

Book Reviews by Stephen Shaw.

TI*MES has published a number of book reviews, concentrating somewhat on books published in the USA. Here I propose to go through my bookshelves reviewing each book in turn with

an emphasis on the needs of modern new owners. Most of the books are available online and I will point in the direction to look.

Note that my books include many more generic computing books as well as TI99/4a books. The order of the reviews will be the order on my shelving! I will leave it to Ed (Editor...) to cut and paste the books as he chooses- there are lots of them.

If anyone has an interest in Basic or Extended Basic programming and has something they want to ask- please ask me. I will answer here (in six months) or directly if you include a stamped envelope. Note that I use the real unmodified TI hardware and cannot comment on any oddities of amended hardware or emulations.

NB: The reviews are of the books in my collection. Second editions or reprints may differ slightly. The links were correct when this was written but are subject to take-downs.

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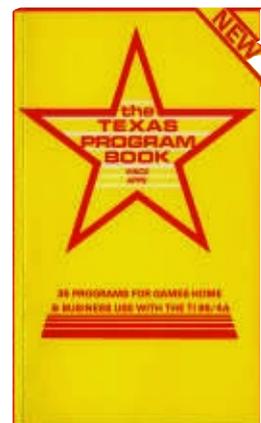
The Texas Program Book by Vince Apps, 1983, Phoenix Publishing, 104 pages:

Possibly the first TI99/4a book published in the UK. This book has 35 programs covering several genres, all in TI Basic. Vince Apps was the man behind early TI99/4a software house

Apex Trading Ltd, and some of the programs sold (or reduced versions of them anyway) are in this book. These are one to six pages long, 33 lines per page.

No attempt is made to explain the operation of the programs- a simple book with a number of quick to type in and run programs for a quick start to show you what you can do in TI Basic. Good clear type is used with crossed zeroes, and a clear difference between I and 1. A good starters book. Some of the programs beg for expansion, giving work for the budding programmer.

Available online: <http://www.hexbus.com/tibooks/>

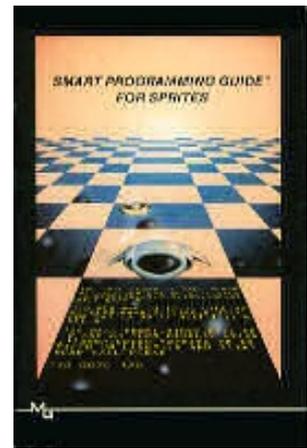


Smart Programming Guide for Sprites

by Craig Miller, 1983, Millers Graphics, 74 pages.

This one is for programmers in TI Extended Basic, with short chapters on the subprograms Joyst, Key, Peek, Sprites and sample programs that use sprites. The keyboard and joystick notes show how to control a sprite. The listings are well printed with good identity

of 1 and l but the letter O and the number 0 are very similar- the number is a little thinner. Each line of code is explained in detail and the ambition is to teach you how to program with sprites.



There is a good explanation of the differences between Extended Basic versions 100 and 110 and how they handle sprites.

There is no mention that PAL consoles may cause problems for NTSC programmers (and vice versa). The sprite speed is NOT linked to program execution speed but to VDP update rate, which means a sprite can be slower or faster when changing consoles- and jump too far or not enough! Something to be aware of. The only way a programmer could handle this is with a query "Are you using 1)An NTSC (US) console or 2)A PAL (EU) console" and modify sprite speeds accordingly, but ideally would need both consoles to get it right!

Available online: <http://www.hexbus.com/tibooks/>

The TI*MES Book of Hardware Projects edited by Mike Goddard. 58 pages.

This book contains several hardware projects that had appeared in the pages of TI*MES- almost all requiring a careful hand with a soldering iron and with the important warning "do this at your own risk". There may be errors, or the project may irreversibly damage your computer. Given my lack of knowledge and experience with electronics, this was not a book for me and I have tried none of the projects. Mike himself fitted the reset switch on p42 to one of my consoles and made up for me an Atari joystick adapter as shown on page 9..

Not at all a book for amateurs, I am sure a lot more detail would have been helpful, but it may point you in a direction of interest. Just make sure you take every precaution and if possible work on an expendable console...

Available online: Apparently not.

Fundamentals of TI99/4a Assembly Language

by M S Morley, TAB, 310 pages.

In the early days we all wanted to learn assembly language to use with our expensive Editor Assembler modules and disk systems,

and jumped on any book that gave any inkling into the system. Sadly, most of them seemed to be aimed at using the far harder Line-by-Line assembler with the Mini Memory module.

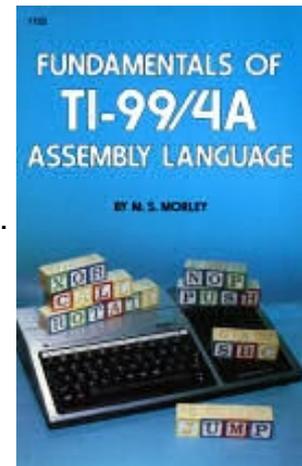
The line by line assembler didn't need a disk drive, but it was really hard to use even with a simple listing.

This Morley book gets off to a good start introducing the simpler (!) aspects and principles of assembly language and then jumps feet first into the Line by Line assembler, at which point the learning curve was just too steep for me. I really needed to avoid the LBLA.

Only the first 213 pages are original- the rest of the book is a reprint of the TMS9900 instruction set. I could suggest that when you are first learning assembly language this may be the last thing to have thrown at you...

In the end I did manage to use the Editor Assembler for simple things, but books like this one gave me no help. If you want to learn assembler, have the mini memory and line by line assembler and Easy Bug, and can manage a steep learning curve- try this one.

Available online: <http://www.hexbus.com/tibooks/>



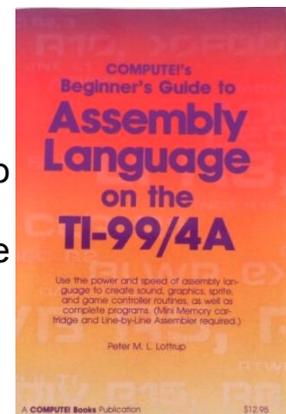
Compute's Beginner's Guide to Assembly

Language on the TI99/4A by Peter Lottrup, Compute, 1985, 262 pages.

In the early days we all wanted to learn assembly language to use with our expensive Editor Assembler modules and disk systems, and jumped on any book that gave any inkling into the system. Sadly, most of them seemed to be aimed at using the far harder Line-by-Line assembler with the Mini Memory module. This book is another of them. This time however we have the needed help on actually using the LBLA ("The first step")!

Routines in the book all commence 7D00 02E0 LWPI >70B8 which places the registers at >70B8 (eg no WS BSS 32 or WS EQU >20BA - LWPI WS); and, for example the book uses VMBW at >6028..

You can use the book with Editor Assembler but to translate from LBLA you will require the Mini Memory Manual (page 35 and 36) in order to translate the hard coded memory references to EdAs Module ones. The EdAs module allows BLWP @VSBW but the LBLA assembler requires BLWP >6024.



This is a well written book and if you wish to use the Mini Memory Line by Line Assembler this is the book for you, but if you want to use Editor Assembler Module and a disk system, it is not so handy, as it does not address the differing assembly

environments nor the specifics of the Editor Assembler module. The opening basics of the assembler commands are very handy for the EA module use

Available online: https://archive.org/details/tibook_computes-beginners-guide-to-assembly-language-on-the-ti994a

also at:

https://archive.org/details/COMPUTEs_Beginners_Guide_to_Assembly_Language_on_the_TI-99_4A_1985_COMPUTE_Publications

[The Mini Memory and Line by Line Assembler Manuals are online at <https://pixelpedant.com/>]

TI99/4A INTERN by Heiner Martin. 1985. 207 pages.

My copy is the original German but the book has since been translated. This book contains dumps of the chips inside one TI99/4a console. There has to be a warning that each console may differ- and several variants have been found.

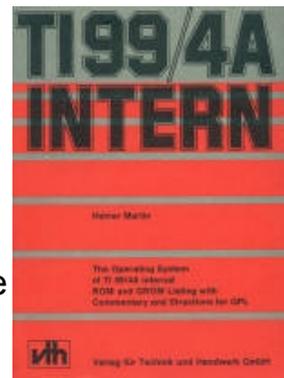
Having said that it gives you a good idea of the internal code that the console runs, and there is a slightly-guesswork disassembly: disassembly is always slightly imperfect due to the nature of the coding.

This book was the first to give us an inkling of what was going on under the hood! We start with Console ROM 0 (68 pages), then a list of GPL Op-codes followed by a listing of Console Grom 0 with "disassembly" followed by a raw hex dump of the chip. A note on the BASIC groms followed by a "disassembly" listing of the BASIC Groms 1 and 2. .

If you are delving deep for any reason, the data you seek may be here - but note all consoles are not the same. When the console looks for a module, what options does it have? and where does it go...

A deep deep book.

Available online - in English- <http://www.hexbus.com/tibooks/>



The Orphan Chronicles by Ronald Albright, Graphics, 1985, 172 pages.

I first reviewed this book in TI*MES 20 and my views are unchanged:

"Dr. Albright chronicles the TI Home Computer from the 99/4 (no A) thru TI's self-destructive marketing techniques to Black Friday (October 28, 1983 - the day TI announced that they were dropping the 99/4A) and beyond. Along the way he covers the International Users Group (a 'commercial' user group) and publications including Home Computer Magazine (and tells us who Regina really is).

Fully half of the book is devoted to the current status of our orphan. There are chapters on telecommunications, freeware, the future and on current 4A supporters.

An interesting chapter is the survival guide. In ten steps, Dr. Albright suggests practical strategies that we can take to help ensure our computers continued



existence.

This informative book is clearly written. The material is comprehensive and logically organized. It will help you understand the history that led to today and will give you food for thought about tomorrow.

All in all, this is a "must have" for the serious 4A owner. It will help put the joys and sorrows of having an orphan into perspective."

The Communications chapter was (and is) of little direct value to UK owners, and the book list is of American books only, but still useful. Includes a reference list of PHM and PHD/PHT titles.

Ron probably did not consider folks would still be using a 99/4a forty years onwards, but he did go on to write The Orphan Survival Book, available online from the same site:

Available online - <http://www.hexbus.com/tibooks/>

Sprites, a Turtle, and TI Logo by Jim Conlan and Don Inman.
Prentice Hall. 1984.

There were not that many books specific to TI Logo. This is a primer- but sadly imperfect as my then five year old son correctly highlighted several obvious errors- for example on page 6, to demonstrate the command CB they then used CS...oh dear. (CS does not have a modifying input).

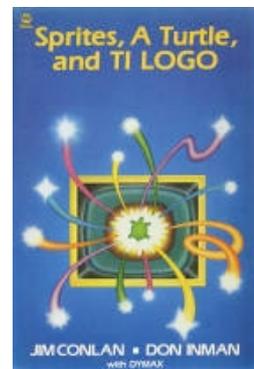
First reviewed in TI*MES Number 6:

"It is a very readable book, and as TI UK never bothered to bring us the excellent LOGO CURRICULUM GUIDE, you should buy this book as an adjunct to the LOGO manual. I would consider this an essential buy if you want to get to know your LOGO. NB: It deals with the 4A, but with LOGO 1 not LOGO 2. The additions of LOGO 2 aren't there. Some Logo 1 procedures did not have enough memory when using Logo 2"

(Prentice Hall and Don Inman had form for badly produced TI books, their Basic book was chock full of errors!)

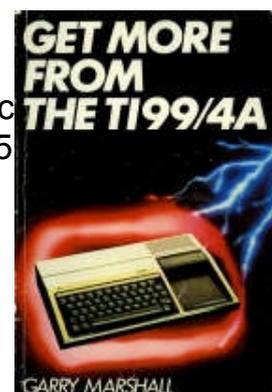
Available online: <http://www.hexbus.com/tibooks/>

[I did manage to obtain a copy of the Logo Curriculum Guide, blue cover- and a number of the procedures did not work with my Logo 2 Module- it was written for the rather different first release of TI Logo which had more memory available but fewer procedures]



Get More from the TI99/4A by Garry Marshall,
Granada, 1983, 112 pages

A well written well printed book to get users straight into Basic programming, with an assortment of small programs. Chapter 5 is a simulation which is a shorter, simplified version of a program that I wrote. Garry did not tell me he was using it, or ask for consent- nor did I get a penny! - but the code is all his (as far as possible anyway), and he DID acknowledge his



source (Thank you!). The only computer book that gives me a name check!

This does not include the initial steps of setting up and plugging in, and there is very very little on file handling. This book is simply about Basic programming, with initial chapters on Graphics, Sound, screen displays and programme development. TI Logo and TI Extended Basic get a short introduction.

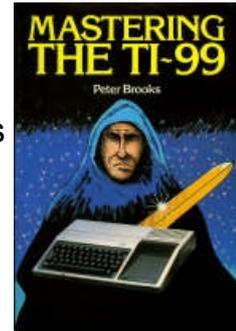
Ideal for someone who has done very little programming in TI Basic and is interested in doing so. Does not go too deep for a beginner.

Available online: <http://www.hexbus.com/tibooks/>

Mastering the TI-99 by Peter Brooks, Micro Press.

1984, 116 pages

If you have seen the articles that Peter wrote for TIdings, TI*MES and TI-Lines, unlike those this book has been written in a more compact and tightly written manner, and is aimed at those with some practice at writing TI Basic programs, with a gentle nudge to slightly more complex programs. Very nicely printed- except those listings, oh dear, the type is smaller than the smallest font your optician will show you for reading glasses.... a magnifying glass is very useful. The example code snippets within the text are normally sized.



We jump right in to using Boolean Operators (the important part is not knowing the name but what they do and why they are important in TI Basic...). As part of the period when no-one published games to type in for the TI there is a section on the translation of other basics. Then we return to boolean arithmetic and Peter really gets his teeth into it - perhaps slightly irrelevant to TI Basic operation.

On File Handling Peter is in full chat mode then we move to his area of expertise, graphics and TI Basic- a good read. The "Printing errors" deals with debugging printed programs! and there is a handy Hints and Tips section.

If you haven't done a great deal of TI Basic programming (or even keying in magazine listings) recently there is probably something in this book for you..Very little mention of modules or any other software.

Available online: <http://www.hexbus.com/tibooks/>

Getting Started with the Texas TI-99/4A by

Stephen Shaw, Phoenix, 1983, 151 pages.

Firstly: Publication of this book was rushed when TI pulled out, and I did not see a proof copy. I was horrified to see the errors in the printed version (I have the typescript still if you wish to check it!) and an insert sheet of corrections was quickly arranged. Where-ever you get your copy, make sure that you have the correction sheet- also online at:

<http://shawweb.myzen.co.uk/stephen/errata1-ti994a.png> and

at: <http://shawweb.myzen.co.uk/stephen/errata2-ti994a.png>.



An updated text from the book is also online in html format at:

<http://shawweb.myzen.co.uk/stephen/book.htm>.

Should I be reviewing this book....hmm. There was a very nice review published in an Australian mass market computer magazine.

In the listings the zeroes have been slashed and there is a visible difference between the letter l and the number 1.

This book was specifically commissioned as for the brand new beginner getting his new computer home so there is some fairly basic material in here but I did manage to work in some of the more advanced and complex material too. The Advanced Programming chapter includes logical operator replacements (for AND/OR) without once using the word Boolean.

The chapters on cassette handling and file processing may be of use still. File handling even touches on using a disk system or the mini memory module.

There is a lot of information on the more useful aspects of the 32k ram, Mini Memory, Extended Basic- and even a note regarding the lack of CPU ram to run machine code in.

There is a whole chapter on Extended Basic to help users decide if they may want it - and another chapter on the more interesting other modules such as Personal Record Keeping- with a note on Enhanced Basic; TI Writer, Mini Memory, Editor Assembler, TE2 and Logo; then a chapter on peripherals.

As you can see we manage to go quite some way from "Getting Started". This may be the only BOOK to demonstrate "Enhanced Basic".

Available online: <http://www.hexbus.com/tibooks/>

Programming Basic with the TI Home Computer, by Herbert Peckham, Texas Instruments/McGraw Hill, 1979, 303 pages.

Yes my edition is dated 1979, which means no A. So not entirely relevant to the 4A. I can find no second edition. However due to its very basic nature, there are no changes required for the 4A!

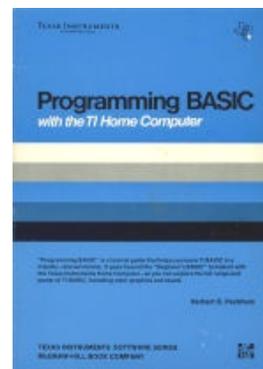
This is a fairly detailed introduction for the absolutely raw beginner, and takes an academic approach with each chapter starting with "Objectives", Discovery, Discussion and Test (solutions at the back). A further section "Program Examples" starts from Chapter 5 on page 78.

This is a highly detailed introduction of simpler Basic programming. There is nothing very advanced in here. You will not find out how to program in TI Basic IF A=2 OR B=6 THEN PRINT "DONE" (using logical or boolean operators). There is however a brief simplified example of using cassette data files.

NO mention of any modules- no Extended Basic. In this book "printout" means screen display.

This is an historic book, complete with a cover in the design style of the early module documentation. Recommended if you have just purchased a console from ebay!

Available online: <http://www.hexbus.com/tibooks/>



Learning to use the TI99/4A Computer by Kevin Townsend, Gower, 1983, 109 pages

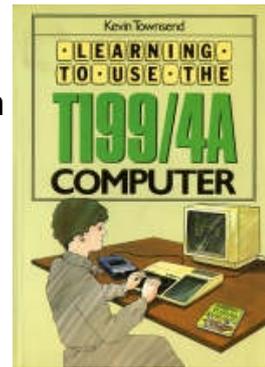
This book really does start at the beginning- Switching On is in Chapter Two. This book is for the complete novice who has an odd looking box to deal with. Chapter One covers an early history and future expansion- including printers, and the peripheral expansion system and extended basic... just the minimum mentions to let you know they exist.

It is sadly shown that the Epson Dot Matrix printer will connect directly to the console. A photograph shows a dot matrix printer and TI console connected by a simple wire. One TI owner was known who bought a printer on the basis of this book...but not the expensive PEB which was really needed. It was some years and a lot of frustration before the printer worked after much unexpected expenditure.

The start at the very start approach is illustrated by the lengthy instructions on loading a cassette program, and editing a line of text you have just typed in. The introduction to TI Basic is gentle. Listing have similar letter O and Number 0 (the letter is broader).

In later years the useful TI book "Beginners Basic" was dropped from the console package- this book is a slightly thinner alternative. There is not a lot beyond the simple essentials and the majority of owners today will be past this stage or would be better served with other books.

There is a mention of the TI-Home UK users group.
Available online: <http://www.hexbus.com/tibooks/>



Creating Arcade Games on the TI-99/4A by Seth McEvoy,

Compute! 1984 200 pages.

Ring Bound. The first six chapters cover the basics such as sound, graphics, joysticks, then we move on to the listings. And here is a big problem- the listings do not follow the text instructions, they are actually rather poor programming. Yuck- they could not be bothered to RESequence the listings so you have to type all the line numbers manually! WHY would anyone print a listing with line numbers sequentially:

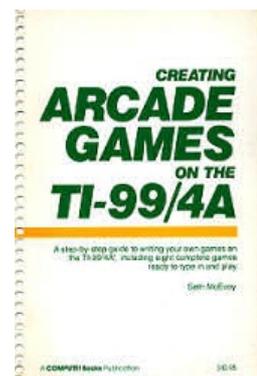
809,810,815,825,826... clumsy, lazy and not helpful. The opening chapter tells you about using the NUM command but that won't help you key these in.

At least the number 0's are slashed and there is a clear difference between the 1s and ls.

Each line in the programs is explained. Programs are typically 49 lines x up to 4 pages.

Another YUCK: LET FLAG=1 LET SR=1 LET SLOW=0 WHY????

That's just a lot more typing for you to do. You do not need LET. and indeed in Chapter 4 we see values allocated without using LET! It looks as though the



listings and the text are by quite different people (they weren't) so great is the disconnect.

As the programs are all TI Basic, you may feel the use of the description of "fast-action ARCADE" is a little overstated... this is not the most efficient or sophisticated programming. It all looks so clumsy.

For example FLAG can have ONLY two values 0 or 1, but we see:

```
120 IF FLAG=1 THEN 700
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125 IF FLAG=0 THEN 750
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instead of 120 ON FLAG+1 GO TO 750,700 and so on and so on.

So what value has this book? The programs run as is, your task is to make them run faster and use less memory... that should be an easy hit. It is absolutely not an example of good programming. Perhaps a starting point to give you games ideas.

Each listing has suggestions for changing the games.

I hesitate to recommend this book to anyone, but it does give you a starting point for some simple games- just avoid programming in this style!!

Available online: <http://www.hexbus.com/tibooks/>

Making the Most of your TI-99/4A by Scott Vincent, Interface,
June 1984, 256 pages.

Basic statements are introduced and illustrated by means of a number of program listings, all in TI Basic, which are clearly printed with slashed 0s and clearly different 1s and Is.

Coverage includes saving data to cassette (failing to mention the restricted values for record length in the OPEN statement), using arrays, using RESequence, Print Formatting (with .,;:), reading DATA statements; the use of * and + instead of AND and OR.

Within the limitations of TI Basic this is a thorough and well written and presented book with no mention of Extended Basic. It covers most of the Basic commands very well and shows the more sophisticated uses of Basic in practical programs. The Checkers game is translated from one by Tim Hartnell who is properly credited.

Excellent book and recommended for a collection of short programs to type in, lots of illustrations of using TI Basic with good supporting text.

Available online: NO. Not anywhere.

Dynamic Games for your TI99/4a by Scott Vincent, Interface,

September 1983, 159 pages.

What it says on the cover- a collection of games listings - all in TI Basic. Some have over 200 lines for you to type in! Slashed zeroes and a clear difference between 1s and Is. Each game has a brief description of game play, and what each section of programme does. There is no programming explanation beyond this. You will find some sophisticated programming here including quite complex use of logical operators (*+) and use of PRINT TAB which you don't often come across.

If you would like games to key in, here there is a fine selection.

Available online: https://www.ti99iuc.it/web/index.php?pageid=database_cerca&archivioid=1041

