



zx mushroom club

35844
MENLO PARK 0102
☎ (012) 46-8228
TELEX 3-21945 S.A.

They say
my
competi-
tions are
boring.
Maybe
thats why
nobody
even
bothered
to enter
last
month.
Well,
maybe a
first
prize of
R30, a
second of
R20 and a
third of
R10 will
persuade
you to
send in
the name
of the
Russian
spy in the
South
African
embassy in
the movie
FORTH
PROTOCOL.
Send your
answer on
a postcard
to the
address
above.
PLEASE.

JUL 1987

On the Spectrum scene, there are quite a number of new releases. TAI-PAN, the game is now available for the Spectrum and promises to be good. I've seen the movie, and felt that it was not too good - maybe you, as Tai-Pan will be a better actor in the game. Another game which got a very good review in the U.K. is BARBARIAN. If you have seen the advertisement for this one, your hopes may go up/down, depending how close your objectives are to those of our censor board.

On the June Top 20 in Sinclair User, CURSE OF SHERWOOD, ENDURO RACER, NEMESIS and HIT 6-PACK were new entries. FEUD, BMX SIMULATOR, OLLIE AND LISSA were the first three. A new utility for the Spectrum is Beta Basic 4.0, which I discuss in this newsletter. In this newsletter you will also find a number of very good buys. I do feel, however, that we need more articles in the newsletter, and for these I have to depend on you. So please let me have all those interesting articles.

As far as the QL is concerned, you'll find a repetition of a good special which appeared in last month's newsletter. There are a lot of new releases for the QL, and whether IE is going to import them, is still an open question. This, of course, depends on QL users support as far as in-stock items are concerned.

A very interesting new development for the QL is a CPM Emulator advertised by SANDY, which will cost about R120. Other new software include QL Strip Poker, Nemesis, Super Croupier and Omega. I've been using TURBO COMPILER a lot last month. If you want to see the results, send in R15.00 for a cartridge with a game called BOULE on it (BOULE is a type of roulette played in European casino's). I'll save the compiled and BASIC versions so that you could compare the two. Also relatively new on the QL field is the THOR and FUTURA which I'll say more about next month. All QL users have received a letter from me in the past month, if you missed out, let me know - you might not have been entered as a QL User.

Let Letza

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... VERY HIGHLY
RECOMMENDED INDEED"
ZX COMPUTING

For all 16/48K Spectrums.

Suggested UK Price
£9.95 inc VAT Made in UK



This month, this item, we make R1 = £1. That's right, for only R9.95 this program is yours!

Super Sprite Generator

Super Sprite Generator is a powerful graphic animation package. After over a year of enhancement and revision, Super Sprite Generator version 3.5 must be the Ultimate QL animation system. Super Sprite Generator allows you to create all the high speed, high tension, high drama special effects of arcade and adventure games.

A 'sprite' is an animated graphic symbol - a bird, a plane, Superman or anything else you choose. Multicoloured sprites can be designed with the machine-code sprite editor, and compiled into groups of up to 16 'frames' for automatic animation.

Up to 256 sprites can be held at any time, with 16 moving on screen simultaneously. Ultra-large sprites are allowed. At top speed the motion is faster than the eye can see!

As sprites move around they can be programmed to detect 'collisions' with one another, the border or the background, automatically. Sprites can pass over or under one another, with absolutely no 'flicker' at all. Speeds can be independently set, and sprites can be inverted or reversed at will.

Super Sprite Generator is exceptionally easy to use from SuperBASIC, fast SUPERCHARGED BASIC, or machine code. The new SuperBASIC commands are fully documented and error-trapped. You need no machine code knowledge at all - all the hard work is done for you. You don't even need to be able to draw - lots of demonstration sprites are provided!

"Takes all the hard work out of handling sprites... results achieved are really excellent". QL USER.

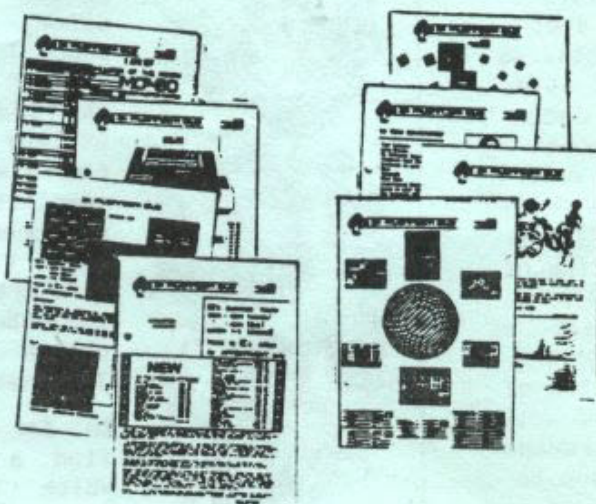
Super Backgammon 3.0

Super Backgammon is an excellent machine-code program and a worthy opponent for beginners and experts alike. It has excellent graphics and obeys all the rules of Backgammon (supplied). Super Backgammon plays an aggressive, challenging and entertaining game at all of its six skill levels. Other features include dual clocks, three playing modes, computerised dice thrower (with optional override if you're suspicious of you want to cheat!), 'Hint' option, evaluation display.

Version 3.0 is very much stronger than its predecessors, and the display has been enhanced to work on all colour or monochrome displays. The upgrade, for existing users, costs £5 upon return of the original cartridge.

"Be warned - the computer was almost certainly better than you!" QL USER.
"The attention to speed evident throughout results in a program that is very enjoyable to use". ELECTRONICS & COMPUTERS

These two programs plus QL Monitor,
for only R69.99!



DID YOU KNOW?

This is the 32nd newsletter published by THE ZX MUSHROOM CLUB. The ZX MUSHROOM CLUB was founded in November 1984, and in December of that year we sent out the first newsletter. It is also my 32nd newsletter as editor (if you can call it an editor). THE ZX MUSHROOM CLUB's first newsletter went to 105 members, and in December 1986 we sent out newsletters to 3500 people, who all had the chance to join free. We have had two very successful advertising campaigns, one in December 1985, and the other in December 1986. In the next two months we are going to have a full page advertisement in two magazines - let us know if you see it! If you wish to buy back copies of newsletters, send in an SAE for a list of available newsletters.

**YOUR MEMBERSHIP NUMBER
APPEARS ON THE ADDRESS
LABEL. PLEASE MENTION THIS
WHENEVER YOU WRITE TO US.**

SPECTRUM POWER SUPPLY by G. KNOLL

Does your Microdrive ever misbehave in the following manner:

- 1) Take longer than usual loading times;
- 2) FORMAT to vastly differing K's each time it is formatted;
- 3) Corrupt your cartridges;
- 4) Work perfectly one night and drive you to the wall the next.

If it does, the following article could help restore your sanity.

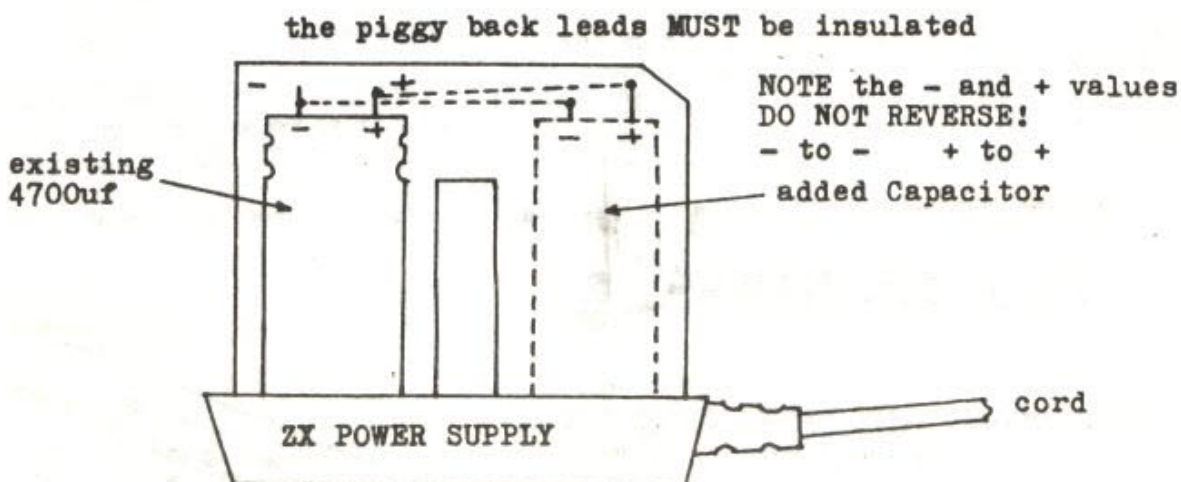
With all forms of high-speed switching, NOISE can cause problems. This NOISE is in the Power Supply Circuit and is filtered by a 4700uf Capacitor, mounted in the Power Supply Unit.

Any motor driven, 220V appliance can induce NOISE into the other circuits of your household. Fans, airconditioners, Microwave Ovens and the real nasties - Food Mixers can cause the 4700uf Cap. to work real hard.

Should this Capacitor start to break down - its value as a filter decreases alarmingly. NOISE now becomes a very real problem.

The easiest solution to any of these problems is to install another Capacitor into the Power Supply Unit. There is ample room in the unit for a piggy back operation. I used a 2200uf Cap. (it was in the spares box) and achieved total success. It is now a PLEASURE to own a Microdrive.

The following sketch will assist if you wish to try this yourself.



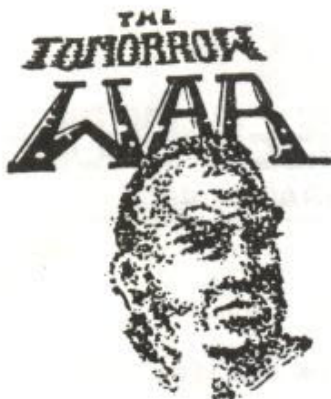
This modification can be made very cheaply - around R5,00

COMPONENT REQUIRED

1 x 2200 to 4700uf ELECTROLYTIC CAPACITOR 16 to 25 Volts working.

The larger the Volts capacity usually means the larger the Cap so check size before you buy. The existing Cap is 18mm diameter by 40mm length. This is about as large as you can go.

If enough interest is shown at the next meeting, we can bulk buy the Caps and install them at the following meeting.



THE FATE OF A NEW, UNITED EUROPE
LIES IN
THE HANDS
OF THIS
MAN



HE WILL
WIN OR
LOSE THE
FINAL
WORLD WAR

THIS MAN IS YOU

THE TOMORROW WAR is a strategy which opens in the grim setting of Post-Holocaust Europe, a bleak and futureless stretch of country where the ground is so contaminated by nuclear waste that food cultivation cannot satisfy the demand. You, the leader and semi-dictator of Germany, have to unite Europe by "war and propaganda" as the instructions tell us.

Right from the first stunning graphic of THE TOMORROW WAR, you'll be swept into a very real, very gripping world of future conflict.

And in this scenario, YOU are the centrifugal force, a dictator ruthlessly determined to unite a nuclear-ravaged Europe.

There are 16 countries to be united. The game is text orientated with a few full screen pictures. All your decisions seem to lead up to the final section, declaring war, where you can see if you made the right choices along the line as the war's results flicker on the screen.

In an atmosphere of spiralling tension, you have to react to actual modes reports, plan strategies, put entire armies and countries on the line and in the end force your dream of unity through into reality.

THE TOMORROW WAR is a strategy game designed to bring you the unexpected ... the unexpected in realism, graphics, local quality and price.

PRICE R11.50 EXCL. GST. ORDERS TO ZX MUSHROOM CLUB
1 BOX 35644 MENLO PARK PRETORIA 0102

There was an obvious effort to induce realism and all requests are sent in telegram form, making you feel as if you were really communicating with different ministries. At the price of R11.50 the game is very cheap in comparison with most other software. It is available through mail order from THE ZX MUSHROOM CLUB, Box 35644, Menlo Park, 0102. Price R11.50 + R1.38 tax + R1.00 postage = R13.88 in total.

THE TOMORROW WAR

A STRATEGY GAME FOR
THE SPECTRUM 48K/+



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Please use the order form on the last page for fast processing of your order.

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HOME ACCOUNTS
STOCK CONTROL
GRAPH PLOT
EASILEDGER

Now available from
Information Enterprises
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YOU WILL RECEIVE THE AUGUST NEWSLETTER IN THE WEEK OF THE 10th. MR FABRICIUS, WHO PRINTS THE NEWSLETTER IS GOING ON A WELL DESERVED HOLIDAY.

YOUR ADVERTISEMENTS

ADVERTISE IN THE NEWSLETTER AND GET YOUR PERIPHERAL'S FEATURES READ BY AT LEAST 4000 EYES! SEND IN YOUR AD NOW WITH 20c PER WORD.

Currah Micro-Speech Synthesiser R90;
DK'Tronics Speech Synthesiser R120; DK'Tronics
Programmable Joystick Interface R100; Sinclair
ZX (Joystick) Interface 2 R80; Sinclair ZX
Spectrum Keyboard R40. Tel: MARCEL at (011)
825-7218 after 6pm.

ooo000ooo

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Interface 1, ZXI PRINT III, ZX Microdrive, 6
cassettes, books and software. R700 o.n.o.
Phone G.J. Venter 01341-6405 (Bus) 01341-6740
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LABYRINTH: 3D, strategy, maze game for 2
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Black Jack, Draw Poker, Poker Solitaire
Plus 64 characters per line word processor
used with ZX Printers and Aphacom 32. Tape and
handling costs included. Send R10 to Gustav
Oberholtzer, 286 Mamanthane Street,
Brasmasrand, 0181



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All courses may be had on a correspondence basis (six months) part time (fifteen evening classes) and full time (five days, Monday to Friday).

Successful students (50% pass mark) will earn a diploma awarded jointly by S.A.I.E.T.E. and B&H Academy

The Microprocessor Basic course is supplied with a Microprofessor (P.C. learning kit). Most courses have practical as well as academic features.

For further information either write to B&H Academy, PO Box 4629, Randburg, 2125 or phone Hugh Rose (day) 789-4074 (eve) 465-1469.

AMSTRAD CPC 464 OWNERS - IF YOU WOULD LIKE A COMPLETE LIST OF IB'S SPECIAL OFFER SOFTWARE PLEASE CONTACT IE IMMEDIATELY. WE ALSO HAVE A MULTIPLE CHOICE SPECIAL FOR AMSTRAD OWNERS LIKE THE ONE FOR SPECTRUM OWNERS IN THIS NEWSLETTER SO DON'T FEEL LEFT OUT. PLEASE NOTE THAT OUR STOCKS OF THESE ITEMS ARE NOT AS LARGE AS THOSE FOR THE SPECTRUM AND THEREFOR YOU WILL HAVE TO BE PATIENT. IT WILL BE WORTH IT FOR SURE - YOU WILL NOT BELIEVE THE PRICES.

NEXT MONTH - A QL BLITZ - LOTS OF NEW PRODUCTS - INFO ON THE FUTURA AND THOR 68020 - SPECIAL OFFERS GALORE

SPECTRUM JOYSTICK INTERFACE - THE CHEAPEST YOU WILL FIND ANYWHERE AT A ROCKBOTTOM R25.75. ONLY AVAILABLE FROM INFORMATION ENTERPRISES. NOW!!

IF YOU DON'T LIKE AN ARTICLE-LESS NEWSLETTER YOU BETTA SEND IN SOME ARTICLES. PROMPTO. AND GET R10 TO R15 CREDIT VOUCHERS IF WE PUBLISH YOUR ARTICLE. SEND IT TYPED, WRITTEN OR SCRIBBLED, BUT SEND IT NOW!

NOT-SO-TRIVIAL DEPARTMENT

Membership on June 22nd comprised of:
407 Afrikaans members,
1151 English members,
46 members having no preference,
303 members who did not mention their language of preference.

Being provincialistic, there now are
1046 Transvalers (661 in February);
291 in Natal (193 in February);
440 in Cape (285 in February);
14 in Namibia (10 in February);
57 on the little plato between the Vaal and the Orange (12 in February) and 49 outside the borders of SA, against 28 in February.

We've embarked on yet another advertising campaign, this time to be in two widely read magazines, sponsored as before by INFORMATION ENTERPRISES, and hope that this will lead to further mushrooming of the club.

BETA BASIC 4.0

FOR SPECTRUMS WITH 128K MEMORY

BETA BASIC 3.0 gave you a structured BASIC with procedures, great graphics commands, better editing, lightning-fast data handling and a full range of toolkit features. SINCLAIR USER said: 'FANTASTIC'. CRASH: 'elegant...comprehensive'. MICRONET: 'Get it now!'. EVERYDAY ELECTRONICS: 'Powerful...thoroughly recommended'. Now BETA BASIC 4.0 adds new commands to unleash the power of the 128K Spectrum! Beta Basic 4.0 is Spectrum Basic compatible, but adds more than 100 new commands and functions to transform your machine!

Beta Basic 3.0 is the most up-to-date version of Beta Basic for the 48K memory versions of the Spectrum. For those with 128K machines, a new version of the program, BETA BASIC 4.0 gives full use of the sound chip and extra memory, and faster graphics. BETA BASIC 4.0 is available from INFORMATION ENTERPRISES for around R60.00 (probably less). If you already own Beta Basic 3.0 you can upgrade to the 128K version for R28.00. A special version of the program is available on disc for the OPUS DISCOVERY at the normal price.

The prices mentioned above could alter - this article has been written before IE's stock came in. The OPUS version and UPGRADES will have to be ordered by Special Order

NEW FEATURES OF THE 128K VERSION:

1. INTERRUPT-DRIVEN SOUND: A new sound command lets you use the full facilities of the sound chip without the program halting. You can start off a complex tune or sound effect and then continue to handle graphics or other tasks. Hundreds of sounds can be "queued" on three channels.
2. MASSIVE ARRAY SPACE: DIM! allows arrays to be created directly on the RAM disc. e.g. DIM !name\$(600,100) would create a 60K file of strings. RAM Disc arrays can be SORTed and searched at high speed, and are as easy to use as a normal array. For example:

```
LET A$=!NAME$(300) or PRINT !name$(100,10 to 15)
```

RAM Disc arrays can be moved to and from Microdrive or disc (if your disc supports serial files) without ever being present in the variables area. If you don't have a serial files facility (e.g. if you use tape) you can still save RAM disc arrays up to 40K long. Arrays or programs on the RAM disc can be LISTed to the screen or printer; e.g.: LIST!"zx".
3. Sections of a program can be deleted and new sections can be loaded from RAM disc under program control, giving Basic programs over 70K long.
4. SAVE, LOAD, MERGE and ERASE with the RAM Disc are supported. A bug in the "official" SAVE/LOAD RAM Disc arrays command has been fixed. PLAY is supported.
5. CAT! gives free RAM Disc space. The CAT\$() function gives the catalogue as a string containing names and type information, allowing pre-SAVE checks, auto-ERASE, super CAT, etc.
6. FASTER FILL, WITH DEFINED PATTERNS. FILL is very fast (it can fill the entire screen in less than 1 seconds) and it can use any specified 16x16 pixel pattern.
7. FASTER CIRCLE AND DRAW. CIRCLE has been speeded up 12-fold, and it is now able to overlap the screen edge without stopping the program. the DRAW command is about 2.5 times faster than before. CIRCLE, DRAW and PLOT can use the entire screen area.
8. The RS232 output can be used to send control codes to serial printers. Printers and printer interfaces that normally work only in 48K mode, such as ZX Printers, Kempston "E" and ZXI PRINT III work correctly.

BIG CLOCK - a gaint-size digital clock

THE FOLLOWING IS AN EXTRACT FROM THE BETA BASIC NEWSLETTER. THIS NEWSLETTER IS FULL OF HINTS AND PROGRAMS WRITTEN IN BETA BASIC. YOU CAN ORDER THIS FROM THE MUSHROOM CLUB FOR ONLY R20.00 FOR A YEARS SUBSCRIPTION (6 COPIES). IT COSTS 6 POUNDS IN THE U.K.

These lines produce a gaint version of the normal CLOCK function, which looks fairly impressive. Line 20 is used to make the area used for the normal CLOCK output have black INK attributes, matching the PAPER colour we have set for the whole screen. The normal CLOCK is therefor invisible, but it still can be read by GET, and is reproduced at a larger size by PLOT.

```

10 BORDER 0
   PAPER 0
   INK 7
   CLS
20 PRINT AT 0,24; INK 0; "
30 CLOCK 1
40 DO
50 GET a$, 192,175,8,1
60 PLOT CSIZE 32,40,0,100,a$
70 LOOP

```

THE GREAT WINTER SALE

MONITORS



		PRICE	GST	P&P
THOMSON	- green	R239.00	R28.68	R7.90
	- amber	R269.00	R32.28	R7.90
SANYO CRT30	- GREEN	R199.00	R23.88	R7.90
TAXAN	NOW VISPAL			
	(Switchable green/ amber)	R669.00	R80.28	R10.00

Thomson Personal Computer Monitors make your business look a great deal better.

Within a year of launch, we're market leaders in Australia, Singapore and Hongkong.

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utilising hi-tech manufacturing process, we are able to ensure a comprehensive range

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CARTRIDGES



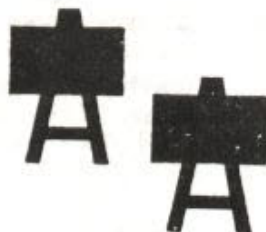
One	R8.95
Four	R8.75 ea
Eight	R8.50 ea
Twelve to 50	R8.25 ea
Fifty to 100	R7.95 ea

GERT COETZER WILL EAT A CARTRIDGE (peeled, of course) IF YOU COULD GET A CHEAPER PRICE ANYWHERE IN SOUTH AFRICA!

No, I won't. YES, YOU WILL. No, I won't. YES, YOU WILL. No, please. aaah.. aarrghugug

CHOOSE ONE PROGRAM FROM COLUMN 1 AND AOTHER FROM COLUMN 2, THEN CHOOSE A THIRD PROGRAM FROM EITHER COLUMN 3, COLUMN 4, COLUMN 5 OR COLUMN 6. IF YOUR THIRD PROGRAM IS CHOSEN FROM COLUMN 3, THE COST FOR THE THREE YOU CHOSE WILL BE R14.99; FROM COLUMN 4 = R19.99; FROM COLUMN 5 = R24.99 AND FROM COLUMN 6; R29.99.

JULY SPECTRUM SOFTWARE SPECIAL



COLUMN 1

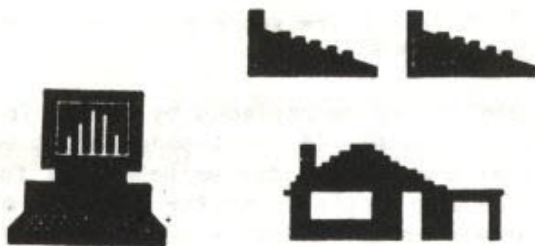
Windsurf
Battle of Britain
Zip Zap (Imagine)
Bristles
Besieged
Into the Empire
Jasper
Espionage Island
Backgammon
Hungry Horace
Space Raiders
Biorythms
Manic Miner
Traxx
The Oracle's Cave
Fraction Fever
Halaga
Plummet
3D Bat Attack
French is Fun
Bozy Boa
Painter
Skullduggery
Nightmare
Strange Loop



COLUMN 2

Beaky and the Egg Snatchers
VU 3D
Embassy Assault
Inca Curse
The Ship of Doom
Planet of Dead
Horace and the Spiders
Planetoids
Zipper Flipper
Eric and the Floaters
Driller Tanks
Grid Runner
Planetoids
Reversi
Theorem of Pythagoras
Formulae and Compounds
Logic Levels
Conquest
Pedro (Imagine)
Gobble A Ghost (Pacman type)
Magic Meanies
Taffy Turner
Danger Mouse in Double Trouble
Titanic
Time Bomb

Please use the order form on the last page for fast processing of your order.



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Invincible Island
 Microl Use and Learn
 The Great Space Race
 Panama Joe
 Chequered Flag
 Halls of Things
 Devils of the Deep
 Chess
 Flight Simulation
 Beyond Basic
 Twin Kingdom Valley
 Turmoil
 Herberts Dummy Run
 Chemistry (Longman)
 Rapsallion (Bug Byte)
 Penetrator (Melbourne)
 Terror Daktil ("")
 Stonkers (Imagine)
 Alchemist (Imagine)
 Pool (CDS)
 Fire on the Water (Tape only)
 Scuba Dive
 Rommels Revenge
 Speculator

COLUMN 4

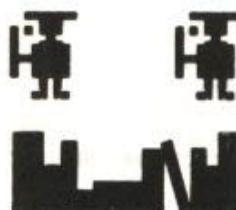
Small Business Accounts
 Club Record Controller
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 First Moves (Intro to Chess)
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 Word Wizard
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 Music Master
 VU File
 Print Utilities
 Zodiac Master
 Superman
 Twister
 Star Trader (BugByte)
 Rapsallion (BugByte)
 ABC Lift Off)
 Wild Words) Longman
 Robot Runner) Educatio-
 Sum Scruncher) nal
 Sorderens Shadow (Beyond)
 Cavern Fighter (BugByte)
 Splat!
 Monitor & Dissassembler
 Address Manager (OCP)

COLUMN 5

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 Mugsey (Melbourne)
 Sherlock (")
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 Bodyworks (Anatomy Educ)
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 Glider
 Make-a-Chip
 Chess-The-Turk
 Full Screen Editor (OCP)
 Valhalla
 One on One
 Gift from the Gods (Ocean)
 Gyron (Firebird)
 Monty is innocent
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COLUMN 6

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 Cricket Captain
 Escape
 Forest at Worlds End
 Jet Set Willy
 Lunar Jetman
 Kosmic Kanga
 Son of Bagger
 Moon Cresta
 Space Station Zebra (Beyond)



QL CALCULATOR

This program simulates a normal calculator as well as giving you a slip (white windows) on the side of screen showing all your calculations.

It works with +/* as a normal calculator would. = can be replaced by ENTER. To get 2° you would type 200=. = acts as M+ and F1 or h acts as MR. If you typed 2+3+ it would display the answer 5. The keys w to p as well as k and l are for mathematical functions. Try these, these function name will be shortened and displayed in the function block (to the left of the number), eg SINE will be displayed as SW, ASINE as AS etc. To get the sine of 5 you would type 5W. Don't try to trap the calculator, eg divide by 0, it has no error traps. The program can only be used in TV Mode.

- Peter Lupton

```

100 OPEN #5;scr_76x146a362x56: INK #5;0:PAPER #5;7
110 CLS #0:MODE 4
120 INK 7 : PAPER 0 : CLS : INK 0 : PAPER 7 : CSIZE 3,0
:AT 10,10: PRINT "      0"
130 CLS#5
140 LET y$=""
150 LET x$=""
160 LET d$="0"
170 LET z$="="
180 LET a$="0"
190 getno
200 DEFine PROCedure getno
210   LET a$=""
220   REPEAT getkey
230   LET b$=INKEY$(0)
240   IF b$="" THEN GO TO 230
250   IF b$="/" THEN div
260   IF b$="x" THEN mult
270   IF b$="+" THEN add
280   IF b$="-" THEN subt
290   IF b$="=" THEN equ
300   IF b$=CHR$(10) THEN LET b$="":equ
310   IF b$=" " THEN cle
320   IF b$="e" THEN equ
330   IF b$="q" THEN power
340   IF b$="w" THEN equ
350   IF b$="e" THEN equ
360   IF b$="r" THEN equ
370   IF b$="t" THEN equ
380   IF b$="y" THEN equ
390   IF b$="u" THEN equ
400   IF b$="i" THEN equ
410   IF b$="o" THEN equ
420   IF b$="p" THEN equ
430   IF b$="l" THEN equ
440   IF b$="z" THEN equ
450   IF b$=CHR$(232) THEN mr
460   IF (b$("<"0" OR b$(">"9") AND b$("<"." THEN GO TO 230
470   IF y$="c" THEN LET a$="":LET y$="":AT 10,10:PRINT
" "
480   IF LEN (a$)=9 THEN GO TO 230
490   LET a$=a$ab$
500   IF LEN(a$)>1 AND a$(1)="0" THEN LET a$=a$ (2 TO
LEN (a$))
510   AT 10,11:PRINT "      "
520   AT 10,20-LEN (a$):PRINT a$
530   END REPEAT getkey
540   END DEFine
550   DEFine PROCedure add
560     LET r$="+"
570     equ
580     LET x$="+"
590     AT 10,10:PRINT "+"
600   END DEFine
610   DEFine PROCedure equ
620     BEEP 100,0
630     PRINT #5;a$;" ";;
640     IF x$="" THEN LET c$=a$
650     IF a$="" THEN LET x$="":LET a$="0"
660     IF x$="x" THEN LET c$=c$*a$
670     IF x$="+" THEN LET c$=c$+a$
680     IF x$="-" THEN LET c$=c$-a$
690     IF x$="/" THEN LET c$=c$/a$
700     IF b$="s" THEN LET b$="":LET z$="SR":LET c$=SQRT
(c$)
710     IF x$="^" THEN LET c$=c$^a$
720     IF b$="w" THEN LET b$="":LET z$="SW":LET c$=SIN
(RAD (c$))
730     IF b$="e" THEN LET b$="":LET z$="CS":LET c$=COS
(RAD (c$))

```

```

740   IF b$="r" THEN LET b$="":LET z$="TR":LET c$=TAN
(RAD (c$))
750   IF b$="t" THEN LET b$="":LET z$="CT":LET c$=COT
(RAD (c$))
760   IF b$="y" THEN LET b$="":LET z$="AS":LET c$=ASIN
(RAD (c$))
770   IF b$="u" THEN LET b$="":LET z$="AC":LET c$=ACOS
(RAD (c$))
780   IF b$="i" THEN LET b$="":LET z$="AT":LET c$=ATAN
(RAD (c$))
790   IF b$="o" THEN LET b$="":LET z$="Ac":LET c$=ACOT
(RAD (c$))
800   IF b$="p" THEN LET b$="":LET z$="LF":LET c$=LN
(c$)
810   IF b$="l" THEN LET b$="":LET z$="LG":LET c$=
LOG10 (c$)
820   IF b$="z" THEN LET b$="":LET z$="Z":LET
c$=c$*100
830   AT 10,10:PRINT "      "
840   IF LEN (c$)>9 THEN LET c$=c$(1 TO 9)
850   AT 10,20-LEN (c$):PRINT c$
860   IF b$="=" THEN PRINT#5;z$:PRINT #5;c$\\
870   IF b$("<"=" THEN PRINT #5;r$
880   LET x$=""
890   IF b$("<"=" THEN LET a$="":LET y$=""
900   IF b$="=" THEN LET y$="c":AT 10,10:CSIZE
0,0:PRINT z$:CSIZE 3,0:LET z$="":LET a$=c$:me
910   LET b$="a"
920   END DEFine
930   DEFine PROCedure div
940     LET r$="/"
950     equ
960     LET x$="/"
970     AT 10,10:PRINT "/"
980   END DEFine
990   DEFine PROCedure mult
1000    LET r$="x"
1010    equ
1020    LET x$="x"
1030    AT 10,10:PRINT "x"
1040   END DEFine
1050   DEFine PROCedure subt
1060    LET r$="-"
1070    equ
1080    LET x$="-"
1090    AT 10,10:PRINT "-"
1100   END DEFine
1110   DEFine PROCedure power
1120    LET r$="^"
1130    equ
1140    LET x$="^"
1150    AT 10,10:PRINT "^"
1160   END DEFine
1170   DEFine PROCedure cle
1180    LET a$="0"
1190    LET c$="0"
1200    LET x$=""
1210    LET y$=""
1220    AT 10,10:PRINT "      0"
1230    PAPER #5;2:PRINT #5;"-----"\\:PAPER #5;7
1240   END DEFine
1250   DEFine PROCedure me
1260    LET d$=c$
1270   END DEFine
1280   DEFine PROCedure mr
1290    AT 10,10:PRINT "M      ":AT
10,20-LEN(d$):PRINT d$:PRINT #5\d$;" M"\\
1300    LET a$=d$:LET y$="c"
1310   END DEFine

```

This program can be obtained from The Mushroom Club for R9.95 (incl. catridge, excl. GST or postage)

SPECIAL

11

ZX INTERFACE 2*

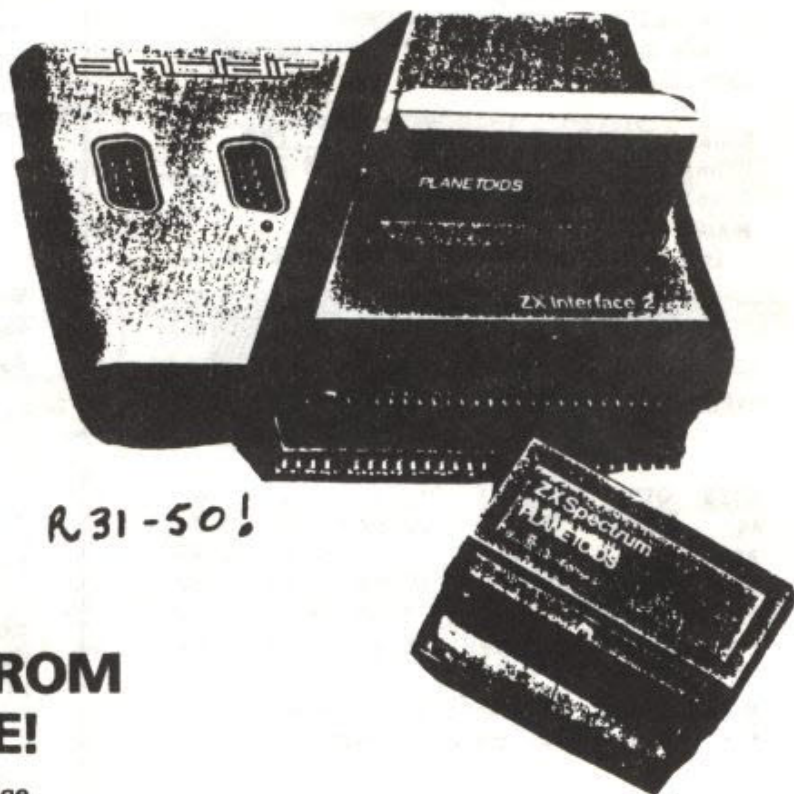
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New! Cookie



You're Charlie the Chef, who keeps his ingredients locked in the larder. But if the ingredients escape, they

bring the inedible Nasties with them!

You must daze the escaping ingredients with flour bombs, and knock them into the mixing bowl. Stop them getting into the dustbin, at all costs!

New! PSSST



Robbie the Robot sits in his garden. Help him fetch compost to cultivate his prize Thyrgodian Megga Chrysanthodil. Help

him make the right choice of pesticide, to ward off devilish insects. Stop the insects breeding to overwhelming numbers before Robbie's plant has bloomed. PSSST is horticulture with a horrendous twist!

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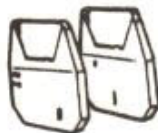
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Jeff Kennell's Beltel Saga

It took approximately six weeks to get my Protek Modem working, working on it most weekends for what seemed hours at a time! From the early days, I felt that the problem was with the inter-connection cable, between the Modem and my Interface 1. Disconnecting all but three wires, I eventually got the Modem working, using only earth, RX in and TX out. It appeared to work Duplex satisfactorily on 1200/1200 Baud, but Simplex only on 75/1200 baud (the Beltel rate). So I decided to switch out the RX side when sending, and the TX side when receiving, and this way I actually got the three little question marks on the screen. Then I discovered that it did actually work Duplex, but I needed the incoming carrier from Beltel to activate the software program, enabling me to send and receive at the same time. I then took out the switch I had wired in. The three question marks were confusing and I thought that they asked for (a) type of system I was using, (b) my Beltel number or (c) my Password, so I entered the lot and nothing happened! All the three question marks wanted was a '1', nothing more, and then I got the Beltel logo, asking for my number and Password, I then forgot to press the 'Enter' key after the number, so once again nothing happened and I was back at the drawing board. Having got my number sorted out, my Password would not enter correctly - no-one told me it would have to be in capitals!!! What a battle, well, I guess it was worth it, I would say 75% of all my trouble was human error, the other 25% just old age. I do enjoy exploring the vast corridors of Beltel, and my Modem works just fine. Thank you Aideen for putting up with me and my moans over the 'phone, thank you Mushroom Club for introducing me to Beltel, its all been worth it!!

Jeff Kennell
Def's:

ⓂDuplex: if a signal can go two ways (like having a conversation).
Simplex: if a signal can only go one way (= listening to the wife)

BELTEL MAIL NUMBERS

If you want your mail number to be published in the newsletter, please send me a message at 015810 (registered on the name of J.T. Pidgeon).

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LLISTING ALL YOUR DISCIPLE PROGRAMS IN ONE GO



Just once in every little while the mud stops clinging and the bullets stops flying long enough to leave you with nothing to do! It happened to me last Sunday and I thought Aha! I'll play a game.

Wrong! No tape deck (left at work). O.K. Then plan B. Game from disk. Wrong again! Games disks all in Beta Disk format and that's at work. The only game on Disciple is Vera Cruz and I've finished that, what shall I do now!

It's not very often that we get the chance to sit in front of a blank computer thinking, what shall I do now? Of course I'd transferred most of my (Basic) programs using the Net so what about making new listings of the Disciple converted programs.

After the third performance of
CAT 1

LOAD P1 (Disciple has this really neat syntax whereby you can call a file by its Cat number)
LLIST
REPEAT

I decided that this can't go on! Mainly because while printing you may as well drink a beer and simple arithmetic tells me that after 6 or 7 programs parth of the sequenth are going to slip into an alcohol relateth haze as in llitsh.

I wonder said my brain cells if that number in the load instruction (i.e. LOAD P1,P2 etc) can be a variable (i.e. n or j or anything) so I tried LOAD Pn -- aha error message 'Variable not found'!!.

My next step then was LET n=3
LOAD Pn

Bingo! So then I wrote the following program (which incidentally doesn't work!)

```
9999 FOR n = 2 TO 26: MERGE Pn :
LLIST: LOAD D1 "LLIST"
(2 and 26 are where I want to
start and end)
```

After saving te program onto disc using SAVE D1 "LLIST" LINE 9999 I said 'RUN' and proceeded to watch the Grand Prix while listening pleasurably to the printer doing its thing.

Alas upon my return I discovered that I have 38 copies of a program called 'menu', the second program in my disc catalogue!

Obviously when I LOAD the "LLIST" program it clears the previously merged program BUT n is reset to 2!!

The correct program to use is:
9998 ERASE D1 "LLIST": LET n=n+1:
SAVE D1"LLIST" LINE 9998: IF n=26 THEN
STOP

9999 MERGE Pn: LLIST: LPRINT CHR\$
27; CHR\$ 12;; LOAD D1 "LLIST"

The figure 26 in line 9998 merely happens to be 1 more than the last program I wanted to list. The LPRINT line in line 9999 forces a form feed to tidy up the listings.

To start it running set n to 1 less than the first program to be listed e.g. LET n=1. Change the n = 26 in line 9998 yo be 1 more than the last prgram that you want to print, then SAVE D1"LLIST"

Check to see that there's enough paper and then GOTO 9998 and break out the six pack !! (Hic)

If there's anybody out there with a Disciple lets compare notes through the mag!

Thish contribushion wash shent in by Tony Prinsch.

THE BUDGET is a program you must add to your collection of good, accounting Software. It consists of a budget planning facility, a expense recording and bank reconciliation facilities. You can do screen dumps or save to cassette/microdrive the full pages of lists of your expenses. This is a exiting utility and is a must for all Mushroom Club members. Cost is R6.24 (program on cassette & instructions), GST R0.75, P&P R1.00 = T O T A L R7.99

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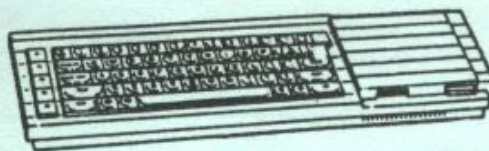
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