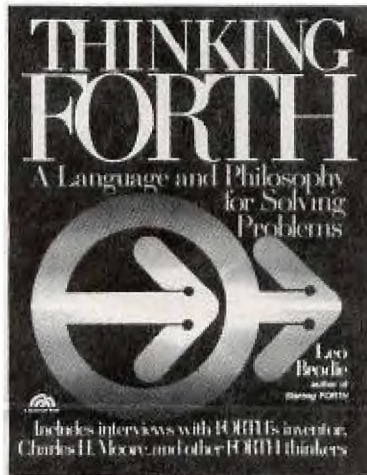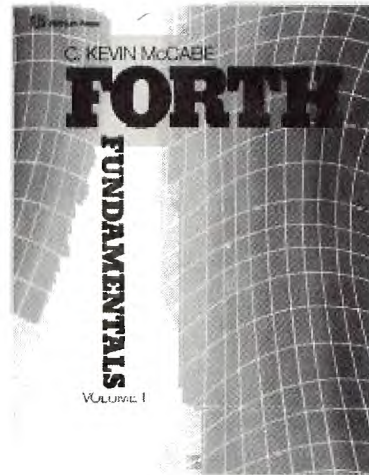# MILLERS GRAPHICS

## THINKING FORTH

Thinking Forth is a new book written by Leo Brodie that is for anyone interested in writing software to solve problems. It focuses on design and implementation: deciding what you want to accomplish, designing the components of the system, and finally building the program. This book stresses the importance of writing programs that not only work but that are also readable, logical, and that express the best solution in the simplest terms. Even though most of the principles described in the book can be applied to ANY LANGUAGE, they are presented in the context of Forth.

Thinking Forth is thinking simple, thinking elegant, thinking flexible. It is not restrictive, not complicated, not over general. You do not have to know Forth to benefit from this book. Thinking Forth reviews fundamental Forth concepts and takes you from initial specification of the software project through the analysis and implementation process, showing you how to simplify your program and still keep it flexible. Both beginning and experienced programmers will gain from it.

Along with above material this book also includes interviews with a variety of Forth professionals and the inventor of Forth, Charles Moore. This book is a much welcomed addition to any serious software author's library. Approx 300 pages - 6x9 paperback.

## FORTH FUNDAMENTALS Vol 1

This book is devoted to explaining the powerful language of Forth. It introduces you to fig-Forth and Forth-79 with full descriptions of Forth words and programming methods. Provides you with a detailed examination of the language and its internal operations. Gives you fully annotated listings of all fig-Forth language model definitions. Gives you concise, non-technical descriptions of all major Forth word definitions and programming techniques. It also encourages you to try the numerous program examples which are provided and to combine them into more complex operations. The chapter headings include such topics as:

Fundamental Concepts.
Numeric Operations.
Data Storage and Transmission.
Compilation Fundamentals.
Conditionals and Compiler Directives.
Memory Organization.
Dictionary Arrangement and Management
Dictionary Expansion.
Text Strings and Terminal I/O.
Mass Storage Management.
Source Code Storage and Editing.
Initialization, Interpretation and
Error Recovery.

Since TI Forth was modeled *after* fig-Forth this book should help any TI Forth programmer with the concepts and development of software.

Order Number  **B001**          Price  **15.95**   Order Number  **B002**          Price  **16.95**

# ADVANCED DIAGNOSTICS

```
        ADVANCED DIAGNOSTICS
     ┌────── Status ──────
     Command : Motor Speed

     Drive   : 2
     Side    : 1
     Free    : 700
     Used    : 20

     ┌───── Motor Spe

        280  290  30

     [Motor Speed
     [
```

```
     Drive   : 2     Track  : 0
     Side    : 1     Sector : 0
     Byte    : 0     Display: Ascii

     T E S T
     S K  (  · · · ·
          · · · · ·
          · · · · ·
          · · · @ ·
          · · · · ·
          · · · · ·
          · · · · ·
          · · · · ·
          · · · · ·
          · · · · ·
          · · · · ·
          · · · · ·
          · · · · ·
```

```
     Drive   : 2     Track  : 0
     Side    : 1     Sector : 0
     Byte    : 56    Display: Hex

     5445535420202020202002D01244
     534B20280102(
     000000000000(
     000000000000(
     030000000000(
     000000000000(
     040210084020(
     200001000000(
     000000000000(
     000000000000(
     000000000000F
     FFFFFFFFFFFF
     FFFFFFFFFFFF
     FFFFFFFFFFFF
     FFFFFFFFFFFF
     FFFFFFFFFFFF
     FFFFFFFFFFFF
     FFFFFFFF
```

```
        ADVANCED DIAGN(
     ┌────── Status ─
     Command : Check Dis

     Drive   : 2     Trac
     Side    : 1     Sect
     Free    : 700   H/S
     Used    : 20    Bad

     ┌───── All Sectors ─
      ···· ···· ··
      ···· ···· ··
      ···· ···· ··
      ···· ···· ···· ···
      ···· ···· ···· ···
      ···· ···· ···· ···
      ···· ···· ···· ···
      ···· ···· ···· ···
      ···· ···· ···· ···

     [Command File DSK1.R&WTEST ]
     [                          ]
```

```
        ADVANCED DIAGNOSTICS
     ┌────── Status ──────
     Command : Format

     Drive   : 2     T
     Side    : 1     S
     Free    : 700   H
     Used    : 20    B

     ┌───── Sectors Map ─
      190   208   215
      244   251   262
      287   298   305
      334   341   352
      ···· ···· ····
      ···· ···· ····
      ···· ···· ····

     [Edit Sector 251
     [

     Disk Initializat
```

```
        ADVANCED DIAGNOSTICS
     ┌────── Status ──────
     Command : Motor Speed

     Drive   : 2     Track  : 0
     Side    : 1     Sector : 0
     Free    : 700   H/S    : 3
     Used    : 20    Bad    : 18

     ┌───── Command List   Pg 1─
      Change Colors  - CC
         CC fore back bord *char
      Check Disk     -  CD
      Command File   -  CF
         CF DSKx.filename
      Check Memory   -  CM
      Copy Read      -  CR
         CR start_sec #sectors

     [Edit Sector 0            ]
     [                         ]
```

Have you ever wondered what type of information is written to the disk when it is formatted and resides inbetween the sectors, where it couldn't be seen until NOW? Have you ever wondered what happens to a disk that has half of its tracks formatted as single density and the other half as double density? Will it still work? Or could it be used as a form of protection? Have you ever wondered if your disk drives are turning at the right RPM? Have you ever wanted a Full Screen Sector editor that allows editing in Hex or ASCII and one that was programmable so it could do it over and over. Well NOW all of this and MUCH MUCH more is possible with the New Programmable ADVANCED DIAGNOSTICS program from Millers Graphics!!

Some of the more advanced features include Windowed HELP at any time and on any screen, the ability to execute user written Command Files and a Screen dump function with the press of a key. Command Files are DIS/VAR 80 Text files like TI Writer and Editor/Assembler files. These Files can contain any of the commands known to Advanced Diagnostics and any of the keys on the keyboard (ie: FCTN 1 Delete etc.). Once the command file has been loaded into memory Advanced Diagnostics will execute it as if it was typed in from the keyboard, only MUCH faster!! With this feature you can easily write Command Files to: Format a box of diskettes or Print out selected sectors from the disk to your printer or Do a read only test or Do a seek test or Edit sectors and change selected characters and hex values or generate some protection or.................

### Here are some of the Programmable ADVANCED DIAGNOSTICS Commands

| | | | | |
|---|---|---|---|---|
| CHANGE COLORS | COPY READ | FIND FILE | OUTPUT WIDTH | SELECT DRIVE |
| CHECK DISK | COPY WRITE | HEAD STEP | PAUSE | USE DSR |
| COMMAND FILE | EDIT SECTOR | MOTOR SPEED | READ TRACK | WRITE SECTOR |
| CHECK MEMORY | FORMAT DISK | OUTPUT DEVICE | SEEK TRACK | WRITE TRACK |

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## FORTH FUNDAMENTALS Vol 2

Forth Fundamentals Vol 2 is a complete combined glossary and detailed examination of each core word of the fig-Forth model and Forth-79. Both experienced and inexperienced programmers should find that volume two is a convenient reference. Moreover, the glossary contains full annotations for each fig-Forth word that is defined in terms of other Forth words. The definitions provide good examples of language usage.

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A time saving reference guide featuring alphabetically arranged modules with carefully described commands, numerous screen illustrations and sample program applications. The step-by-step keystroke sequences serve as a quick brush up for the avid user or a friendly learning tool for the novice.

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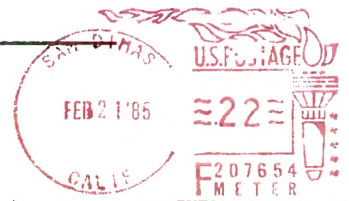
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