

SINCLAIR

IMPULS

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Gebruikers
Groep

Nummer 5

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<u>Algemeen</u>	05-03
Een handvol (red)	05-04
Lidmaatschapskaart	05-79
Boeken	05-05
<u>Talen</u>	
Machine code	05-13
<u>Hardware</u>	05-17
I/O	05-18
Geluid	05-26
Cassette	05-29
RAM/(EP)ROM	05-37
RTTY/CW	05-41
<u>Software</u>	05-45
Financieel-Zakelijk	05-47
Onderwijs	05-53
Tekstverwerking	05-58
Utility's	05-61
Spelen	05-68

ALGEMEEN

Voor U ligt de vijfde Sin-
 dlist 4 met een overzicht
 dat is volledig gevuld met
 Als de samenstelling van deze grote data-base
 en alle literatuur verspreiden over de SIN-IMPULS en de
 22 Spectra te verkrijgen, als bepaling in personen dat de
 verspreiding na 1981 in de data-base moet zijn opgenomen.
 De literatuurbeoordeling van grote gegevens in de hoofd-
 stekken: Algemeen, Tijds, Hardware en Software.
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 Personal Computing World
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 Radio and Electronic World
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EEN HANDVOL.

Voor U ligt de vijfde Sinclair IMPULS. Bij het doorbladeren blijkt al met een oogopslag dat het een speciaal nummer is. Het is volledig gevuld met literatuur verwijzingen.

Bij de samenstelling zijn drie grote data-bases geraadpleegt om alle literatuur verwijzingen over de ZX80, ZX81 en de ZX Spectrum te verkrijgen, als beperking is genomen dat de verwijzing na 1982 in de data-base moet zijn opgenomen.

De literatuurreferenties zijn grof ingedeeld in de hoofdstukken: Algemeen, Talen, Hardware en Software. Binnen deze hoofdstukken zijn de referenties die over een soortgelijk onderwerp gaan zoveel mogelijk bij elkaar geplaatst.

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MicroDecission

Micro Systemes

Mikro und Kleincomputer

Personal Computing World

Practical Computing

Practical Electronics

Practical Wireless

Radio and Electronics World

Research and Development Management

CRUNCHERS-21 - Simple Games for the Timex/Sinclair 1000 2x
Watson, Trina

Dr. Dobb's Journal, Feb 1983, v8 n2 p67, 1 page

Languages: English

Document Type: Book Review

Geographic Location: United States

A favorable review for a book by Yin Chiu and Henry Mullish that is described as a little gem that is an ideal small education book (\$8.95). Review notes that the book contains 21 original games written in the Timex Sinclair BASIC.

Timex/Sinclair 1000: Programs, Games and Graphics
Bairstow, Jeffrey

Personal Computing, Mar 1983, v7 n3 p158-160, 2 pages
ISSN: 0192-5490

Languages: English

Document Type: Book Review

Geographic Location: United States

A favorable review of a book by Robin Jones and Ian Stewart that helps Timex/Sinclair 1000 users (\$10.95). Describes it as an excellent complement to the Timex/Sinclair 1000 manual.

The ZX-81 Pocket Book

Katz, Roy

Personal Computing, Dec 1982, v6 n12 p171-173, 2 pages
ISSN: 0192-5490

Languages: English

Document Type: Book Review

Geographic Location: United States

A favorable review for a book by Trevor Toms (\$10.95). Writing programs for the 1k RAM of the ZX-81 computer needs to be carefully done and the reviewer feels this book excels at showing the reader how, but the informal style is annoying.

The Timex personal computer made simple/Byteing deeper into
your Timex/Sinclair 1000

Swearingin, Robert

Popular Computing, Jul 1983, v2 n9 p246-248, 3 pages
ISSN: 0279-4721

Languages: English

Document Type: Book Review

Geographic Location: United States

Favorable reviews of two books for novice users of the Timex Sinclair 1000 (\$3.50, \$12.95). Describes them as very useful for the novice computer user.

Exploding bookshelf (ZX80/81 books)

Deeson, Eric

Sync, Mar/Apr 1982, v2 n2 p44-45, 2 pages
ISSN: 0279-5701

Languages: English

Document Type: Article

Geographic Location: United States

Presents an overview of 30 books written about the Sinclair ZX80/81 and MicroAce microcomputer. Includes some assessments on what can be found in some of these books.

- TI: BASIC-Brevier. Eine Einfuehrung in die Programmierung von Heimcomputern. Beruecksichtigt speziell BASIC fuer Apple, Atari, Commodore, Epson, Heath-Zenith, Tandy, 4. erw. Aufl.
- ET: Basic-breviary. An introduction to the programming of home computers. Suits for the BASIC of Apple, Atari, Commodore, Epson, Heath-Zenith, Tandy, Texas Instruments, Sinclair ZX 81 and ZX Spectrum - 4th ext. Ed.
- AB: Das Buch gibt eine Einfuehrung in die Programmierung von Heimcomputern mit der Programmiersprache Basic. Beim Leser werden keine Vorkenntnisse verlangt. Gegliedert ist das Buch in einen Grundkurs, einen Aufbaukurs und eine Programmsammlung. Ziel ist es, den Leser so rasch wie moeglich zum Schreiben eigener Programme zu befahigen. Die vorgestellten Basic-Programme sind lauffaehig auf den Rechnern Apple, Atari, Commodore, Epson, Heath-Zenith, Tandy, Texas Instruments, Sinclair ZX 81 und ZX Spectrum, wenn die Eigentuemlichkeiten und Abweichungen der verwendeten Basic-Versionen beachtet werden. Im Text wird darauf hingewiesen. (SPRACHE: GERMAN)
- AU: Wittig, S.
- SO: (1983) Hannover: Heise, 232S, ISBN 3-922705-01-4
- TI: The century computer programming course. The complete guide to programming in sinclair BASIC using the ZX81 and spectrum microcomputers
- GT: Der Century Computer-Programmier-Kurs. Eine umfassende Einfuehrung in die Programmierung mit Sinclair BASIC beim ZX81 und dem Spectrum Kleinstrechner
- AB: Dieses zum Selbstunterricht gedachte Buch gibt eine Einfuehrung in die Programmierung von ZX81 oder Spectrum-Computern mit der Programmiersprache BASIC. Das Buch ist in fuenf Abschnitte unterteilt. Im Abschnitt 1 wird eine kurze Einfuehrung in das Konzept und die Hardware des ZX81 Computersystems gegeben, und es werden grundsaeztliche Fragen eroeertert, die beim Schreiben eines Rechnerprogramms eine Rolle spielen. Abschnitt 2 behandelt die Grundregeln der BASIC-Programmierung (strukturierte Programmierung, Programmablauf, Gebrauch arithmetischer Funktionen, Ausgabe von Informationen auf dem Bildschirm). Abschnitt 3 befasst sich mit der fortgeschrittenen Programmiermethodik und stellt die Fehlersuche (Debugging), Programmpruefung sowie Programmdokumentation dar. Ferner werden Erlaeuterungen gegeben in welcher Weise der Rechner die Datenspeicher nutzt. Abschnitt 4 bringt Beispiele fuer Anwender- und Spielprogramme. Im Abschnitt 5 werden die Besonderheiten beim Spectrum-Rechner hervorgehoben. (SPRACHE: ENGLISH)
- AU: Morse, P.; Adamson, I.; Anrep, B.; Hancock, B.
- SO: (1983) London: Century Publ., 525S, ISBN 0-7126-0072-8
- TI: Sinclair ZX Spectrum. Programmieren leichtgemacht
- ET: Easy programming for the ZX spectrum
- AB: Das vorliegende Buch richtet sich an Besitzer des Sinclair ZX81 und liefert eine Einfuehrung in die Basic-Programmierung sowie in Rechnergraphik, Debugging, Zahlenverarbeitung, Stringverarbeitung und vieles andere mehr. Eine Vielzahl verschiedener Programme runden den Lehrstoff ab. Im Anhang des Buches findet man eine Zusammenstellung von Fehlermeldungen. (SPRACHE: GERMAN)
- AU: Stewart, I.; Jones, R.
- SO: Computer shop, 3 (1983) Basel;Boston;Stuttgart: Birkhaeuser, 187S, ISBN 3-7643-1491-5

TI: ZX spectrum user's handbook

GT: Anwender-Handbuch fuer den ZX Spektrum

AB: Das Buch soll als Anwender-Handbuch fuer den weitverbreiteten Heimrechner ZX Spektrum der Firma Sinclair dienen. Der 1.Abschnitt enthaelt eine kurze Bedienungsanleitung fuer das Geraet. Der 2.Abschnitt zeigt den Umgang mit binaeren und hexadezimalen Zahlen. Die Darstellung von Ziffern und die Darstellung mathematischer Funktionen behandelt Abschnitt 3. Es folgt ein Kapitel ueber Stringverarbeitung und ueber logische Entscheidungen. Der Entwurf von Flussdiagrammen, Programmierschleifen und Unterprogrammen wird im 6.Abschnitt besprochen. Die Tonerzeugung und die zusaetzlichen Moeglichkeiten der Farbgraphik zeigen die beiden Folgeabschnitte. Kapitel 9 vermittelt Grundlagen zur im Rechner vorhandenen Hardware. Das letzte Kapitel gibt Hinweise zur Programmierung im Maschinencode. Im Anhang findet man eine Reihe nuetzlicher Programme. (SPRACHE: ENGLISH)

AU: Simpson, R.J.; Terrell, T.J.

SO: (1983) London;Boston;Durban: Butterworth, 199S, ISBN 0-408-01323-0

Learning to use the ZX81 computer

Bradbeer, R.

, 1982

Gower. Aldershot, Hants., England

, 1x+76

, Std Book No.0 566 03451 1

This book is a beginners guide to the use of the ZX81 computer. It is a simple, down-to-earth, jargon-free introduction to the machine and its software. Many applications of the ZX81 are described, including business, educational and hobby uses. Additionally, a simple and direct introduction to programming the ZX81 is given in a way which will help motivate the user to further investigation of the ZX81's capabilities. The ZX81's ability to produce and draw pictures and diagrams is explored and explained, and programs for a large number of graphics applications are presented

ZX81 Basic book

Norman, R.

, 1982

Newnes Technical Books. London, England

, 167

, Std Book No.0 408 01178 5

This book covers the basic 1K version, the additional facilities offered by the 16K expansion RAM and how to use the ZX Printer. There are 14 original programs to run on the machine (for 1K and 16K versions), and for those confused by computer jargon there is a glossary of technical terms. The author assumes no initial computing know-how

Learning to use the ZX Spectrum computer
Bradbeer, R.

, 1982

Gower, Aldershot, Hants., England

, 1x+76

, Std Book No. 0 566 03481 6

This book provides a beginners guide to using the ZX Spectrum computer. It provides a simple, down-to-earth, jargon-free introduction to the machine and its software

TI: The ZX81 companion

GT: Der ZX81-Rechner

AB: Das Buch erlaeutert die Programmiermoeglichkeiten mit dem ZX81 der Firma Sinclair. Kapitel 1 behandelt die graphischen Moeglichkeiten sowie Realzeit-Programmiertechniken. Kapitel 2 bespricht die Informationsverarbeitung mit dem ZX81. Das Kapitel 3 zeigt die Anwendung des Rechners fuer Schulungszwecke. Das letzte Kapitel enthaelt die Beschreibung sowie ein vollstaendiges Listing eines Monitor-Programmes. Am Buchende findet man Aufloesungen zu den vorangegangenen Uebungsfragen, einen Anhang sowie ein Indexverzeichnis. Das Buch richtet sich hauptsaechlich an Benutzer des ZX81. (SPRACHE: ENGLISH)

AU: Maunder, B.

SO: (1981) Middlesbrough: LINSAC, 131S, ISBN 0-907211-01-1

ZX81 user's handbook

Terrell, T.J.; Simpson, R.J.

, 1982

Newnes Technical Books, London, England

, vi+137

, Std Book No. 0 408 01223 4

This book provides answers to many and varied questions asked by students, schoolchildren, hobbyists and teachers. The range of questions covers the operation of the computer and its peripherals, troublesome aspects of BASIC programming, principles of machine-code programming, hardware details, and principles of interfacing user hardware via the edge connector. When appropriate, answers are supported with suitable BASIC or machine-code programs

TI: Mein Sinclair ZX 81 - 1. Auflage

ET: Your Timex Sinclair 1000 and ZX 81

AB: Das Buch richtet sich an Anfaenger. Erlaeutert wird die Funktionsweise und die Handhabung des Rechners ZX 81. Nach einer Darstellung der Programmeingabe und einer kurzen Einfuehrung in die Programmiersprache Basic werden zahlreiche Programmierbeispiele behandelt. In Anhaengen findet man Zusammenfassungen des Basic-Wortschatzes sowie der Fehlermeldungen des Rechners ZX 81. Hinweise auf weitere Literatur zum ZX 81 und ein Stichwortverzeichnis beschliessen das Buch. (SPRACHE: GERMAN)

AU: Hergert, D.

SO: (1983) Duesseldorf: SYBEX-Verlag, 173S, ISBN 3-88745-021-3

Your Timex Sinclair 1000 and ZX81
Parker, Roger
Desktop Computer, Jul 1983, v3 n7 p71, 1 page ISSN:
0731-3616

Languages: English

Document Type: Book Review

Geographic Location: United States

A favorable review of the book Your Timex Sinclair 1000 and ZX81 (\$6.95) by Douglas Hergert. Describes it as an easy-to-read, conversational format, which increases your confidence in your abilities with BASIC programming.

TI: Understanding your ZX81 ROM

GT: Verstehen Sie Ihren ZX81-ROM

AB: Der im Fruhjahr 1981 von der Fa. Sinclair Research auf den Markt gebrachte ZX-81 ist eine verbesserte Ausfuehrung des 1 Jahr frueher herausgekommenen ZX-80, mit dem ein neuer Typ von Mikrocomputer fuer den Hobbyisten geschaffen wurde, der billig und vielseitig mit einem gewoehnlichen Fernseher und einem Kassettenspieler zu einem leistungsfahigen Haus-Computer-System zusammengefasst werden konnte. Der ZX-81 besitzt ein 8k-ROM, der das Arbeitsprogramm und einen BASIC-Gleitkomma-Uebersetzer enthaelt. Das Hauptanliegen des Buches ist es, das Verstaendnis fuer die Z80-Maschinencode-Sprache zu entwickeln und die Arbeit des 8k-Monitor-Programms zu eroern. Leser mit BASIC-Kenntnissen werden angeleitet, kurze Maschinenprogramme zu schreiben. (SPRACHE: ENGLISH)

AU: Logan, I.

SO: (1981) Cheddington: Melbourne House (Publishers), 162S,
ISBN 0-86161-103-9

Machine code and better Basic

Stewart, I.; Jones, R.

, 1982

Shiva Publishing, Nantwich, Cheshire, England

, vi+188

, Std Book No.0 906812 18 6

Covers these major areas: data structures, for efficient processing; structured programming, for programs that work; machine code, for high-speed action; and appendices to help one program in machine code. Starting with a simplified, imaginary machine to explain the ideas behind machine code, the authors take one gradually to the stage of tackling the complexities of the Z80 microchip itself. The majority of the book is machine independent for owners of Z80-based computers such as Research Machines 380Z, Tandy TRS80, Sharp MZ80K and MZ803, the Sinclair ZX80 and the new ZX Spectrum. But all programs can be run without adaptation on the Sinclair ZX81 with a 16K RAM pack. Included are detailed case-histories of program design, with examples of a library cataloguing system, supermarket checkout simulation, text-editing and word-processing, and an educational program to test knowledge of French, plus a variety of useful machine code listings

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TALEN

RADIO AMATEUR MAGAZINE

Jan. 1984
50 jaargang
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Bit. 99 nr. 42

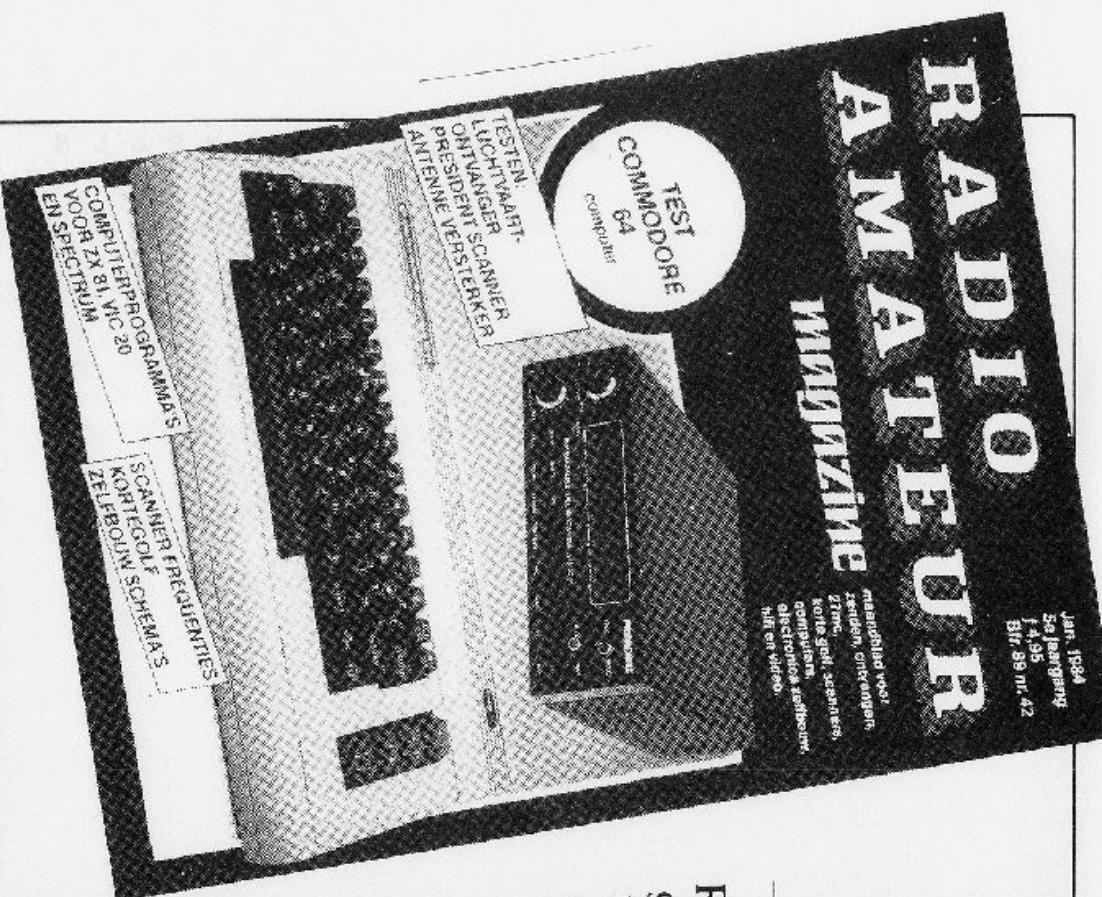
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COMMODORE
64
computer

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ANTENNE

COMPUTERPROGRAMMA'S
VOOR ZX 81, VIC 20
EN SPECTRUM

SCANNER FREQUENCIES
KORTELOF SCHEMATA
ZELFBOUW



RADIO AMATEUR MAGAZINE

Radio Amateur Magazine is een maandblad voor iedereen die is geïnteresseerd in "electronica in vrije tijd". Naast testapparaten en artikelen over scanners, zend/ontvangers, kortegolf-apparatuur en electronica zelfbouw is Radio Amateur Magazine voor een belangrijk deel gewijd aan COMPUTERS.

RAM publiceerde reeds testen van de ZX 81, VIC 20, Atari 600 XL, Commodore 64, Bit 90, TRS 80 colour, Colour Genie en de ZX Spectrum, alsmede artikelen over het ontvangen van telex met de ZX 81 en VIC-20.

Elke maand worden een flink aantal pagina's opgenomen met programma-listings voor de ZX 81, VIC-20, Spectrum en Commodore 64. Daarnaast tal van computer nieuwtjes, software besprekingen en programmeer tips. De programma's zijn ook leverbaar op cassettes. Voor het aanvragen van een gratis proefnummer: stuur een briefkaart met naam, adres en interesse-sfeer aan: R.A.M., Postbus 333, 2040 AH ZANDVOORT

Radio Amateur Magazine kost f 4,95 en is verkrijgbaar bij boek- en tijdschriftwinkel, groothandelsbedrijven en electronica winkels.

Voor een abonnement of verdere inlichtingen kunt U natuurlijk ook even bellen:

02507-19500.

What's so difficult about ZX-80 machine code?

Redman, Loyd

Kilobaud Microcomputing, Jun 1982, v6 n6 p54-55, 2 pages

ISSN: 0192-4575

Languages: English

Document Type: Article

Program Listing in BASIC

Geographic Location: United States

Discusses machine language programming of the Z-80 microprocessor used in the Sinclair ZX80 microcomputer. Describes how to use the PEEK, POKE andUSR functions to access machine language programs from BASIC.

Machine code language for the ZX81

Bernstein, R.

Chip (Germany), no.7 p.56-60, 0 Refs, July 1983

. In German

The speed advantages of machine code programming are explained and it is shown how the address 15509 in the ZX81 computer stores Z80 machine code. The use of 'peeks' and 'pokes' in loading and listing ZX81 machine code is explained in detail and a 'Breakout' game program in Z80 machine code is listed

Machine language on the ZX81: to create new functions

Gueulle, P.

Micro Syst. (France), no.14 p.275-82, 0 Refs, Sept. 1983

. In French

The handling of machine code in order to increase the speed of execution of programs in the restricted memory space of the ZX81 microcomputer is explained. It is shown how relocatable routines can call upon relative addressing, with relative-jump instructions specifying the number of bytes to be omitted before the next instruction for execution. Hexadecimal-to-decimal and hexadecimal-to-binary code conversion tables are presented. Mnemonics and corresponding decimal and hexadecimal codes are listed. The capabilities of protected memory extensions possessing zones specially reserved for machine code are mentioned

Programming the Z-80 microprocessor

Simpson, R.; Terrell, I.

Pract. Comput. (GB), vol.6, no.4 p.98-100, 0 Refs, April 1983

Explains the fundamentals of machine-code programming for the Sinclair Spectrum's Z-80A processor

The best tips and tricks for the ZX81

Guss, T.

Chip (Germany), no.10 p.48-9, 0 Refs, Oct. 1982

. In German

There are many tricks that push back the boundaries of the ZX81. This is due to new functions in BASIC and an improvement in the hardware-operations safety. Data storage, the printer interface and a 1K chess program are discussed in some detail. Also, a few tips are given for rewriting programs in other BASIC dialects, especially the statements LEFT\$, RIGHT\$, MID\$ and PLSS are particularly difficult to translate and are specifically explained

Machine code and the ZX spectrum

Sparkes, B.

St. Andrew's Coll., Glasgow, Scotland

Comput. Sch. (GB), vol.5, no.4 p.108-14, 0 Refs, July 1983

Why be a slave to BASIC? While the Sinclair ZX spectrum has no (deep-type) built-in assembler, there are several assemblers/editors/disassemblers available for it. In this article the author explains what machine coding is, and urges you to have a go at low-level programming on this machine. Examples are given of the spectrum's usefulness as a laboratory measuring instrument and its place in teaching about microprocessors and control technology

TI: Einfuehrung in Z-80-Maschinensprache: Klartext fuer den ZX 81. Teil 1: Daten lesen und veraendern

ET: Introduction to the Z-80 machine language: text in clear for the ZX 81. Part 1: Data reading and changing

AB: Moderne Heimrechner werden zumeist in Basic programmiert. Beim Programmieren von Heimrechnern in Maschinensprache wird kein Interpreter benoetigt, wodurch der Rechner schneller Ergebnisse liefert. Der Aufbau des RAM des ZX 81 wird beschrieben und die Speicherbelegung des Programmspeichers anhand eines Programmzeilen-Beispiels erlaeutert. Die Aenderung des Inhalts einer Adresse des Programmspeichers durch den POKE-Befehl wird erklaert. (Forts. folgt) (SPRACHE: GERMAN)

AU: Herklotz, K.

SO: Punkschau, 55 (1983) 10, S.70-71, 2S,3B

id 55 (1983) 11, S.78-80, 3S,2B

id 55 (1983) 12, S.75-76, 2S,3B

id 55 (1983) 13, S.75-76, 2S,3B,2T

id 55 (1983) 14, S.69-70, 2S,6B

id 55 (1983) 15, S.73-74, 2S,3B

id 55 (1983) 16 S.70-71, 2S

id 55 (1983) 17, S.73-74, 2S,5B

id 55 (1983) 18, S.91-92, 2S,4B

id 55 (1983) 19, S.75-76, 2S,4B

id 55 (1983) 20, S.74-76, 3S,8B

Introduction to the Z80 machine language: Cleartext for the ZX Spectrum

Herklotz, K.

Funkschau (Germany), no.21 p.35, 3 Refs, 11 Oct. 1983

. In German

This extended, detailed series continues with the discussion of the introduction of a machine program by a CHALK command, with the START address at the end of ROM. Improved possibilities are provided with the Spectrum, compared with the ZX 81, particularly in connection with higher resolution video display. This is illustrated by examples of an auxiliary input program (hex code), of a 'Zero page' restart and of a table, quoting address, byte and assembler machine language data

id	22	(1983)	S.73-74
id	23	(1983)	S.84-85
id	24	(1983)	S.78-80
id	25	(1983)	S.73-74
id	26	(1983)	????
id	1	(1984)	s.69-71, 3S,4B
id	2	(1984)	????
id	3	(1984)	????
id	4	(1984)	????
id	5	(1984)	S.75-76, 2S,3B

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NIEUW BINNENGEKOMEN EN ACTUELE BOEKEN :

-- ZX 81/Timex 1000 boeken -----	
MIJN SINCLAIR ZX-81	f 30
TOEPASSINGEN EN SPELLEN ZX81	f20,50
ZAKBOEKJE VOOR DE ZX-81	f 15
ZX81 ELEKTRONIKAPROJ. + print	f28,75
ZX81 16K LEREN PROGRAMMEREN	f19,70
ZINDERENDE SPELEN VOOR UW ZX81	f 29
MASTERING MACHINECODE ON THE ZX81	f 39
49 EXPLOSIVE GAMES FOR THE ZX81	f 34
MACHINE INTELLIGENT PROGRAMS	f 29
ZX81 PROGR. FOR REAL APPLICATIONS	f 39
MORE REAL APPLICATIONS FOR ZX81	f 45
ASSEMBLY LANGUAGE ASSEMBLED ZX81	f 39
ADVANCED PROGRAMMING FOR ZX81	f 35
MACH LANG PROGR MADE SIMPLE ZX81	f 32
NOT ONLY 30 PROGRAMS FOR THE ZX81	f 27
UNDERSTANDING YOUR ZX81 ROM	f 32
COMPLETE ZX81 ROM DISASSEMBLY	f 49
THE INS AND OUTS OF THE ZX81	f 32
MACHINECODE AND BETTER BASIC	f 42
BYTEING DEEPER INTO YOUR ZX81	f 30
ZX81 ASTRONOMY ON YOUR COMPUTER	f 36

-- Sinclair QL boeken -----	
THE SINCLAIR QL COMPANION	f 38

-- ZX Spectrum boeken -----	
MACHINECODE MET DE SPECTRUM	f29,80
49 EXPLOSIVE GAMES FOR SPECTRUM	f 28
MASTER YOUR ZX MICRODRIVE	f 36
100 PROGRAMS FOR THE ZX SPECTRUM	f 38
SPECTRUM MICRODRIVE BOOK	f 32
ADVANCED GRAPHICS ZX SPECTRUM	f 55
SPECTRUM HARDWARE MANUAL	f 32
SPECTRUM GRAPHICS AND SOUND	f 36
MACHINECODE APPLICATIONS SPECTRUM	f 36
UNDERSTANDING YOUR SPECTRUM	f 36
COMPLETE SPECTRUM ROM DISASSEMBLY	f 49
SPECTRUM MACH.CODE REFERENCE GUIDE	f 28
MASTERING MACHINECODE ZX SPECTRUM	f 49
SPECTRUM GRAPHICS	f 36
THE SPECTRUM BOOK OF GAMES	f 32
GUIDE TO PLAYING THE HOBBIT	f 20
20 BEST PROGRAMS FOR THE SPECTRUM	f 34
40 BEST MACHINECODE ROUTINES	f 34
SPECTRUM MACH.CODE MADE EASY vol 1	f 34
SPECTRUM MACH.CODE MADE EASY vol 2	f 34
SUPERCHARGE YOUR SPECTRUM	f 32
MAKING THE MOST OF YOUR MICRODRIVE	f 35
SPECTRUM ASTRONOMY	f 36
EXPLORING SPECTRUM BASIC	f 28

NIEUW BINNENGEKOMEN EN ACTUELE SOFTWARE :

-- ZX 81 software -----	
3D MONSTERMAZE	f 25
3D DEFENDER	f 25
HI-RES GRAPHICS TOOLKIT (software)	f 29
49-er hi-res graphics game	f 29
SUPERCHESS 16K schaakprogramma	f 28
PILOT - flight simulator	f 29

-- ZX Spectrum software -----	
DEVPAC 3 editor/assembler	f 70
HISOFT PASCAL	f125
TASWORD II wordprocessor	f 70
OMNICALC spreadsheet	f 49
H.U.R.G. games designer	f 75
GEMINI DATABASE	f 95
THE QUILL adventure generator	f 69
ABERSOFT FORTH	f 75
TIMEDATA TOOLKIT - 5 utilities	f 44
SUPERCHESS 3.0	f 45
M-CODER II - BASIC compiler	f 48
SUPERCODE - 100 routines	f 48

-- ZX Spectrum software -----	
MUGSY - nieuwe hit van Melbourne!	f 28
VALHALLA grafisch adventure	f 80
FOOTBALL MANAGER met 3D games	f 32
PSION FLIGHT SIMULATOR	f 39
CODE NAME MAT	f 32
AD ASTRA	f 29
PINBALL WIZARD	f 29
NIGHTFLITE II	f 39
CHEQUERED FLAG	f 39
THE SNOWMAN	f 32
SCUBA DIVE	f 34
JET SET WILLY	f 29
HARRIER ATTACK	f 29
ATIC ATAC	f 28
BLADE ALLEY	f 29
KONG	f 28
PSYTRON	f 39
PEDRO	f 28
3D ANT ATTACK	f 32
DRAGONSbane	f 32
POGO	f 28
NIGHT GUNNER	f 34
SABRE WOLF	f 45
ALCHEMIST	f 28
THE HOBBIT	f 70
MANIC MINER	f 29
FIGHTER PILOT	f 39
TRASHMAN	f 29
WHEELIE	f 29
LUNAR JETMAN	f 28
STONKERS	f 28
HUNCHBACK	f 28
MR WIMPY	f 28
AQUAPLANE	f 32
FRED	f 32
LASERZONE	f 32

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HARDWARE

Add direct video output to Sinclair ZX81

Chamkis, Jerry

Dr. Dobb's Journal, May 1982, v7 n5 p48-49, 2 pages

Languages: English

Document Type: Article

Geographic Location: United States

Describes a simple modification for the Sinclair ZX81 microcomputer that gives the user a direct video output so that a composite video monitor can be used in place of a television set. Includes one diagram and two photos.

The little computer that could

Blechman, Fred

Microcomputing, Mar 1983, v7 n3 p66-70, 4 pages ISSN:
0744-4567

Languages: English

Document Type: Article

Program Listing in BASIC

Geographic Location: United States

Presents techniques to improve the screen display of the Timex-Sinclair TS-1000. Also provides a diagram for connecting the computer to a TV set and gives some programming tips for formatting characters and graphics.

Hardware relief from crashes / High contrast inverse resolution

Schaaf, Daniel

Sync, Jan/Feb 1982, v2 n1 p28, 1 page ISSN: 0279-5701

Languages: English

Document Type: Article

Geographic Location: United States

Describes how to install a reset button on the ZX80 so that the user can easily exit from breakless loops. Also describes a modification that allows reverse characters to have more contrast and to have gray shades with graphics.

ZX80/81 video display system

Ornstein, David

Sync, Mar/Apr 1982, v2 n2 p8-12, 3 pages ISSN:
0279-5701

Languages: English

Document Type: Article

Geographic Location: United States

Discusses the operation of the ZX80/81 video display system. Includes some comments on how a television picture is generated and how the ZX80/81 video display is created almost entirely in software. Also includes several diagrams.

4K and 8K ROM command conversions / 16K RAM pack schematic corrections

Ornstein, David

Sync , Jan/Feb 1982 , v2 n1 p10-11 , 2 pages ISSN: 0279-5701

Languages: English

Document Type: Column

Program Listing in BASIC

Geographic Location: United States

PERCEPTIONS column describes the processes necessary for the conversion of commands from one ROM to another. Also includes a correction for the 16K RAM schematic published in SYNC (1:5)

4K/8K ROMs in one ZX80

Rubesch, Michael

Sync , Mar/Apr 1982 , v2 n2 p40 , 1 page ISSN: 0279-5701

Languages: English

Document Type: Article

Geographic Location: United States

Describes a simple hardware modification for the Sinclair ZX80 that allows the user to switch between the 4K ROM and the 8K ROM. This modification requires that the ROMs be piggybacked with a switch to select the ROM to be used.

Memory expansion for the ZX80

Ernde, Hilton

BYTE , Jan 1982 , v7 n1 p216-232 , 7 pages ISSN: 0360-5280

Languages: English

Document Type: Article

Program Listing in Assembly Language

Geographic Location: United States

Describes how 16K of static memory was added to a ZX80 microcomputer by interfacing a MEM-1615K memory board from Jade Electronics. Topics covered include: interfacing, power supply, board modifications, construction and checkout.

Getting Loaded (ZX80 tape loading monitor)

Helton, E. Ross

Sync , Mar/Apr 1982 , v2 n2 p41 , 1 page ISSN: 0279-5701

Languages: English

Document Type: Article

Geographic Location: United States

Describes a ZX80 modification that allows the user to monitor the loading of cassette tapes through the use of LEDs. The LEDs are place in box that is placed between the ZX80 and the tape recorder. Includes one diagram.

Add a full-sized keyboard to Sinclair's ZX80

Cosshall, Wayne

BYTE , Mar 1982 , v7 n3 p256-261 , 5 pages ISSN:
0360-5280

Languages: English

Document Type: Article

Geographic Location: United States

Describes how to add an external keyboard to the ZX80 computer. Also describes how to add a reset key and includes 10 photos to aid in the modification project.

TRS-80 printer ports / ZX80 keyboards / Power supplies /
RS366 / Homebrew

Ciarcia, Steve

BYTE, Jan 1983, v8 n1 p481-482, 2 pages ISSN: 0360-5280

Languages: English

Document Type: Column

Geographic Location: United States

ASK BYTE column covers: sending a formfeed character to a printer using OUT 248 on the TRS-80 Model III; attaching an external keyboard to the ZX81; using a 12V battery and inverter for a power supply; the RS366 standard; advice for homebrewers.

Minifloppy standards / Timex 1000 add-ons

Solomon, Les

Computers & Electronics, Jan 1983, v21 n1 p12-16, 2 pages
ISSN: 0032-4485

Languages: English

Document Type: Column

Geographic Location: United States

COLUMN covers: the new ANSI standard on the 3.5" micro floppy disk drive; Add-ons for the Sinclair/Timex 1000 computers (memory, high resolution graphics pak); product announcements for a number of items.

Memopak

Fisher, David

Microcomputing, Jan 1983, v7 n1 p138, 1 page ISSN:
0744-4567

Languages: English

Document Type: Hardware Review

Geographic Location: United States

A favorable review for a plug-in memory expander for the Sinclair/Timex ZX81 from Memotech (\$179.95). This allows up to 64K of memory to be used. It has some features that are more advanced than larger machines.

TI: ZX81 printer

GT: ZX81-Drucker

AB: Discusses the ZX81 printer. The author presents results of tests carried out on this printer, and considers the advantages and disadvantages of this peripheral for the Sinclair ZX81 personal computer. (SPRACHE: ENGLISH)

AU: Burton, M.

SO: Personal Comput. World, 5 (1982) 1, S.77, 190

Update on Sinclair/Timex sound

Hunkins, Arthur

Compute!, Apr 1983, v5 n4 p164, 1 page ISSN: 0194-357X

Languages: English

Document Type: Article

Geographic Location: United States

Describes a method of getting the Sinclair/Timex to extend its sound range almost to middle C. Explains the program modification to the one presented in the January issue of Compute!.

Low-cost housing for the ZX-81

Hearn, Gary

Microcomputing, Jun 1983, v3 n6 p76-77, 2 pages ISSN: 0744-4567

Languages: English

Document Type: Article

Geographic Location: United States

Describes a do-it-yourself project which is designed to make the Timex-Sinclair 1000 a portable computer by building a carrying case for it out of an attache case. Includes directions, parts list, picture of completed project.

A sure cure for TS Wobble

Stephens, J.

Microcomputing (USA), vol.7, no.3 p.50, 0 Refs, Aug. 1983

The TS Wobble happens because a momentary 'twitch' of the 16K RAM pack the Timex/Sinclair ZX-81 can throw garbage into the variable storage area. This results in the disappearance of information, programs failing to load and trash appearing in the middle of BASIC lines. It can all be cured by the attachment of a physical support and dealing with the problem of oxidation.

Consumer test: a matter of printing-mechanical keyboard for the ZX81

Veunayr, M.

Funkschau (Germany), no.17 p.67-9, 0 Refs, 12 Aug. 1983

. In German

The complaints of about 10000 German owners of ZX81 machines have not been in vain; six different mechanical keyboards are now on the market, including a special, rather expensive model with audio signalling. A table quoting price, dimensions, main features and additional facilities is given, supported by the photographs of the six units. Of main interest is the description of six DIN standards, dealing with various functions and the performance of alphanumeric keyboards.

The Rimex/Sinclair 2040 printer
McEvoy, S.
Compute. J. Prog. Comput. (USA), vol.5, no.11 p.158-9, 0 Refs, Nov.
1983

Describes the components and capabilities of the Rimex/Sinclair 2040 Printer. This dot matrix printer comes at a bargain price and allows you to print out programs, print out graphics and print individual characters on the page for simple word processing programs

TS-1000 printing power for under \$100
Stephens, J.
Microcomputing (USA), vol.7, no.7 p.70-1, 0 Refs, July 1983

The author reviews the TS 2040 printer. He finds that Rimex-Sinclair's lowest-priced printer for the lowest-priced micro is no toy. It can capably do the job-and at a fraction of the cost

TI: Schrittmacher
ET: Pace setter
AB: Vorgestellt wird eine einfache automatische Wiederholfunktion (Auto-Repeat) fuer die ZX-81-Tastatur. Die Schaltung sorgt dafuer, dass die den Tasten zugeordneten Zeichen oder Funktionen so lange ausgegeben bzw. ausgefuehrt werden, wie eine Taste gedrueckt bleibt. Hinweise zu Montage und zum Selbstbau werden gegeben.
(SPRACHE: GERMAN)
AU: Droste, U.; Vogel, G.
SO: Funkschau, 56 (1984) 2, S.33-34, 2S,3B

A T-3 1000 keyboard you can get your hands on
Stephens, J.
Microcomputing (USA), vol.7, no.4 p.54-8, 0 Refs, April 1983

The Rimex-Sinclair 1000's keyboard can be a nightmare to programmers and users. This article describes how to construct one's own full-size, inexpensive keyboard

TI: ZX81 keyboard upgrade
GT: Verbesserung der ZX81-Tastatur
AB: There is no doubt that the Sinclair ZX81 represents value for money but there is equally no doubt that the standard machine's keyboard is the victim of a cost cutting exercise that leaves it awkward to use at the best of times. Adding this keyboard will greatly ease the task of data entry which, with the touch keyboard, is almost impossible to achieve with any accuracy. The project is quite straightforward, and merely duplicates the switch matrix of the basic ZX81 using standard typewriter like keys. (SPRACHE: ENGLISH)
AU: Anonym
SO: Radio a. Electron. World, 1 (1982) 9, S.52-53, 2S

Keyboard with sound control for the ZX81

Ramirez, E.

Rev. Esp. Electron. (Spain), vol.29, no.335 p.52-4, 0 Refs, Oct. 1982

. In Spanish

The device described overcomes the inconveniences of input by touch which characterises the ZX81 and which necessitates continually watching the display to check that the information has been entered. An acoustic signal is generated each time that a key is touched. The circuit is described and construction and installation are outlined

ZX 81 Keyboard. The foil shows its colours

Ulrich, P.J.

Funkschau (Germany), no.18 p.35-6, 0 Refs, 2 Sept. 1983

. In German

The design and operation of the Sinclair three foil sandwich keyboard are explained, supported by a layout diagram of the keyboard with its connections to the colour connections of the logic chip, the ROM and the address bus, and a table of '0' and '1' levels associated with the 13 leads to the key pads, black for the shift key inactive and blue for the shift key pressed

The disc revolution

Simpson, D.; Reesley, S.

Your Comput. (GB), vol.3, no.2 p.34-6, 38, 0 Refs, Feb. 1983

It is now possible to get disc drives for most popular home computers. This article examines the whole area of mass storage and, in particular, drives for the BBC microcomputer, Sinclair ZX-81 and the Vic-20

The microdrive revealed

Electron. Comput. Mag. (GB), vol.3, no.9 p.10, 0 Refs, Sept. 1983

The first prototype of the microdrive was shown over a year ago at the launch of the Spectrum and since then there has been much speculation as to the exact form that the storage media would take. A mini floppy was a favorite at one time, only to give way to the idea that it would be a micro cassette as used in the Rabbit floppy tape system for the BBC micro. In fact, microdrive uses 'cartridges' reminiscent of the long dead eight track cartridge system. Sinclair's cartridges are much smaller though, and measure 30 mm x 40 mm x just 5 mm deep. They contain an endless loop of tape that is about 500 cm long and 1.9 mm wide. A drive is described which is about 30 x 5 cm in size and has a LED indicator to show that it is active

ZX microdrive

Peel, K.

Your Comput. (GB), vol.3, no.9 p.52-3, 0 Refs, Sept. 1983

Sixteen months after they were announced the first microdrives are just being delivered. The price is still \$30 for a drive which takes 35K tape cartridges instead of the 100K originally promised, but you can find and load a program in a few seconds. You will also need the Interface 1 before you can plug in up to eight microdrives, but this interface gives you RS-232 and local area networks

TI: Getting serious with Sinclair

GT: Sinclair-Spectrum-Mikrorechner

AB: With the arrival of the Microdrives and ZX Interface the Sinclair Spectrum can claim to be a competitor in the market for small business computers. This article finds out how it shapes up as part of a serious microcomputer system. The author examines how Microdrives and the ZX Interface offer the necessary interfacing and storage capabilities for the Spectrum to operate successfully in serious business applications. (SPRACHE: ENGLISH)

AU: Salem, M.

SO: Pract. Comput., 6 (1983) 11, S.94-95, 2S

Interface 2 .ZX Spectrum.

Robert, R.

Your Comput. (GB), vol.3, no.11 p.105-7, 0 Refs, Nov. 1983

The ZX Interface 2 provides the Spectrum with two joystick ports and a ROM software cartridge port. The interface plugs into the rear connector of the Spectrum or the Microdrive Interface 1, if attached. The only peripheral that can be plugged into the back of Interface 2 is the ZX printer as not all the optical connections are provided. Inside there is one printed circuit board, two joystick 9-pin D-plus connectors, one ROM cartridge socket and just one integrated circuit chip

Sinclair enhances the power of the spectrum

Fletcher, D.; Schifreen, R.

Educ. Comput. (GB), vol.1, no.9 p.14-5, 0 Refs, Nov. 1983

The author reviews the: ZX Microdrive, a fast access mass storage device; ZX interface 1, Microdrive controller; RS 232 interface, local network controller; and the ZX interface 2, ROM Cartridge and joystick facilities. All are Sinclair add-ons for the Spectrum. The author also describes experiments with the transfer of programs onto the microdrive and networking

On line to 1983

Dawson, J.

Your Comput. (GB), vol.3, no.2 p.133-7, 2 Refs, Sept. 1983

Sinclair's Interface 1 will allow hundreds of thousands of Spectrum owners to communicate with each other in groups of up to 64. Next year the big news will be communication between micros anywhere in Britain

Getting serious with Sinclair

Salen, J.

Pract. Comput. (GB), vol.6, no.11 p.74-5, 2 Refs, Nov. 1983

With the arrival of the Microdrives and ZX Interface the Sinclair Spectrum can claim to be a competitor in the market for small business computers. This article finds out how it stacks up as part of a serious microcomputer system. The author examines how Microdrives and the ZX Interface offer the necessary interfacing and storage capabilities for the Spectrum to operate successfully in serious business applications

Review of the Basicare system

Adams, S.

Electron. Comput. Mon. (GB), vol.3, no.5 p.33-6, 0 Refs, May 1983

The idea for the Basicare system is split into two parts. One is the idea that the most important pieces of equipment are the peripherals, the 'extras' that the microprocessor chip requires when building up a computer. These usually include RAM, ROM, INPUT and OUTPUT devices. If these can be made to work on a standard connection system then the only thing different between each computer would be the micro-processor's access to the rest of the computer system. In building the system Basicare have included all the necessary equipment to keep the system running without the help of the Processor. Things like refresh for dynamic RAMs has been included, hardware clocks for character sets and resets all take place INSIDE the system. A lot of work needs to be done before the Basicare system can be used to its full potential, mostly in the form of programs to run the system. The hardware is easy to use and some essential programs are available to use the USERFONT character set and the Centronics printer. The modules and the idea are simple to put together, but the documentation is still highly technical and needs a good few nights reading to grasp how it works

Ide to joysticks

Schofield, J.

Pract. Comput. (GB), vol.7, no.1 p.92-3, 0 Refs, Jan. 1984

Most action and arcade games require joysticks. The following joysticks are reviewed: Atari Track-Ball; Kraft; Suncor Starfighter; standard Atari joystick; Touch-sensitive Joy-Sensor; Datasoft Le stick; Sinclair ZX Interface; and Downsway programmable interface

In praise of ZX BASIC

James, W.

Electron. Comput. Mon. (GB), vol.3, no.10 p.73-80, 0 Refs, Oct. 1983

The author has realised that, while he liked ZX BASIC, he rarely owned up to the fact in 'respectable' company. He sets the record straight by pointing out how logical and straightforward the Sinclair dialect of BASIC is

Curran nspeech

Herman, G.

Electron. Comput. Mon. (GB), vol.3, no.12 p.56-7, 0 Refs, Dec. 1983

The Microspeech is specifically designed for the Sinclair Spectrum. The unit is neat and packaged in a small plastic case some 8 cm*7 cm*1.6 cm. The case is glued together and cannot, unfortunately, be opened for inspection. It plugs into the expansion socket at the back of the computer or into Sinclair's interface unit-although it cannot be 'chained' with other devices since there are no bus lines coming out of it. The unit takes power from the Spectrum's expansion port and the computer must be turned off before plugging it in. The unit features two leads, one of which plugs into the TV socket on the back of the Spectrum and the other into the MIC socket. Unlike most other speech synthesis units in the same price range, the Microspeech contains a text-to-speech interpreter. It uses an 'allophone' system based on the General Instruments SP2256-AL2 speech chip-which is similar to, but not compatible with, the commoner SC-01 chip from Votrax

ZX sound boards

Cowie, J.; O'Donnell, D.; McAinslie, J.

Electron. Comput. Mon. (GB), vol.3, no.8 p.14-17, 0 Refs, Aug. 1983

Describes the operation of the AY-3-8910 programmable sound generator ZX81 and spectrum sound boards

ZX sound boards. II

Cowie, J.; O'Donnell, O.; McAlinsh, J.

Electron. Comput. Mon. (GB), vol.3, no.9 p.73-5, 0 Refs, Sept. 1983

For pt.I see *ibid.*, vol.3, no.8, p.14-7 (1983). Discusses the construction of double sized ZX sound boards with details of software

DCP speech pack

Mann, S.

Pers. Comput. World (GB), vol.5, no.8 p.141, 0 Refs, Aug. 1982

The DCP speech pack is one of a new range of ZX81 hardware add-ons. It allows the user to add words, phrases and simple sentences to programs. As such it could prove a useful adjunct to games and a whole host of more serious applications. This article explains the capabilities and features of the speech pack and concludes it is a well designed and easy-to-use speech synthesiser

Sound generator for the ZX81

Gerlach, U.

Chip (Germany), no.1 p.206-9, 0 Refs, Jan. 1984

. In German

With the appropriate hardware and software it is possible to create a piece of music using BASIC and a sound generator. The AY-3-8910 sound generator chips (made by General Instruments) can be added to the Sinclair ZX81 as an extension. It is a register-oriented system with 16 registers to enable the computer to perform other functions whilst producing a sound. The author describes how the chip works, how to use it and how to connect it to the ZX81. He also explains how to program it, and lists a program. The circuit diagram is given of the AY-3-8910's connection to the ZX81 and separate voltage controller

Sinclair sound board .ZX computer equipment.

Baudouin, C.

Hobby Electron. (GB), vol.5, no.6 p.20-3, 0 Refs, June 1983

The ZX sound board is based on the General Instruments' 8912 sound generator chip, which gives three programmable tones or noise with the option of automatic envelope control. The board has been designed to work on both the Sinclair Spectrum and the ZX 81 (1K or more RAM) without modification, and features a built-in amplifier to drive an 8 or 16 ohm speaker as well as a volume control and a reset button for turning it off quickly. The unit is designed to plug into the rear connector of the computer; a matching edge connector plug is fitted to the rear of the sound board to allow for other add-ons such as the ZX81 RAM Pack or printer. A circuit diagram and parts list are given

48K Spectrum speaks .home computing.

Edwards, J.

Your Comput. (GB), vol.3, no.6 p.109, 0 Refs, June 1983

Describes a machine code program to record, store and replay speech using the computer cassette recorder. The synthetic speech is crude; counting from 1 to 100 produces an undecipherable grating, but 'Good Morning' is fairly clear. The program requires a 48K Sinclair Spectrum

Sound on the Sinclair/Finex

Jenkins, A.B.

School of Music, Univ. of North Carolina, Greensboro, NC, USA

Comput. J. Prog. Comput. (USA), vol.5, no.1 p.63-70, 0 Refs, Jan. 1983

The software secret is a short Z-80 machine language routine buried in a REM statement at the beginning of a BASIC program

TI: Music micro please

GT: Musik von Mikrocomputern

AB: The author explains how to get an acceptable tune out of almost any microcomputer from the ZX-81 to the IBM PC. He gives some programming hints and reviews some music software available for microcomputer users. (SPRACHE: ENGLISH)

AU: Bennett, B.

SO: Pract. Comput., 6 (1983) 6, S.114-116, 3S

ZX 81 a la carte. III. Software (all sound

Merker, B.

Funkschau (Germany), no.24 p.74-7, 0 Refs, 25 Nov. 1983

. In German

For pt.II see ibid., no.13, p.39 (1983). Describes programs for generating single musical effects with the ZX 81, and beyond this, for providing acoustical 'annotations' and even simple tunes, for instance on a mini-organ. Certain limitations are explained, like frequency limits and some amount of wow, due to programming interruption at the 50 Hz rate for the writing on the screen. Procedures for translating BASIC programs into the machine program commands and associated POKE instructions into Z80 commands are given, illustrated by part-address samples, flow diagrams and a sub-program printout. Detailed advice is given on the tone generation via the OUT-port, with an organ program, described with the aid of a table, quoting address numbers and corresponding mnemonics, and decimal 1, 2, and 3-digit keyboard inputs

ZX81 owners: succeed in loading your cassette-stored programs
Denichen, J.-P.

Micro Syst. (France), no.26 p.109-113, 0 Refs, Nov.-Dec. 1982

. In French

A circuit is described which combines a switch for connecting the tape recorder input to the ZX81 MIC output or an external microphone, with an amplifier between the tape recorder output and the ZX81 EAR input. To save a program, the circuit acts only as a switch for the microcomputer output without disconnection. To load, it adapts the output level and source impedance to the requirements of the ZX81 and improves the regularity of its function. The circuit diagram of the amplifier is presented and both sides of the printed circuit are depicted, with a component list. The internal wiring between the four DIN plugs and sockets and the amplifier and switch connections is shown diagrammatically. Simple tests for recording and reading functions are suggested

Update your cassette for the Spectrum
Reeves, P.

Electron. Comput. (Can.), vol.3, no.3 p.34-6, 0 Refs, March 1983

One of the most popular cassette recorders for the ZX81 is the Ferguson 3107, and many users moving up to the Sinclair Spectrum want to take their recorder with them. However, there are a couple of snags: there is feedback within the Spectrum which necessitates removal of the earphone from recorder or computer when SAVING; also, the output from the computer is a little beyond the range of the automatic level control in the recorder. With a little fine soldering, the 3107 can be modified quite easily to overcome these problems. The method is explained

Storing programs on magnetic tape

de Sagariche Rivera, A.

Rev. Esp. Electron. (Spain), vol.32, no.322 p.33-1, 0 Refs, Dec. 1983

. In Spanish

The author gives advice on ZX81 and storing ZX Spectrum programs on magnetic tape. This advice avoids the difficulties involved in 'trial and error' methods. If the cassette records 20 noise or other spurious signals; it is advisable to use batteries to eliminate mains hum and check whether a better quality mono-cassette is required. The air gap in the read/write head must be accurately perpendicular to the tape and the author describes means of testing this. By using a specially calibrated tape the tape speed can also be checked. The AC bias voltage on the read/write head may be insufficient since it should be ten times the mean amplitude of the 20 signals

TI: ZX 81 a la carte (7): Daten-Drehscheibe

ET: Software for microprocessor ZX81 (Part 7)

AB: Sehr detailliert wird die steuernde Software fuer die PIO-Schnittstelle fuer den Betrieb am ZX81 vorgestellt. Im einzelnen werden beschrieben: Eingabeprogramme zur Eingabe der Maschinenprogramme im Hexadezimalcode, Aus- und Eingabe von Datenworten, kombinierte Ein/Ausgabe, Ausgabe von Schaltimpulsen u.a. (SPRACHE: GERMAN)

AU: Schuetz, M.

SO: Funkschau, 56 (1984) 5, S.70-72, 3S,5B

Hardware for ZX80/81: mass storage

John, M.

Chip (Germany), no.10 p.252, 0 Refs, Oct. 1983

. In German

Gives the circuit of an interface unit for connection of a ZX80/81 to a reel-to-reel tape recorder

TI: ZX-81-Hardwaretip: Pegelwaechter fuer Ladevorgang

ET: Z X-81-hardware hint: Level monitor for the input process

AB: Es wird eine Schaltung mit einem Brueckengleichrichter und einem Abgleichmessinstrument fuer die Ueberwachung des Lautstaerkepegels beim Laden von Programmen in den Heimrechner ZX 81 beschrieben. Der Abgleich der Schaltung fuer die Einstellung der richtigen Lautstaerke beim Einlesen verschiedener Programme wird erlaeutert. (SPRACHE: GERMAN)

AU: Ollech, H.J.

SO: Funkschau, 55 (1983) 10, S.69, 1S,1B

The little computer that could .TS 1000 screen display.

Blechnan, F.

Microcomputing (USA), vol.7, no.3 p.66-70, 0 Refs, March 1983

A Timex-Sinclair 1000 (or ZCX-81) is of little value without a good TV display. This article describes some ways to improve the clarity and stability of the display itself and also discusses some programming techniques for formatting characters and graphics on the screen

TI: Understanding the ZX81 display file

GT: Zum Verstaendnis der Anzeigedatei des ZX 81

AB: An unusual feature of the ZX81 display file is that it can move about in the memory map of the computer; it is not in a fixed memory area, starting at a particular address. The computer needs to know where this display file starts, and so it stores the address of the first part of the display file in an area of memory known as 'system variables'. (SPRACHE: ENGLISH)

AU: Pardoe, A.

SO: Radio a. Electron. World, 1 (1982) 11, S.28-30, 3S

Spectrum image processor

Sargent, R.; Harvey, R.

Electron. Comput. Mon. (GB), vol.3, no.6 p.22-7, 0 Refs, June 1983

With only a few components, it is possible to store and display video signals on the Sinclair ZX Spectrum microcomputer. This article briefly describes the formation of a TV picture frame. The construction of a video interface and a port interface for the Spectrum is then explained with circuit diagrams. Machine code, assembly language and BASIC versions of a program to produce a low-resolution graphic image are given

Spectrum image processor. II

Sargent, R.; Harvey, R.

Electron. Comput. Mon. (GB), vol.3, no.7 p.76-9, 0 Refs, July 1983

For pt.I see ibid., vol.3, no.6, p.22-7 (1983). Describes a high resolution image processing system for the Spectrum. The listing of a display program is given in machine code

TI: Peripherie fuer Sinclair ZX 81

AB: Der Artikel stellt einige neue Programme fuer den Kleinrechner Sinclair ZX 81 vor. Es sind dies ein High Resolution Programm zur Vervielfachung der Aufloesung des ZX 81, ein 'Multigraphics'-Programm und eine ganze Reihe von Hilfsprogrammen. Auf der Hardware-Seite werden folgende neue Peripheriegeraete besprochen, eine 2K-Speichererweiterung, ein 4K-RAM-Modul, eine mechanische Tastatur, eine Mini-Diskette und ein ZX-I/O-Port mit je acht Ein- und Ausgaengen. (SPRACHE: GERMAN)

AU: Guss, T.

SO: Chip, Mikrocomput.-Fachmag., (1982) 6, S.132-134,136, 4S,3B

A colour poster for the ZX 81

Coissard, P.; Maurice, F.

Micro Syst. (France), no.33 p.93-7, 0 Refs, July-Aug. 1983

. In French

Describes a simple video interface for the ZX81 which enables it to generate colour images for a TV receiver. Give constructional details, which could be utilised by the home enthusiast

TI: ZX80 printer

GT: ZX80-Drucker

AB: Gives a ZX80-serial printer interfacecircuit. (SPRACHE: ENGLISH)

AU: Ogle, C.J.

SO: Personal Comput. World, 4 (1981) 2, S.113-115, 3S

ZX81: hardware presentation. Between low and high. Analog interface (also for the VC 200)

Fuchs, A.

Funkschau (Germany), no.12 p.72-4, 0 Refs, 16 Sept. 1983

. In German

Advice is given to owners of the ZX81 on how to extend its use by the addition of a D/A converter interface so as to provide a function generator or to operate the equipment as a digital voltmeter. A block diagram explains the additions: D/A converter with comparator and the digitizer for port addressing. Detailed instructions for above applications are given, illustrated by tables and port-programs

Spectrum printer interface

Williams, J.

Electron. Comput. Mon. (GB), vol.3, no.5 p.64-8, 0 Refs, May 1983

Whilst the Sinclair ZX Printer is excellent value for money and can give good results there are occasions when the ability to use a standard printer is invaluable. Such uses include word processing, producing printouts for reports or just to give a long listing on cheap paper. This article details the design of an RS232 output port and the software to drive it from ordinary PRINT statements. The design can equally be used to communicate with other machines and to complement this an optional RS232 input is also shown

Connect two ZX81s together: when a microcomputer becomes a temporary memory

Lainey, M.

Micro Syst. (France), no.29 p.80-5, 0 Refs, March 1983

. In French

A system of interconnection is proposed whereby one microcomputer can be considered to act as the temporary mass memory of another. It can also be used for monitoring the operation of program-saving on cassette, or data transfer from one program to another. Oscillograms of bit-by-bit transfer observed at the TV/TAPE output of the logic and in the middle of the input low-pass filter are reproduced. The restitution of a stored program with a set-up in which the tape recorder can be regarded as equivalent to an amplifier associated with distortion and noise sources is described. Detailed instructions are given for connecting the two logic circuits together with an emitter-follower amplifier and a switch with high-level logic-linking and low-level cassette-save positions. A simple LED-and-jack-plug device for testing the connection is described

Message panel interface board

Holmes, R.

Electron. Today Int. (GB), vol.11, no.11 p.68-72, 0 Refs, Nov. 1982

The interface described supplements the Message Panel character cards previously given. It allows any number of linked character cards to be driven from either the Sinclair ZX81 or the ZX Spectrum computer. Using the program supplied repeating messages drawn from a 7*5 ASCII character set can be displayed with a variable scroll speed across the message cards. Essentially the interface is an eight-bit output port for the ZX expansion bus, whose logic levels are translated from TTL to the 5 V CMOS logic levels. The interface can be used as a universal CMOS output port for Sinclair computers

Spectrum printer interface

Sargent, R.

Electron. Comput. Mon. (GB), vol.3, no.7 p.39-43, 0 Refs, July 1983

Describes a computer interface which allows printers with a parallel interface to be driven by the Sinclair Spectrum. The author presents a design outline, connection details and a program listing (to interface between the Spectrum and the Epson printer)

An inexpensive computer and interface for research in the behavioural sciences

Nicholls, R.J.; Potter, R.M.

Clarion State Coll., Clarion, PA, USA

Behav. Res. Methods Instrum. (USA), vol.14, no.6 p.532-3, 5 Refs, Dec. 1982

The Sinclair ZX81 computer and Byte-Back BS-1 control module are very inexpensive devices which can be used to control equipment in a psychology laboratory. A simple BASIC program and description for interfacing system to a Skinner box are presented

Joystick .DIY instructions for ZX81.

Janke, R.

Chip (Germany), no.9 p.188-90, 0 Refs, Sept. 1983

. In German

The paper describes an interface for connecting an Atari joystick to the ZX81 microcomputer. The only (in Germany difficult-to-obtain) other part needed is the socket for the Atari joystick plug

Super graphics for Spectrum

Marson, J.

Chip (Germany), no.11 p.268-9, 0 Refs, Nov. 1983

. In German

Describes how to connect up an Epson printer to the ZX Spectrum, so converting a minimal system into a maximal one, at a cost of only approx. 10 £. The interface of the ZX printer consists only of 2-bit input/output but is suitable only for the ZX printer. Details of the modified connections are given, followed by an explanation of the procedure for carrying out a test on the modified hardware

Instrument automation using the ZX81

Heoster, D.C.

Dept. of Chem., Virginia Polytech. Inst. State Univ., Blacksburg,
VA, USA

Am. Lab. (USA), vol.15, no.2 p.48, 50, 52, 54, 56, 0 Refs, Feb. 1983

The Sinclair ZX81, despite its deceptively simple appearance, offers attractive possibilities for use as an inexpensive instrument controller. The ZX81 contains a powerful Z80 8-bit microprocessor and has a sophisticated built-in BASIC. The Z80 bus is also conveniently located at the rear of the computer. Practical experiences gained with the ZX81 in automating the Fisher Scientific Titrimeter are described

TI: Micrograsp. I

GT: Micrograsp I (Roboter)

AB: Micrograsp low price robot. Driven by a simple computer, the ZX81 being eminently suitable. Micrograsp has an article arm jointed at shoulder, elbow and wrist positions. The entire arm rotates about the base and there is a motordriven gripper. Each of the arm movements is servo controlled, i.e. there are position sensors feeding back information to the interface board, where it is compared with the programmed-in intended position, and automatically taking corrective action. This servo action is independent of the computer, greatly simplifying the software to drive the robot and all programming is carried out with a small number of basic commands. (SPRACHE: ENGLISH)

AU: Becker, R.

SO: Pract. Electron., 18 (1982) 12, S.30-35, 6S

RS232 interface for the ZX81

Barker, J.C.

Radio Electron. World (GB), vol.2, no.5 p.74-8, 0 Refs, Feb. 1983

Describes a single board design which allows the ZX81 to transmit and receive ASCII coded RS232 data

TI: Joystick control

GT: Hebelsteuerung

AB: Describes a simple joystick control designed to provide a digital output for a computer from a potentiometer-type joystick. Four outputs are provided for connection to a parallel input port. Nine combinations of output are possible giving eight compass points and the central zero position. The voltage on the potentiometer wipers are compared to the levels set by the potential dividers. The comparator outputs are high when the wipers are at the top or bottom quarters of the tracks, giving a 50 per cent deadband in the centre. This circuit is used with an 8255 PPI chip interfaced with a Sinclair ZX-81, but should be suitable for other computers and parallel ports. (SPRACHE: ENGLISH)

AU: Flores, J.H.

SO: Pract. Electron., 19 (1983) 11, S.55, 1S

ZX disco controller. I

Stuart, M.

Electron. Comput. Mon. (GB), vol.3, no.11 p.44-7, 0 Refs, Nov. 1993

The project described, in addition to providing on/off control of the lamps, provides a feedback pulse which can be read by the ZX81 or ZX Spectrum computer each time the AC mains voltage passes through zero. Straightforward programs written in BASIC can be used for independent on-off control of the lamps. This gives a wide range of very effective strobe, chase and similar effects while more complicated programs, which use machine code to read the mains 'zero cross' feedback pulse, can be used to vary the brightness of each lamp from zero to full power. By using appropriate colour combinations and imaginative arrangements of the 8 banks of mains lamps controlled it is possible to produce an enormous variety of light show effects. This first part of the article explains the construction of the necessary circuitry

ZX disco controller

Stewart, M.

Electron. Comput. Mon. (GB), vol.3, no.12 p.59, 0 Refs, Dec. 1993

In its basic form the unit can be treated like a simple 8 bit output port. Setting a bit to 1 switches on the lamps. Setting a bit to 0 switches off the lamps in the associated bank. The testing routine described previously demonstrates a simple on/off procedure. Note that once set the state of the lamps remains unchanged until the computer issues another instruction. The short programs described are for the ZX81. For the Spectrum the POKE instructions will need to be replaced by OUT instructions. Also the timing loops will need to be adjusted because the Spectrum and ZX81 run at different speeds

Computer remote control

Plant, M.

Electron. Comput. Syst. (GB), vol.3, no.3 p.49-53, 50, 0 Refs, March 1983

The remote control of microcomputers using infrared beams is discussed. The author explains how to build the circuitry necessary to cause a computer to start a calculation, draw graphics, open windows, switch on a TV, or whatever. The article also includes the design of a relay box for low-voltage switching applications and a program listing for the ZX81 which makes it possible to draw pictures on the TV screen using the PUT and DRAW functions.

Infrared remote control with ZX81

Thoma, M.

Elektronische Industrie, vol.51, no.1 p.31, 0 Refs, Jan. 1984

. In German

The circuit can be used for remote control using a ZX81 microprocessor. The waveforms are illustrated and machine program is given.

Towards an optimisation of your ZX81

Drevfus, M.

Micro Syst. (France), no.28 p.123-31, 0 Refs, Feb. 1983.

. In French

The ZX81 is limited both by its small memory (1K) and by its programming language, BASIC, which makes it quite a slow machine. The author explains a simple change of memory components which will double the size of RAM. The speed of the machine can be increased by programming in machine code; for this purpose a monitor program is needed to examine the contents of memory, modify them, place stop points or execute programs step-by-step. The author describes how to add the RAM and ROM necessary for this, then discusses the operation of the monitor, which is available in an EPROM from a firm whose address is given; alternatively it can be entered into a RAM, and to this end the program is listed in machine code and assembly language, together with an eight-line BASIC program to load it into RAM.

Expand your Timex/Sinclair operating system

Butler, P. J. J.

Radio-Electron. (USA), vol.51, no.7 p.47-50, 0 Refs, July 1983.

Outlines an upgrade for a Timex/Sinclair 1000 which allows one to store system-software modifications in 8K of nonvolatile RAM. Instructions are given for the construction of an 8K CMOS RAM board.

Break the 1K barrier .ZX-81 RAM.

Mears, T.

Microcomputing (USA), vol.7, no.3 p.82-3, 0 Refs, March 1983

Describes how to double the program memory in a Sinclair ZX-81 for less than \$10. This is possible because the ZX-81 designers have designed the printed circuit board to accommodate JEDEC-compatible RAMs such as the Hitachi 8M6116. This article explains what must be done to replace the ZX-81 RAM with larger RAMs

Memory expansion for the ZX-80

Chalmers, R.

Electron. Aust. (Australia), vol.45, no.5 p.88-9, 0 Refs, May 1983

Describes an easy method of expanding the memory of ZX80 and ZX81 computers. Using a printed circuit board designed for the EA 2650 computer the project adds 7K of memory to a 1K ZX80 and is simple to build and install. Very few modifications are required and the fully populated board has only three interface chips, for page select and address buffering and a total of fourteen 2114 memory chips, arranged in pairs to provide 7K of memory in seven 'pages'

TI: ZX-81-Speichererweiterung: Huckepack-RAM. 2 x 16 KByte =
(vielleicht) 32 KByte

ET: ZX-81 storage extension: pick-a-back-RAM. 2 x 16 KByte = (possibly)
32 KByte

AB: Der Anschluss zweier 16-KByte-Memopaks an einen ZX-81-Heimrechner und Realisierung eines Speicherplatzes von 32 KBytes durch entsprechende Einstellung der vierfach DTL-Schalter an der Rueckseite der Memopak-RAMs wird beschrieben. Die 16 moeglichen Schalterstellungen eines Memopak-RAMs und die Schalterkombinationen fuer zwei Memopaks werden angegeben und ihre Wirkungen werden erlaeutert. (SPRACHE: GERMAN)

AU: Gramatke, H.-D.

SO: Funkschau, 55 (1983) 14, S.63-64, 2S,3B,2T

ZX 81 hardware presentation: not really an all-embracing RAM
Gramatke, H.-P.

Funkschau (Germany), no.18 p.90, 0 Refs, 2 Sept. 1983

. In German

A critical assessment of the 64 kbyte RAM for Sinclair owners. Its claims are shown to be exaggerated and users' manual found to be scanty, yet it is thought to be good value for money. It provides 32 kbyte for programs in Basic, 2*16 kbyte for machine programs, an output for 8-bit interfaces and a remote control socket for a cassette recorder motor. More detailed instructions for use are supplied

TI: 64-K-RAM-Package fuer ZX-81

AB: Der Artikel beschreibt Belegung und Aufbau eines Zusatz-RAM's fuer den Sinclair-Personalcomputer ZX-81, das eine Speicherkapazitaet von 64 KByte ausweist. Die Verbindung erfolgt ueber einen werkseitig vorhandenen Interfacestecker fuer Peripherieeinheiten.
(SPRACHE: GERMAN)

AU: Pokorny, L.

SO: Elektron.-Schau, (1982) 6, S.52, 1S

TI: ZX80/81 expansion board

GT: Erweiterungsboard fuer Z80/81

AB: Describes an expansion system that offers more than just additional memory. The features include: indicators on the status port; up to 14K memory expansion; directly addressable D/A converter; three 8-bit directly addressable ports; and the possibility of constructing an A/D converter. (SPRACHE: ENGLISH)

AU: Roberts, H.

SO: Radio a. Electron. World, 1 (1982) 11, S.67-70, 4S

TI: Innenleben eines Memo-Pacs

ET: Inside of the Memo-Pac RAMs

AB: Memopac von Memotech soll Marktrenner unter den RAM-Erweiterungen fuer z.B. den ZX80 und ZX81 sein. Memopac ist mit 16, 32 oder 64 KByte erhaeltlich. Der Schaltplan ist abgebildet, die Funktionsweise wird auf Bit-Ebene mit Anwendungshinweisen behandelt.
(SPRACHE: GERMAN)

AU: Deckers, A.

SO: Comput. Persoenlich, (1984) 2, S.102-104,106-108, 6S,1B,9Q

ZX Spectrum memory upgrade to 48K

Palmer, S.J.

Electron. Comput. Mon. (38), vol.3, no.2 p.17-18, 0 Refs, Feb. 1983

Describes how to upgrade the ZX Spectrum 16K version to a 48K version. Step by step instructions are given

TI: ZX 81 a la carte (1): Messer und Gabel. Teil 1:
6-KByte-RAM-Erweiterung

ET: ZX 81 a la carte (1): knife and fork. Part 1: extension of the
7-KByte-RAM

AB: Die Schnittstelle und die RAM-Erweiterung des Heimrechners ZX 82 werden beschrieben. Die an der Kontaktleiste an der Rueckseite des ZX 81 herausgefuehrten fuer Hardware-Erweiterungen wichtigen Signale werden erlaeutert. Die Speicherorganisation des ZX 81 fuer eine 6-KByte-RAM-Erweiterung, das Anschlussschema und die Funktionstabelle eines Speicherbausteins HM 6116 und die Funktionsweise des Adressdecoders werden erlaeutert. Die Ausfuehrung und die Arbeitsweise der 6-KByte-Speichererweiterungsschaltung des Heimrechners werden beschrieben. (SPRACHE: GERMAN)

AU: Merker, O.

SO: Funkschau, 55 (1983) 12, S.71-74, 4S,5B

A piggyback for the memory: address decoding and memory extension for the ZX81

Blatzheim, U.

Chip (Germany), no.4 p.244-5, 0 Refs, April 1983

. In German

A knowledge of the address decoding of the Sinclair ZX81 can be used to extend the memory capacity: this technique is explained

Increase the power of your ZX81

Urrich, U.

Micro Syst. (France), no.24 p.83-92, 0 Refs, July-Aug. 1982

. In French

A user EPROM and input/output lines are added. The limitation in the ZX81 overcome by this addition is the partial decoding of the memory addresses: why this is so is explained. The necessary reorganisation of the machine memory to allow the introduction of the extra facilities is considered in some detail. The operation of the proposed extension is analysed, the choice of the EPROM memory locations discussed and the operation of the programmable interface adapter is examined. The printed circuit board to be used is shown and the component layout and a connection diagram are given. Important practical points to be observed in the building of the board are given some space. The use of machine code and of the input/output lines is discussed and two simple user programs are listed as examples of applications

Spectrum EPROM programmer

Williams, J.

Electron. Comput. Mon. (GB), vol.3, no.2 p.46-9, 0 Refs, Feb. 1983

An EPROM programmer is a useful tool to microprocessor engineer and hobbyist alike as it allows frequently used programmes and lookup tables to be stored for instant use. This design is for a Sinclair Spectrum and accepts Intel 2716 or 2732 EPROMs or equivalent. It can be easily adapted for 2764 or 27128 types

Micro-bus

Pract. Electron. (GB), vol.19, no.9 p.70-1, 0 Refs, Sept. 1983

Describes an EPROM extension board for the ZX81 or ZX80, a BASIC program to solve simultaneous equations

Make an EPROM programmer: an original application of your ZX81
Gueulle, R.

Micro Syst. (France), no.35 p.131-2, 3 refs, Oct. 1983

. In French

A method of reprogramming the Sinclair ZX81 by 2716 EPROMs, using the processing power of the ZX81 to simplify as far as possible the necessary circuits is described. The ZX81 can, by this technique, be used to program the EPROMs for an application in another microelectronic system. Alternatively, the EPROMs can subsequently be used in the ZX81, converting the computer into a quite different machine. The necessary program listings are given, including decimal and assembly-code versions of an EPROM programmer for traffic light control

Store your BASIC programs on cartridges for instant access to your software on the ZX81. Micro cartridge loading.

Gueulle, R.

Micro Syst. (France), no.37 p.166-7, 2 refs, Dec. 1983

. In French

A way of using a single instruction (LDJN), replacing an entire routine in Z80 machine language, for loading BASIC programs instantaneously into EPROM cartridges of type 2716, is explained. The necessary machine code, assembly language and BASIC programs are listed. An inset details the connection of the EPROM to the ZX81 with a simple adaptor

TI: ZX81 EPROM programmer

GT: EPROM - Programmiergeraet Z81

AB: Presents an elegant circuit that allows the programming of 2716 EPROMs. Sinclair have provided a 46 way bus exposing control, data and address signals to the outside world. The EPROM programmer plugs into this bus and together with a short machine code program (given) allows single rail 2716 EPROMs to be programmed from any part of the ZX81's memory - taking about 100 seconds for the full 2K bytes. The circuit diagrams of the control and timing signal generator and also the EPROM programmer's interface to the ZX81. (SPRACHE: ENGLISH)

AU: Barker, J.C.

SO: Radio a. Electron. World, 1 (1982) 9, S.69-71, 3S

TI: Steuerungen mit ZX81

ET: Control logic with Sinclair ZX81

AB: Als Ergaenzung zu dem in Chip 12/82 beschriebenen Adressdecoder fuer Z80-Systeme werden in diesem Beitrag die eigentlichen Ein- und Ausgabeschaltungen vorgestellt, die durch den Adressdecoder gesteuert werden koennen. (SPRACHE: GERMAN)

AU: Koerber, N.

SO: Chip, Mikrocomput.-Fachmag., (1983) 3, S.180-182,184,185, 5S,11B

RTTY with the ZX81. I

Sanderton, D.

Pract. Wireless (GB), vol.59, no.6 p.51-5, 0 Refs, June 1983

With the minimum of additional components and a suitable machine code program the 16K ZX81, and the ZX Spectrum, can be used to receive and transmit RTTY signals. The main considerations taken into account when designing this project were that it should be easy to build and set-up with no difficulty in obtaining components and that the cost should be kept to a minimum. The project is split into two parts-the first dealing with the construction of a simple yet effective terminal unit with the second part covering the construction of the necessary interface board, the software and some hints on reducing the interference created by the computer itself

RTTY with the ZX81. II

Sanderton, D.

Pract. Wireless (GB), vol.59, no.7 p.56-9, 0 Refs, July 1983

For pt.I see *ibid.*, vol.59, no.6, p.51 (1983). Describes the construction of an interface unit using the programmable 8251A communications interface chip. The interface board used was designed by Scarab Systems

Morse decoding by microcomputer

Sargent, J.P.

H.R. Wills Phys. Lab., Univ. of Bristol, Bristol, England

Wireless World (GB), vol.88, no.1563 p.71-2, 2 Refs, Dec. 1982

Using a 557 tone decoder and a seven-bit clock to time incoming signals, Morse code is interfaced to a ZX81 via a Z80A PIO chip. Machine code routines use this data to provide up to nine lines of decoded text

Morse by micro

Barker, J.C.

Radio Electron. World (GB) p.53-5, 0 Refs, Nov. 1983

Describes a design whereby a Z81 can be used either as a Morse tutor or as an auto keyer. The design involves two parts: the hardware which plugs into the expansion port of the ZX81, and the software part of which is in BASIC and part in machine code

Fast CW with the Sinclair ZX81

Wallbank, F.; Morris, J.

Radio Commun. (GB), vol.58, no.9 p.765-7, 4 Refs, Sept. 1982

Various CW sending programs written in Basic have been described for the Sinclair microcomputers. A fundamental limitation of most such programs is that they cannot operate beyond about 50-60 w.p.m., making them unsuitable for meteor scatter (MS) use. This article describes a machine code routine capable of sending CW at speeds up to at least 180 w.p.m. together with an example Basic calling program designed to repeat any desired message many times. A circuit is given for connecting the ZX81 to a transmitter. Alternatively a commercially available output port can be used. The program fits easily into an unexpanded ZX81 with 1 kbyte of RAM, and allows messages up to 100 characters long to be sent.

TI: Control your own substation (ZX80, ZX81 interfacing)

GT: Steuern Sie Ihre eigene Unterstation (Z X 80, Z X 81 - Interface)

AB: This article describes the use of a two-way data port on the ZX80 and 81; and, while not allowing complete control over all power station functions, it does offer a wide range of applications from push button data input, proximity detectors and joysticks, to light sensors, seven-segment displays, relay operation and sound output.
(SPRACHE: ENGLISH)

AU: Graham, D.E.

SO: Personal Comput. World, 4 (1981) 10, S.74-5, 77-9

TI: Control your own substation| (interfacing ZX80/81)

GT: Steuern Sie Ihre eigene Unterstation | (ZX80/81-Interface)

AB: For previous pt. see vol.4, no.10, p.74-9, 1981. Describes methods to interface the ZX80/81 to control external processes. In particular the author considers techniques for producing sound output from the ZX80 and ZX81. (SPRACHE: ENGLISH)

AU: Graham, D.E.

SO: Personal Comput. World, 4 (1981) 11, S.81-91, 11S

ZX interface board

Lord, M.

Hobby Electron. (GB), vol.4, no.9 p.14-17, 0 Refs, Sept. 1982

A practical input/output interface band which can be built to work either with the ZX81 or the ZX Spectrum. The ZX81 version is constructed as a memory mapped interface and is designed to work with the basic 1K RAM, the ZX printer and the Sinclair 16K RAM park. It should also be compatible with most ZX81 add-ons. The Spectrum version is an I/O mapped interface and will also work with the ZX printer

Break out with this Sinclair interface

Ayer, S.E.

Microcomputing (USA), vol.6, no.12 p.108-17, 4 Refs, Dec. 1982

This simple parallel interface circuit lets you connect your ZX81 to a number of different outside devices. In this case the outside device is another computer, a Heath H8, but the techniques described are general enough to apply to most devices with a parallel interface port

Sinclair Spectrum analogue/digital interface

Robinson, L.

Pract. Comput. (GB), vol.6, no.1 p.120-8, 0 Refs, Jan. 1983

Describes a circuit for interfacing the Spectrum to the outside world, based on the Intel 8255 Programmable Peripheral Interface chip. It incorporates the following: a 100 kHz A-D converter; a D-A converter; a digital output interface for controlling LEDs, etc.; a digital output interface for switches, etc.; a temperature sensor; and a music synthesiser interface

Input/output for the ZX80/81. Data in-data out

Korber, N.

Chip (Germany), no.12 p.200-2, 0 Refs, Dec. 1982

. In German

Input and output of data to the Z80 microprocessor in the Sinclair ZX80/81 can be performed by a module which can be purchased, but the address decoder must be constructed. This note gives the necessary detailed instructions

The ZX81 in control

Button, M.

Nottingham Univ., Nottingham, England

Comput. Sch. (GB), vol.5, no.1 p.28-9, 0 Refs, Oct. 1982

This article shows how the ZX81 with 16K RAM can be used for control purposes with a silicon diode. The input-output device used is based on the Z80 PIO chip but with each port bit taken to a Darlington driver stage. Seven drivers are to be found in the Radio Spares 307-092 chip. However, with modifications mentioned, any Z80 PIO-based input-output port may be used

ZX 81 a la carte(2): 'knife and fork'. II. I/O port and software switch

Kerker, U.

Funkschau (Germany), no.13 p.69-73, 0 Refs, 24 June 1983

. In German

For pt.I see Ibid., no.12, p.71 (1983). Presents the DIY information: the I/O tabulation for the 4-to-16 decoder, block diagrams and pin and port addresses of the bus driver, 3-bit intermediate store and the I/O port and software switch to connect the 6 KByte extended RAM, three drawings of the double-sided printed board, the components list and also information and hints on assembly and putting into operation

Control systems with the ZX 81

Korber, N.

Chip (Germany), no.3 p.180-2, 184-5, 0 Refs, March 1983

. In German

Describes circuits for 8-bit input and output ports for the ZX 81 computer which are controlled via an address decoder described in a previously published article

ZX81 comprehensive 16 port and 4K EPROM interface

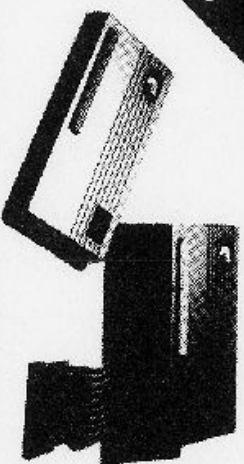
Thornton, P.

Electron. Comput. Mon. (GB), vol.3, no.3 p.53-4, 0 Refs, March 1983

This unit is designed to provide the ZX81 with a 4K area of EPROM memory and 16 parallel 8 bit data ports. Eight ports are output ports, and eight are input ports. The memory block chosen for this interface is 2000 H to 2FFF (8192 to 12287), as this area is completely unaffected by the BASIC programming area extending upwards from 4000 H

SOFTWARE

ZX SPECIAL PRODUCTS



Het BASICARE modulesysteem (Tower of Power) maakt het mogelijk Uw ZX81 of Spectrum uit te breiden met verschillende functiemodulen, die precies op elkaar zijn afgestemd, dus nooit aansluitproblemen. Het maximaal aan elkaar te koppelen geheugen bedraagt maar liefst 16 x 64KRam. Vraag onze uitgebreide info hierover.

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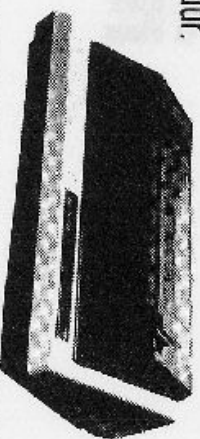


MICRO DRIVE f 298,—

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Wij leveren een uitgebreide serie printers voor directe aansluiting op ZX81 en SPECTRUM, software te kust en te keur en verdere randapparatuur.

PRINTERS



K214 AACKO — GROOTBOEK — KOMIN SOFTWARE — SPECTRUM 48K Ons paradepaardje op zakelijk gebied. Uw complete grootboekadministratie f 259,—



HET GROOTSTE SINCLAIR VERZENDHUIS

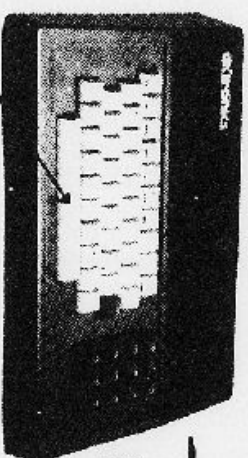
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SINCLAIR SPECTRUM 80K

80KRam geheugen, 8 kleuren en geluid. Compleet met aangepast keyboard als onderstaand plus monitoraansluiting. 80K = standaard 48K plus 32KRam extra geheugen. Geheel samen gebouwd, met engels handboek, instructies 80K en democass.

f 895,—



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Bezoek en ethalen van goederen uitsluitend na telefonische afspraak.

Pay slips: a complete payroll program on the ZX81
Chauvin, P.
Micro Syst. (France), no.28 p.107-10, 0 Refs, Feb. 1983

. In French

The BASIC program, designed for a small business having a salaried staff of fewer than 20, draws up the pay slips automatically, with allowance for multiple calculations and deductions, and maintains a total salary file. Options of introducing new employees' names and deleting names of ex-employees are provided. The listing is accompanied by a key to the variables and a synopsis of the program structure

Application of microcomputers in broadcasting
Lai Wing Hin
Tun Abdul Razak Inst. of Broadcasting, Radio Television Malaysia,
Malaysia
ABU Tech. Rev. (Japan), no.81 p.18-23, 0 Refs, July 1982

Surveys the possible applications of microcomputers in the various areas in broadcasting. These are: General Administration, Planning and Development, Engineering Research, Engineering Operations and Maintenance, Training of Staff and Miscellaneous Applications which include Programme Production Methods. Workable sample programmes written in BASIC language on the NEC PC-8000 Series Computer and the SINCLAIR ZX 81 Computer are presented for further illustrations

It's your company .business game.
Foreman, M.
Micro Decis. (GB), no.20 p.209-10, 0 Refs, June 1983

Corplan in a business game which sets out to teach trainee managers and accountants some of the ground-rules of business by making the players responsible for making the decisions necessary to run an imaginary manufacturing company. The simulation model is based on roughly 100 questions which reproduce the main economic laws affecting company activity so success depends on a thorough understanding of the model and good planning rather than luck. Success is measured by the profit (or loss) made by the company. Corplan is supplied by Understanding LTD for use on the Pandy TRS-80, Sinclair Spectrum and Dragon. It cost *39.95 (disk) or *15.95 (cassette)

TI: Spesen prueft der ZX81
ET: Charges computes a ZX81
AB: Vollstaendiges Listing (488 Befehle, 14 KByte) eines Basic-Programms zur Reisekostenabrechnung mit dem Mikrocomputer ZX81 und Funktionsbeschreibung, Variablenliste, Bedienug und Hinweise zum Anschluss eines Sinclair-Druckers. (SPRACHE: GERMAN)
AU: Kronawitter, A.
SO: Comput. Persoenlich, (1984) 5, S.22,28-30,32,34, 6S,4B

ZX energy management system

Chanier, A.D.

Holec Energy, Horsham, England

Electron. Comput. Mon. (GB), vol.3, no.4 p.37-40, 86-88, 0 Refs,

April 1983

Discusses the design of an energy management system for the home based on the ZX Spectrum personal computer. The necessary hardware is detailed, circuit diagrams given, and a listing of the BASIC program to run the system is included

Markov analysis of discrete-time systems .market-share simulation.

Shannagan, P.

Electron. Eng. (GB), vol.55, no.681 p.32-4, 1 Refs, Sept. 1983

The program listed is designed for a Sinclair ZX81 to study the market share by Markov process and can be used for Markov analysis of all discrete-time systems. The data required for this program are the number of companies and the number of present customers of each company followed by the current changes. The program lists the future customers of each company and plots the graphs of market shares with any chosen scales; also it can compute the equilibrium state by solving the required simultaneous equations by Gauss elimination with pivoting

Micro-computers and decision making

Holroyd, P.; Richer, M.; Woods, M.F.

Bradford Management Centre, Bradford, England

R D Manage. (GB), vol.13, no.1 p.23-37, 5 Refs, Jan. 1983

The authors have taken a number of decision-making and forecasting systems and 'translated' them to operate on a variety of microcomputers including the Texas TI 59, the Sinclair ZX 81, the Commodore PET and VIC and the Apple II. Experience in operating the 'translated' programs on the small machines has shown perhaps surprising advantages over the main-frame versions from which they were devised

TI: Rechnerprogramme fuer mathematische Probleme

ET: Computer programs for mathematical problems

AB: Es werden Rechnerprogramme zur Loesung verschiedener mathematischer Probleme vorgestellt. Es sind dies: Ein ZX-80-Programm zum Suchen von Nullstellen von Funktionen; eine harmonische Analyse mit dem Taschenrechner TI-59 (Fourier-Interpolation); ein Gleichungsanalysator zur Aufloesung einer Gleichung nach jeder Variablen, sofern nur eine Unbekannte vorhanden ist, und ein Dateiverwaltungsprogramm zum Drucken von Adressen. (SPRACHE: GERMAN)

AU: Spitschka, H.; Spitschka, C.; Zimmermann, S.

SO: Chip, Mikrocomput.-Fachmag., (1982) 2, S.69-75, 7S,10B

Financial analysis on the ZX81 microcomputer.

Chauvin, P.

Micro Syst. (France), no.31 p.145-8, 0 Refs, May 1983

. In French

A BASIC program is described and listed for determining the vitality of a business from its structural, financial and treasury ratios. A total of 13 ratios are covered in three stages. First the balance sheet of the business is introduced with the computer verifying errors or inconsistencies such as simultaneous profit and loss, or an inequality exceeding 5% between liabilities and assets. Next the program displays the balance sheet which can be edited with the printer. Finally the ratios are established in three screen pages

Chips with the bread and butter

Manchester, P.

Comput. Manage. (GB) p.37-42, 0 Refs, July-Aug. 1983

Accounting systems are among the most primitive of computer applications. However, with the growth of the microcomputer market, more and more of the accounting would be taken over by micros. There are already many accounting packages available for the larger micros running operating systems like CP/M and MS/DOS. Even down at the bottom end of the market-the Sinclair Spectrum, for example-there are accounting packages becoming available for the small business. Hilderboy Software is already offering a set of packages for business use which includes payroll and stock control; no doubt ledgers will follow when the appropriate storage facilities become available.

A tip for making savings using BASIC

Reichahn, R.

Chip (Germany), no.11 p.252-4, 256-8, 0 Refs, Nov. 1983

. In German

Discusses the numerous parameters which affect the room temperature in relation to central heating controls and gives the criteria which led to the choice of the ZX81 BASIC computer as the basis for a computer-controlled central heating system. Considers the points to be observed in selecting the further hardware required for temperature measurement and relay controls and explains the use of a 16 kilobyte RAM with I/O decoding. For temperature measurement the system uses a comparator circuit which compares a voltage rise with a temperature dependent voltage, and produces a pulse whose width is a measure of the temperature. The temperature sensor is a type KTY 10. The software starts the pulse and measures its duration. The whole program is subdivided into several closed-circuit modules whose call-in sequence determines the master module. Full circuit diagrams are given, enabling the reader to assemble and install the equipment himself

Time series on Formcalc

Lau, B.

Pract. Comput. (GB), vol.6, no.8 p.112-14, 0 Refs, Aug. 1983

Shows how the author's spreadsheet program for the Sinclair ZX-81, can be used to predict sales trends using time series analysis

ZX81: the management of a portfolio of shares

Cuvellier, P.

Micro Syst. (France), no.29 p.139-43, 0 Refs, March 1983

. In French

A BASIC program for updating a portfolio is presented and listed. With a 16K memory extension of the ZX81 microcomputer it can review the state of the portfolio, the gains or losses already made, the value of current holdings and the choice of sales or purchases of shares. The various purchase prices of a single share are recorded by a method of 'weighted average unit cost'; the number of shares bought is multiplied by their cost of purchase, the product of the number of former shares and their initial value is added, and the sum is divided by the total holding. The name of each share is restricted to 10 letters and its value or the number held to four figures

The 'expenses' program for ZX-81 (16K)

Cano Font, A.

Rev. Esp. Electron. (Spain), vol.29, no.337 p.78, 0 Refs, Dec. 1982

. In Spanish

The author mentions that most of the users of the ZX-81 computer are young people and that this program may help them to prove to their elders that their ZX-81 computer can be used for other things than for playing 'space men' games. This convenient and simply designed program can be used to draw up the domestic accounts for a year and display on the screen the amounts spent on each item per month with an indication of the annual totals. The method of entering the necessary data into the program and of shifting from month to month is briefly described

Paycheck analysis

Bihlmeyer, L.

Compute. J. Prog. Comput. (USA), vol.5, no.12 p.66-70, 0 Refs, Dec. 1983

The program presented analyzes paychecks for accuracy and projects future take home pay. Also included is a variable table for easy and personalized modification. The program runs on the Commodore VIC 20 and 64, PET, Atari, TI, Apple, Color Computer, and Timex Sinclair

A multiple file
Cano Font, A.
Rev. Esp. Electron. (Spain), vol.30, no.349 p.70-1, 0 Refs, Dec.
1983
.. In Spanish

The author explains how to program a processor ZX81, with a storage capacity of 16Kbits, when using the program 'multiple file' written in the language BASIC. The program described is listed and can make use of 13000 characters. The file search code uses letters, numbers and graphical symbols, but not the symbol '/' which is used to separate lines. The search through the file and the recording of the program are performed directly. The multiple file program indicates to the user the number of bytes still available after making each entry and inhibits any further entries when the storage available becomes zero. An example describes how the items are coded before filing, how to check the entries and explains how errors can be corrected

A small wonder .file manager program.
King, R.
Microcomputing (USA), vol.7, no.3 p.72-81, 0 Refs, March 1983

Presents a file manager program for the Sinclair ZX-81. This is a menu-driven program which allows you to add, change, delete, list, sort or search for records. You also may save the program and data records on tape, list the record fields that have been defined or define new record fields (this erases the records that are currently in memory). The program was defined using structured programming techniques to facilitate modification. The Basic program listing is given

Formcalc .spreadsheet program for ZX-81.
Law, R.
Pract. Comput. (GB), vol.6, no.7 p.126-9, 0 Refs, July 1983

Raw data is entered in columns, and formulae can be entered above each column for the results to be calculated below. Results of calculations can be sorted in ascending order and returned to the original input sequence. All data and results are automatically stored on tape under the Save command. The program is written in Basic and should be run in the Fast mode. A complete program listing is presented and the structure and running of the program is explained in detail. An example of the program in use is also described. In addition, a table of command inputs, functions and cursor functions, is given

TI: Network analysis with a ZX81

GT: Netzwerkanalyse mit einem ZX81

AB: Extensive insertion loss and group delay computations of ladder filters are faster with an inexpensive microcomputer than with a programmable calculator. The author outlines a program for this application. (SPRACHE: ENGLISH)

AU: Weaver, L.E.

SO: Wireless Wld., 88 (1982) 1559, S.72-74, 3S,2Q

TI: Network analysis with a ZX81

GT: Rechnerunterstuetzte Netzwerkanalyse

AB: For pt.I see ibid., vol.88, no.1559, p.72 (1982). Details the method used to compute insertion loss and group delay of a network. (SPRACHE: ENGLISH)

AU: Weaver, L.E.

SO: Wireless Wld., 88 (1982) 1560, S.71-2, 79, 5Q

ZXtra-wide text

Barnard, P.

Your Comput. (GB), vol.3, no.1 p.88-9, 0 Refs, Jan. 1983

Presents a series of programs which compile a character set and machine-code routine enabling a ZX-81 to lineprint on a ZX Printer at 42 characters per line in place of the normal 32 characters. Other features include the option to expand to a maximum of 128 different characters-with no inverse, control of character height and width, and a self-edit lineprint at 42 characters per line, all at normal LPrint speed

File management: a method of access on the ZX81

Biton, Y.

Micro Syst. (France), no.36 p.203-3, 0 Refs, Nov. 1983

. In French

A program in BASIC and Z80 machine language is described and listed. It is a utility program for sorting an address list and storing it on magnetic tape without loss

ZX-81/TS-1000 data management

Miller, G.W.

Compute. J. Prog. Comput. (USA), vol.5, no.3 p.228-30, 0 Refs, March 1983

Presents a BASIC program with which the user of the Timex-Sinclair computer can store and work with data files, even though some commands for handling data are missing. This program can be easily adapted for other kinds of data management too

Measuring bridge calculations by means of a micro-computer. I
Dominguez Dura, G.
Rev. Esp. Electron. (Spain), vol.29, no.335 p.66-7, 0 Refs, Oct.
1982
. In Spanish

Discusses bridge circuits which are most frequently used in
instruments designed for the measurement of components. The program
described has been written in level II BASIC for a Tandy TRS80 or a
'Videogenie'. It only occupies 8 bytes and as it is very simple it
could be used in other personal computers like the ZX81

Metering bridge calculations made with a microprocessor
Dominguez Dura, G.
Rev. Esp. Electron. (Spain), vol.29, no.336 p.61-5, 0 Refs, Nov.
1982
. In Spanish

This program in Basic Level II has been written for a Tandy TR 880
or a Videogenie and can also be used in a ZX81. The article explains
what is shown on the screen once the program has been supplied. The
user has the choice of using or not using the printer. Having made the
decision, a series of questions appear on the screen which must be
answered. With the entry of the last variable, the monitor will
display the result beside the questions. If a value should appear
inadequate there are means of erasing the unsatisfactory values
without repeating the program. By choosing various values and using
the printer the most convenient value can be found. Although all the
programs used are supplied as printed on the screen it is probable
that errors may occur when copying them down

Attenuator design with home computers
Fritsch, D.
Radio Commun. (GB), vol.58, no.12 p.1046-9, 0 Refs, Dec. 1982

A program which helped in an RF attenuator application for different
input and output impedances at high power levels and predictable
accuracy was written by the author for a Sinclair ZX81 with 16k of
RAM, but in this article a more generalized form has been adopted to
cover most attenuator pads and to print the results in tables

Adapting interactive programs for the Spectrum
Oldknow, A.
Comput. Sch. (GB), vol.6, no.1 p.19-21, 0 Refs, Sept. 1983

The article describes some simple techniques that the author has
found useful in converting interactive graphics programs to run on the
ZX Spectrum

The Power Intensifies (UCSD p-System)

Buczek, R. John

InCider, Jul 1983, v1 n7 p84-89, 6 pages

Languages: English

Document Type: Article

Program Listing in Pascal

Geographic Location: United States

Presents answers to four questions: 1) How to join a UCSD p-System users group, 2) Will the p-System allow one to run a 317 user network on a Sinclair 1000? 3) Why the difference of speed in this version of Pascal? 4) What is a 'frames' structure?

Understanding floating-point arithmetic, part 1

Logan, Ian

Sync , Jan/Feb 1982 , v2 n1 p30-32 , 3 pages ISSN:
0279-5701

Languages: English

Document Type: Article

Geographic Location: United States

Part one of this series gives the reader some insight into the complex world of floating-point arithmetic. Covers: decimal format, binary format, Sinclair floating-point conventions and a bibliography.

Understanding floating-point arithmetic, part 2

Logan, Ian

Sync , Mar/Apr 1982 , v2 n2 p18-22 , 5 pages ISSN:
0279-5701

Languages: English

Document Type: Article

Program Listing in BASIC

Geographic Location: United States

Part two of this series describes the workings of the third language of the Sinclair ZX81 8K ROM, the CALCULATOR LANGUAGE, that is used to add, subtract, multiply, divide and generally used to manipulate floating-point numbers.

How to invent a game, part 2

Bobst, Jonathan

Sync , Mar/Apr 1982 , v2 n2 p35-36 , 2 pages ISSN:
0279-5701

Languages: English

Document Type: Article

Program Listing in BASIC

Geographic Location: United States

Part 2 of this series describes how to put the carrier characters into a storage line and add a random statement to make the game more challenging.

Editor .Sinclair Spectrum program.
Hill, T.

Your Comput. (GB), vol.3, no.6 p.95-8, 0 Refs, June 1983

Presents a program which stops you making wrong inputs to your spectrum. The program is in machine code, with a BASIC loader. It is user-friendly

Computer modelling .Wankel rotary combustion engine.
Horsfield, B.

Electron. Comput. Mon. (GB), vol.3, no.6 p.56-7, 0 Refs, June 1983

The operation of the Wankel rotary combustion engine is explained. A ZX81 program which models its action is described. This program is available from the author

Eye-writer: an eye-movement monitor control system
Blandford, B.

Dellmeyer Optics, Willesden, London, England
Proc. SPIE Int. Soc. Opt. Eng. (USA) SPIE Proceedings of the Max Born Centenary Conference OPTICS 82, ECOSA 82 . Edinburgh, Scotland
7-10 Sept. 1982, vol.369 p.146-7, 2 Refs, 1983

A simple eye-position monitor is described, which has an application as an aid to communication by those without the muscular control necessary to operate a keyboard or microswitch. The output from this device is insensitive to head movements, and it controls the operation of a Sinclair ZX81 microcomputer with a speech synthesizer. Alternatively, if the output is directed to a modified voltmeter, it provides a low-cost portable unit for simple communication tasks

Microcomputer analysis of a ladder network
Weaver, L.E.

Wireless World (GB), vol.89, no.1573 p.45-8, 0 Refs, Oct. 1983

Flow diagrams enable a program for ladder network insertion loss and its delay equalization written for a ZX81 to be modified for other computers

TI: Computerized learning: the Sinclair ZX80 microcomputer as a Morse tutor

GT: Computerunterstuetztes Lernen: der Sinclair ZX80 als Morsehilfe

AB: Explains a program in Basic for generating random morse characteristics on a ZX80 with 4K ROM. (SPRACHE: ENGLISH)

AU: Newman, P.L.

SO: Radio Commun., 58 (1982) 1, S.36-37, 2S

Mind your language .CAI programs.

Brain, K.; Brain, S.

Your Comput. (GB), vol.3, no.3 p.100-3, 0 Refs, March 1983

Presents two BASIC programs, which test the user's vocabulary in foreign languages. The first is for the Sinclair ZX-81 and the second for the Dragon 32. The latter uses the high-resolution graphics capability to deal with languages that use accents

Computer literacy and the three Rs on the Sinclair/Timex
Stubbs, D.

Compute. J. Prog. Comput. (USA), vol.5, no.4 p.165-6, 0 Refs, April 1983

Five programs are presented which are designed to introduce young children to computers in a friendly and enjoyable way. The programs should also help to develop the basic mathematics and spelling skills of the children

Multiplication drills .computer program.

Berenboon, H.

Pop. Comput. (USA), vol.2, no.5 p.203-6, 0 Refs, March 1983

With the introduction of the \$99 Timex 1000 computer (also sold as the Sinclair ZX81), almost anyone can afford the benefits of CAI at home. The author describes a program that tests and sharpens your multiplication skills. Both children and adults can use the program because the range of numbers varies according to age as well as performance on the questions. Although the program is written for the Timex 1000, with a few simple modifications discussed in this article it will run on just about any computer equipped with BASIC

Help yourself, computer

Innig, R.W.

Chip (Germany), no.2 p.112-14, 0 Refs, Feb. 1983

. In German

The question of whether a computer can display 'intelligence' is discussed in the context of a definition of what intelligence really is. In this connection, experiments with the Sinclair ZX81 are described in which, using an experimental programme (the P1 programme) which permits four different 'environmental conditions', reprogramming on a trial and error basis was accomplished. Programme extensions and changes can also be attempted by those familiar with the POKE-instruction and details of this procedure are given; a short BASIC listing is included

Player ZX81 a tune-playing program for the Sinclair/Timex
Hunkins, A.B.
School of Music, Univ. of North Carolina, Greensboro, NC, USA
Compute. J. Prog. Comput. (USA), vol.5, no.1 p.142-3, 0 Refs, Jan.
1983

Player ZX81 is a 1K tune-playing program available in versions for
all Sinclair/Timexes (including 4K ROM). Although each cassette is
specific to a single version, the six pages of instructions cover them
all. For anyone interested in coding tunes into the Sinclair and
playing them back-over and over again if you wish-the \$6.95 spent on
this program is a bargain

Graphics and programming utilities for Sinclair/Timex
Hunkins, A.B.
Compute. J. Prog. Comput. (USA), vol.6, no.3 p.113-4, 0 Refs, March
1983

Softsync, publishers of high-quality software for Sinclair/Timex,
has recently released two useful utility packs for the 16K Sinclair
line-Programmers Toolkit and Graphics Kit. The two 'kits' are
compatible; i.e., they are designed to be used together. Both are in
machine language protected in high memory. These programs are
evaluated

Graphics on the Sinclair/Timex
Stubbs, D.
Compute. J. Prog. Comput. (USA), vol.5, no.5 p.154-5, 0 Refs, May
1983

Presents a short guide to the graphics capabilities of
Sinclair/Timex computers which demonstrates pattern creation, circles,
conic sections, and bar graphs. To show how graphics can be used in
games, there is 'Asterbelt', which tests one's abilities as a
spaceship pilot

Micros made easy. VII. A status report from the far west
Seth, J.
Spithians County Primary School, Redruth, England
Educ. Comput. (GB), vol.3, no.7 p.14, 0 Refs, Sept. 1982

For pt.VI see *ibid.*, vol.3, no.6, p.17. A teacher from a primary
school near Lands End, Cornwall describes his own experiences with the
classroom computer-a ZX-81. He explains the uses the children have had
for the computer, mainly mathematical, and gives examples of some
programs

Tortoise II

Davison, C.

Your Comput. (GB), vol.3, no.2 p.120-1, 0 Refs, Aug. 1983

One of the most outstanding features of the ZX spectrum is its graphics capability. Unfortunately Basic was never designed to handle graphics and, as a result of this, it is not easy to produce complex graphic displays. Logo, on the other hand, was designed to handle graphics, and does so very well, but it is little more than a graphics language. So imagine the graphics capability of Logo combined with the mathematical and control capabilities of Basic, combine them into one language and you have Tortoise

Graphics and the ZX Spectrum

Sparkes, J.

St. Andrew's Coll., Glasgow, Scotland

Comput. Sch. (GB), vol.5, no.1 p.13-19, 0 Refs, Oct. 1982

The graphics facility of the microcomputer makes it the most powerful resource in education since books were invented. In this respect the ZX Spectrum is exceptional and will allow you to do just about everything you want. By the term 'graphics' is meant not only pictures but also drawings, enlarged figures and letters, graphs, bar charts, histograms, and animations. Their use makes computer-assisted learning more interesting, increases motivation, and enhances retention. This article gives an overview of the writing of BASIC programs with Spectrum Graphics

Words on the Spectrum

Nicholls, S.

Your Comput. (GB), vol.3, no.3 p.84-5, 38-9, 0 Refs, March 1983

Presents a machine-code word processing program for the Sinclair Spectrum. The program features a BASIC loader, and carries out the following functions: START, NEWLINE, EDIT, INSERT, DELETE, ERASE, JUSTIFY and STOP

Word Processor for ZX81 16K

Kent, A.D.

Electron. Comput. Mon. (GB), vol.3, no.1 p.53-5, 0 Refs, Jan. 1983

Presents a BASIC program which allows the user to enter a text of up to 5120 characters, and edit it. The text can then either be printed on paper or scrolled up the screen. The text can also be saved on tape for later use.

Text-editing for the Sinclair ZX-81

Redonnet, A.

Micro Syst. (France), no.27 5.99-101, 0 Refs, Jan. 1983

. In French

Some new functions to edit texts are available in BASIC. An upward arrow passes to the line above, a downward arrow to the line below, an arrow to the right space (right) an arrow to the left space (left). In addition there are the following instructions: RUBOUT+N, NEWLINE, STEP, EDIT, STOP and TO. After the normal RUN instruction, you type in 3 to store and save the program; then the listing reappears and you can enter 1 to register the text. The current page can be filed by the instruction EDIT; if you decide to re-register a new page, the old one will be lost and if inversely you ask to edit another page by using STEP, the text being registered will be lost. To rerun the program you must use GO TO 2 and start it by GO TO 1

An application of microcomputers in the instruction of engineering drawing

Waring, P.R.

HMS Caledonia, Royal Navy, Rosyth, Fife, Scotland

Program. Learn. Educ. Technol. (GB), vol.19, no.4 p.308-10, 0 Refs
Nov. 1982

The basic training for apprentices in the Royal Navy requires that they do a IEC level I course in engineering drawing. Mixed ability instruction is used, but it has been found that those with no previous experience of the subject take up a disproportionately large amount of the instructor's time. A system to drill these students with simple examples has been developed for a simple microcomputer (a 16K Sinclair ZX81) to investigate how effectively this load could be reduced for a small capital outlay. It was found that such a system, although limited in scope, could be of use in the classroom

Two QRA programs on cassette for the ZX81

Short Wave Mag. (GB), vol.41, no.7 p.357-8, 0 Refs, Sept. 1983

The cassette contains two programs for the ZX81 with 16K memory expansion module. Program 'A', entitled 'FINDQRA', accepts an input of latitude and longitude and converts to QRA locator. The output is presented in mixed graphic and alphanumeric form. Program 'B', entitled 'QRA', converts in the opposite direction and also performs a contest scoring function; it does not perform as a check-log. The version of the cassette supplied for this review contained a revision to allow the choice of either 'Fast' or 'Slow' mode when running the 'QRA' program

Spectrum games

Schoffield, J.

Pract. Comput. (GB), vol.6, no.3 p.130-1, 0 Refs, March 1983

Six game programs available on cassette for the ZX Spectrum are tested. They are Space Raiders (from Psion) and Spectral Invaders (from Bug-Byte) both of which are versions of Space Invaders; Chess (Psion) and The Chess Player (Quicksilver); Hungry Horace (Psion/Melbourne House), which is somewhat similar to Pacman; and Penetrator (Melbourne House), which involves piloting a fighter aircraft and is a Scramble-type game

Word processing on a Spectrum

Bennett, B.

Pract. Comput. (GB), vol.6, no.6 p.99-100, 0 Refs, June 1983

The ability of the Sinclair ZX Spectrum to perform successfully as a word processor is examined. This is done by reviewing two word processing packages which have been specifically written for the Spectrum. These packages are Tasword from Tasman Software and the Quicksilver package

Tasword Two

See, S.M.

Electron. Comput. Mon. (GB), vol.3, no.11 p.37-9, 0 Refs, Nov. 1983

The Tasword Two word processing package is described. It runs on the ZX Spectrum microcomputer. It is stated that entering text is simple and that an impressive range of control features is available; a tutor program demonstrates these. The print option makes it possible to send text to any make of printer via a number of possible makes of interface

Word processing survey

Bennett, B.

Your Comput. (GB), vol.3, no.7 p.70-4, 0 Refs, July 1983

Serious word processing is now a practical possibility for the home computer. But a number of points need to be borne in mind when looking for suitable software. For example, connecting the micro to a suitable printer isn't always easy. The user should see a full demonstration of a package, and make sure it really is easy to use. Not all machines are suitable for word processing, so if you haven't bought the hardware already, look for a real keyboard, wide display and 'Centronics-type' printer connection. Comparison of packages for the ZX Spectrum, Dragon 32, VIC-20 and BBC microcomputers illustrates some of these points

Window (ZX81 monitor)

Ornstein, David

Sync , Jan/Feb 1982 , v2 n1 p42-43 , 2 pages ISSN:
0279-5701

Languages: English

Document Type: Article

Program Listing in BASIC

Geographic Location: United States

Presents a ZX81 monitor written in BASIC for 8K ROM with 16K RAM computers. Includes a list of the commands that are available with the monitor.

Plotting with 4K BASIC

Brendel, Karl

Sync , Mar/Apr 1982 , v2 n2 p26-30 , 5 pages ISSN:
0279-5701

Languages: English

Document Type: Article

Program Listing in BASIC

Geographic Location: United States

Presents a program for ZX80 computers with 1K of RAM that allows the user to generate a plot with 10 lines by 7 columns. Includes a machine language version of the program that conserves memory and improves execution time of the program.

LSCROLL - for spectacular screen displays (ZX81)

Sharp, Douglass

Sync , Mar/Apr 1982 , v2 n2 p31-34 , 4 pages ISSN:
0279-5701

Languages: English

Document Type: Article

Program Listing in Assembly Language

Geographic Location: United States

Presents a ZX81 assembly language program that can be used to create a "Times Square" display which moves from right to left without upsetting other items on the screen. Includes some demonstration programs using this utility program.

Using fun features to make a great toy (SLOW, PLOT and INKEY\$)

Groupe, Alan; Tardiff, Michael; Zatkovich, Ivan

Sync , Mar/Apr 1982 , v2 n2 p14-15 , 2 pages ISSN:
0279-5701

Languages: English

Document Type: Column

Program Listing in BASIC

Geographic Location: United States

KITCHEN SYNC column describes how to use the following three features found in Sinclair ZX81 BASIC: SLOW, PLOT and INKEY\$. Includes a program that uses these commands to allow the user to draw pictures on the ZX81 video display.

A Sinclair quick fix

Senger, A.

Microcomputing (USA), vol.7, no.5 p.56-8, 0 Refs, May 1983

Presents machine-language programs which give a ZX081 (Timex-Sinclair 1000) the ability to write and read data tapes

Quick Load utility program.

Taylor, R.

Your Comput. (GB), vol.3, no.6 p.75-7, 0 Refs, June 1983

Presents a machine code utility that speeds up the Save, Verify and Load routines on the Sinclair ZX-81 (16 K version)

Pinex/Sinclair screenscrolls

Martin, G.

Compute. J. Prog. Comput. (USA), vol.5, no.7 p.215-17, 0 Refs, July 1983

Presents four machine language routines to provide screen scrolling left, right, up and down on the Sinclair ZX81. A BASIC loader and demonstration program are included

Software update

Educ. Comput. (GB), vol.4, no.9 p.20-5, 0 Refs, Nov. 1983

An extensive guide to educational programs, available for the Sinclair Spectrum, for use by primary, middle and secondary years. It includes names and addresses of suppliers and points out, for each program, whether there is documentation, sound or good use of graphics and whether a printer or extra memory is required

Work or play?

Boyce, L.

Pract. Comput. (GB), vol.6, no.12 p.116-19, 0 Refs, Dec. 1983

Children really do enjoy messing about with computers. The author explains how they could be learning at the same time. A list of educational software for Atari, Commodore PET, Commodore 64, BBC VIC-20, DRAGON 32 and Sinclair Spectrum microcomputers is given

Speed and screen .microcomputer utility.

Taylor, R.

Your Comput. (GB), vol.3, no.7 p.139-40, 0 Refs, July 1983

Presents a machine-code program for any memory size ZX-81 which enables one to run BASIC programs in Slow mode at twice the normal speed. It does this by creating an intermediary between Fast and Slow mode. The operating characteristics are similar to those of Slow mode except that there is a slight lack of contrast and some screen flicker is introduced

Simulating DATA lines on ZX 81

Bielawski, E.

Chip (Germany), no.9 p.145-6, 0 Refs, Sept. 1983

. In German

Describes a BASIC routine for storing data in genuine program lines. During execution of the program, data is sequentially read and assigned to variables. Two alternative programs are given for smaller and larger amounts of data

3D graphics .home computing.

Jones, M.

Your Comput. (GB), vol.3, no.7 p.80-2, 0 Refs, July 1983

Presents a machine-code utility and its BASIC loader, for drawing three-dimensional figures on the screen of a Sinclair ZX Spectrum. Each figure can be rotated about any axis, moved towards or away with full perspective and can be moved up, down or sideways. The routine can be called from BASIC with a single USR instruction

Hexing your Timex-Sinclair

Stephens, J.

Microcomputing (USA), vol.7, no.10 p.33-9, 0 Refs, Oct. 1983

If you want to program animated graphics on your TS-1000 or ZX-81, machine code is the only way to go. But using that tiny keyboard for decimal entry can be a disaster. In this article, the author describes how to program in hexadecimal

ZX81: REM decoding

Robert, J.-C.

Micro Syst. (France), no.26 p.149-50, 0 Refs, Nov.-Dec. 1982

. In French

A program is presented which translates the USR instructions contained in a REM line of BASIC into a display of eight columns each of 16 hexadecimal instructions. The prefixes CB, DD, ED and FD are positioned by pointers to facilitate the reading of a program in machine language. The program is listed in 15 lines, which can be reduced to six by omission of certain refinements

Cassette files ZX-81

Hills, K.

Your Comput. (GB), vol.3, no.8 p.105-6, 0 Refs, Aug. 1983

Fed up with writing machine code because of the complexity of saving and loading it? Or do you write programs needing various data to be stored on tape? This program can save any block of the computer's memory onto tape, verify it, distinguish it from a normal Basic program and load it back into the same, or a different, part of the memory

ST compiler .ZX-81 microcomputer.

Threlfall, D.

Your Comput. (GB), vol.3, no.7 p.132-7, 0 Refs, July 1983

Presents a compiler for BASIC programs in the Sinclair ZX-81. Use of this compiler could increase the speed at which programs run by a factor of 60

Space reservations confirmed .Sinclair ZX-81 memory saving utility.
Microcomputing (USA), vol.7, no.9 p.70-2, 0 Refs, Sept. 1983

This useful utility program lets the more serious Timex/Sinclair user make use of space in upper memory

PEEKing the Spectrum

Thomasson, D.

Comput. Today (GB), vol.5, no.4 p.45, 0 Refs, March 1983

Trying to PEEK into the Spectrum's memory can cause all sorts of problems. The author shows how to do this without all of the headaches

Merge facility for ZX-81.

Taylor, R.

Kour Comput. (GB), vol.3, no.11 p.169, 0 Refs, Nov. 1983

One of the many features which are sadly lacking on the ZX-81 is a Merge facility. The program presented will run in practically any memory size and is written entirely in machine code. On loading, it will automatically relocate itself above RAMtop and is therefore transparent to the user. It will merge any two Basic programs in just a couple of seconds

Routines: RENUM function .ZX81 program line renumbering.

Saai, M.

Micro Syst. (France), no.35 p.201-4, 0 Refs, Oct. 1983

. In French

A Z80 machine-code program for renumbering the lines of a BASIC program is described and listed with comments on the subroutines. Its legibility is improved by the use of standard Z80 instruction mnemonics in conjunction with hexadecimal codes. It takes account of any GOTO or GOSUB instructions and ensures correct operation of the modified software. The program runs on the ZX81

Z80-tuning for ZX81

Giese, G.

Chip (Germany), no.10 p.249-51, 0 Refs, Oct. 1983

. In German

Gives assembler routines for conversion between BCD and hex, fixed-point arithmetic, 4 byte multiplication and 4 byte subtraction, written specifically for the ZX81 but readily converted for use with other microcomputers containing the Z80 processor

ZX 81: software presentation. Program stacker

Fleischhauer, W., II

Funkschau (Germany), no.11 p.76-7, 0 Refs, 27 May 1983

. In German

Presents a stacker system 'Append' which is intended for the ZX 80 and 81, and is written in a machine code of 1.67 kbyte capacity and consists of three routines: SAVE for cassette stacking of sub-programs; LOAD for rearranging and renumbering whilst in search and readout mode; RENUMBER for reprocessing BASIC programs in store. Typical demonstration examples of the above are produced and discussed

ZX81 machine code loader and editor

Electron. Comput. Mon. (GB), vol.3, no.1 p.42-3, 0 Refs, Jan. 1983

Presents a program in BASIC, originally written to assist in the writing of a machine code monitor for the ZX81. The loader fits into the 16K machine with ample room for the machine code under development and offers the choice of two different places for the storage of code. These are: (i) in a REM statement at the beginning of the program; this is saveable but is prone to accidental erasure; (ii) above RAMTOP; here it has the advantage of being safe from NEW but it is not saved. The program offers the following functions: write, list, edit and delete code, move blocks of code, save and run code, copy code and search through code for a given byte. It can be run in slow or fast mode, and for the movement of large blocks of the code the latter is probably the best idea

Ralo, a utility program for the ZX81

Denel, P.

Micro Syst. (France), no.34 p.335-6, 0 Refs, Sept. 1983

. In French

A subroutine is described which permits machine-code subroutines included in REM lines to be called without knowledge of their location in memory. It uses a routine stored at address 2520 (0003h) in the read-only memory for searching out the memory address of a line number in the BASIC program. It is listed in BASIC together with a demonstration program (before and after creation of three routines in machine language) and an Assembler listing of the address search routine used by Ralo

Extra character sets for the Spectrum

Thornton, P.

Electron. Comput. Mon. (GB), vol.3, no.3 p.23, 0 Refs, March 1983

A method of programming the Sinclair ZX Spectrum to run its program and display with a nonstandard character set is explained. The author demonstrates the principle using handwriting, but states that it will work equally well with, say, Greek or Russian characters. The new character sets can be stored and can be transferred between Spectrums by tacking them on to the end of a program. The necessary BASIC program is listed

ZX-81 editor

Hill, P.

Your Comput. (GB), vol.3, no.3 p.75-8, 0 Refs, March 1983

Sets out a more comprehensive and user-friendly machine-code monitor for the Sinclair ZX-81

Safe machine code routines (ZX81)

Doakes, Harry

Sync , Mar/Apr 1982 , v2 n2 p37-38 , 2 pages ISSN:
0279-5701

Languages: English

Document Type: Article

Program Listing in Assembly Language

Geographic Location: United States

Explains why it is difficult to use machine language subroutines in ZX80 programs. Discusses a safe method of using machine language subroutines and includes a demonstration program that calculates the amount of free memory in the ZX80.

The 'Fast Load Monitor': load your programs quickly on a ZX81 personal computer.

Sanson, E.

Micro Syst. (France), no.26 p.80-1, 0 Refs, Nov.-Dec. 1982

. In French

The author explains how to overcome the limitation of the ZX81 which takes several minutes to load from a program cassette, while the screen is striped with black and white lines. A new software cassette of French design with a four-page manual contains the monitor program itself and two other utility programs which reduce the loading time from 70 to 15 seconds, but necessitate particular handling. Another major defect is pointed out whereby the RAND USR 30460 instruction for saving a BASIC program is too closely tied to a particular address. The speed of recording can be selected from ten alternatives; their transfer times with baud rates from 5624 to 3636 (compared with the BASIC rate of 319) are tabulated for a program of 12865 bytes

Curve tracer

3iton, Y.

Micro Syst. (France), no.33 p.141-5, 0 Refs, July-Aug. 1983

. In French

Describes a program for the ZX81 (in BASIC), and gives the code. Illustrates the facilities with two roseate designs which take 2 hr. 15 min. and 1 hr. 40 min. to draw

Sinclair/Tinex screen splitter

Miller, H.

Compute. J. Prog. Comput. (USA), vol.5, no.6 p.234, 0 Refs, June 1983

This short, clever technique allows you to put text on screen and then clear the screen below at will, leaving your messages intact. The program is in machine language called via the USR command

ZX-81 Home Computer Package for Sinclair/Timex

Hunkins, A.B.

Compute. J. Prog. Comput. (USA), vol.5, no.4 p.118-19, 0 Refs, April 1983

The ZX-81 Home Computer Package is a sampler of four programs for the Sinclair ZX-81, Timex TS-1000, MicroAce, and 8K ROM ZX-80. The programs, Etch-a-Screen, Music Composer, Checkbook Balancer and Billboard are all reviewed in this article

Specsoft

Fox, D.

Micro News Mark. (Ireland), vol.1, no.4 p.39-40, 45, 0 Refs, July-Aug. 1983

A review of Software for the Sinclair Spectrum is given. Twenty-eight programs are covered. They consist of adventure games, educational software, board games and space game programs

Screenplay .ZX81 computer games.

Diney, D.

Pers. Comput. World (GB), vol.5, no.9 p.153-5, 0 Refs, Sept. 1982

Reviews of several computer games for the ZX81 microcomputer are given. A brief description of each is presented

ZX Spectrum software

Jones, M.

Your Comput. (GB), vol.3, no.7 p.62-3, 66, 0 Refs, July 1983

Reviews recent games software for the Sinclair ZX Spectrum, from the sophisticated Scrabble, through the delightful Molar Maulers to the mundane Lynchmob from Bridge

League champion .computer games.

Bennett, B.

Pract. Comput. (GB), vol.6, no.8 p.118-19, 0 Refs, Aug. 1983

Reviews a number of new pieces of games software for the Sinclair Spectrum. Included is the author's favourite game program of all time; Football Manager. Other reviews are for Scrabble, Blind Alley, Horace and the Spiders, and Molar Maul

How to invent a game - inside flattop lander (mcd)
Bobst, Jon
Sync , Jan/Feb 1982 , v2 n1 p16-18 , 3 pages ISSN:
0279-5701
Languages: English
Document Type: Article
Program Listing in Assembly Language
Geographic Location: United States
Discusses some programming considerations for a ZX80 game that simulates the landing of an aircraft on a carrier. Includes two diagrams and comments on the program listings found in the article.

Game of life revisited - an assembly version (ZX80)
Booth, Richard
Sync , Jan/Feb 1982 , v2 n1 p20-25 , 4 pages ISSN:
0279-5701
Languages: English
Document Type: Article
Program Listing in Assembly Language
Geographic Location: United States
Presents a Z80 assembly language version of the Game of Life for the ZX80 computer. Includes a short program that can be used to enter the machine language version in hex format.

Linear regression (ZX80)
Passler, Jon
Sync , Jan/Feb 1982 , v2 n1 p32 , 1 page ISSN: 0279-5701
Languages: English
Document Type: Article
Program Listing in BASIC
Geographic Location: United States
Presents a program in Sinclair ZX80 BASIC that allows the user to compute the linear relationship between two sets of variables, expressed as the linear regression equation, and calculates the coefficient of determination.

Lunar lander (ZX80)
Dawson, Chuck
Sync , Jan/Feb 1982 , v2 n1 p33 , 1 page ISSN: 0279-5701
Languages: English
Document Type: Article
Program Listing in BASIC
Geographic Location: United States
Presents a program in Sinclair ZX80 BASIC that simulates the landing of a spacecraft on the moon. Includes some comments on the operation of the program. Also includes a sample run.

6 shooter (ZX81 game)

Dighera, Larry

Sync , Mar/Apr 1982 , v2 n2 p46 , 1 page ISSN: 0279-5701

Languages: English

Document Type: Article

Program Listing in BASIC

Geographic Location: United States

Presents a ZX81 arcade game in BASIC in which the player attempts to hit a randomly moving target. Includes a screen photo of a sample program run and some comments on the operation of the program.

Dice and train (ZX80 game)

Sutton, Joseph

Sync , Jan/Feb 1982 , v2 n1 p43 , 1 page ISSN: 0279-5701

Languages: English

Document Type: Article

Program Listing in BASIC

Geographic Location: United States

Presents a game in ZX80 BASIC that simulates the throwing of a pair of dice and a game that challenges the player to calculate that amount of time it takes to make a trip.

Tioga toads (ZX80)

Ginn, Jerry

Sync , Jan/Feb 1982 , v2 n1 p40-41 , 2 pages ISSN:
0279-5701

Languages: English

Document Type: Article

Program Listing in BASIC

Geographic Location: United States

Discusses how to animate graphic characters using Sinclair ZX80 BASIC. Includes a demonstration program that has three toads hopping across the video display in a race. Also includes two screen photos.

Battleship solitaire (ZX80)

Dusenberry, Bob

Sync , Jan/Feb 1982 , v2 n1 p34-36 , 3 pages ISSN:
0279-5701

Languages: English

Document Type: Article

Program Listing in BASIC

Geographic Location: United States

Presents a program in Sinclair ZX80 BASIC that allows the user to play the popular battleship game against the computer. Includes directions on how to play the game and includes a sample run.

Talk can be cheap (Timex Sinclair 1000/Speak & Spell interface)

Dighera, Larry

Computers & Electronics, Feb 1983, v21 n2 p39-51, 7 pages

ISSN: 0032-4485

Languages: English

Document Type: Article

Program Listing in BASIC and Assembly Language

Geographic Location: United States

Describes how to interface a Timex Sinclair 1000 microcomputer to the Speak & Spell learning device. The combination of these two units give the user several hundred clearly articulated words. Includes circuit diagrams and the necessary software.

Decimal multiplication for the ZX80

Redman, Loyd

Popular Electronics , Feb 1982 , v20 n2 p63 , 1 page

ISSN: 0032-4485

Languages: English

Document Type: Article

Program Listing in BASIC

Geographic Location: United States

Presents a program in ZX80 BASIC that performs decimal multiplication. Includes some comments on the operation of this program.

ZX80 as a cipher machine

Hollandsworth, James

Sync , Jan/Feb 1982 , v2 n1 p37-39 , 3 pages ISSN:

0279-5701

Languages: English

Document Type: Article

Program Listing in BASIC

Geographic Location: United States

Describes how to turn a Sinclair ZX80 computer into a Vigenere cipher that allows the coding of messages into gibberish which can be unscrambled later. Includes some comments on the structure of ciphers and the operation of this program.

Isolation (ZX80 game)

Nisbet, Drew

Sync , Mar/Apr 1982 , v2 n2 p47 , 1 page ISSN: 0279-5701

Languages: English

Document Type: Article

Program Listing in BASIC

Geographic Location: United States

Presents a ZX80 game in which the player attempts to encircle all of the computer's men, isolating him from all of his cohorts.

ZX-81-A game with the computer

Chauvin, P.

Micro Syst. (France), no.27 p.103-5, 0 Refs, Jan. 1983

. In French

There are two ways of playing this game: (1) Given a random number between 100 and 999, and 7 other random numbers, try all different combinations of these numbers which will give the closest approximation to the given number. (2) Generate between 1 and 7 numbers at random, connect them by addition, subtraction, multiplication and division and then set this up as the number to be found on condition that it is between 100 and 999. Although the first method is the more logical, the time to work through this game is so long (up to one hour on the ZX-81) that the second method is discussed. On the top right hand corner is a counter which goes from 1 to 90 and seven numbers appear on the screen together with the number to be approximated. When 90 is reached the computer shows the solution and starts a new game

Tube cube .Rubik cube simulation program.

Davidson, I.

Comput. Today (GB), vol.5, no.4 p.34-6, 0 Refs, June 1983

Presents the all-singing, all-dancing, 3-D musical colour version in BASIC for the 16K or 48K ZX Spectrum. In addition to allowing the manipulation of the cube in the usual manner, the program provides the facility to return to a fresh cube at any time

ZX-81 life

Whittle, P.

Your Comput. (GB), vol.3, no.1 p.75-6, 0 Refs, Jan. 1983

Presents a pattern manipulation game for the ZX-81 with visual display. The listing is in machine code

Sinclair/Time, Guess That Animal .program.

Kennedy, R.

Compute. J. Prog. Comput. (USA), vol.5, no.5 p.143-5, 0 Refs, May 1983

This article adapts a previously published program to the Sinclair ZX-81. It is also a brief tutorial on the special features of the ZX-81's BASIC, showing how you can reload programs without losing data previously saved. The program requires 16K

Full ZX-81 chess in 1K. III

Horne, D.

Your Comput. (GB), vol.3, no.2 p.400-2, 0 Refs, Feb. 1983

For pt.II see *ibid.*, vol.3 no.1 p.81-83 (1983). This part describes the machine code and techniques used in the creation of a 1K ZX-81 chess program. The games' creation depends upon making enough space for a playing routine. To produce the code requires a machine with at least 3K of memory. The machine code-listing of the program is provided

Professor Folibus' house

Bregeon, A.

Micro Syst. (France), no.24 p.97-106, 0 Refs, July-Aug. 1982

. In French

Written in BASIC, this is a game for the ZX81 with extended 16K RAM. It can also be used with other similar machines. Its aim is partly to amuse, but also to act as an introduction to programs with a particularly interesting architecture. The program is listed, and instructions are given for loading, storing and running. The architecture of the program is looked at in some detail, with one phase of the game analysed to give an understanding of how it works

Interactive yam on the ZX81 .game program for yam or yatzee.

Strenpel, J.-L.

Micro Syst. (France), no.35 p.195-200, 0 Refs, Oct. 1983

. In French

A BASIC program for a ZX81 with 16K of memory is described and listed. The microcomputer manages the game and can simulate several components

Squalron: an amusement game for the ZX81

Strenpel, J.-L.

Micro Syst. (France), no.36 p.209-11, 0 Refs, Nov. 1983

. In French

A program in BASIC and Z80 machine language is described and listed. It related to a three-stage 'Space Invaders' game. In the first stage a mass raid by flying saucers must be repelled and any landing prevented. In the second stage, points are gained for absorbing invaders' 'tears', and lost for failing to intercept their small bombs. In the final stage, three large bombs arriving at random call for quick-reflex countermeasures

Sea Mines. ZX-81

Passmore, E.

Your Comput. (GB), vol.3, no.2 p.124, 0 Refs, Sept. 1983

Sea Mines is a submarine game for the ZX-81. There are six skill levels and four game speeds. Each skill level increases the number of mines. The skill level and game speed both affect your score. The program is in two sections, a ZX machine-code routine and a Basic listing

ZX-81 maze chase

Bailey, C.

Your Comput. (GB), vol.3, no.10 p.145-7, 0 Refs, Oct. 1983

This machine code version of the popular Pac-Man game for the ZX-81 contains the main features of the original, including power points and fruit. The machine code is stored in a hex statement 1025 bytes long

Scram-81 .game for ZX-81.

Harwood, P.

Your Comput. (GB), vol.3, no.11 p.125-7, 0 Refs, Nov. 1983

This program, similar to the arcade game Scramble, reflects all the usual features including the six different levels, on-screen scoring and fuel gauge, bombing and firing, missiles and fuel dumps, etc., and consists of about 4K of data and 3K of machine code. The program listing provided has been split into two major sections: the moving background which includes all the enemy missiles and targets; and the cover screen which superimposes the aircraft and bombs onto the background and deals with the scoring, fuelling and controlling

Waggot Stomp .game for ZX Spectrum.

Charlesworth, J.

Your Comput. (GB), vol.3, no.11 p.134-5, 0 Refs, Nov. 1983

This machine-code program plays the arcade game of Centipede on any ZX Spectrum, 16K or 48K. This version has on-screen scoring, machine-code sound, a high-score table and high-speed colour action involving a waggot, a bouncing spider, a very fast snail and your laser base. The idea in waggot is that you, a little laser base, must survive in a mushroom field while all manner of creepy crawlies try to kill you. You start off with three lives but you lose a life each time you are hit by the spider or a segment of the waggot

Tennis on the ZX81

Bayle, P.

Micro Syst. (France), no.34 p.323-6, 0 Refs, Sept. 1983

. In French

A program for the ZX81 with 16K of memory is presented in the form of a flowchart and listings in BASIC and machine language. Tables explain the display routine for the tennis court, and the allocation of memory space to this and other subprograms (keyboard analysis, decision loop, racket and ball displacements in four directions, right and left gain, and initialisation)

Play Scrabble game program.

Chauvin, P.

Micro Syst. (France), no.32 p.167-71, 0 Refs, June 1983

. In French

A BASIC program for the ZX81 microcomputer with 16K memory is described and listed. The menu offers a choice of a white or grey board, fast or slow computation, or display of the rules of the game. The value of each word played is calculated from the row and column co-ordinates of its starting-point and the direction (horizontal or vertical) of reading, with respect to the letter and word bonus values of the squares, and the player's score is incremented automatically. The state of play can be saved to magnetic tape and reloaded for later resumption

The wolf, the goat and the cabbage: how to avoid intimacy .BASIC program.

Isabel, G.

Micro Syst. (France), no.31 p.139-40, 0 Refs, May 1983

. In French

Describes and lists a BASIC program for the ZX81 microcomputer with 1K random-access memory, to solve the classical problem of ferrying these three entities across a river in a boat which can convey only one at a time

Spectrum cross

Nicholls, S.

Your Comput. (GB), vol.3, no.1 p.56-8, 0 Refs, Jan. 1983

Presents a computer game called Spectrum Cross which makes full use of all the colours and all 21 user-definable graphics on the ZX Spectrum. The program listing is provided and is written in machine code and Basic

Two programs for the ZX-81. The 'game of pairs' (ZX-81 16K)
Sales Roig, J.
Rev. Esp. Electron. (Spain), vol.29, no.333-334 p.88, 0 Refs,
Aug.-Sept. 1982
In Spanish

The author provides a program enabling a computer ZX-81 to act as the other contestant in a 'game of pairs'. To win against the computer which has a highly accurate memory the player must remember precisely the number of unmatched cards returned face down to the pack

ZX-81 1K wonders .games programs.
Hopkins, R.
Your Comput. (GB), vol.3, no.6 p.102-3, June 1983

Provides two machine code routines for the Sinclair ZX-81 that show what can be done within the narrow constraints of the machine's 1K RAM. The economy of coding makes these games very fast. One game is of the spaceship lander variety; the other is a speeded-up version of breakout. Both routines have BASIC loaders

ZX connect
Hune, J.
Comput. Today (GB), vol.4, no.40 p.33, 0 Refs, Dec. 1982

A program listing is given in basic for a game to be played on the ZX80. The game is called ZX80 Connector and is a version of noughts and crosses

Space invaders .computer game.
Mortimer, C.
Your Comput. (GB), vol.3, no.7 p.84-5, 0 Refs, July 1983

Presents a machine code program, together with its BASIC loader, for a Space Invaders game on the 16K Sinclair ZX-81

Star Wars .computer game.
Your Comput. (GB), vol.3, no.7 p.106-7, 0 Refs, July 1983

Gives a listing for a computer game based on the Star Wars film. The program is written in BASIC for the Sinclair ZX Spectrum home computer

The Fortress of Adnil
Miler, G.W.
Compute. J. Prog. Comput. (USA), vol.5, no.7 p.92-6, 0 Refs, July 1983

'The Fortress of Adnil' is an adventure game for the Timex/Sinclair 1000 using the graphics mode. The program is entirely in BASIC and includes several routines therefore useful in other programs. It requires the 16K RAM expansion module.

Meteorites and Red Alert for Sinclair/Timex computer games.
Halfhill, T.R.
Compute. J. Prog. Comput. (USA), vol.4, no.10 p.138-9, 0 Refs, Oct. 1982

Describes two arcade-style games for the Sinclair ZX-81 microcomputer. 'Meteorites' is a variation of the Asteroids game, in which a space craft shoots down meteorites that threaten to collide with it. 'Red Heat' resembles Defender where a space craft is flying over rugged terrain. The illusion of movement being created by the landscape scrolling horizontally at the bottom of the screen. Both programs are written in machine language

The cards of fate
Sonerville, C.
Your Comput. (GB), vol.3, no.6 p.147-9, 0 Refs, June 1983

Gives a listing for the Sinclair ZX-81, for a fortune-telling game program. The program is based on genuine cartomancy. It is called The Gypsy Tells, and is written in BASIC

Hopper
Nicholls, S.
Your Comput. (GB), vol.3, no.1 p.61, 0 Refs, Jan. 1983

Present a computer game called 'Hopper' for the ZX-81. The program listing is in machine code

Energy game for ZX 81.
Caon, P.
Micro Syst. (France), no.33 p.131-4, 0 Refs, July-Aug. 1983

. In French

A space-travel game for the ZX 81. Gives the program in BASIC

Auteuil: a very cavalier program .horse-racing game.
Sirven, P.

Micro Syst. (France), no.30 p.131-2, 0 Refs, April 1983

. In French

A BASIC program is listed which simulates a race between six horses and provides for betting on the winner. It runs on the ZX-81

ZX-81 Ground Strike

Fyler, P.

Your Comput. (GB), vol.3, no.4 p.84-5, 0 Refs, April 1983

Presents a machine code game for the ZX-81 microcomputer. The program aims to give the thrills of warfare without its attendant dangers

ZX-81 Deep Space .computer game.

Your Comput. (GB), vol.3, no.2 p.60-2, 0 Refs, Feb. 1983 .

The program listing for a computer game called 'Deep Space' is presented. The game is in basic and is for use on a ZX-81 microcomputer

SINCLAIR GEBRUIKERSGROEP LIDMAATSCHAPSKAART

Helaas hebben wij als SINCLAIR GEBRUIKERSGROEP bestuur - na lang wikken en wegen - moeten besluiten een lidmaatschapskaart te gaan uitgeven. Steeds meer bereikte ons klachten over de wildgroei op de gebruikersdagen. Leden van de gebruikersgroep (die vaak al jaren trouw hun contributie betalen) maken bezwaar tegen de "vaste introducees", die die jarenlang gebruik maken van alle diensten en mogelijkheden van de gebruikersgroep, zonder lid te zijn van de HCC (en dus evenmin van onze gebruikersgroep). Vandaar de volgende regeling:

Binnenkort ontvangt elk HCC-lid dat zich ook voor de SINCLAIR-GG heeft opgegeven, een SGG-lidmaatschapskaart. Wanneer deze kaarten zijn verzonden is gratis toegang tot de SGG-dagen voorbehouden aan hen, die hun kaart kunnen tonen.

Bezoekers, die geen SGG-lidmaatschapskaart kunnen tonen, mogen geen materiaal mee de zaal in nemen. Zij komen immers als introducee, alleen maar om kennis te maken, om te kijken.

Deze introducees dienen ook hun nam en adres op te geven en moeten zich kunnen legitimeren. Als zo iemand reeds op die lijst voorkomt, heeft men alleen nog maar toegang als men zich opgeeft als HCC-SGG-lid.

Deze regeling is helaas nodig. De bestuursleden halen zich hiermee veel onplezierig werk op hun hals. Wij zouden ook liever met onze computers bezig zijn dan politieagent spelen, maar enkelen maken dit helaas nodig.

Maar die LIDMAATSCHAPSKAART heeft voor U ook VOORDELEN:

Op vertoon ervan kunt U bij een aantal zaken korting krijgen. Een lijst van die zaken drukken wij hierna af. Geen winkel die bij U in de buurt is? Wij willen graag van U horen of Uw leverancier bereid is korting te geven (minimaal 10 %) aan SINCLAIR-GG-leden. Als tegenprestatie willen wij veel ruchtbaarheid geven aan dat nobele gebaar: in elke IMPULS wordt die lijst opgenomen, (oplage 3000, blijvend actueel naslagwerk!) wij zullen hem ook regelmatig in de HCC-Nieuwsbrief publiceren (oplage ruim 15 000) en wij geven aan die adressen op elke gebruikersdag ruime bekendheid.

Bent U nog geen lid van de HCC of bent U wel HCC-lid maar hebt U zich nog niet opgegeven voor het gratis S.G.G.-lidmaatschap (voor HCC-leden) doe dat dan nu meteen! Achter in dit blad vindt U een kaart daarvoor.

S A M E N V A T T E N D

HCC-leden, die zich tevens (gratis) voor de SINCLAIR GEBRUIKERS-GROEP hebben opgegeven, ontvangen een lidmaatschapskaart.

Uitsluitend op vertoon van die kaart:

- hebt U toegang tot onze gebruikersgroep-bijeenkomsten;
- krijgt U korting bij onderstaande zaken;
- krijgt U een nader te regelen korting op onze artikelen;
- hebt U recht op alle service-diensten van de gebruikersgroep

VERDIEN UW HCC-CONTRIBUTIE TERUG MET UW SGG-LIDMAATSCHAPSKAART

Voor de goede orde vermelden wij hier nog even - om heel veel vaak gestelde vragen te voorkomen - dat het lidmaatschap van de SINCLAIR GEBRUIKERSGROEP uitsluitend mogelijk is via het HCC-lidmaatschap (voor 1984 f 45. p.jaar).

U krijgt voor dat lidmaatschap de HCC-Nieuwsbrief en een SGG-lidmaatschapskaart.

Ons blad IMPULS verschijnt onregelmatig. Het is NIET gratis voor SGG-leden, maar zij krijgen het in de toekomst met korting. Een abonnement erop is niet mogelijk. Het is te koop tijdens de gebruikersbijeenkomsten of kan worden besteld via de HCC of de SGG.

De gebruikersgroepdagen zijn gesplitst voor ZX-80/81 gebruikers en voor Spectrum-gebruikers. SGG-leden zijn ook welkom op de dagen die niet voor hen bestemd zijn, maar zij zullen zich dan bescheidener moeten opstellen. De dagen zijn als volgt gepland (telkens op ZATERDAG van 11 tot 16 uur in De Bron te Utrecht):

SPECTRUM: 21 januari 1984	ZX-80/81: 17 maart 1984
19 mei 1984	8 september 1984
27 oktober 1984	15 december 1984

gecombineerd ZX-80/81 en SPECTRUM: 23 juni 1984

Het is ten enen male NIET TOEGESTAAN gecopieerde commerciële software e.d. te verkopen. Eigen software en andere spullen mogen in het voorste gedeelte van de zaal door leden te koop worden aangeboden. Voor commerciële aanbieders (de handel) is ruimte gereserveerd in de gang.

Het S.G.G.-bestuur