19537 WELLS DRIVE	TARZANA	CA 91356	
BMT - BYTESIZE MICRO TECHNOLOGY	PO BOX 21123	SEATTLE	WA 98111	206 236 3000
BOS - BOSTON EDUCATIONAL COMPUTING INC.	78 DARTMOUTH STREET	BOSTON	MA 02116	617-536-5116
BRA - ROBERT J. BRADY CO.		BOWIE	MD 20715	301 262 6300
BRG - B.R. GREEN	410 HUNTLEY DR.	LOS ANGELES	CA 90048	800 824 7888
BRI - BRILEY SOFTWARE	PO BOX 2913	LIVERMORE	CA 94550-0	
BRO - BRODERBUND SOFTWARE	1938 FOURTH STREET	SAL RAFAEL	CA 94901	
BRS - BIBLE RESEARCH SYSTEMS	PO BOX 1389	ROUND ROCK	TX 78680	512 835 7981
BTI - BEAR TECHNOLOGIES, INC.	3417 ROGER B CHAFFEE BLVD.	GRAND RAPIDS	MI 49508	616 245-5061
BUB - BUBBLE BUS	87 HIGH STREET	TONBRIDGE/KENT	EN TN1 1LS	
BYR - BYTE-RYTE	PO BOX 205	MONTREAL	PO H4K 2J5	
BYT - BYTEMARK	710 LINCOLNWAY WEST	SOUTH BEND	IN 46616	219 232 4662
CAC - COMPUTER ACCESSORIES	1135 COLUMBUS	BAKERSFIELD	CA 93305	805 872 4488
CAI - COMPUTER ADVANCED IDEAS	1442A WALNUT STREET	BERKELEY	CA 94709	415 526 9100
CAN - COMPUTER ANTICS INC.	3170 RONIT COURT	YORKTOWN HEIGHTS	NY 10598	
CAR - CARDCO INC.	300 S. TOPEKA	WICHITA	KS 67202	316-267-6525
CAS - CASTLE SOFTWARE	PO BOX 350	NEW CASTLE	DE 19720	302 429 8565
CBI - CHALK BOARD INC.	3772 PLEASANTDALE ROAD	ATLANTA	GA 30340	800 241 3989
CBM - COMMODORE BUSINESS MACHINES	1200 WILSON DRIVE	WEST CHESTER	PA 19380	215 431 9100
CBS - CBS SOFTWARE	ONE FAWCETT PLACE	GREENWICH	CT 06836	203 622 2503
CBY - CBM SYSTEMS	7277 HAYZENHURST AVE.	VAN NUYS	CA 91406	
CCC - COMPUTER CASE COMPANY	5650 INDIAN MOUND COURT	COLUMBUS	OH 43213	614 868 9464
CCI - CLOCKWORK COMPUTERS	4612 HOLLY RIDGE ROAD	ROCKVILLE	MD 20853	301 924 5509
CDC - COMM*DATA COMPUTER HOUSE	320 SUMMIT AVENUE	MILFORD	MI 48042	313-685-0113
CDS - COMMERCIAL DATA SYSTEMS LTD.	730 EASTVIEW AVENUE	REGINA	SK S4N 0A2	306 525 3386
CEC - COMPUTER ED SOFTWARE	1002 BROOKES AVE. W.	SAN DIEGO	CA 92103	800 621 0852
CEG - CEGS MICROTECH	PO BOX 102	LANGHORNE	PA 19047	215-757-0284
CIM - CIMARRON CORP.	DIVISION OF STANDUN CONTROLS	SANTA ANA	CA 92705	714-241-5600
CIR - CIRCADIAN SOFTWARE INC.	PO BOX 1208	MELBOURNE	FL 32901	305 723 5717
CIS - CITY SOFTWARE	735 WEST WISCONSIN AVE.	MILWAUKEE	WI 53233	414-291-5125
CMC - CONNECTICUT MICROCOMPUTER	36 DEL MAR DRIVE	BROOKFIELD	CT 06804	203-775-4595
CHL - COMAL USER GROUP	5501 GROVELAND TER.	MADISON	WI 53716	608 222 4432
CMU - COMPU-WOOD	DEPT. C3	BALTIMORE	MD 21203	
CMX - COMREX INTERNATIONAL INC.	3701 SKYPARK DRIVE	TORRANCE	CA 90505	213 373 0280
CNS - CONSOLINK CORP.	1840 INDUSTRIAL CIRCLE	LONGMONT	CO 80501	800 525 6705
COB - COMPUTRON BUSINESS SYSTEMS	1139 SW 11TH AVENUE	PORTLAND	OR 97205	503 224 2220
COC - COMPUTER CENTER	9621 'D' OATES DRIVE	SACRAMENTO	CA 95827	916 366 3609
COM - COMPUTERMAT	BOX 1664	LAKE HAVASU CITY	AZ 86403	602-855-3357
CON - CONTINENTAL SOFTWARE CO.	11223 SOUTH HINDRY AVE.	LOS ANGELES	CA 90045	213-417-3003
COP - COMPUTER PLACE	23914 CRENSHAW BLVD.	TORRANCE	CA 90505	213-325-4754
COS - COMPUTER OUTLET	5861 MISSION GORGE ROAD	SAN DIEGO	CA 92120	619 282 6200

COU - COUNTERPOINT SOFTWARE INC.	SUITE 140	SHELARD PLAZA NORTH	MINNEAPOLIS	MN 55426	612 944 3912
CPE - COMPUTER PERIPHERALS	1117 VENICE BOULEVARD		LOS ANGELES	CA 90015	213 298 1297
CPI - COMPUTER POWER INT'L	1779 EAST FLORIDA		HEMET	CA 92343	800-258-7862
CPS - CONCORDE PERIPHERAL SYSTEMS INC.	23152 VERDUGO DRIVE		LAGUNA HILLS	CA 92653	714 859 2850
CPU - COMPUTE! PUBLICATIONS INC.	PO BOX 5406		GREENSBORO	NC 27403	919 275 9809
CRE - CREATIVE SOFTWARE	230 EAST CARIBBEAN DRIVE		SUNNYVALE	CA 94806	408-745-1655
CRO - CROSSTECH GRAPHICS	2133 NORTH FREMONT STREET		CHICAGO	IL 60614	312-871-3555
CRQ - CREATIVE EQUIPMENT	6864 WEST FLAGLER STREET		MIAMI	FL 33144	305 261 7866
CSA - COMPUTER SOFTWARE ASSOCIATES	44 OAK STREET	THE SILK MILL	NEWTON UPPER FALLS	MA 02164	617 527 7510
CSI - COUNTERPOINT SOFTWARE INC.	4005 WEST 65 ST.		MINNEAPOLIS	MN 55435	800 328 1223
CSS - COMPREHENSIVE SOFTWARE SUPPORT	2316 ARTESIA BL.	SUITE B	REDONDO BEACH	CA 90278	213 318 2561
CSV - COMPUSERVE	2180 WILSON ROAD		COLUMBUS	OH 43228	800-848-8199
CTC - COMPUTECH	PO BOX 7000-309		REDONDO BEACH	CA 90277	
CUE - CUESTA SYSTEMS INC.	3440 ROBERTO COURT		SAN LUIS OBISPO	CA 93401	805 541 4160
CUU - COMPUTER CONTINUUM	301 16TH AVE.		SAN FRANCISCO	CA 94118	415 752-6294
CYG - CYGNUS EXPERT SYSTEMS INC.	PO BOX 385		WATER MILL	NY 11976	
DAB - DAYBREAK SOFTWARE	1951 GRAND AVE.		BALDWIN	NY 11510	800 645 3739
DAS - DATASOFT INC.	9421 WINNETKA AVENUE		CHATSWORTH	CA 91311	213 701 5161
DAT - DATA 20 CORP.	23011 MOULTON PARKWAY	SUITE B10	LAGUNA HILLS	CA 92653	714 770 2366
DAV - DAVIDSON & ASSOCIATES	6069 GROVEDAK PLACE # 12		RANCHO PALOS VERDE	CA 90274	213 378 7826
DAY - DAYPROM COMPUTER INC.	3460 S. DIXIE HWY.		DAYTON	OH 45439	513 299 8555
DEE - M'SOFT (FRMRLY, DOUBLE-'E')	12027 PACIFIC STREET		OMAHA	NE 68154	402 334 7870
DEI - DYNAMIC ELECTRONICS, INC.	1621 SENECA		WICHITA	KS 67213	316 264 8636
DEL - GENERAL VIDEOTEX CORP.	377 PUTNAM AVE.		CAMBRIDGE	MA 02139	617-491-3393
DES - DATA EQUIPMENT SUPPLY CORP.	8315 FIRESTONE BLVD.		DOWNEY	CA 90241	213-923-9361
DEX - DYNAMIC ELECTRONICS, INC.	1621 S. SENECA		WICHITA	KS 67213	316 264 8636
DIA - DIALOGUE INFORMATION SERVICES	3460 HILLVIEW AVE.		PALO ALTO	CA 94304	800 528 6050
DIC - DISPLAY INTERFACE CORP.	525 BOSTON POST ROAD	PO BOX 250	MILFORD	CT 06460	203 877 7661
DIG - DIGITAL ARTS CORP.	PO BOX 20231		CINCINNATI	OH 45220	513-891-1217
DIL - DILITHIUM SOFTWARE	PO BOX E		BEAVERTON	OR 97075	800 547 1842
DIS - DIGITAL INTERFACE SYSTEMS CO.	PO BOX 8715		PORTLAND	OR 97207	503 230 1130
DLM - DEVELOPMENTAL LEARNING MATERIALS	ONE DLM PARK		ALLEN	TX 75002	800 527 4747
DLX - DELUXE COMPUTER FORMS	530 NORTH WHEELER	PO BOX 43046	ST. PAUL	MN 55164-0	800 228 5666
DMI - DMI SOFTWARE INC.	1866 BACON STREET		SAN DIEGO	CA 92107	619-223-4496
DMO - DATAMOST INC.	9748 COZYCROFT AVE.		CHATSWORTH	CA 91311	213-709-1202
DOC - DOCUTEL/OLIVETTI CORP.	155 WHITE PLAINS RD.		TARRYTOWN	NY 10591	
DON - DON'T ASK COMPUTER SOFTWARE	2265 WESTWOOD BL.	STE. B-150	LOS ANGELES	CA 90064	213-477-4514
DOW - DOW JONES NEWS	PO BOX 300		PRINCETON	NJ 08540	800 222 0081
DTK - DATA TREK	121 WEST E. ST.		ENCINITAS	CA 92024	619 436 5055
DUS - DUNGENESS SOFTWARE	323 LOTZGESELL ROAD		SEQUIM	WA 98382	
DYM - DYMARC INDUSTRIES INC.	21 GOVERNOR'S CT.		BALTIMORE	MD 21207	800 638 9098
DYN - DYNACOMP INC.	1427 MONROE AVE.		ROCHESTER	NY 14618	716 442 8960
DYT - DYNATECH MICROSOFTWARE INC.	7847 N. CALDWELL AVE.		NILES	IL 60648	800 621 4109
EAI - EDUCATIONAL ACTIVITIES, INC.	PO BOX 392		FREESPORT	NY 11520	516 223 4666
EAS - EASTERN HOUSE	3239 LINDA DR.		WINSTON-SALEM	NC 27106	919-924-2889
ECC - EASTERN COMPUTER CONSULTING ASSOCI	11 DICK DRIVE		WORCESTER	MA 01609	
ECI - EDUCATION CIRCUIT INC.	PO BOX 333		LANDING	NJ 07850	201-398-6185
ECP - EMBASSY COMPUTER PRODUCTS	PO BOX 88		LITTLE NECK	NY 11363	
ECX - ECX COMPUTER COMPANY	2678 NORTH MAIN STREET		WALNUT CREEK	CA 94526	415-944-9277
EDC - EDUCOM, INC.	901 S. 129TH		TACOMA	WA 98444	206 531 8767
EDU - EDUCATIONAL SOFTWARE INC	4565 CHERRYVALE AVE.		SOQUEL	CA 95073	408 476 4901
ELC - ELECTRA CONCEPTS	125 WILBUR PLACE		BOHEMIA	NY 11716	
ELE - ELECTRONIC ARTS	2755 CAMPUS DRIVE		SAN MATEO	CA 94403	415 571 7171
ELI - ELECTRONIC LAB INDUSTRIES	100 W. 22ND ST.	BOX 7167	BALTIMORE	MD 21218	301 366 8138
EME - EMERALD SOFTWARE	122 BANGOR STREET		LINDENHURST	NY 11757	516-226-5849
ENG - ENGLISH SOFTWARE	PO BOX 3185		REDONDO BEACH	CA 90277	213 372 3440
ENT - EN-TECH SOFTWARE	PO BOX 881		SUN VALLEY	CA 91352	213-764-6833
EPD - ELECTRONIC PROTECTION DEVICES INC.	PO BOX 673		WALTHAM	MA 02254	617-891-6602
EPI - ELCOMP PUBLISHING INC.	53 REDROCK LANE		PAMONA	CA 91766	714 623 8314
EPS - EPSON AMERICA INC.	3415 KASHIWA STREET		TORRANCE	CA 90505	213-539-9140
EPY - EPYX/ AUTOMATED SIMULATIONS INC.	1043 KIEL COURT		SUNNYVALE	CA 94086	
ESI - ELECTRONIC SOFTWARE INC.	401 S. WOODWARD	SUITE 441	BIRMINGHAM	MI 48011	313 258 5455
EST - ESTES ENGINEERING INC.	PO BOX 753		SALINA	KS 67402	913 827 0629
F/2 - F/22 PRESS	PO BOX 141		LEONIA	NJ 07605	201 568 6250
FAB - FABTRONICS	51 QUARRY ST		BROCKPORT	NY 14420	716 637 6371
FAN - FANTASY COMPUTERWARE	BOX 451		SIOUX FALLS	SD 57101	605-335-7684
FED - FEDERAL HILL SOFTWARE	825 WILLIAM ST.		BALTIMORE	MD 21230	301 685 6254
FER - FERIN ENTERPRISES	6310 UNDERWOOD AVE. S.W.		CEDAR RAPIDS	IA 52404	
FID - FIDELITY ELECTRONICS LTD.	8800 NW 36TH ST.		MIAMI	FL 33178	305 888 1000
FIN - FINETECH FURNITURE INC.	PO BOX 280		WOODBURY	TN 37190	615 765 5021
FIR - FIRST STAR SOFTWARE INC	22 EAST 41ST STREET		NEW YORK	NY 10017	212 532 4666
FLP - FLIPTRACK LEARNING SYSTEMS	999 MAIN	SUITE 200	GLENN ELLYN	IL 60137	
FOV - FOXVILLE COMMUNICATIONS CORP.	7741 E. GRAY ROAD / SUITE #17	PO BOX 5419	SCOTTSDALE	AZ 85261	602 948 9817
FOX - FOXSOFT (DIVISION OF FOXFIRE SYSTE	PO BOX 507		DEER PARK	TX 77536	713-473-6723
FRE - FRENCH SILK SMOOTHWARE	PO BOX 207		CANNON FALLS	MN 55009	507-263-4821
FRD - FRONTLINE PRODUCTS	1915 W. GLENOAKS BOULEVARD	SUITE 200	GLENDALE	CA 91201	213 845 8139
FUN - FUNSOFT	28611 CANWOOD ST.		AGOURA	CA 91301	213 991 6540
GAL - GALACTIC SOFTWARE	PO BOX 10516		SAN JOSE	CA 95157	408-247-4434
GAM - GAMESTAR INC.	1302 STATE STREET		SANTA BARBARA	CA 93101	805 963 3487
GAT - GATOS INTERNATIONAL	218 ROSE		SAN FRANCISCO	CA 94102	



GCC - GENESIS COMPUTER CORP.	1444 LINDEN STREET	BETHLEHEM	PA 18018	215-861-0850
GEM - GEMTECH LABORATORIES	731 BUNDABERG LANE	RURAL HALL	NC 27045	
GLO - GLOUCESTER COMPUTER	1 BLACKBURN CENTER	GLOUCESTER	MA 01930	
GMA - GAMMA RESEARCH	6253 HOLLYWOOD BLVD.	LOS ANGELES	CA 90028	213 463 2345
GNT - GENTRY SOFTWARE	9421 WINNETKA AVE.	CHATSWORTH	CA 91311	800 423 5916
6PM - EP MICROSYSTEMS	72-31 67TH PLACE	GLENDALE	NY 11385	
GRA - GRAPEVINE SOFTWARE INC.	PO BOX 14843	LENEXA	KS 66215	913 888 0501
GSS - GOSUB OF SLIDELL	PO BOX 1781	SLIDELL	LA 70459	504-641-8307
GTC - GENEVA TECHNOLOGIES CORP.	14 COMMERCE DRIVE	CRANFORD	NJ 07016	201 276 1144
GTR - GATOR SOFTWARE	4949 1/2 PARAMOUNT BLVD.	LAKEWOOD	CA 90712-2	
H&H - H&H ENTERPRISES	DEPT. 123CK STREET	MILWAUKEE	WI 53209	
HAC - HACKER'S HARDWARE	POB 7933	SAN DIEGO	CA 92107	619 224 2147
HAN - HANDIC SOFTWARE INC.	FELLOWSHIP BUSINESS CENTER	MOUNT LAUREL	NJ 08054	609 663 0660
HAS - HAYDEN BOOK COMPANY INC.	50 ESSEX STREET	ROCHELLE PARK	NJ 07662	800 631 0856
HAY - HAYDEN SOFTWARE	600 SUFFOLK STREET	LOWELL	MA 01853	
HBJ - HARCOURT BRACE JOVANOVIH INC.	DEPT. COMPUTER SAT PS-9-83	SAN DIEGO	CA 92101	800 543 1918
HES - HUMAN ENGINEERED SOFTWARE	150 NORTH HILL DRIVE	BRISBANE	CA 94005	800 227 6703
HIN - DR. JERRY L. HINTZE	865 EAST 400 NORTH	KAYSVILLE	UT 84037	801 546 0445
HOR - HORIZON SOFTWARE	SUITE 597	ASTORIA	NY 11103	
HOT - HOT DATA		SANTA MONICA	CA	213 393 6405
HTE - HIGH TECH ENTERPRISES	#3 CORPORATE PLAZA	NEWPORT BEACH	CA 92660	
HUT - HUTCHCRAFT ASSOCIATES	1132 DRYDEN ROAD	ITHACA	NY 14850	607-347-4782
HYT - HYTEC SYSTEMS	PO BOX 446	WEST LINN	OR 97068	503-636-6888
ICD - INSTITUTIONAL COMPUTER DVLPMNT. CO	2951 MERRICK RD.	BELLMORE	NY 11710	800 645 4710
IDC - INFO-DESIGNS	6905 TELEGRAPH ROAD	BIRMINGHAM	MI 48010	313-540-4010
III - ION INTERNATIONAL INC.	45 W. 34TH ST.	NEW YORK	NY 10001	
INC - INTEGRATED CONTROLS	1240-L LOGAN AVE.	COSTA MESA	CA 92926	714 641 0181
INF - INFOCOM INC.	55 WHEELER STREET	CAMBRIDGE	MA 02138	617-492-1031
INI - INFINITY SOFTWARE	536 CURIE DR.	SAN JOSE	CA 95123	408 629 6208
INK - INKWELL SYSTEMS	PO BOX 85152 MB290	SAN DIEGO	CA 92138	619 268 8792
INP - INPUT SYSTEMS INC.	25101 SW 194TH AVE.	HOMESTEAD	FL 33031	305 245 3141
INR - INFORUNNER CORPORATION	1621 STANFORD STREET	SANTA MONICA	CA 90404	800 824 3044
INS - INTELLIGENT STATEMENTS				800 334 5470
INT - INTERESTING SOFTWARE	21101 S. HARVARD BLVD.	TORRANCE	CA 90501	213-328-9422
IPF - IPF PUBLICATIONS	146 COUNTRY CLUB LANE	POMONA	NY 10970	914 354 5585
IPS - INNOVATIVE PERIPHERAL SYSTEMS	10570 S.W. WALKER RD.	BEAVERTPM	OR 97005	503 684-0156
ISI - ISIS HATHOR DIGITAL PRODUCTIONS	6184 VERDURA AVE.	GOLETA	CA 93117	805-964-6335
JAN - JANCE ASSOCIATES INC.	PO BOX 234	EAST TEXAS	PA 18046	215 398 0434
JAS - JASON-RANHEIM	580 PARROTT ST.	SAN JOSE	CA 95112	800 421 7731
JIN - JINI MICRO-SYSTEMS	PO BOX 274	RIVERDALE	NY 10463	212-796-6200
JOU - JOU LABORATORIES	2116 E. ARAPAHO	RICHARDSON	TX 75081	
JUS - JUST ANOTHER SOFTWARE CO.	DEPT. C7	PALO ALTO	CA 94301	
JVB - JVB ELECTRONICS	1601 FULTON AVE.	SACRAMENTO	CA 95825	916 483 0709
KAT - KATTWINKEL KOMPUTING	520 PALM SPRINGS BLVD.	INDIAN HARBOUR BEA	FL 32937	
KID - KIDWARE	BOX 1664	IDAHO FALLS	ID 83401	
KIW - KIWISOFT	18003-L SKYPARK SOUTH	IRVINE	CA 92714	714 261 5114
KOA - KOALA TECHNOLOGIES CORP.	3100 PATRICK HENRY DRIVE	SANTA CLARA	CA 95052	800-562-2327
KOL - KOLOB MARKETING INC.	PO BOX 21445	SALT LAKE CITY	UT 84121	
KRE - KRELL SOFTWARE CORP.	1320 STONY BROOK ROAD	STONY BROOK	NY 11790	516-751-5139
KSC - KRAFT SYSTEMS COMPANY	450 W. CALIFORNIA AVE.	VISTA	CA 92083	619-724-7146
L&L - L&L ENGINEERING	PO BOX 5891	KENT	WA 98031	206 631 3383
LAW - LAWCO LTD.	PO BOX 1337	CUPERTINO	CA 95015	408 733 0739
LEG - LEGAL BYTE SOFTWARE	BOX 579	GWYNEDD VALLEY	PA 19437	215 643 7666
LEP - LEADING EDGE PRODUCTS INC.	225 TURNPIKE STREET	CANTON	MA 02021	800 343-6833
LGN - LOGGINS ENTERPRISES	PO BOX 10265	BRADENTON	FL 34282	NO PHONE
LIM - LIMBIC SYSTEMS INC.	1056 ELWELL COURT	PALO ALTO	CA 94303	415 424 0168
LIN - LINK MARKETING	219 1ST. AVE. N.	SEATTLE	WA 98109	800 323 1717
LIT - LITTLE WIZARD MANUFACTURING	PO BOX 152	MILWAUKEE	WI 53201	414 968 2558
LOE - LOGISTIC ENGINEERING ASSOCIATES				619 562 1047
LOG - LOGOS SOFTWARE	3192 LAUREL CANYON RD.	SANTA BARBARA	CA 93105	805-687-0205
LON - LONDON SOFTWARE	374 WILDWOOD AVE.	PIEDMONT	CA 94611	415 893 1090
LPP - LEGEND PERIPHERAL PRODUCTS	14722 OXNARD ST.	VAN NUYS	CA 91401	800 321 4484
LUN - LUNA SOFTWARE	PO BOX 26922	SAN JOSE	CA 95159-6	408-378-7793
LYN - LYNN COMPUTER SERVICE	6831 WEST 157TH STREET	TINLEY PARK	IL 60477	312 429 1915
M&M - M&M SOFTWARE COMPANY	3790 EL CAMINO REAL	PALO ALTO	CA 94306	
MAC - MAGIC CARPET	PO BOX 35115	PHOENIX	AZ 85069	
MAD - MADISON COMPUTER	1825 MONROE	MADISON	WI 53711	608 255 5552
MAG - MAGREEABLE SOFTWARE INC.	5925 MAGNOLIA LANE	PLYMOUTH	MN 55442	612-559-1108
MAN - MANNESMANN TALLY	8301 S. 180TH. ST.	KENT	WA 98032	206 251 5500
MAX - MAXELL CORPORATION OF AMERICA	COMPUTER PRODUCTS DIVISION	MOONACHIE	NJ 07074	201-440-8020
MCA - MICROCOMPUTER ACCESSORIES	1545 PONTIUS AVE.	LOS ANGELES	CA 90025	213 478 7164
MCL - MICOL SYSTEMS	PO BOX 5150	WHITTIER	CA 90607-5	
MCR - MICROCLEAR	PO BOX 9368	RAYTOWN	MO 64133	
MCS - MASTER CONTROL SOFTWARE INC.	PO BOX 26714	SALT LAKE CITY	UT 84126	800 624 5596
MDG - MICRODIGITAL	752 JOHN GLENN BLVD.	WEBSTER	NY 14580	800 833 7384
MED - MICRO-ED INC.	PO BOX 24156	MINNEAPOLIS	MN 55424	612-926-2292
MEG - MEGA SOFTWARE	PO BOX 2398	KLAMATH FALLS	OR 97601	
MEL - MELCOMP	PO BOX 1085	MELBOURNE	FL 32901	
MER - MERRITT SOFTWARE INC.	PO BOX 1504	FAYETTEVILLE	AR 72702	501 442 0914
MES - MELCHER SOFTWARE	PO BOX 213	MIDLAND	MI 48640	517 631 7607

MGR - MICROGRAMS INC.	PO BOX 2146		LOVES PARK	IL 61130	815-965-2464
MGS - MEGASOFT LTD.	PO BOX 1080		BATTLE GROUND	WA 98604	206 687-5205
MIC - MICRO SOLUTIONS INC.	SUITE 909	545 5TH AVE.	NEW YORK	NY 10017	212-222-6687
MID - MIDWEST MICRO INC.	311 W. 72ND ST.		KANSAS CITY	MO 64114	816-333-7200
MIF - MICROCRAFT SYSTEMS INC.	POB 1109		ANN ARBOR	MI 48106	313 996 1297
MIL - MILTON BRADLEY	443 SHAKER RD.		EAST LONGMEADOW	MA 01028	413 525 6411
MIN - MINDWORKS	RTE. 2	BOX 28A	WINTERS	CA 95694	916 795 2322
MIO - MIDNIGHT-OIL	PO BOX 1808		BEAVERTON	OR 97075	
MIP - MICROPERIPHERAL CORP.	2565 152 AVE NE		REDMOND	WA 98052	206 881 7544
MIQ - MICROTECHNIQUES	PO BOX 192		CHESTERFIELD	MO 63017	
MIR - MIRAGE CONCEPTS INC.	4055 W. SHAW #108		FRESNO	CA 93711	209 227 8369
MIS - MIS	250 FERN ROCK WAY		BOULDER CREEK	CA 95006	408-338-9546
MLI - MICROLAB INC.	2699 SKOKIE VALLEY ROAD		HIGHLAND PARK	IL 60035	312 433 7550
MLP - MISSING LINK PRODUCTS	PO BOX 6460		COLORADO SPRINGS	CO 80934	303 473 8909
MMG - MMG MICRO SOFTWARE	PO BOX 131		MARLBORO	NJ 07746	201 431 3472
MOS - MOSAIC	PO BOX 708		OREGON CITY	OR 97045	800-223-3726
MPH - MICROPHYS PROGRAMS	MARKETING DIVISION	1737 WEST 2ND STREET	BROOKLYN	NY 11223	212-375-5151
MPS - MICROPROSE SOFTWARE	1 CARIBOU COURT		PARKTON	MD 21120	301 357 4739
MRC - MICROLOG CORPORATION	18713 MOONEY DRIVE		GAITHERSBURG	MD 20789	301 258 8400
MSA - MSA	3445 PEACHTREE RD. NE		ATLANTA	GA 30326	
MSD - MICRO SYSTEMS DEVELOPMENT INC.	11105 SHADY TRAIL	SUITE 104	DALLAS	TX 75229	800-527-5285
MSM - MICRO SIMULATIONS	15610 FOX SPRINGS		HOUSTON	TX 77084	
MSP - MICROSPEC	PO BOX 863085		PLANO	TX 75086	214-867-1333
MTI - MICRON TECHNOLOGY INC.	2805 EAST COLUMBIA ROAD		BOISE	ID 83706	208-383-4000
MTS - MICROTECHNIC SOLUTIONS INC.	PO BOX 2940		NEW HAVEN	CT 06515	203-389-8383
MWD - MICRO-WARE DISTRIBUTING INC.	1342B ROUTE 23		BUTLER	NJ 07405	201-838-9027
MWE - MICRO WORLD ELECTRONIX INC.	3333 SOUTH WADSWORTH BLVD.	#C105	LAKESIDE	CA 92040-0	619-443-9976
MWS - MIDWEST SOFTWARE	BOX 214		ORCUTT	CA 93455	
MXI - MAXIMUS INC.	6723 WHITTIER AVENUE		SPEEDWAY	IN 46224	317 244 4078
MYS - MYSTIC SOFTWARE	PO BOX 536		RENTON	WA 98055	206 228 1249
N&B - NIBBLES & BITS INC.	PO BOX 2044		NORTH PALM BEACH	FL 33408	800 327 2133
NAN - NANOS SYSTEMS CORPORATION	PO BOX 24344		INDEPENDENCE	MO 64055	816-254-0400
NAP - NATIONAL PROGRAMMING AND SOFTWARE	PO BOX 9204 DEPT C10		TOWNSEND	MA 01469	800 225 9550
NAV - NAVIC SOFTWARE			ST. PAUL	MN 55119	612 738 1080
NDC - NDC	117 WEST 23RD		BISHOP	CA 93514	408 358 3430
NEB - NEBS COMPUTER FORMS	12 SOUTH STREET		BELLEVILLE	IL 62223	
NEL - NELSON SOFTWARE	2232 OGDEN CT.		SHADY COVE	OR 97539-0	503-878-2113
NEW - NEWPORT CONTROLS			NORTHBROOK	IL 60062	800 323 5423
NLI - NEW LEAF INC.	120 LYNNHAVEN		FORT PIERCE	FL	
NUF - NUFEKOP	PO BOX 156		MT. LAUREL	NJ 08054	609 235 2600
ODE - ODESTA CORPORATION	3186 DOOLITTLE DRIVE		PASADENA	CA 91101	213-795-6664
OEM - O.E.M. INC.			ANAHEIM	CA 92807	714 779 2772
OKI - OKIDATA	532 FELLOWSHIP ROAD		AUBURN	AL 36831	800 821 8088
OMN - OMNI UNLIMITED	105 S. LOS ROBLES	DEPT 1283	BERKELY	CA 94710	800 227 2895
ORA - ORANGE MICRO INC.	1400 N. LAKEVIEW AVE.		CUPERTINO	CA 95014	408-446-3099
ORI - ORION SOFTWARE	PO BOX 2488		SAN DIEGO	CA 92129	
OSB - OSBORNE/MCGRAW-HILL	2600 TENTH STREET		SANTA BARBARA	CA 93117	805 685 8282
OSS - OPTIMIZED SYSTEMS SOFTWARE INC.	10379 LANSDALE AVENUE		FREMONT	CA 94538	415 651 3160
OTT - OTTO SYSTEMS	15225 SOCORRO WAY		SALEM	MA	617 927 7600
PAC - PACIFIC COAST SOFTWARE CORP.	7334 HOLLISTER AVE.		LONDON	WB / ENGLA	LONDON 937 6
PAE - PARSEC RESEARCH	DRAWER 1766-C		BALLWIN	MO 63011	314-968-6557
PAR - PARKER BROTHERS INC.			GREENWICH	CT 06830	203 661 8799
PAS - PALACE SOFTWARE	62-64 KENSINGTON HIGH STREET		CLEVELAND	OH 44135	
PCT - PC TECHNOLOGY	PO BOX 1018		GENEVA	IL 60134	312 232 1984
PDI - PROGRAM DESIGN INC.	95 EAST PUTNAM AVENUE		CANTON	MA 02021-0	617-828-1209
PEK - PEEK MAGAZINE	4145 BROOKSIDE BLVD.		CLAYTON	GA 30525	
PEN - PENGUIN SOFTWARE	830 FOURTH AVE.	PO BOX 311	CHAPEL HILL	NC 27514	919-967-0861
PER - PERFORMANCE MICRO PRODUCTS	770 DEDHAM STREET	S-2	MANHATTAN BEACH	CA 90266	213 379 8686
PES - PERSIMMON PERIPHERALS	RTE 2	BOX 2306A	ENGLEWOOD CLIFFS	NJ 07632	201 592 2663
PGI - PROGRAMMER'S INSTITUTE	DIV. OF FUTURE HOUSE - DEPT.	PO BOX 3470	LOS ANGELES	CA 90046	
PHA - PHANTOM SOFTWARE	1116-A 8TH ST.	SUITE 155	LAKESIDE	CO 80226	303-922-9197
PHP - PRENTICE HALL PUBLISHING	GENERAL BOOK MARKETING	BOX 500	CHAPEL HILL	NC 27514	800 334 50FT
PIC - PICTURE-PERFECT	7321 FOUNTAIN AVE.		BUCKFIELD	ME 04220	207 336 2500
PIX - PIXEL SOFTWARE	6595 W. MISSISSIPPI PL.		TORRANCE	CA 90503	213 379 9471
PLA - PLAYGROUND SOFTWARE	PO BOX 3470	DEPT. C	NEW HARTFORD	NY 13413	
PMI - PMI	PO BOX 87	# 177	WEST BERLIN	NJ 08091	609-346-3063
PMP - PM PRODUCTS	4455 TORRANCE BLVD.		IRVING	TX 75061	214 790 1440
POR - POWERLINE SOFTWARE	PO BOX 635		EDWARDSBURG	MI 49112	
POW - POWERBYTE SOFTWARE	2 CHIPLEY RUN		SURREY	KT ENGLAND	01-330-7166
PPI - PERSONAL PERIPHERALS, INC.	MERRICK PARK / 930 N. BELTLIN	SUITE 120	DENVER	CO 80222	303 759 5713
PRA - PRACTICAL APPLICATIONS	BOX 336		PRINCETON	NJ 08542	201 683 0044
PRE - PRECISION SOFTWARE LIMITED	PARK HOUSE 4 PARK TERRACE	WORCESTER PARK	MISSISSAUGA	ON L4Y 4C5	416 273 6350
PRG - PROGRESSIVE PERIPHERALS & SOFTWARE	2186 SOUTH HOLLY	SUITE 2	NEEDHAM	MA 02194	617-444-5224
PRI - PRINCETON EDUCATIONALG SOFTWARE	195 NASSAU ST.	PO BOX 1317	AMARGOSA VALLEY	NV 89020	
PRL - PRO-LINE SOFTWARE	755 THE QUEENSWAY EAST	UNIT 8	LACRESCENT	MN 55947	
PRO - PROFESSIONAL SOFTWARE INC.	51 FREMONT STREET		LOGAN	UT 84321	801-752-2067
PRS - PRS	DEPT. C	PO BOX 32	CINCINNATI	OH 45244	513-474-2188
PRU - PROGRAMMERS GUILD	PO BOX 220				
PSX - PSYCHRONIX	BOX 422				
PSY - PSYCOM SOFTWARE INTERNATIONAL	2118 FOREST LAKE DRIVE				

PTE - PTERODACTYL SOFTWARE	200 BOLINAS ROAD	#27 PO BOX 538	FAIRFAX	CA 94930	415-485-0714
PTI - PRECISION TECHNOLOGY INC.	PO BOX 15454		SALT LAKE CITY	UT 84115	801-487-6266
PTM - PACIFIC TRI MICRO	58 PLAZA SQUARE	SUITE J	ORANGE	CA 92666	714 771 4038
PUB - PUBLIC DOMAIN INC.	5025 RANGELINE RD.	DEPT. IN1	W. MILTON	OH 45383	513 339 1725
PYR - PYRAMID SOFTWARE INTERNATIONAL				CA	415 459 1333
PZL - PUZZLE KING, LTD.	PO BOX 1337		CUPERTINO	CA 95015	408 733 0739
QIN - QUALITY INPUT	309 W. BEAUFORT		NORMAL	IL 61761	309 454 1061
QSF - Q-SOFT	4512 EXCELSIOR BLVD.		MINNEAPOLIS	MN 55416	612 922 5808
QUA - QUALITY COMPUTER	801 S. VICTORIA	SUITE 105	VENTURA	CA 93003	805-656-1330
QUI - QUICKSILVA INC.	426 WEST NAKOMA		SAN ANTONIO	TX 78216	512 492 8054
R&L - R&L PRODUCTS	BOX 26A89		LOS ANGELES	CA 90026	
RAD - RADIX MARKETING	5223 W. 73RD. ST.		MINNEAPOLIS	MN 55435	612 831-1088
RAI - RAINBOW COMPUTER CORP.	490 LANCASTER AVE.		FRAZER	PA 19355	215-296-3474
RAK - RAK ELECTRONICS	PO BOX 1585		ORANGE PARK	FL 32073	
RAM - RAMIAK	PERSONAL COMPUTING DIVISION	3133 SOUTH NUCLA STR	AURORA	CO 80013	303-690-3088
RAN - RANDOM ACCESS MARKETING	PO BOX 1561		NEWPORT BEACH	CA 92663	714-640-5119
RAP - RAPIDWRITER	91 LONG HILL RD.		LEVERETT	MA 01054	413-549-3744
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RDC - ROCKWARE DATA CORPORATION	10525 BARRYWOOD DRIVE		DALLAS	TX 75230	1 800 527 41
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RHI - RHIANNON	3717 TITAN DRIVE		RICHMOND	VA 23225	804 272 7770
RLR - RAYMOND L. REYNOLDS	384 HYACINTH ST.		FALL RIVER	MA 02720	
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RTC - RICHVALE TELECOMMUNICATIONS	10610 BAYVIEW (BAYVIEW PLAZA)		RICHMOND HILL	ON L4C 3N8	416-884-4165
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SMS - SIGHT & SOUND MUSIC SOFTWARE INC.	3200 S. 166TH. ST.		NEW BERLIN	WI 53151	800 558 0910
SAC - SACHS ENTERPRISES	BOX 1182		LAKE ARROWHEAD	CA 92352	NO PHONE
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SCH - SCHOLASTIC INC.	PO BOX 947		HICKSVILLE	NY 11802	
SCI - SCIENTIFIC & EDUCATIONAL SOFTWARE	PO BOX 54		DAYTON	OH 45420	
SCR - SCREENPLAY	DIVISION OF INTELLIGENT STATE	PO BOX 3558	CHAPEL HILL	NC 27514	800 334-5470
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SDP - SYDNEY DATA PRODUCTS INC.	#129 444 CAMINO DEL RIO SOUTH		SAN DIEGO	CA 92108	619-298-5886
SEI - SEI ENTERPRISES INC	17 SERPI RD.		HIGHLAND MILLS	NY 10930	
SEN - SENTIENT SOFTWARE INC.	PO BOX 4929		ASPEN	CO 81612	303 925 9293
SEQ - SEQUENTIAL CIRCUITS, INC.	3051 NORTH FIRST STREET		SAN JOSE	CA 95134	408 946 5240
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SFT - SOFTRON INC.	2067 BROADWAY	SUITE 27	NEW YORK	NY 10023	212 490 0077
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SIM - SIM COMPUTER PRODUCTS INC.	1100 E. HECTOR ST.		WHITEMARSH	PA 19428	215-825-4250
SIP - SIMPLEXWARE	129 WILDBRIAR RD.		ROCHESTER	NY 14623	
SIR - SIRIUS SOFTWARE INC.	10364 ROCKINGHAM DRIVE		SACRAMENTO	CA 95827	916-366-1195
SKY - SKYLIGHT SOFTWARE	22 MILLER ST.		BELFAST	ME 04915	207 338 1410
SMA - SMALL SYSTEMS ENGINEERING	1056 ELWELL COURT		PALO ALTO	CA 94303	415-964-8201
SNI - STAR MICRONICS INC.	1120 EMPIRE CENTRAL PLACE	SUITE 216	DALLAS	TX 75247	214-631-8560
SMN - SIEMENS COMMUNICATION SYSTEMS INC.	OFFICE TERMINALS DIVISION	240 EAST PALAIS ROAD	ANAHEIM	CA 92805	714 991 9700
SNO - SMOKY MOUNTAIN SOFTWARE	54 WEST MAIN STREET		BREVARD	NC 28712	704 883 2595
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SMX - SIMPLEXSOFT LTD.	PO BOX 445		MARION	IA 52302	
SNB - SUNBURST EDUCATION	39 WASHINGTON AVE.		PLEASANTVILLE	NY 10570	800 431 1934
SND - SUNDEX SOFTWARE CORP.	4755 WALNUT ST.		BOULDER	CO 80301	303 440 3600
SNS - SUNSOFT	BOX 99		ALTURAS	FL 33820	
SNX - SYNTAX SOFTWARE INC.	33 ELMHURST AVE.	SUITE 502	WILLOWDALE	ON M2N 668	416-221-8008
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SOE - SOUND EXPANSIONS	PO BOX 53		RALEIGH	MO 63051	314 677 4295
SOF - SOFTLOCK TECHNOLOGY	13031 SAN ANTONIO DRIVE		NORWALK	CA 90650	213 868 7820
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SOT - SOTA ENTERPRISES INC.	833 GARFIELD AVE	SUITE 101	SOUTH PASADENA	CA 91030	
SOU - SOUTHERN SOLUTIONS	PO BOX P		MCKINNEY	TX 75069	214-542-0278
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SPB - SUPERBYTE	2 CHIPLEY RUN		WEST BERLIN	NJ 08091	609 346 3063
SPI - SPINNAKER SOFTWARE	215 FIRST STREET		CAMBRIDGE	MA 02142	617-868-4700
SSM - SOFTSMITH INC.	2935 WHIPPLE RD.		UNION CITY	CA 94587	800 341 4000
SSP - STERLING SWIFT PUBLISHING CO.	7901 SOUTH IH-35		AUSTIN	TX 78744	512 282 6840

STA - STAR SOFTWARE	PO BOX 493	MERRICK	NY 11566	516-379-0280
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STE - STEP INDUSTRIES	PO BOX 52605	HOUSTON	TX 77052	
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STG - SOFTWARE TO GO	1948 OAK RIDGE TURNPIKE	OAK RIDGE	TN 37830	615-482-9592
STI - STIMUTECH INC.	PO BOX 2575	EAST LANSING	MI 48823	313 761 9027
STP - STARPOINT SOFTWARE	STAR ROUTE 10	GAZELLE	CA 96034	916 435 2386
STR - STRATEGIC SIMULATIONS INC.	883 STIERLIN ROAD	MOUNTAIN VIEW	CA 94043	800 227 1617
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SUD - SUNDIAL SOFTWARE ASSOCIATES	PO BOX 14507	ROCHESTER	NY 14614	716 654 7107
SUN - SUNCOM INC.	605 E. ANTHONY TRAIL	NORTHBROOK	IL 60062	312-291-9780
SUP - SUPERIOR GRAPHICS EMPORIUM	PO BOX 99715	TACOMA	WA 98499	206 845 5903
SVI - SPECTRA VIDEO INC.	39 W. 37TH ST.	NEW YORK	NY 10018	201 664 8611
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SYN - SYNAPSE SOFTWARE	5221 CENTRAL AVE.	RICHMOND	CA 94804	415-527-7751
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TAM - TAMARACK SOFTWARE	PO BOX 247	DARBY	MT 59829	406 821 4596
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TAY - TAYLORMADE SOFTWARE	PO BOX 5574	LINCOLN	NE 68505	402-464-9051
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TCP - TELESYS COMPUTER PERIPHERALS	43334 BRYANT ST.	FREMONT	CA 94539	415 651-2970
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THO - THOR SOFTWARE	47 CHERNUCHA AVE.	MERRICK	NY 11566	
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TMW - TIMEWORKS INC.	405 LAKE COOK ROAD	DEERFIELD	IL 60015	800-323-9755
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TSC - THE SOFTWARE CONNECTION	5133 VISTA DEL ORO	FAIR OAKS	CA 95628	800 828 2838
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TSI - TRILOBYTE SERVICES INC.	PO BOX 10043	PORTLAND	OR 97210	
TTX - TELETEx COMMUNICATION CORP.	3420 EAST THIRD AVE.	FOSTER CITY	CA 94404	415 341 1300
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UMB - UMBRELLA SOFTWARE INC.	53 JILL CRESCENT	BRAMALEA	ON L6S 3J1	
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WAV - WAVEFORM CORPORATION	1912 BONITA WAY	BERKELEY	CA 94704	415 841 9866
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XAN - XANA DATA SYSTEMS				213 410 9884
ZAX - ZAXIS	PO BOX 666	SAN CARLOS	CA 94070	415-592-4334
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Perplexian Challenger \$29.95

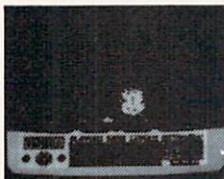
The incredibly responsive three-axis joystick control of a space fighter is in your hands. Split screen graphics provide a continuous display of your ship's instrumentation, as well as a three-dimensional, animated view of space.

You, as a pilot, must utilize lightning fast reflexes to destroy invading ships, and avoid their return fire. Simultaneously, you must maneuver your ship to capture space debris that remains from the explosions.

Outstanding graphics features include smooth 3-D rotations, split screens, and the most incredible high-resolution hyperspace sequence ever produced.

Programmed entirely in machine language, this action-strategy game is guaranteed to blow you away.

All the professional features you expect are included: automatic self-demo, high score retention, pause, and provisions for 1 to 4 players. Add to this, features you don't expect like easy-loading, and music during the load. Perplexian Challenger is a game that brings the arcade experience to your home.

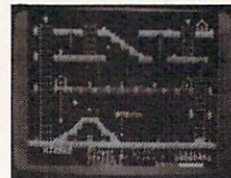


Wizard \$39.95

Jump from ropes to ladders, dodge plummeting boulders and duck under deadly arrows in your quest for sparkling diamonds, gleaming bars of gold, and glistening pearls. With joystick in hand you must explore forty dazzling screens, each a new and exciting adventure. Take the key to unlock the doorway to your next spine-tingling level. Each key restores your magical powers, allowing you to cast over ten different spells. With these magic spells you have the power to overcome vicious creatures, terrifying traps, and perilous plunges.

Your Wizard is realistically animated in every possible direction. Dozens of movements are possible — jump over burning fires, shimmy up or down ropes and ladders, even slip down treacherous sliding staircases! Magic portals move your Wizard through midair and protect you from a myriad of fully-animated fiendish monsters. Catch an elevator to the top of the screen and dart through sliding gates in your quest for magic and treasure.

Wizard's fascinating variety of screens are sure to please and entertain, and of course you can build an unlimited number of your own levels using the construction set provided with your game.



Gothmog's Lair \$39.95

Real-time adventure excitement at its best. Solve countless puzzles and slay over a dozen monsters by using the huge vocabulary of over 200 words. Two challenging difficulty levels await you with over 80 areas, each fully described in Old English script.

Menacing monsters, kniving villains, tattered code books and treacherous terrain are just a few of the situations you must overcome in your quest for the thirteen priceless treasures. More than seventy objects are invaluable to you in your search for glory and wealth!

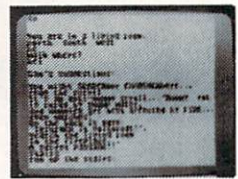
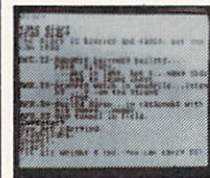
A full-size, thoroughly illustrated manual is included. Featuring color front and back, book quality, and a fold-out map, this "extra" further extends the professionalism of this game. The following are quotes from unsolicited testimonials sent to us by adventurers in Gothmog's Lair...

"I have extremely enjoyed Gothmog's Lair, and plan to buy more adventure games..."

Scott Tulman
Memphis, TN

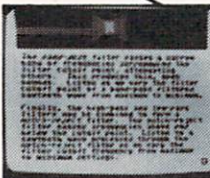
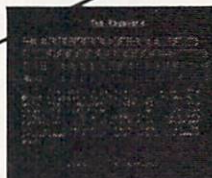
"Gothmog's Lair is the best adventure I've ever played..."

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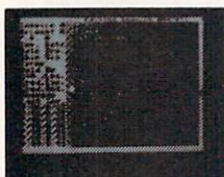
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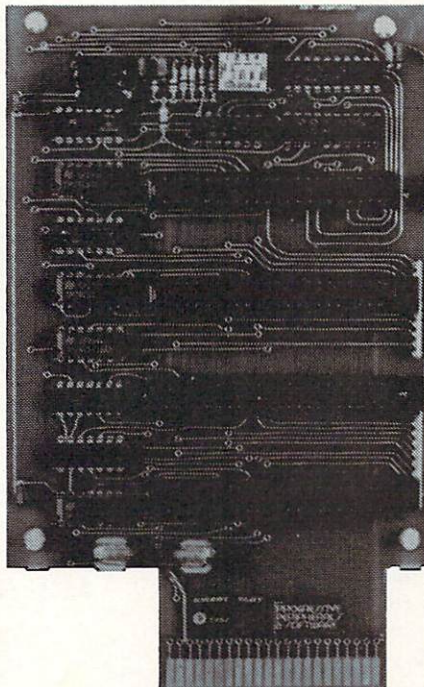
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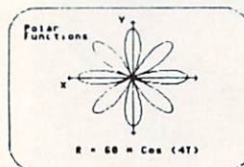
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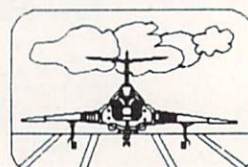
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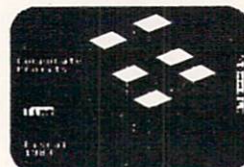
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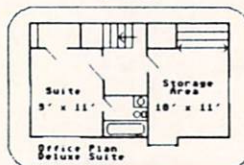
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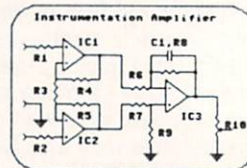
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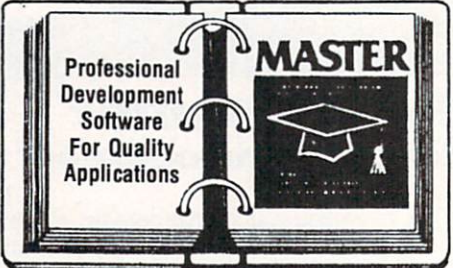
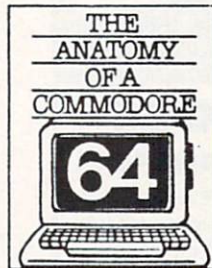
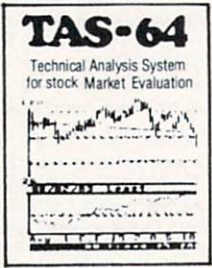
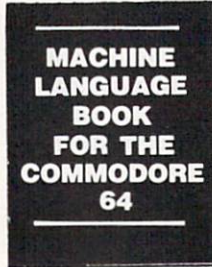
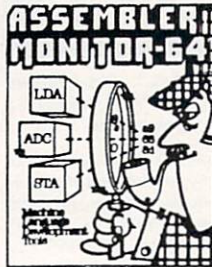
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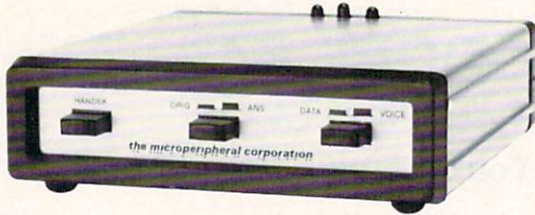
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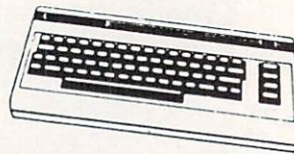
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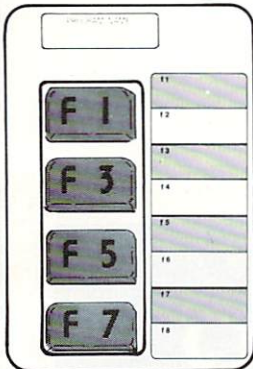


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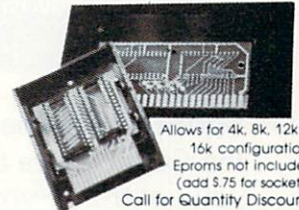
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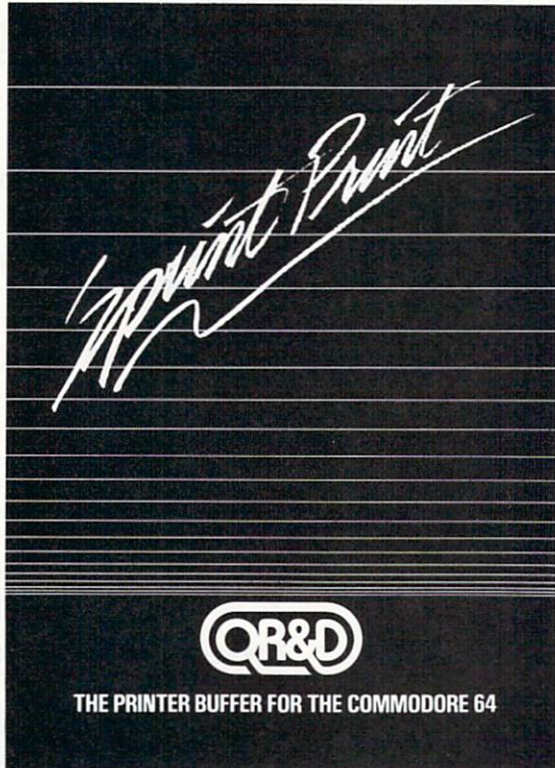
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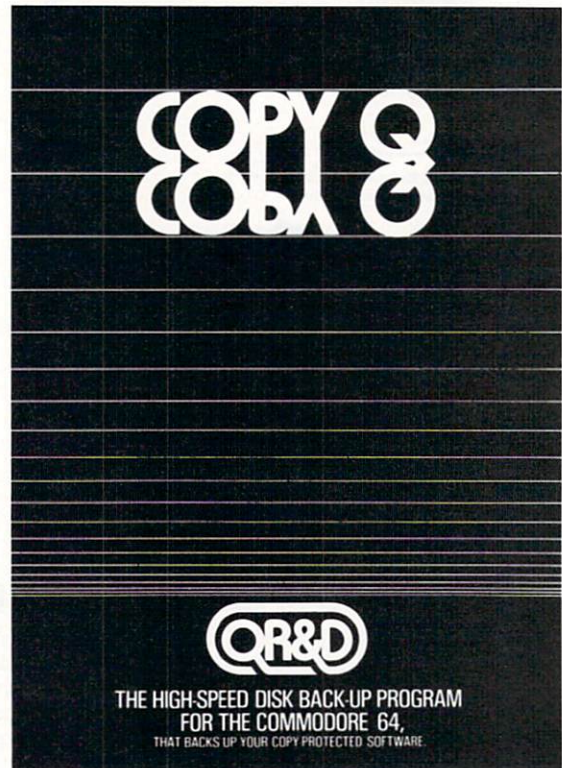
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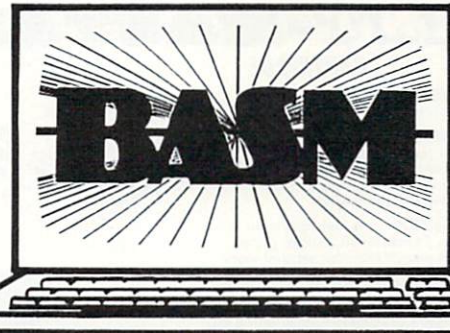
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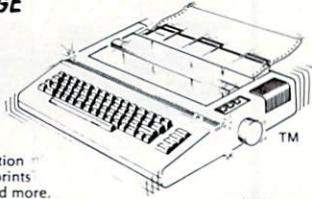
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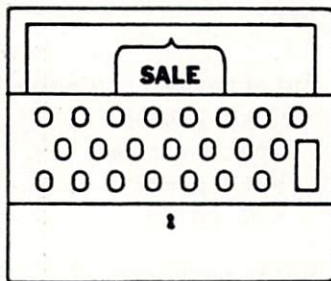
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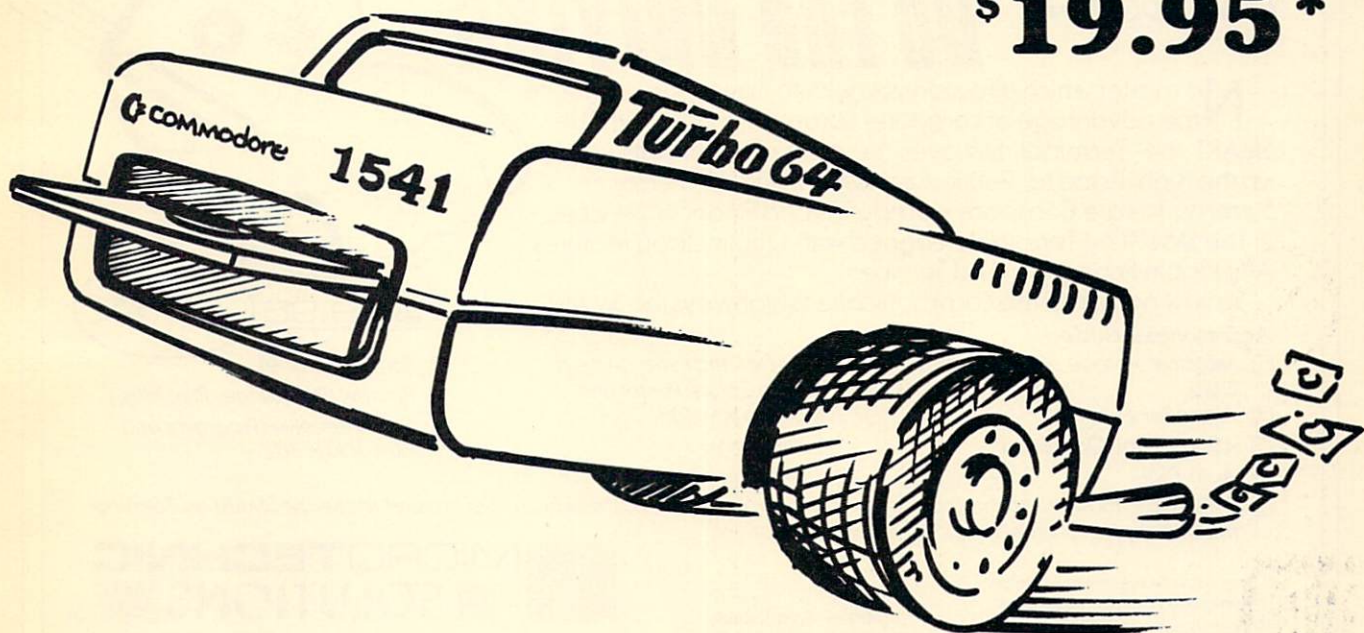
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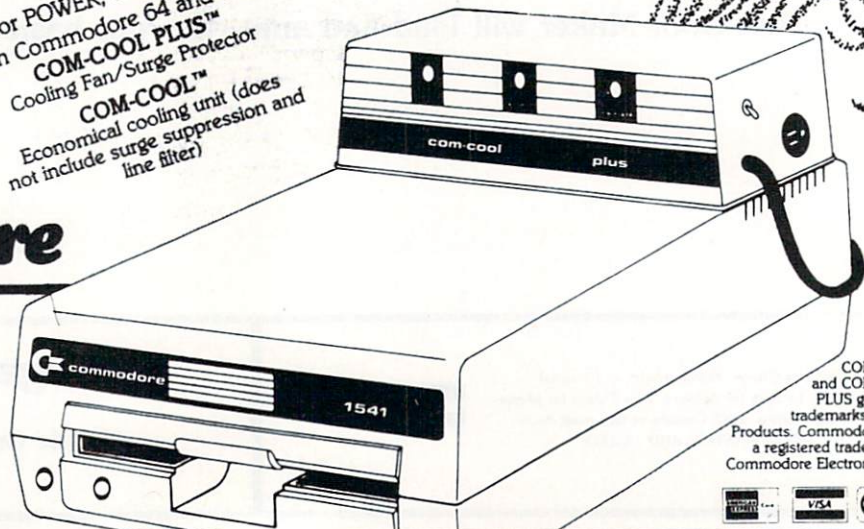
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| 5 = READ MESSAGES | 13 = SCRATCH DOWNLOAD FILE |
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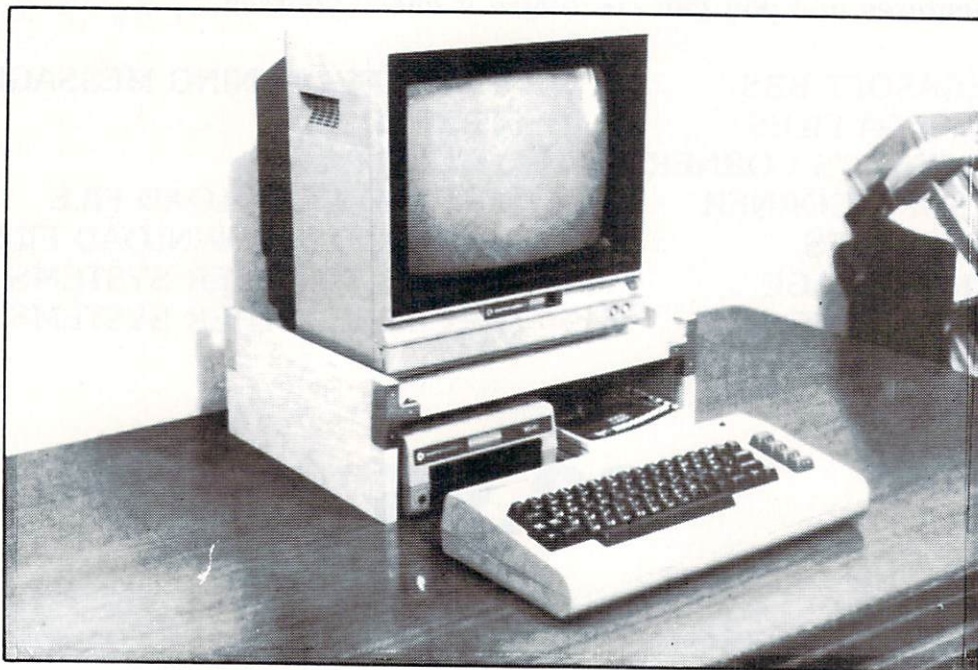


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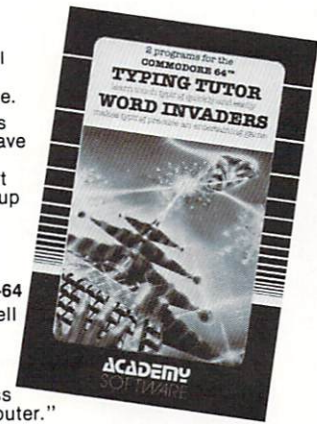
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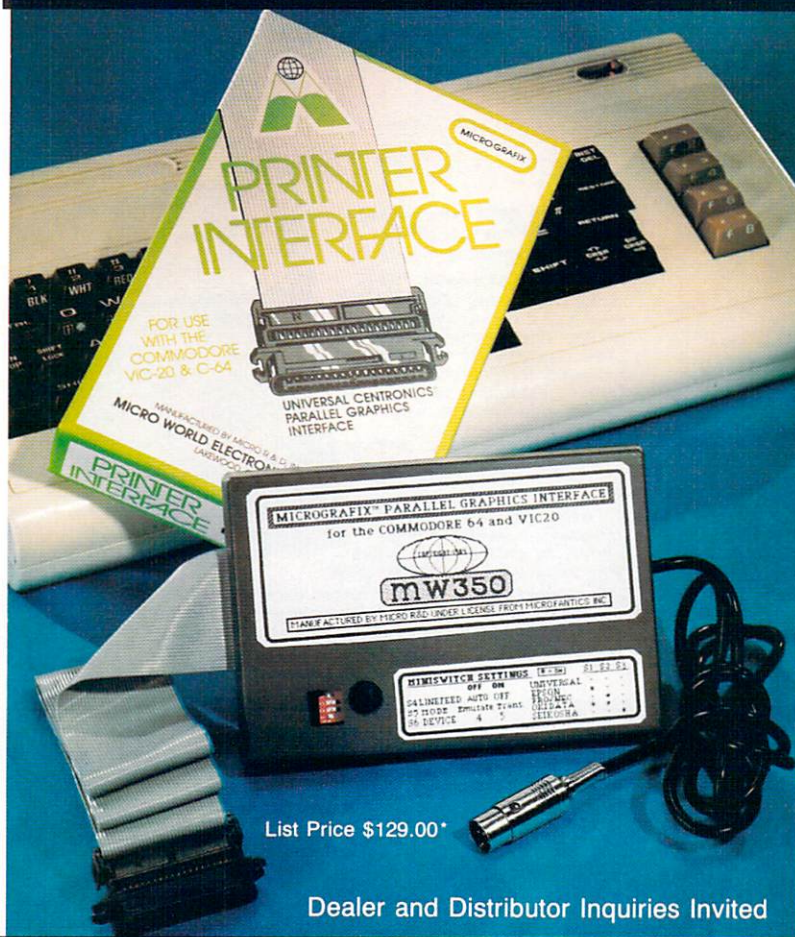
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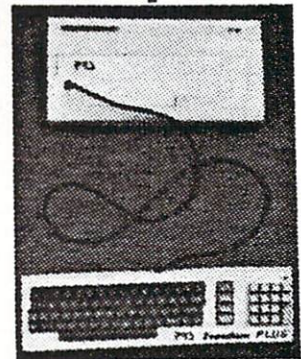
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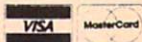
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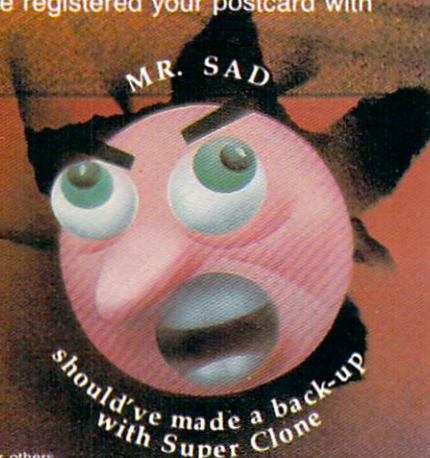
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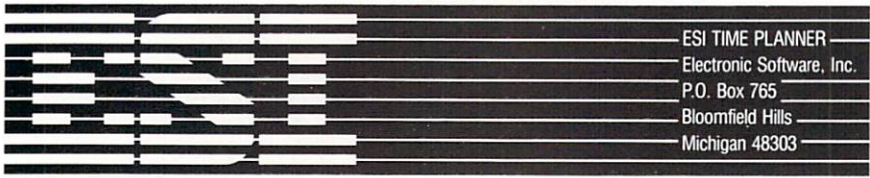
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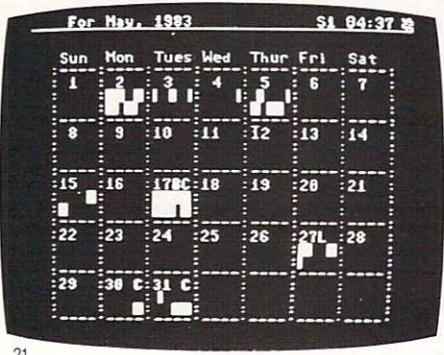
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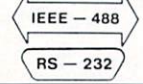
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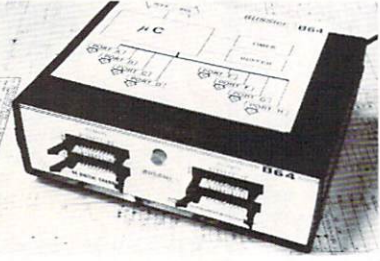


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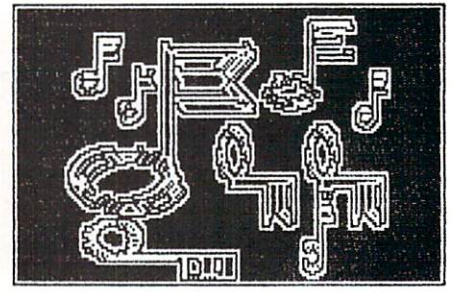


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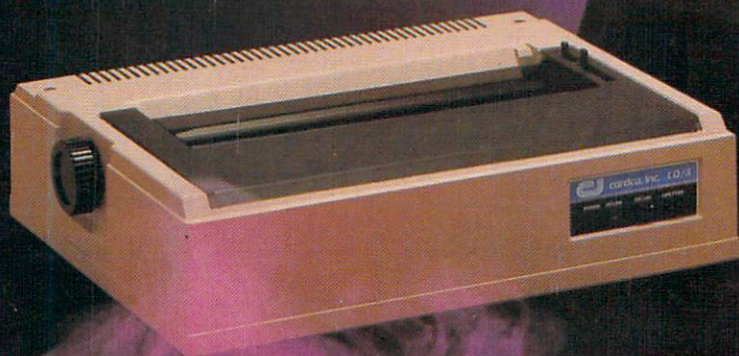
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