MaxThink[tm]

Max94 HyperText Outline / Idea Processor

MaxThink
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Changes since Max91:

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Warranties

MaxThink warrants that any software supplied on diskette is free from recording defects. MaxThink will replace any diskette with recording defects within 30 days from the date of purchase. No other warranties are expressed or implied as to the operation, use, or viability of the MaxThink program.

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Where to start!

If you're wondering where to start, from **Alice in Worderland**, it depends on where you want to go! However, from years of personally answering all phone calls and technical questions about MaxThink, the choices seem to be:

Tell me how to quickly load the program. I'll figure everything else out myself.

How to load

> See Chapter 1 then shut the manual. One important reminder: Press F1 on any screen or command for complete details presented in an easily mastered hypertext format (uses only arrow keys and ESC).

I want to learn this program as fast as possible because the deadline for my project, term paper, screen play, or grant proposal is tomorrow.

How to learn

> Ok! See Chapter 1 to load MaxThink. Insert the tutorial tape into your cassette and press play. In no time you'll know MaxThink.

I already know MaxThink — just tell me what's new!

What's new

> See Appendix C for spectatular new capabilibies in MaxThink.

I want to better understand thinking and writing processes, master MaxThink, and learn of Neil Larson's philosophy while reading one of the best computer manuals ever written.

How to master

> Turn this page. Warning! While the first person style of this tutorial manual blends puns, light humor, stories, strong opinions, and soaring insights, most readers say the manual alone is worth the price of the program. However, if this does not speak to you, listen to my tape.

I'm not sure what I bought. What is MaxThink?

What's MaxThink?

> See Appendix D for the specifications to MaxThink as well as for comments from critics and users alike.

I'm totally overwhelmed, know nothing about computers, and this is my first ever application program.

I'm lost

> Read this manual carefully, do each recommended action, and MaxThink goes beyond your wildest dreams. That's guaranteed!

Preface

Before you start reading this manual, here's a short description about me as the author and creator of MaxThink.

Who is the author?

As for me, I'm mid-fifty, and wear a daily uniform of dockers, T-shirts, and Birkenstocks in an "early Berkeley" style. That's one of the pleasures of being boss in my home town — I can dress any way I desire.

Background

For education, I have a degree in math from UC Berkeley and an MBA from Stanford that focused on marketing and operations research. But don't hold that against me as I've played banjo in night clubs, raced sailboats, made player-piano rolls, been a Scoutmaster of several troops, and created a couple of multi-million dollar companies.

Outside interests

I sing barbershop, tap-dance, work in community theater, play stride piano, and served two elected terms on our local school board. My pleasures include bicycle touring, long distance running, voluntary simplicity (I've not owned a car and other such mandatory complexities for five years), reading science fiction and spy thrillers, watching **Mystery** and **MASTERPIECE THEATER**, and listening to classical music while I write. And, my six kids range in age from junior-high through college.

Computer processing verses mental representation

I'm very interested in how people think and write and how computer software can help represent and clarify ideas in your mind. In my opinion, most software focuses on processing rather than representation. Yet, software for representation of ideas (high-level thinking) is generally many times more important than processing speed (low-level thinking). Doing the right things right beats doing the wrong things faster.

However, rather than lose readers in philosophical arguments on processing, representation, and perception, I've simply modeled this MaxThink manual after the popular **THE COMPLETE IDIOTS GUIDE TO VW REPAIR** of the 1960's. I felt that a "how to do it" book on using computers to expand thinking might be too pretentious in any other form as computers normally provide speed, not insight.

You tell me!

After you've used MaxThink, please phone me. I want to hear what you would like to see added or improved. I'd also like to know how you use MaxThink, what other kinds of software are important to you, and what books on thinking and writing you recommend that I read. After all, I want to learn more about ways computers can clarify thinking and writing.

Neil Larson
510-540-5508

Table of Contents

Appendix topics

Every journey begins with a first step

Chapter 0

In the Beginning . . .

MaxThink is about writing and thinking. It supports the conceptual, structural, and transitional text processes that makes ideas jump off the pages into readers' minds. That's useful if you write, think, or plan!

What's Wrong With Word Processors?

Let's start with the basics (which means my biases). Your word processor has almost nothing to do with writing! Word processors only aid the mechanical editing of text and push-button shifts in appearance. Shocking? Well, speak up! What do you do with your word processor?

Regurgitative writing

If you use your word processor to capture your mentally pre-written scripts with happy fingers at a keyboard, congratulations . . . you're into memory retrieval rather than insight and discovery. Unfortunately, dumping your memory out on paper seldom produces discoveries or organized insights worth reading.

Junk-yard writing

You've heard of "junk-yard" dogs. Well, here's a writing style that gives new meaning to that expression.

A university professor of composition (and happy user of MaxThink) describes the writing from his college students this way:

> "The top students focus on artful collections of jargon and cliches . . . while the worst rely on outright plagiarism."

Don't laugh. Many people write using this very same approach supported by fancy text management/document retrieval systems and cut/paste software. The results? . . . crazy-quilt text that's hardly a step beyond D-minus students who pass off any old text they find as their own writing.

If this is your style of writing, you may not fool everyone that skills with scissors and glue equals original work. Plagiarism is not critical thinking.

Type-and-hope writing

How about write it once, check the spelling and say it's done? This common approach to writing produces a linear, conversational tone that is unusable for anything over five-paragraphs. Why? The defect of this approach is weakness in structure, transitions, and unity.

Good writing is not linear, but so tightly interwoven that it is impossible to add or remove text and ideas without changing the meaning. That seldom happens in one-draft methods.

Secretarial writing

If you are loaded up with word processors, spelling, synonym, style, and grammar checkers plus print formatters, maybe you should start a school for secretaries. The reason is that the commands of today's word processors are almost identical to those in software for typing-pool productivity of fifteen years ago. So, what's different?

The difference is that the personal computer made hunt-and-peck operations appear as legitimate activity for executives. That's fine as long as you don't confuse tools for janitorial polish with the crafts of architects and builders.

But what about the real costs of our recent national fetish with personal computers? While twenty million U.S. managers and executives have learned how to diddle with personal computers, foreign managers (cursed with languages and alphabets too complex for 88-button keyboards) have simply focused on quality, productivity, and service.

Flash-dance writing

It's almost illegal not to join the current fad for desktop publishing and laser printer flash which adds new opportunities for executives, lawyers, and managers to pretend to be layout artists and typesetters.

If you can judge a book only by its cover, you're home free. But if anyone looks past the cover, all the pretty layouts and designs in the world won't cover the gaps in your thinking.

WHAT IS WRITING?

As you can guess, that's a controversial subject. Consider this.

On one side, a $200 billion dollar/year industry represents word processing as God's gift to writing.

With technical writing, the word processor saves at most $20 per page in editing and appearance costs. It has not had much impact on the real costs

But despite this annual investment in electronic aids, the cost of technical writing still averages $500 per page whether done by pencil, pen, dictation, typewriter, computer, or desktop publishing. Why? Because good thinking is hard work.

During the last decade, corporate America has spent a fortune on personal computers only to turn their best managers and executives into over-compensated file clerks, adding machine operators, and layout artists. The problem is not the computer, but the dominance of software for automating entry-level processes.

Confusing efficiency

Letting high-priced talent do a wider variety of low-level tasks at slightly faster speeds doesn't gain much in productivity. While speaking a buzz-word polyglot of Windows, Microsoft, DOS, Word Perfect, and Lotus, most executive keyboarding is closer to job enrichment than actual productivity . . . making the personal computer into the toy-train layout of the 1990's. Outrageous? Heck no! Those toes are natural to step on.

But that's enough about traditional software. I've already mentioned several of the current misguided methods of writing. Now, I'd like you to consider a different kind of writing.

Discovery writing

I like E.M. Forrester's (A Passage to India) comment, "I write to see how I think." That's using writing as means for personal discovery.

Continuing, I often ask scientists and researchers where they actually make their discoveries. Usually they say that it is not collecting information in the lab, but during the organizing and writing of their notes when ideas click together in ways that produces flashes of insights. Again, that's writing for discovery. How does this happen?

You already know about computer "processing" which tends towards doing some number, text, or data task faster. In contrast, the central point in MaxThink is just the opposite of "processing." Rather, MaxThink focuses on how you "represent" and develop ideas in your mind. Here's how it works.

Fundamental ideas

MaxThink uses hierarchies to show relationships between ideas, people, and events — to help users better organize, understand, and represent what's in their mind or environment. For example, I believe:

1) Hierarchies are the most common pattern in writing and thinking

2) Creating hierarchies (naming, categorizing, organizing) is the key method for producing insights.

3) The clarity of the hierarchies in your text determines the readability of your writing.

4) Hierarchies provide organized ways to focus your mind and bypass mental processes that inhibit careful thinking.

5) Each of the ways you move information within hierarchies identify a particular style of thinking.

I don't understand!

If MaxThink is new to you, you're probably scratching your head and wondering what I'm even talking about. Well, don't worry.

I'll lead you through this program, a step at a time. You'll learn what MaxThink does, how it aids your thinking, and within a few chapters, you'll have a new vision of thinking, writing, and of yourself too. Let's start!

Matching MaxThink to your system

Chapter 1

Getting Started

This chapter covers:

- How to load MaxThink
- What files are on your disks
- What MaxThink needs from you

You bought MaxThink to help you to do something . . . so let's get going.

How To LOAD MaxThink

For past users:

If updating to Max94, past users should copy the previous MAX.EXE and *.MT file in \MAX to another directory.

If you previously put the *.MT and HELP* files in another file (the SET command), be sure to copy those files to that directory.

Finally, if you made changes to MaxThink's CONFIG91.MT file, use your file rather than the one on the MaxThink disk.

For those who have a hard disk and are in a hurry, write-protect the disk, then insert it into drive A. Do the following at the C prompt:

Action	Results
Type: MD C:\MAX	Makes a C:\MAX directory
Type: CD \MAX	Change to the C:\MAX directory
Type: A:PKUNZIP A:*.ZIP	Uncompress all files to C:\MAX directory
Type: SET MAX=C:\MAX	MaxThink finds the *.MT files when booting
Type: MAX	Boots MaxThink

That's it for this chapter, unless you would like a detailed, behind the scenes description. For example, while this does get MaxThink up and *running fast, its the wrong way if:*

— you don't have room for all the files
— you want to run MaxThink on a limited space floppy disk system
— you want to separate your MAX.EXE from all the support files
— you don't want to retype the SET command when booting MaxThink
— you want to know what all the associated MaxThink files do

To solve these problems, you'll have to turn the page.

Open The Box

Cracker-Jack syndrome

If you're like my kids, the minute the shopping bags hit the kitchen, cereal boxes are opened and they search for the gift at the bottom of the box.

Here's a question of the century. Why did you open my package . . . for the disk or the manual? This manual deals with thinking . . . and your approach provides insight to your own styles of thinking.

Empirical thinking

Some people go for the disk. Nothing wrong with that approach as that's where the action is . . . plug it into your machine and push buttons to see what the heck it does! That trial and error approach is **empiricism**.

Guided learning

In contrast, some people go for the manual . . . pick a comfortable chair, then start reading. That's **analytical** learning. Now, I'll share a secret. While my own bias is trial and error learning, in MaxThink, the real gold mine is the manual. Not because I wrote it, but because MaxThink is a new concept — computers to expand your high-level thinking skills.

I'm not talking about some wild-eyed twilight-zone expert-system fantasy. I'm just providing you with tools to represent and polish the contents of your conscious mind. Here's what I mean.

At the simplest level, MaxThink is an outline program. But contained within this program are ideas about alternative ways to think, organize, and write.

Don't skip the manual

If you skip over the manual, you'll still find MaxThink a powerful tool for **analytical** thinking. But you'll miss the more important methods for **evaluative, synthesis, Aristotelian, boundary, Whorfian**, and **context-free** styles of thinking. Don't choke if any of these terms are unfamiliar. In a short time they'll be second nature to you.

So, I recommend that you do follow the manual. In each chapter, I'll provide plenty of opportunities for wide-open keybanging for personal experimentation. I'll also show you a number of styles of thinking and help you find the ones that match your own. With that, let's start learning to use MaxThink. Next topic, please.

What's On The Disks?

Good question. Now you're into hard information. So pay attention!

MaxThink's magic is compressed into the following files:

Master disk description

PKUZIP.EXE	Program to uncompress the other .ZIP files
READ.ME	Instructions on how to uncompress
MAX.ZIP	Minimum set of files to run MaxThink
HELP.ZIP	Complete hypertext help system for MaxThink
MANUAL.ZIP	Example files referenced by this manual
TAPE.ZIP	Example files referenced by the cassette tape tutorial
UTIL.ZIP	Utility programs included with MaxThink

Make A Floppy Backup

MaxThink is unprotected. Here's what that means:

First, write protect the MaxThink master disk before you insert it into your computer or attempt to load it. To write-protect a 5 1/4 floppy disk, cover the small square notch on the side of the disk with tape. To write-protect a 3 1/2 disk, uncover the small square hole at the edge of the disk (i.e. do the opposite of what you do with 5 1/4 disks).

Second, our unprotected disk is easy to duplicate using DOS. To put the MaxThink program on your system, do one of the following:

If you use a floppy disk system, put your DOS disk in drive A and a blank disk in drive B. Do the following at the A> prompt:

Action	**Results**
Type: FORMAT B:	Creates a formatted disk on drive B
Put MaxThink in drive A	Preparation to copy files
Type: COPY *.* B:	Copies all files to drive B
Label disk in B:	Identifies the MaxThink backup disk

Install MaxThink On A Hard Disk

If you use a hard disk, do the following at the C> prompt:

Action	**Results**
Put MaxThink in a:	Preparation to copy files
Type: \MD MAX	Makes a new directory for MaxThink
Type: CD \MAX	Change to the MAX directory
Type: A:PKUNZIP A:MAX.ZIP	Uncompresses required MaxThink files

If you are upgrading a previous version of MaxThink in your MAX hard disk directory, press Y (yes) at any prompt to overwrite an existing file. The files installed are:

Files required to run MaxThink

MAX.EXE	MaxThink proram
CONFIG91.MT	Configuration file
MESSAGES.MT	Prompt messages
TITLE.MT	Title screen
VERSION.MT	Version screen
THINK.MT	50 world's-best context-free questions
MACRO.MT	Hypertext jumps to ALT-K macros

Run MaxThink From Any Directory

To run MaxThink from any directory on your hard disk, add the following two lines of text to your AUTOEXEC.BAT file:

```
PATH=C:\MAX;
SET MAX=C:\MAX
```

Why? Adding MAX in the PATH command includes the MAX directory as a directory to be searched for commands that are not found in the current directory. This helps your system find the MAX.EXE file at execution time.

Including the SET command tells MAX.EXE where to find the many help and*.MT files needed to support the MAX.EXE file.

How do you add these settings to your AUTOEXEC.BAT file?

The steps are:

Switch to the root directory

Load your word processor with the ASCII file named AUTOEXC.BAT

Add PATH=C:\MAX if it contains no PATH command. Otherwise
add ;C:\MAX to the existing PATH statement

Add the line SET MAX=C:\MAX

Save these changes to the ASCII file named AUTOEXEC.BAT

Exit from your word processor and run AUTOEXEC.BAT

Run MAX to load MaxThink

To users unfamiliar with DOS or word processors, I'd recommed that you ask a friend to do these steps for you on your computer.

Why do all this rather than just insert the disk and run an install routine like many other programs? The answers are:

There are many ways to set up MaxThink depending on available memory, desired locations for files, and goals of the user.

There are many ways to set up existing PATH and SET commands such that automatic modification to include MaxThink settings may not work for MaxThink or that may work for us but then not for other programs.

My opinion? An install program for handling all these possibilities is like creating a dishwashing robot that can go into any unfamiliar house and doing the job right each time. Sometimes, its easier to just do it yourself rather than automate it with risks of breaking dishes in someone's home.

The other .ZIP files

Now this gets a bit complex!

You already know that your MaxThink master disk contains several non-required .ZIP files. In a series of if statements:

If you want online help to every MaxThink command and operation:

Type A:PKUNZIP A:HELP.ZIP C:\MAX Uncompress helps to C:\MAX

If you want your MAX directory uncluttered (containing only MAX.EXE and your outline files with all help and *.mt files in another directory:

Type: MD C:\HELPS	Make C:\HELPS directory
Type: COPY C:\MAX*.MT C:\HELPS	Copy *.MT file to C:\HELPS
Type: DEL C:\MAX*.MT	Delete *.MT files from C:\MAX
Type: A:PKUNZIP A:HELPS.* C:\HELPS	Uncompress help files
Change SET in AUTOEXEC.BAT file to SET MAX=C:\HELPS	See previous page to change AUTOEXEC.BAT file
Run AUTOEXEC.BAT	Make changed SET active

If you want to use the MaxThink tutorial files or utilities:

Type: A:PKUNZIP A:TAPE.ZIP C:\MAX	Files used with cassette tape
Type: A:PKUNZIP A:MANUAL.ZIP C:\MAX	File used with this manual
Type: A:PKUNZIP A:UTIL.ZIP C:____	Puts utility files in ___ directory

Installing MaxThink on a floppy disk system

To run MaxThink on a floppy disk system with minimum file space, I'd:

Make a floppy disk in B: that contains the DOS operating system by using the FORMAT B: /S command.

Unarc the MAX.ZIP file in A: to this new floppy disk in B: by typing A:PKUNZIP A:MAX.ZIP B:

Use a word processor to add a B:AUTOEXEC.BAT ASCII file containing the text PATH=A:\ and SET MAX=A:\ on separate lines.

When this new B: disk is inserted into drive A: and the computer is on, it will boot DOS. At the A: prompt, type MAX to run MaxThink.

Using DOS

Update notes:
Max-94 has been tested on DOS machine 8088 thru Pentium and in DOS boxes under Windows and Chicago.

On rare occasions, I've encountered problems with some MS-DOS systems that depart from the PC-BIOS conventions, particularly on file handling.

For example, my requests for a listing of files in a hard disk directory for Compact 286 are turned down by the MS-DOS for that machine. After a lot of head scratching, I modified MaxThink to solve this problem. Nevertheless, please remember there are differences between PC and MS-DOS, and the later versions of DOS generally correct errors of earlier versions.

Having said that, MaxThink runs on DOS version 2.0 thru 5.0. In addition, it works the shell and task-switching features in the later DOS's as well as in the DOS modes of Windows and the various versions of DesQview.

If HIMEM.SYS is not found, file are limited to availabile low memory.

If HIMEM.SYS is found, the Max94 creates a virtual array (2 sec to 40 sec depending of size)

How Much Memory Is Required?

To use EMS, XMS, and disk space for virtual outlines, add the following to your CONFIG.SYS file:

DEVICE=C:\DOS\HIMEM.SYS

then reboot your machine.

How much memory does MaxThink need? As much as possible!

The program needs at least 300K to boot. As a 25K outline may burn 75K of additional memory, MaxThink always asks DOS for all available memory (in the first 640K partition) when it is booted, more available memory means larger outlines are possible.

However, because MaxThink can rapidly hypertext jump between a series of smaller outlines, often the best approach is to use such meshes of hypertext linked outlines rather than a single giant outline.

How about EMS memory? If MaxThink internally used a database to contain topics and link information, then EMS memory would make larger outlines possible. However, MaxThink uses linked-pointers which are faster and more powerful, but tough on memory. In fact, using MaxThink with portions of outlines in EMS memory is like swapping cubic inches of spaghetti in and out to make the servings seem larger.

What About Memory-Resident Utilities?

If you don't use memory-resident programs, skip this section.

If you use memory-resident programs, I'd suggest initial caution in running MaxThink with memory resident utilities. Here's why.

When MaxThink first loads, the program polls your system for available memory, then allocates all that's available to itself. MaxThink does this as it includes memory allocation and garbage collection routines that run many times faster than DOS.

Here's the problem. Your memory-resident software may stab MaxThink in the back in two ways — by leaving garbage in MaxThink's stack space or by trying to allocate memory when there's none left.

Here's the solution. MaxThink uses a lot of stack space (default value is 10,240 bytes). If you use a favorite co-resident program that conflicts with MaxThink, however, simply increase the stack space that's set aside for MaxThink. Instead of typing "MAX" to boot the program, type "MAX =16000" to boot the program. That sets aside enough stack space memory to eliminate conflicts with most other programs. Amazing!

How About Unusual Hardware?

Read this section if your machine has unusual combinations of hardware.

Some of the early EGA cards in the IBM-AT computer left garbage in MaxThink's stack space. To solve this problem, increase the stack space as described in the previous section.

If you run a BW monitor from a color card, you may need to change some of the color display setting on MaxThink's OPTION menu. Normally, MaxThink checks for a color card in your computer and automatically selects the correct display mode. One way to force BW operation is to use the DOS MODE command to set the display BW attributes, then boot MaxThink by typing "MAX —B" to over-ride our routine that outputs color information if a color card is detected.

MaxThink includes an option to set the screen for the LCD displays used by laptop computers. This option also eliminates problems of using a BW monitor with a color card (I.e., Compaq, etc). Details on page A5.

If you use a non-DOS software routine or shell to address 40 to 120 megs or partition your disk in non-standard ways, add stack space to MaxThink during the booting process (e.g., boot using MAX =16000).

MaxThink prints to the standard parallel port. If needed, use the DOS MODE command to redirect the output through a serial port. MaxThink also can send strings of ASCII control codes before and after printing to shift printer characteristics (bold, condense, italic, etc.). Finally, you can adjust MaxThink to match the various page lengths used by different laser printers, typically 60 text lines per page.

What About Memory Managers?

MaxThink works with a number of programs such as **Windows** and **DesQview** using their conventions for maintaining several programs in memory at one time.

If you use **DesQview,** MaxThink automatically remaps the video output to the screen driver for **DesQview**. This allows users to instantly cut and paste text between MaxThink and other programs.

In configuring **DesQview** for MaxThink , don't forget to set aside plenty of memory (at least 300K) for both the program (210K bytes) and data space (perhaps another 100K).

What MaxThink Needs From You

This sounds like the old "Uncle Sam Wants You!" poster. But here are my expectations.

Specifically, your unprotected copy of MaxThink is not for group use at your business or with friends. Instead, MaxThink is solely for your use at home or your office. Going beyond that is intentional theft.

Having said that, we offer a regular newsletter, technical help via the telephone, and frequent updates to help you become successful with MaxThink.

In exchange for our help, I'd like you to show the capabilities of MaxThink to your friends and associates. But as mentioned before, please respect that word "SHOW" as your future updates as well as my livelihood and that of my x-wife and six kids (ages 11-24) depend on you honoring the license agreement for this software.

Summary

Looking back over this first chapter, two points stand out.

First is my observation that the way you opened the MaxThink package perhaps hints at one of your styles of thinking — whether loading the disk using a trial-and-error, self-discovery approach (empiricism) — or reading the manual to learn from others (guided tutorial analysis).

The "Domino Theory" for identifying thinking skills

To expand on this theme, if I let you put your ideas on a bunch of dominos, then watch how you organize them, I can quickly identify your personal style of thinking. Thinking is not a mystical light-bulb process, but just how you move information within your memory. That's one insight into the next chapters in MaxThink as the program contains several dozen ways to organize information.

Thinking skills are best identified by the ways you approach unfamiliar information

The second observation is that good thinking skills are not particularly correlated with your IQ, your income, or your profession. Instead superior thinking is identified by how you approach or acquire information outside of your specific education or activities . . . such as learning and using MaxThink.

With that bit of philosophy, now in your mind tell me what is familiar or unfamiliar with MaxThink so far?

Your honest answers to this context-free question can rapidly lead to mastery of MaxThink. Now turn this page to continue!

Chapter 2

Ways to Display

This chapter covers:

- File Loading
- Display Conventions
- Macros Building
- Menus
- Messages
- Topic Pointer

How To Load MaxThink

If you haven't already loaded MaxThink as suggested in Chapter 1, you've got to do it now. Start by inserting the MaxThink program disk into drive A. Then, do this:

Booting MaxThink

Action	**Results**
Type: Max	The words"MAX" appear on the screen
Press: Enter	The program loads the following screen:
Press: F2 (toggle)	Set so word HEAD appears in lower left

Initial Screen

```
—> 0 TITLE




MAIN: Topic Addclip Brainstorm Copy Delete Edit Files Get Insert
   Jump Lock Move Options Put Quit Ref Undo Xmark Ver Zwitch
   Makes new topic after current
 TEXT    2    PATH: 0.        174K Bytes    File
```

During the 5 second loading process, MaxThink pre-allocates the memory it desires, displays the title screen, loads the help, message, and configuration files, then displays this screen.

How To LOAD A File

It's time to get serious about learning MaxThink. Hold on because we're now launching . . . 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, Lights, Camera . . . .

Load CHAP2

Action	Results
Press: ESC twice	Always returns to the MAIN menu
Press: F L (Enter)	Selects File Load command
Type: CHAP-2 (Enter)	Loads file named CHAP2

The "0" topic is a parent topic which means it has subtopics as indicated by the underline or reverse video

Topics "1" to "8" have no subtopics

The cursor (moved by the arrow keys) is on topic "8"

Topics "9" and "10" both contain subtopics (as indicated by the underlined or highlighted numbers)

```
0 Description:   What is shown on the screen
    1 Parent topic   The 1st line on the screen (Description:)
    2 Topics         Numbered as a list (this is the number 2 topic)
    3 Command area   Last four lines on the screen (starts with MAIN:)
    4 =========
  5 This is a single line topic
  6 This topic is a 3 line topic (PRESS F2 to display lines)
  7 =========
->8 PRESS the RIGHT ARROW KEY on the two following topics
  9 Reformatting:  How to change the format of the display
 10 Moving:        How to move about the display
 11 ========= The last topic on this list
═══════════════════════════════════════════════════════════════
MAIN: Topic Addclip Brainstorm Copy Delete  Edit Files Get Insert
      Lock Jump  Move Options Put Quit Ref  Undo  Xmark Ver Zwitch
  Makes new topic after current
 HEAD     2      PATH: 0.15          262K Bytes   CHAP-2
```

Maxthink screen display with file CHAP-2 loaded

Take 10 minutes. Put down the manual and explore the file you just loaded. It's a three-level outline. Use only the commands listed below

Arrow-key controls

Actions	Results
Press: Left arrow	Moves up a level in the display
Press: Right arrow	Moves down a level in the display
Press: Down arrow	Moves down the list
Press: Up arrow	Moves up the list

Stop when you are either finished, tired, or confused!

Help

If you've completed all the actions listed on the screen, it's enough to make your head spin. So here's ready relief:

MaxThink includes almost a hundred hypertext linked help displays for every keyboard option. To access the current display, do the following:

Action	Results
Press: F1	Displays all possible actions

At any point in MaxThink, you can press F1 to get your bearings.

The displayed screen lists all the commands that can be executed. In addition, the screen contains hypertext jumps to additional information on each of the listed commands or to the master index file (help99) .

Explore with arrow keys
Press Esc when done

Once in the hypertext help system, the Up/Dn arrow keys select hypertext jumps and the Right/Left arrow keys execute or return from such jumps. These keys allow users to rapidly browse the help network. For a listing of all possible hypertext commands in the help system, press F1 again. To return, press ESC once which automatically return from the help to the help system back to the starting point. Try it!

Help system exit

Action	Results
Press: Esc	Always returns to the previous display

Display Description

MaxThink's display is divided into three areas — title line, working topics, and command/status area.

"Parent"

The first line of the screen shows the parent topic. An outline contains topics organized in levels (topics and subtopics) to indicate importance or relationships. In this sense, a parent topic is one level above the current level and usually indicates the commonalities of the current level.

"Subtopic" indicator

The title line displays an underlined topic number (indicating subtopics) on a monochrome screen, and a background highlight on a color screen. On an LCD screen, you may see either a background highlight or a bold-face character, depending on how you've set your display.

Topics

The area directly below the title line is available for topic information. Topics are listed in numbered sequence on the screen.

Size of topics

Most topics initially contain a single idea, usually in the form of a key word or phrase. As you create and polish an outline, the information in a topic may expand into sentences, paragraphs, or pages of text, limited only by available memory.

Number of subtopics

Similarly, there is no limit to the number of topics listed below a parent topic (title topic). While you could create a multiple-level outline containing several thousand topics, subtopics, and so forth, only the most complex outlines are more that 5-10 levels deep.

Maximum topics

The working topics of the current level are numbered — from 1 to 4098 which is the maximum number of topics that MaxThink maintains in memory at one time.

System Status

The command/status area of the screen (bottom five lines) displays just that — the available commands and current system status.

Let's start with the bottom line, which on my screen displays:

Bottom display line

```
TEXT 2  PATH: 0.1   258K Bytes  C:\MAX\CHAP-2
```

F2 Status (HEAD/TEXT)

Try this:

Expand and collapse text

Note: I'll explain later why "Esc Esc" is important. For now, just do it.

Action	Results
Press: ESC twice	Returns system to the MAIN menu
Press arrow keys to move the topic pointer to the topic number "1"	Arrow pointer moves to the first topic
Press: F2 several times	Display shifts between showing only the first line of each topic or all text in a topic

The F2 key helps compact information to keep it within the screen space

Notice that the word TEXT and HEAD alternately appear at the beginning of the list line on the screen. HEAD means the "topic headline" or first line of text; TEXT means all the topic text. These two words report the status of the F2 key.

Macro Building (KEY/)

In a future chapter, I'll show you how to build keyboard macros (creating reuseable sequences of MaxThink commands). But for now, do the following to see what happens to the empty space after TEXT/HEAD:

Starting a macro

Action	Results
Press: Shift F6	The word KEY appears on the bottom line of the screen. This indicates the recording of a sequence of keystrokes
Press: Shift F6	The word KEY disappears from the screen.

Outline Levels Displayed (2-10 levels)

The next item on the bottom line of the display shows the number of outline levels that are displayed. Do the following:

Expand outline levels

Action	Results
Press: Ctrl Right arrow	Expands number of levels displayed
Press: Ctrl Left arrow	Contracts number of levels displayed

In this case, more is not better. While MaxThink can display between 2 and 10 outline levels on the screen, the default value is 2 level.

In the "WHAT'S IT ALL MEAN" section at the end of this chapter, I'll cover the reasons why outlines work (i.e. help people think, create, etc.), and why a two-level display is optimal.

CAPS Lock (OFF/ON)

While it's somewhat ho-hum, try this:

Caps lock status

Action	Results
Press: Caps Lock key	The word CAPS appears on the last line
Press: Caps Lock key	The word CAPS disappears from the last line

PATH: 0.1

The current pathname, displayed after the word "PATH" on the last line of the screen identifies the position of the arrow pointer in your outline.

Just as every house on a street has an address, every location in an outline has a path (or address)

If the arrow pointer is on topic number 1 (just below the title topic), the status line displays a 0.1.

Each topic in your outline has a unique pathname. These pathnames provide a roadmap in your outline and are used to identify topics to move or modify.

Path examples

Action	Results
Press: arrow keys	Watch how the PATH numbers change

Available Memory (170K)

The number of bytes identifies the unused memory in your system.

This number is approximate as MaxThink allocates and frees both text and topic space with expectations on the average amount of text per topic.

File Name

Bottom right corner

The file name of the last file loaded (currently CHAP-2) is displayed. The SAVE command (covered in a minute) shows all drive/path information.

Command Menus

Update note:

Located just below the double dividing line, MaxThink displays a menu of commands. MaxThink includes several different menus (such as BRAINSTORM, FILES, OPTIONS).

The initial menu is called the MAIN menu (look for the word "MAIN:"). The commands of the MAIN menu are listed on two lines — the first is "Topic" (currently highlighted) and the last is "Zwitch."

I'll describe these commands and the workings of the command selector in subsequent paragraphs.

Prompt Menu

Once you select a command, a prompt menu appears in the same area of the screen as the command menus. The prompt menu asks you for more information.

Before executing a command, with each prompt menu, MaxThink suggests a default response. More about this later as we're still in the description stage. Just don't worry. You will be behind the wheel soon enough.

Message Line

Don't press Enter yet

The third line "Menu of Brainstorm commands" displays status, error, and command information. In this case, the line describes what the highlighted command (Brainstorm) does. I'll now risk putting you in the drivers seat if you promise not to turn on the engine (i.e., please don't press the Enter key).

Keyboard control of the command menu

Action	**Results**
Press the Space Bar	Highlights a new command for possible selection. Message line shows what the command does.
Repeat previous action	Highlights next command
Press the backspace key	Highlights previous command
Press ESC twice	Hopefully eliminates any damage in case you pressed ENTER after I told you not to.

At this point, I'm holding my breath. In a few minutes, you'll be ready to solo MaxThink. If you jumped the gun, I will understand. With 6 kids, early unexpected flights into unknown areas are part of my daily life. It's just tough on an old teacher who wants you to be successful.

Topic Pointer

Now, back to the real world.

Topic pointer

You've noticed the arrow (—>) on the left side of the screen. This arrow identifies the current topics. While you may want to call it a cursor, I generally refer to it as the TOPIC POINTER. Here's why.

MaxThink deals with two entities — structure and text. The topic pointer shows your location in the structure; a cursor shows your location in text. If this isn't clear, don't worry as I'll cover the text cursor in a few chapters.

Moving The Topic Pointer (—>)

You've already done some of these steps. The current Chap-2 outline in memory isn't large enough to illustrate the last four commands shown in the following box, but don't worry . . . you'll get your chance to test them in later chapters. The basic topic pointer commands are:

Topic pointer commands

Move up the list	Up arrow or Ctrl-E
Move down the list	Down arrow or Ctrl-X
Move to parent topic	Left arrow or Ctrl-S
Move to subtopic	Right arrow or Ctrl-D
Move to top of list	Home
Move to end of list	End
Move up a page	PgUp or Ctrl-R
Move down a page	PgDn or Ctrl-C
Move up a list segment	Ctrl-Up arrow
Move down a segment	Ctrl-Down arrow

Now four points to consider before moving on:

First, I think the ways to move the topic pointer are logical and intuitive, but then I designed and have used MaxThink for several years. To make these commands intuitive and logical to you, review this list to see if they seem natural to you. However, if they aren't, use ProKey or Superkey to redefine MaxThink's commands to suit your personal whims.

Secondly, I organized this list of commands with my most frequently used commands at the top of the list. This hints at the way MaxThink is used. More on this at the end of this chapter.

Supports both arrows keys and Wordstar coventions

Thirdly, if you have sharp eyes, you may have noticed that many of the commands offer two options. While I always use the arrow keys, MaxThink includes vintage Wordstar conventions for those who wish to think that way.

Segmented lists

Finally, the list segment moves (Ctrl-PgUp, Ctrl-PgDn) may seem strange to you. Segmented lists, however, support many styles of thinking (e.g., Aristotelain, Boundary, and Linguistic) in invaluable ways. Again, that information will make sense once you've learned the basics of MaxThink.

Managing The Display

Besides commands for moving through an outline, MaxThink also lets you control the display in several wondrous ways. The basic commands for controlling the display are:

Display management

Expand/collapse text	F2 (toggle)
Expand levels shown	Ctrl-Right Arrow
Collapse levels shown	Ctrl-Left Arrow
Show # of descendants	F3 (toggle)

You've already tried the first three commands. Let's go for a clean sweep by doing the following:

Number of descendants

Action	**Results**
Press F3	The margin numbers are replaced by two numbers. The first is the number of immediate subtopics; the second is the total number of subtopics below each topic across all sub-levels.

F3 is handy to see if your organization pattern or outline structure is unbalanced (too many topics in some areas; too few in others).

Summary

Pressing the Num Lock key causes MaxThink to beep whenever you try to use an arrow key. Press Num Lock again to regain arrow key functions.

One final comment! MaxThink does not display the status of the Num Lock key. If the arrow keys are ever unresponsive, press the Num Lock key to unlock the arrow keys. (MaxThink beeps if you hit it accidently.)

With that, you've got the basics of the display all covered. Now, hold on tight because in the next chapter, you're about to solo MaxThink.

Controlling formats of printed outlines

Chapter 3

Loading, Viewing, and Options

Can you hold your horses for another few minutes? You're getting fairly close to creating your own outlines.

This chapter shows you ways you can print, format, and number outlines. In addition, you'll learn how to customize MaxThink to suit your needs. You'll learn:

- How to load a file
- How to view a file
- How to select and create configurations
- How to change MaxThink options

LOAD A File

To show you the different ways MaxThink prints outline information, let's load a new file into MaxThink. Do the following:

FILES menu

Action	Results
Press: F	Selects the FILES menu

Notice the new set of commands across the bottom of the screen. Up to now, you have looked only at the MAIN menu. Now, you're looking at MaxThink's FILE menu.

Lets pause in the middle of our attempt to load a new file. Try the following experiment:

Help screen

Action	Results
Press: F1	Displays the HELP screen

Use the arrow keys to view the details of "Select commands" You'll see that one box ago, you just did this first step to load a new file when you pressed the letter "F," which is the first letter of the FILES command. That was easy! Now, turn the page.

Remove Help screen

Action	Results
Press: Esc	Display returns to the FILES menu

Be careful! You pressed F1 for help. If you press F1 again, you'll see the help screen to help navigate the help files. Press Esc to return. Now, before selecting the LOAD command to load a new file, try this:

Move highlight

Action	Results
Press Space Bar	Next command on the FILES menu is highlighted. Message line describes actions of the highlighted command.
Repeat several times	Description of each command is displayed

A moment ago, you pressed the F1 key for help. The selected jump from the initial F1 help screen also described other options for selecting commands — like press the space bar or type the first command letter.

Select the LOAD command by pressing the spacebar to highlight the LOAD command, then press Enter to select that command. Use this method if you don't know the command or all the options. However, since I know all the commands, I use the first-letter method of command selection. Eventually, it's your choice — spacebar or letters. But now:

Select LOAD

Action	Results
Press: L	Selects the LOAD command

If you made changes to the file in memory since it was loaded, the LOAD command of MaxThink prompts you for a confirmation to save the previous file before it is replaced by a new file. In this case, unless you did something to the file I didn't suggest, you won't see the request for confirmation to erase the file you loaded in the previous chapter. However, if this prompt appears,

Clears memory

Action	Results
Press: Y	Selects the YES option to erase the previous file (appears only for changed files)

The LOAD command then prompts you for the file you wish to load. At the prompt for FILENAME, do this:

Enter filename — do not press ENTER

Action	Results
Type: CHAP-3	The typed text appears after the prompt

Now, before you press the Enter key, try this:

Text-entry helps

Action	Results
Press: F1	Help screen for text entry after prompts
Press: Esc	Returns to FILENAME prompt
Press Enter key	MaxThink loads the selected file

Congratulations! You thought you're merely learning how to load a file. You're also learning that at any point in MaxThink, the F1 key always provides a guide to the current keyboard options. Remember that, and you're ready to solo on MaxThink. The F1 key is your always-handy security blanket for operating MaxThink. If you can remember the F1 key, you could shut this book and get by. But, keep reading, just for mastery!

VIEW A File

We'll go faster in this section as you now have a sense of how MaxThink's command selector works.

MaxThink's working display is not a "What-you-see-is-what-you-get" format. Without going into the advantages of the MaxThink display (that's in another chapter), let's quickly look at the file you've loaded.

Select VIEW

Action	Results
Press: F V	Selects the FILE VIEW command

The next prompt, RANGE, asks what portion of the outline you wish to see. Without getting into what this means right now, let's continue (unless you pressed F1 Enter out of curiosity to get a hint at what RANGE is all about). Do this:

Accept defaults

Action	Results
Press: Enter	Selects the default value for RANGE which is the complete outline
Press: Enter	Selects the CONTINUE option rather than the RESET option that selects another format. I'll cover all this in a moment.

Magic! The display shows the CHAP-3 outline as currently formatted for printing.

At this point, MaxThink offers the choice of three keys to press:

Scroll control

Spacebar	Displays the next page of text or returns to the MAIN menu after the last page.
Esc	Interrupts display and returns to the MAIN menu
Down arrow	Displays the next line of text

Do the following:

Return

Action	Results
Press: Esc	Returns to the MAIN menu

Select A Configuration

Now we get to the purpose of the CONFIG91.MT file on your disk.

MaxThink includes over 60 different options for customizing this program to match your needs. Great balls of fire!

In addition, MaxThink lets you create a name for each of your favorite settings (called a configuration) and then MaxThink maintains an alphabetized list of all your configurations (options list).

Let's look at the current list of configurations.

OPTION Helps

Action	Results
Press: O	Selects the OPTIONS menu
Press: F1	Take a quick look at the keyboard helps
Press: Esc	Returns to OPTIONS menu

The screen displays the list of configurations initially shipped with MaxThink. As already mentioned, you can add your own. But first, let's see how different configurations affect the appearance of your outline.

Standard Configurations

These configurations show the variety of custom settings available in MaxThink. Don't try to remember any of these options, just review the list. The left column is the list shown by the OPTIONS menu; the right column is a short description of the purpose of each configuration.

Preset formats

DEFAULT—1	BW/CGA/EGA display
DEFAULT—2	LCD display or BW with CGA board
DEFAULT—3	Laser printer setup (60 line pages)
Outline - Bullets/dashes	Outline format (no numbers)
Outline - Military (1.1.1)	Military numbering
Outline - Numeric (1, 2, 3)	Outline (Arabic numbering)
Outline - Simple (A. 1.)	Outline (non-Roman numbering)
Outline - Standard	Outline (familiar numbering)
REF - Print, View, Write	List of unique words in text
System - Auto Range	Eliminates prompt for RANGE
System - Brainstorm Mode	New topic with each RETURN
System - Rapid Entry	Option eliminates all prompts
Text - Flush Paragraphs	Numbers/indentions eliminated
Text - Ideas Flagged	Mark ideas & open up text
WP - Microsoft WORD	Special line/topic end setting
WP - Volks	Special line/topic end setting
WP - Word Perfect	Special line/topic end setting
WP - Wordstar	Special line/topic end setting

Create your own configurations to add to this list

After looking over this list, let's return to the Main menu to view the CHAP-3 file using several different configurations.

End of example

Action	Results
Press: Esc	Returns to MAIN menu

Changing Configurations

Of the configurations listed in the OPTIONS menu, these are ones that change the format (printed appearance) of the CHAP-3 file:

Configurations that change printed format

Outline - Bullets/dashes	Outline format (no numbers)
Outline - Military (1.1.1)	Military numbering
Outline - Numeric (1, 2, 3)	Outline (Arabic numbering)
Outline - Simple (A. 1.)	Outline (non-Roman numbering)
Outline - Standard	Outline (familiar numbering)
REF - Print, View, Write	List of unique words in text
Text - Flush Paragraphs	Numbers/indentions eliminated
Text - Ideas Flagged	Mark ideas & open up text

Repeat the following set of instructions for each of the above formats:

Changing configurations

Action	Results
Press: F V (Enter)	Selects the FILE menu, VIEW command, and default RANGE
Press: R	Selects the RESET-FORMAT option of VIEW
Press Up or Down arrow	Marks one of the above formats
Press: Enter	MaxThink displays the CHAP-3 file using the marked configuration

Repeat this procedure with the eight configurations mentioned in this manual to see MaxThink's flexibility for printing or writing files. Skip the other configurations on the OPTIONS list as they affect not just the appearance of MaxThink files, but also the operation of the program itself.

Adding A New Configuration

As mentioned before, MaxThink includes more than 60 different customizing options. Let's take a look at this list.

Select OPTIONS

Action	Results
Type: O	Selects the OPTIONS menu

Now, please follow my next instructions carefully. Hold your breath and think of walking-on-eggs . . . because if you don't, you may unknowingly change one of my useful configurations.

Create a new format

Action	Results
Press: D	Selects the DETAILS portion of the OPTIONS menu
Type in your name, but do not press Enter	Your name appears after "Description:"
Press: Down Arrow key	Moves cursor to the "Save Every" option
Type: S8	Change to auto-save file every 8 minutes
Press: Enter	Prompt appears for CONTINUE or SAVE
Press: S	Saves a new configuration named after you

Ok . . . now you can take a breath. Here's what happened.

If you changed nothing and pressed Enter, nothing is added.

If you changed only the description, you renamed the selected configuration .

If you changed anything but the description, you updated the selected configuration .

If you changed BOTH the description and any other option (which you did), you created a new configuration. Let's check it out.

Select OPTIONS

Action	Results
Press: O	Selects the OPTIONS menu

Sure enough . . . your name is in lights. Now, I feel a lot safer letting you look at all the various options. If you accidentally bang the keyboard, the worst damage you'll do is to change the settings in your own configuration. With that, let's examine the different MaxThink options.

Looking At The OPTIONS DETAIL Menu

Leave the arrow marker on the configuration you just created. Do the following (using the F1 HELP screens):

OPTIONS Help

Action	Results
Press: F1	Displays the OPTIONS menu help screen
Press: Esc	Returns to the OPTIONS menu
Press: D	Displays the first of six DETAILED screens of settings for the selected configuration
Press: F1	Displays the methods to change the options
Press: Esc	Returns to the 1st page of options

Six screens of settings for customizing MaxThink

MaxThink's options are displayed on six different screens. While Appendix A covers each of the options in detail, it is better to wait until you have reviewed another chapter or two more before you start customizing MaxThink. But, go ahead and use the following keys to explore the options.

Types of settings

Key	Action
PgDn	Displays next page. After page 6, displays the 1st page
PgUp	Displays previous page. Jumps from page 1 back to page 6
Enter	Prompts for CONTINUE or SAVE only if you made changes; else returns to MAIN menu
Esc	Disregards changes entered and returns to MAIN menu

What Does It All Mean?

So far, you've learned how to move about an outline (Chapter 1) as well as some ways to format an outline (Chapter 2). You have also learned (in this chapter) how to load and view files and select configurations.

For the nuts-and-bolts tinker-thinkers, MaxThink contains a richer toolbox than other idea-generating programs — lot's of bells and whistles! Why?

For the philosopher-dreamers, the ways in which you move information identify how you think, and the ways that you represent information alter your perceptions. That's why MaxThink provides options galore.

You ain't seen nothin' yet!

As Al Jolson said, "But you ain't seen nothin' yet!" You've still got 25 chapters to go. So, hang on to your hat and turn the page.

Chapter 4

EDITOR

This chapter covers:

- How to create new topics
- How to edit topics

This chapter introduces you to the editor in MaxThink. Also the character of this manual begins to shift with this chapter. You are about to leave the cookbook stage and enter the experimental stage.

My cookbook approach was "You Do THIS, then THAT." I used this cookbook method to get you started. That's accomplished.

So, now you're ready for an experimental approach: "Read the text, then try the commands that interest you."

NEW Command

The NEW command clears MaxThink's memory. Do the following:

Selects NEW

Action	Results
Press: F N	Selects the FILES NEW command

If you've made changes to the information in MaxThink since you last saved it to your disk, MaxThink prompts for a Y/N decision just to confirm your decision. This keeps you from accidentally tossing out your "baby with the dishwater" . . . or some similarly bad metaphor.

However, if MaxThink does prompt you with "Load? Yes or No," then:

Clears memory

Action	Results
Press: Y or Enter	Confirms your decision to clear memory

TITLE Topic

All MaxThink outlines contain a title topic. Consequently, when you cleared the previous outline from memory, MaxThink created a new outline starting with the word TITLE.

Here's some unusual qualities about this topic. It is not part of any list of topics nor numbered as a topic in an outline.

MaxThink permits almost unlimited numbers of topics and subtopics at any level with only one restriction. Only one topic (called the title topic) is allowed at the highest level in any outline, making MaxThink what mathematicians call a "rooted tree."

Only one TITLE topic is allowed in every outline

While the title topic can contain as little or as much text as desired, this text is only printed as a header at the top of each page. The area for printing text in this topic varies from the first 20 characters of the topic up to a maximum of the first 5 lines of text, all set by the OPTIONS menu. Consequently, the title topic is not part of any numbering method you select.

As the title topic is different from other topics, I use it for printing the title or file name to my outlines at the top of each page.

Ways To Create A New Topic

You can create new topics in MaxThink using special commands on the MAIN menu, or using function keys from the MAIN or EDIT menus.

MaxThink includes four function keys that create new topics. They are:

Use function keys to create new topics

F10	Creates a topic after the current topic (a major-major command)
F9	Creates a topic before the current topic
F8	Creates a subtopic of the current topic (a major command)
F7	Creates a topic after the current parent topic

You already know how to move the topic pointer (arrow pointer on the left side of the screen). If you've forgotten, press F1 and read all the "Move _____" commands. Fill in the blank, then press Esc.

Just to check that we're all together, right now the topic pointer should be on the word TITLE. (If it isn't, press Esc, then reread this chapter.)

Max94 adds a new way to create a topic, which is: press ESC then ENTER

Not to overwhelm you, there are actually six (6) different commands that create your first subtopic. Before you shut this book in disgust, let me describe each, and then you can take your pick.

Methods for creating

Here are the seven (7) different ways to create a topic:

Method #1

INSERT	The INSERT command was part of the earliest versions of MaxThink. To use it, press the first letter of the command (i), then press enter twice (selects the AFTER option of the cursor position). Nice, but I prefer the F7-F10 keys because they are faster and work identically in EDITOR and MAIN menus.
INS key	A couple of years ago, I added the INS key which bypasses the prompts for LOCATION and PATH. While faster than INSERT, I still prefer the F7-F10 keys as INS works only from the MAIN menu.
F7-F8-F9-F10	These keys are a fairly recent addition to MaxThink. These are the keys I recommend you remember.

Method #2

Method #3-6

Now if you're a sharp thinker, you might say that only the F8 key of these seven ways to create a topic should work with a TITLE topic because the other keys don't create subtopics. Well, you're right.

Method #7 in Max94 is press ESC ENTER

However, since MaxThink allows only one topic at the title level, no matter what keyboard method you select, MaxThink is smart enough to create a new subtopic. After that, the keys all work as advertised.

New Topics From the Editor

Having beaten the topic creation concept to death, let's do it:

Topic creation

Action	**Results**
Press: F8	Creates a new subtopic of the TITLE topic
Type: any letters	Text appears on the screen
Press: F10	Creates a new topic AFTER the current topic
Type: The quick brown fox jumped over the lazy dog	Familiar typing appears on the screen
Press: F9	Creates a new topic BEFORE the "lazy dog"
Type: Now is the time for all good men . . .	Another familiar phrase appears
Press: F8	Creates a subtopic BELOW the "good men . . " topic

Type: Six thrifty thistle sifters (try to say it fast three times)	
Press: F7	Creates a new UNCLE topic after the parent topic
Press: Esc	Leaves the Editor

For a quick review, press F7-F10 keys to create new topics while you are on the MAIN menu or in the EDITOR.

New Topics From the Main menu

While you could use the INSERT command or INS key, I prefer the F7-F8-F9-F10 keys. So:

Topic creation

Max94 adds a new way to create a topic, which is: press ESC then ENTER

Max94 adds a new way to create a subtopic in the editor if it doesn't already exist, which is: END END RIGHT

Action	**Results**
Press: Home key	Moves the topic pointer to the first topic
Press: E	Selects the Editor
Press: F9	Insert a new topic before the first topic
Type: Four score and seven years ago . . .	Another familiar phrase on the screen
Press: Down arrow twice	Text cursor moves down two lines
Press: F9	Inserts a new topic before the current topic
Press: Down arrow once	Cursor moves down on line of text
Press: F10	Inserts a new topic after the current topic
Press: Esc	Leave the editor

To summarize, press E (for EDIT) to modify existing topics. Press the F7—F10 keys to create new topics. In addition, the F7—F10 keys work the same way from either the EDIT or MAIN menu. Finally, the arrow keys move the cursor within and across topics. More about this in a minute.

Carriage Return and Linefeed Characters

While invisible to you, there are special hidden characters all over the screen). Try this:

Diamonds and Triangles

Action	**Results**
Press: F10	Creates a new topic after the current topic
Press: Enter five times	As series of blank lines appear
Press: Esc	Leaves edit mode

MaxThink files are pure ASCII. The only unusual characters in the file are the **carriage return** characters and **linefeed** characters that are there but not shown on the screen. The basic rules are: When you press the Enter key, MaxThink puts a hidden carriage return which marks the end of a line . A carriage return plus line feed ends topics.

Display Format

Let's pause for a couple of short comments.

*Word processing focuses on WYSIWYG — What you **see** is what you get.*

*MaxThink focuses on WYTIWYG — What you **think** is what you get.*

This manual will help you understand the differences between tools for structure and tools for appearances.

First, the standard MaxThink display format uses **hanging indents** (first line is longer than the subsequent line). I like this format as it visually separates topics. If you prefer something else, change the left margins using the OPTIONS DETAIL command. Just remember that the screen display (what you're looking at) is independent of the format used by our VIEW, PRINT, and WRITE commands (described in a later chapter).

Second, I always leave the F2 key in the HEAD mode (displays only the first line of text in a topic). When the Editor is selected (press E) or you create a new topic (F7-F10, INSERT, INS key), the text is expanded. Upon leaving the Editor (press ESC), the text is automatically collapsed to the previous summary mode (shows only first line of each topic).

Third, if you'd rather press the Enter key to create a new topic, the OPTIONS DETAIL command let's you redefine the Enter key such that it creates a new topic if it is pushed once, twice, or three times in a row. MaxThink is your program, so set it up the way you think is best.

Editor Help

I've put off showing you the editor help screen as long as possible as it contains a lot of commands. Be prepared, as you do the following:

Keyboard commands

Action	**Results**
Press: E	Selects the Editor
Press: F1	Screen displays the first screen of EDIT commands

Now, it becomes somewhat complex. Here' why?

First, the lower portion of the EDIT help contains hypertext jumps to three other EDIT menus — Cursor movement, Text editing, and FIND. Each of these associated menus also contain sub menus . . . with each having more jumps. Wow!

Either use the arrows to explore this hypertext help system, or . . .

Press: Esc Esc	Returns to EDIT, then MAIN menu

If you press the F1 key in the Editor, a help file similar such as this one is displayed

```
TEXT EDITOR HELP

  KEY COMMANDS
      Insert new topic after        F10        <Help41 8>
      Insert new topic after        F9         <Help41 8>
      Insert new subtopic           F8         <Help41 8>
      Return to Main menu           Esc        <Help41 7>


    OTHER TOPIC COMMANDS
      Insert new parent topic       F7         <Help41 8>
      Divide topic at cursor        Shift-F10  <Help41 8>
      Delete a no-text topic        Del        <Help41 2>

    OTHER MENUS
      Cursor movement commands                 <Help26>
      Text editing commands                    <Help27>
      Editor FIND & JUMP commands              <Help28>
```

Every command and prompt in MaxThink is supported by similar F1 keyboard-help screens

As you can see, there's a lot to learn. Rather than run you through all the actions, I'll quickly cover the alternatives and leave it up to you to choose which ones to try.

Reference Card

Before we start, if you'd like temporary reference cards AND your printer is properly connected, you can make your own by doing the following:

Hard copy listing

Action	**Results**
Press: E	Selects the Editor
Press: F1	Screen displays summary of Editor commands
Press: PrtSc or Shift-PrtSc	Copies the current screen to your printer
Press: Esc Esc	Returns to the MAIN menu

Of course, you could print all ASCII MaxThink help files from DOS. Files HELP0—28 link to MaxThink with the remainder linked to these ones.

You may have noticed that many of the commands have alternate control-key choices. I use the arrows, however, it's your choice on whether you use the arrow/Home/PgUp/etc. commands or the Wordstar conventions.

Editor Basics

These MAIN menu commands all call MaxThink's Editor:

Topic creation

F10	Insert after
F9	Insert before
F8	Insert sub
F7	Insert after parent
INS key	Insert after
I	Options to INSERT after, before, or sub
E	EDIT existing topic

Once in the Editor, toggle the Ins key to switch between:

Cursor function

Mode Identification	**Cursor actions**
Insert mode	large blinking cursor (inserts text)
Overtype mode	character underline (overtypes text)

As mentioned previously, the **Caps Lock** key toggles between standard text entry and all caps entry. The word CAPS appears on the bottom line of the screen to indicate this second mode.

Once you're using the editor, enter text as you would with a word processor. If your text exceeds the length of screen line, MaxThink wraps the text to the next line. However, to begin a new line at any point in your Great American Memo:

Enter key creates new lines within a topic

Action	**Results**
Press: E Enter	Cursor moves to beginning of the next line

When you're finished, do the following to leave the editor.

Esc key exits Editor

Action	**Results**
Esc	Leaves editor

Arrow Keys

I don't think there's anything unusual here, as many programs use the following conventions:

Arrow-key conventions

To next char	Right arrow or Ctrl-D
To previous char	Left arrow or Ctrl-S
Down a line	Down arrow or Ctrl-X
Up a line	Up arrow or Ctrl-E
One word left	Ctrl Left-arrow or Ctrl-A
One word right	Ctrl Right-arrow or Ctrl-F

Home/End Keys

MaxThink's usage of the Home/End keys may or may not be familiar to you.

Differences in single and double selection of Home & End keys

To start of line	Home
To end of line	End
To start of topic	Home Home
To end of topic	End End

One easy way to remember these commands is to recall the words vertical, horizontal, and diagonal.

In the MAIN menu, the Home/End keys jump to the first or last topic on a list. That's a **vertical** move concept.

In the Editor, these same keys jump to the beginning and end of a line, which is a **horizontal** concept.

In the Editor, pressing Home/End keys twice provides a **diagonal** jump to the beginning or end of a topic.

Changing Outline Levels Within The Editor

For an unusual twist, try this from within the editor:

Changing levels

Action	**Results**
Press: F8	Makes a subtopic
Type several lines of text	Text appears
Press: Home Home	Cursor moves to the last character in the topic
Press: Left arrow	Display shifts up a level in your outline
Press: End End	Cursor moves to the last character in the topic
Press: Right arrow	Display shifts down a level in your outline

If you're in the MAIN menu, MaxThink remembers the previous lower level if you press a series of left, then right arrow keys (that's called "smart arrow keys").

In the Editor, MaxThink also remembers the lower levels. If a series of "Home Home Left-Arrow" actions that move up levels in the outline is followed by a series of "End End Right-Arrow" actions, MaxThink returns to the original topic.

Now, while remaining in the MaxThink editor . . . . read the next page!

PgUp/PgDn Keys

No surprises here. These keys shift the display a half-screen at a time. These keys work the same in MaxThink, whether you are in the Editor or at the MAIN menu.

Page jumps

Up a page	PgUp or Ctrl-R
Down a page	PgDn or Ctrl-C

Delete commands

Text deletion

Delete cursor character	Del or Ctrl-G
Delete previous char	Backspace
Delete a word	Ctrl-T
Delete a line	Ctrl-Y

Nothing unusual here. The Del key works like a stationary vacuum cleaner as it sucks up subsequent text (with full backwards wrap).

In contrast, the Backspace key works like PacMan gobbling up text, as it removes previous text (again with full backwards wrap).

Cursor Jump Commands

MaxThink includes a number of ways to abruptly move the cursor to new locations.

The Tab Command

Tab key

Jump to next tab	Tab or Ctrl-I

The OPTIONS DETAIL command controls the setting of your tab stops (initially set to every 10th character). Two comments:

First, in the overtype mode (underline cursor), the Tab key moves the cursor across existing text. In the insert mode (block cursor), the Tab key inserts spaces. Press Ins to toggle between these modes.

These remaining jump-cursor commands may or may not be important to you. Just remember that these commands are case-sensitive.

Other cursor commands

Type of Jump	Action Steps
Jump to a character	Press F4, then the selected character
Jump back a character	Press F3, then the selected character
Jump to a character +1	Press Shift-F4, then the selected character
Jump back a character +1	Press Shift-F3, then the selected character
Jump to word end	Ctrl End

Each press of the Tab key jumps the cursor a uniform number of characters in a topic. However, the length of the screen line (set by user) determines if the tab stops on multiple lines align vertically.

If you want the tab stops to align vertically in a topic, use the OPTIONS DETAIL command to change the screen margins so that the length of each MaxThink line is a multiple of the number of characters in the tab setting.

Global Jumps

MaxThink includes global jump commands. The numbers at the bottom of the screen after "PATH:" identify the location of each topic in MaxThink. The reference section of the manual covers all the special features of the PATH prompt.

Path jump

Desired Results	Action Steps
Jump to a specified topic	Press Alt-F9 then enter the path number

Block Operations

Typically, block operations are the only way to organize, rearrange, or move text within a word processor. If you create separate topics for each idea, then MaxThink provides several dozen ways to rapidly rearrange information. However, if you still wish to rearrange blocks of text within or across topics, then:

Editor block delete

Action	Results
Press: F5	Mark text for cut/copy
Press: Arrow keys	Moves the cursor to a new position; text highlighted
Press: Del or Ctrl-G	Deletes F5-marked text; puts it into MaxThink's text buffer

Ctrl-G deletes
Alt-G copies

or

Editor block copy

Press: Alt-G	Copies (Get) F5-marked text to MaxThink's text buffer
Press: Arrow keys	Moves cursor to a new position
Press: Alt-P	Insert text from MaxThink's buffer

This works, but that's not my way. MaxThink's richness lies in its topic manipulation capabilities. Consequently, rather than use a block move, I like to split text into topics, then move them using commands from the MAIN or BRAINSTORM menus. Here's how to split a topic:

Topic split

Action	Results
Press: Shift-F10	Splits an existing topic at the cursor position into two separate topics.

SEARCH and REPLACE

Again, MaxThink provides alternate ways to find text. I prefer the REF command, which displays an alphabetized list of all unique words in MaxThink. However, since that's a few chapters into the future, use the following Editor commands:

Process	Action Steps
Find text pattern ___	Alt-F followed by a prompt for text
Replace ___ with ___	Alt-R followed by prompts for text

Find command

Replace command

Other Editor commands

The remaining editor commands that I'll describe are:

Process	Action Steps
Underline text	Ctrl-U toggles an print underline (highlight on CGA monitors) on and off
Duplicate current topic	Alt-C

Underline

Topic copy

Great command for copy-writing

I use this second command whenever I write advertising headlines. I enter text, press ALT-C, modify the duplicate, then press ALT-C again, leaving an audit trail of all my thoughts. To try it:

Topic duplication

ALT-C at EDIT menu duplicates only the topic.

ALT-C at MAIN menu also duplicates subtopics.

Action	Results
Type: MaxThink's great	Text appears on the screen
Press: ALT-C	Duplicate text appears on the screen
Modify the text	Changes the text in the current topic
Press: ALT-C	New duplicate appears on the screen

Finally, here's the remaining editor commands that I won't describe. While these commands may be important later on, they add needless confusion and memory overload at this point. So, later on I'll come back to the use of these commands:

Remaining details

Other Editor Commands Which Future Chapters Cover	
Insert date/time stamp	Alt-S
Define macro start/end	Shift-F6
Repeat macro down list	Ctrl-F6
Execute a defined macro	F6
Define a keystroke log	Alt-K
Save screen to file	Ctrl-P
Insert FENCE	Alt =
Add node to X list	Shift-F5

Summary

Congratulations, you've just finished the most complex chapter in this manual. Here are some guidelines and suggestions about what you have learned:

(1) Don't expect to remember all the commands covered so far. Instead, use the F1 Help key to find any forgotten command.

(2) Your initial outlines should contain just referents — key words and short phrases that trigger larger recall patterns in your mind.

(3) Once, you've captured what's on your mind, focus on organization rather than text expansion. Then start your text-intensive thinking — adding sentences, paragraphs, transitions. (Sometimes I use the Editor of MaxThink in this polishing process; sometimes, I transfer my organized outline to my word processor.)

(4) Knowing when to use MaxThink depends on the complexity of the writing and thinking tasks. MaxThink's capabilities are literally unmatched in the conceptual and structural steps of writing. In the final polishing stages in long documents, I use a word processor as it contains a good spelling checker . . and I can't spell.

Various ways to return to DOS

Chapter 5

Quitting MaxThink

In this chapter, you will learn how to:

- Quit the program

Why Quit Now?

I've organized this manual into a large number of short chapters. At some point, totally unpredictable by me, you'll want to take a break from MaxThink. Here's how to do just that.

Exiting MaxThink

Selects QUIT

Action	Results
Press: Esc Esc	Returns to the Main display
Press: Q	Selects the QUIT command

At this point, you are faced with three choices:

- Do you want to exit?
- Do you want to return to the program?
- Do you want the program to save the current file, then exit?

To answer these questions, MaxThink includes three commands:

QUIT options

EXIT
RESUME
SAVE&EXIT

Straightforward . . . heck no! Let's see why.

EXIT Command and Unsaved Files

Now, let's try working with un-saved MaxThink files (sounds like you're preparing them for a religious conversion). Consider these examples.

EXIT command

You create new information in MaxThink.

You make changes to that information.

You select the QUIT command, EXIT option.

Sorry Charlie. MaxThink doesn't remember your information or changes.

That should make sense. You made no attempt to save information, so MaxThink followed your instructions. Ok-k-k? Now, the next example:

SAVE&EXIT Command With A New File

SAVE&EXIT command

You create new information in MaxThink.

You make changes to that information.

You select the QUIT command, SAVE&EXIT option.

MaxThink prompts you for a filename to save your information and changes.

In addition, MaxThink remembers your filename and loads it the next time you run MaxThink.

Golly Gee! That makes sense. If you've forgotten to save your data in MaxThink, the SAVE&EXIT command gallops to your rescue.

EXIT Command with a Previously Saved File

You've regularly saved to disk the information in MaxThink. Then, since your last backup:

EXIT command

You've changed the information in memory.

You selected the QUIT command, EXIT option.

MaxThink returns you to DOS without saving your changes.

That's expected.

SAVE&EXIT Command with Unsaved Changes

Save&Exit

> You've changed the information in memory since your last backup.
>
> You selected the QUIT command, SAVE&EXIT option.

Hurrah! MaxThink automatically saves the changes, and then, in the words of TV's long-forgotten Snagglepuss, it's "Exit stage left."

RESUME command

Safety Nets

Of course, if you accidentally hit the QUIT key, select the RESUME command to return to the MAIN menu.

In addition, you're in good hands with MaxThink. If you select the EXIT option without saving any changes, MaxThink always prompts you for a YES/NO confirmation just to make sure you want to leave without saving the changes.

Configuration Files

Unless you use a cold boot to exit MaxThink (CTRL-ALT-DEL), no matter how you exit, the program updates the CONFIG91.MT file to remember the configuration you last used.

This works great as long as you run MaxThink in the same environment. If you save MaxThink's information to a floppy disk, however, then select a QUIT option that retains the filename and floppy drive. The next time you run MaxThink, it expects that last-saved file to be on the drive. If it isn't, and MaxThink pauses during its loading process, press I (at the DOS Abort, Ignore, Retry option).

Summary

MaxThink's combination of EXIT and SAVE&EXIT commands help keep you from accidentally losing information. You should also develop the habit of regularly backing up your MaxThink working files.

The OPTION DETAILS menu includes a setting for automatically beeping and displaying a time-to-back-up message at preselected intervals. Better yet, you can set the option to automatically save your files at the same time (without beeping). I encourage you to use either option to regularly save your MaxThink data.

In addition, whenever you save a file (I'll show you how shortly), MaxThink automatically retains a backup copy of the previous version of each saved MaxThink file. Ok . . . now quit the program to take a break!

Analytical thinking — discoveries by breaking information into components

Chapter 6

COPY, MOVE, UNDO, And DELETE

This chapter covers:

- How to Select Commands
- How to Delete Topics
- How the Undo Command Works
- How to Move Topics
- How to Copy Topics
- The Path and Range Prompts

Introduction to Analysis

This chapter introduces you to analysis, the first of several high-level thinking skills.

Forty years ago, Benjamin Bloom, a noted educator and philosopher, created a hierarchy of learning skills. His hierarchy, now called Bloom's taxonomy, organized all thinking skills into two basic categories — low-level and high-level skills.

Low-level thinking skills:
— Memory
— Understanding
— Application

Bloom characterized the low-level thinking skills as memory, understanding, and application. **Memory** is recalling information (like a data base). **Understanding** is knowing the relationships within your information (like completing a tutorial program). **Application** is using information to accomplish routine tasks (like running a word processor or spreadsheet program).

High-level thinking skill:
— Analysis

Bloom called the various ways to create new information as high-level thinking skills. He identified the first high-level thinking skill as "**analysis**," which is breaking information into component parts in order to better understand all the inherent relationships.

The traditional uses of outline centers on analysis. Many professions, particularly in the physical sciences, engineering, or technical

careers, teach analysis as a primary way to organize, think, and write. While ANALYSIS is not the only way to think using outlines, let's take a look at commands in MaxThink that support this form of thinking.

How to Select MaxThink's Commands

We'll start the process of building and modifying an outline just as so on as you know how to select commands. As already mentioned, there are several ways to select commands in MaxThink. The first is the "Spacebar method," which uses the following commands:

Spacebar Method

Highlight next command	Press the spacebar
Highlight previous command	Press the backspace key
Select highlighted command	Press the Return key

However, once you know the commands, you'll save time if you switch to the "first-letter method" in which you press the first letter of the command to select it:

First-Letter Method

Select any command	Press the first letter of the command

As you will shortly see, many of MaxThink's commands require responses to one or more prompts before the command is executed. If you wish to abort a command during this process of responding to prompts, do the following:

Abort

Abort any command	Press Esc

How to Delete Topics

Where are you?

As a result of the chapter on the MaxThink editor and the F7-F8-F9-F10 commands, your screen may be cluttered with topics. Then again, as a result of the chapter about the QUIT command, your screen may be at the DOS prompt.

If you are at the DOS prompt, do the following:

Boot MAX

Action	**Results**
Type: Max (enter)	Loads MaxThink
Press F10-F9-F8-F7	Create a number of topics (include text)
Press: Esc	Return to the MAIN menu

Can you believe this! Here are five (5) different ways to delete topics.

DELETE Method Number One

Let's try delete method number one: the Del key.

Press the DEL key

Action	Results
Move cursor to a topic	Identifies the topic to delete
Press: Del key	Deletes the current topic
Press: U	Selects the UNDO command. The current topic reappears in its original position.

Surprise! I didn't tell you about the UNDO command. Press it several times to see what happens. I'll tell you about it shortly.

DELETE Method Number Two

Delete method number two — select DELETE, then press Enter

Select the DELETE command

Action	Results
Press: D	Selects the DELETE command
Press: Return	Selects the current topic (default) for deletion
Press: U	Selects the UNDO command

DELETE Method Number Three

Now for delete method number three — press F5, select DELETE

Use F5 with the DELETE command

Action	Results
Press: F5	Marks a topic (highlight appears in the margin)
Press: D	Selects the DELETE command; removes topic
Press: U	Selects the UNDO command

DELETE Method Number Four

Here's delete method number four — mark an F5 range, select DELETE

Use F5 with the DEL key

Action	Results
Press: F5	Marks a topic
Press: Up or Down arrow	Moves cursor to a different topic on the same level
Press: F5	Marks a group of topics
Press: Del	Deletes a group of topics
Press: U	Returns the deleted topics

DELETE Method Number Five

Finally, delete method number five — select DELETE; enter numeric range.

Use numeric ranges with the DELETE command

Action	Results
Press: D	Selects the DELETE command. Prompt appears for RANGE
Press: F1	Displays the help screen for the RANGE prompt
Press: F1	Returns to the RANGE prompt
Type: 1-3	Marks topics 1 through 3 for deletion
Press: Enter	Deletes topics 1-3 (if they exist)
Press: U	Returns the deleted topics

A Few Rules

(1) There are two delete commands — DELETE and Del key.

(2) The Del key has no prompts. It deletes the current topic unless you mark a group of topics for deletion using the F5 key.

(3) If the F5 key is used to first mark one or more topic, the DELETE command deletes topics without further prompts.

(4) If the F5 key is not used, the DELETE command prompts for the topics to be deleted. Use either the F5 key or enter the range numbers to indicate topics for deletion, then press Enter to execute the command.

(5) Finally, whenever you delete one or more topics, all of the associated subtopics are also deleted.

PATHS

In MaxThink, a PATH is the location of an existing topic. The numbers after the word "PATH:" indicate the path to the current topic. Look at the path number. Here's what this number and these periods mean:

PATH example: 0.1.3
RANGE example: 0.1-$

Item	Meaning
Zero (0)	The title topic (TITLE) is topic 0
Period (.)	Go down a level
Number	Go to that topic on that level.
Carat (^)	Go up a level
Dollar sign ($)	Go to the end of the list

A path of "0.3.2" means start at the title topic, go down one level, select the third topic, go to its second subtopic. That kind of path is called an "absolute" path because it always starts from the title (0) topic.

A PATH consists of numbers and symbols that identify a unique location in an outline

A path of "2.3" means start on the current level, go to the second topic, then to its third subtopic. This kind of path is called a "relative" path because it begins on the current level rather than from the title level. If a path begins with a zero (0), it is absolute; if it doesn't begin with a zero, then it is relative.

A PATH identifies a specific topic within an outline

While hardly useful, MaxThink translates the path of "..^^" to the current location (down two levels, then up two levels back to where you started).

Here's why MaxThink includes paths.

Commands that create new locations in your outline (you're about to learn several) use the location of an existing topic as a guide to specify where you want to create a new topic. Once you provide that nearest location, MaxThink prompts for AFTER, BEFORE, or SUB of the PATH, then inserts the new topic(s) at that position.

RANGES

A RANGE identifies a group of topics within an outline

MaxThink also includes a concept called RANGE. The commands that affect one or more topics at a time e.g., JOIN, DIVIDE, SORT, insert text, etc.) prompt for the RANGE of topics affected.

The previous examples of the DELETE command hinted at the various ways to enter a RANGE value. The three most important ways to enter RANGES use either a default value, the F5 key, or path numbers.

Default-Value Ranges

To enter the default-value RANGE, press the Enter key at the RANGE prompt. MaxThink then uses the recommended RANGE setting for that command. Just a word of caution: The default setting varies from command to command (i.e., either the current topic or the entire list).

Don't worry that I haven't told you anything about these following commands. I'm showing you this list only so that you'll remember that some RANGE defaults are the current topic; some are the entire list.

Every command that uses RANGE values contains a default setting. Some are the current topic; some are the entire list.

Defaults to current topic	**Defaults to entire list**
COPY	CATEGORIZE
DELETE	JOIN
GET	LEVELIZE
LOCK	PRIORITIZE
MOVE	RANDOMIZE
BINSORT	SORT
DIVIDE	
TAB	
UNTAG	

As you can see, DELETE is on the current topic list. That means if you press Enter at the RANGE prompt, the default option deletes the current topic.

F5 RangeValues

The second way to enter RANGE values uses the F5 key. I prefer to use the F5-mark, then select a command because if topics are F5-marked, MaxThink does not pause to prompt for a RANGE. If you select a command that prompts for a RANGE, you can mark the topics using either the F5 key, or by entering a numeric value. Here's how the F5 key works:

"Rubber-band" graphics

Action	**Results**
Press: D	Selects the DELETE command
Press: F5	Marks a topic for the DELETE command
Press either Home, End, PgUp, PgDn, Up-arrow, or Down-arrow key to move the cursor to a new topic on the same list.	Cursor moves to a new topic
Press: F5	MaxThink highlights the beginning and ending topic numbers as well as all the intervening topic numbers.
Repeat the two previous commands several times	Changes topic numbers that are highlighted

The F5 key marks topics using a "rubber-band" highlight between the last two topics marked. However, if you don't move the cursor, pressing the F5 key twice turns off all markers. The Esc key also removes all F5 markers.

Ranges With Separated Numbers

The third and most complex way to enter a RANGE uses two numbers that are separated by a dash (-). The number before the dash is an absolute e.g., 0.1.1) or relative (e.g., 3.3) path. The number after the dash is always a topic number on the same level. For example:

Numeric Ranges

RANGE	Selects the Following Topics
0.1-$	The entire top level list
0.1.1-3	The first three subtopics of the first topic
4-7	Topics 4 through 7 on the current list
.4-7	Subtopic 4 through 7 of the current topic
4	Topic 4 (single number range)

Of the three methods for entering RANGE values -- default, F5, and numeric — I seldom use the numeric method. The default value and the F5 methods are simply easier and faster.

How to Use the UNDO Command

This command needs no introduction as you've already used it. The MaxThink UNDO command reverses the action of the previous command. For example:

UNDO command

Action	Results
Press: Del	Deletes the current topic
Press: U	Reverses the action of the Del key
Press: U	Reverses the action of the previous UNDO command
Press: U	Reverses the action of the previous UNDO command

I think you see the pattern. This is not an infinite UNDO (restores every change you ever made), but a previous UNDO (reverses just the last change you made).

UNDO works only with MAIN menu commands

One point to remember. UNDO works only with MAIN menu commands. The commands of the BRAINSTORM menu (funny names like BINSORT, PRIORITIZE, LEVELIZE, etc.) are too complex to reverse. Why? Don't worry . . . we'll cover these commands soon enough.

How to MOVE Topics

The difficult concepts in this chapter have been RANGE and PATH. Now that they've been covered, we'll quickly move to the MOVE command.

MOVE command

Action	Results
Press: F5	Mark a topic
Press: M	Selects the MOVE command
MOVE the topic pointer	Cursor points to a different topic
Press: Enter Enter	Moves the F5 marked topic AFTER the selected topic

Try repeating this sequence of commands. Vary the number of topics F5-marked, the path (cursor position), and the location selected (AFTER, BEFORE, SUB). Extend your vision by using your new found RANGE and PATH talents. Then, read these three observations:

MOVE operations

(1) The MOVE command leaves the cursor on the first topic of the topics moved.

(2) You can't move any topic to any subtopic position of itself. That's like trying to swallow oneself.

(3) You can't move a topic after or before the TITLE topic as only one topic is allowed at the highest level in MaxThink outlines.

IQ test time! Every couple of weeks, I answer this question over the phone. How do you move subtopics up a level in an outline?

That's easy! Just F5 mark the first and last subtopics, press the left-arrow to move up a level, select the MOVE command and press Enter twice to move the topics up a level. Nifty? You bet.

How to COPY Topics

The COPY command works just like the MOVE command, except that it duplicates the F5-marked topics, then inserts copies into a new location. For example:

COPY command

Action	Results
Press: F5	Mark a topic
Move the cursor	Topic pointer shifts on the screen
Press: C	Selects the COPY command
Press: Enter twice	Copies the marked topic AFTER the cursor topic

Again, after trying this command with variants in RANGE and PATH, you've probably discovered that while you can copy topics to subtopic positions of themselves. The computer just beeps if you try to put more than one topic on the title level, or to move topics to subtopics locations of themselves. (Think about it — you can't build a 2nd floor without a 1st.)

Outer Limits

Before leaving this chapter, there are two fancy settings on the OPTIONS DETAIL menu that you'll eventually be interested in: Auto Range and Rapid Entry.

Auto-Range

With the Auto-Range option turned on, MaxThink bypasses the RANGE prompt and automatically uses the default RANGE settings unless you override them by F5-marking topics before you select a command.

Caution! Don't use the Auto-Range option until you know the default RANGE values for each of the 16 MaxThink commands that prompt for RANGE. Don't worry . . . you already know DELETE, MOVE, and COPY. The others will come just as quickly .

Rapid Entry

As for the Rapid Entry setting, once you learn the default setting on all the commands and prompts of MaxThink, you can bypass all subsequent prompts by turning this option on and using capital letters to select commands. Save that until after you have finished this manual and you know your way around MaxThink.

Commentary

Congratulations! You've finished ANALYSIS, the first of seven different stages of high-level thinking with MaxThink.

With what you now know about the F1—F3 and F7—F10 keys and the VIEW, OPTIONS, COPY, MOVE, DELETE, and UNDO commands, you can quickly and easily break information into component parts to better understand and communicate key relationships. For example, consider the component parts of the following:

Information Age Laws

The value of information lies in how it is organized.

Hierarchies are abstractions that make nature comprehensible.

All writing is hierarchical, and the quality of the underlying hierarchies determine the readability of writing and displays the clarity of thinking.

Organizing matter increases net entropy; organizing information can decrease net entropy.

Neil Larson, MaxThink

Evaluative thinking — integrating information and values

Chapter 7

Prioritize

This chapter covers;

- Evaluative Thinking
- How to Prioritize

The Changing Face Of Work

Knowledge workers

Most of today's jobs require "knowledge workers." Industrial workers lift and move objects. Knowledge workers organize, review, and dispense information. This shift in the type of work done, however, is not without its problems.

It's fairly easy to measure, organize, and supervise tasks for moving objects about. But in tasks of dispensing information, most employees are given wide latitudes in the hourly, daily, or weekly scheduling of their time in order to accomplish information-manipulation tasks.

In effect, the transference of employees from the factory floor to a desk also transferred the organizing and managing of their time from a supervisor directly to each employee.

Working without a sense of completion or accomplishment is lousy!

Given their own responsibility to create schedules while faced with unpredictable demands requiring immediate responses, knowledge workers easily slip into "squeaky-wheel-gets-the-grease" methods for organizing their days around phone calls, coffee breaks, meetings, and lunches. As a result, their time and work often drift into "smoke" with little sense of completion or accomplishment.

Here's an alternative.

Santa Claus Management

Remember the phrase, "He's making a list and checking it twice?"

Well, that's the essence of good management. In fact, that's about all managers do — make lists to schedule, delegate, and monitor immediate actions for themselves and others.

The word "immediate" means organizing tasks for this day and week. If you take good care of your days, the weeks and months will take care of themselves. Besides, thinking more than two weeks in advance is not a managerial function, but rather an executive responsibility.

Back to making a list.

Let's pretend that at the beginning of each day, you use MaxThink to make a list of your tasks for that day. For example:

Creating a to-do list

Action	Results
Press: D	Selects the DELETE command
Type: 0.1-$ (Enter)	Deletes all but the TITLE topic
Press: F10	Creates a new topic
Enter a task that should be done today	Text appears on the screen
Repeat the previous two steps 10 times	More text appears on the screen
Press: Esc	Returns to the MAIN menu

Yes, you really must do this to understand this command!

Evaluation Thinking

At this point, I want to introduce you to a different kind of thinking called "Evaluation."

Remember my discussion of Benjamin Bloom and his list of low and high-level thinking skills?

In the last chapter, you covered ANALYSIS, which is finding new ideas by breaking information into component parts.

This chapter introduces you to another of Bloom's high-level thinking skills called EVALUATION, which is organizing information by attributes external to the information itself.

Evaluation thinking differs from analysis thinking. Evaluation thinking depends on list manipulation processes; analysis thinking depends on outline manipulation processes.

10 Most Important Things

Back in the day of moguls and magnates, Andrew Carnegie (barefoot immigrant to epic-wealth, founder of US Steel) offered a world-famous management consultant this proposition:

$25,000 hot tip

"Give me your best idea, and if I like it, in 10 days I'll give you $25,000." And ten days later, Andrew Carnegie willingly paid out $25,000 to the consultant for this piece of advice:

(1)	Make a list of the 10 most important things to do today.
(2)	Start on the most important topic.

Now, let's see if MaxThink can save you $24,911 dollars ($25,000 less the $89 cost for MaxThink).

How to PRIORITIZE

You've already entered your list. Do the following:

PRIORITIZE command

Action	**Results**
Press: B	Selects the BRAINSTORM menu
Press: P	Selects the PRIORITIZE command
Press Enter	You know all about the F5 key and RANGE. However, you might note that this is your first command with a default range of all topics on the current list. That's still OK!
Press Enter	Selects the HIGH-PRIORITY option

At this point, a priority line appears as the first topic. MaxThink now wants to know which of the remaining topics is most important to you. Look deep into your mind to find the most important topic on the list, then either:

Prioritizing

Action
Type the number of that topic, then press Enter

OR

Prioritizing

Action
Move the cursor to that topic, then press Enter

The results are the same either way. The identified topic disappears from its position on the list and is moved ahead of the priority line. Repeat this last step several times. Select the most important task remaining below the priority line, then select it (by number or cursor) and press Enter.

This operation quickly converts an unordered list (below the priority line) to an ordered list (above the priority line). Now for the unexpected:

If you press Enter, the topic just **below** the priority line is selected;

If you select a topic **above** the priority line, it is moved just below the priority line (sort of an unprioritize operation).

In selecting topics, you could select the least important rather than the most important each time to produce a list organized with the worst choice at the top and the best at the bottom. Or, try this:

Worst-choice prioritizing

Action	**Results**
Press: Esc Esc	Always returns to the MAIN menu
F5 mark several topics	Topic numbers are marked
Press: B P	Selects the BRAINSTORM menu and PRIORITY command
Press: L	Selects the LOW-PRIORITY option
Move the cursor to the least important task, then press Enter.	The selected task moves just below the "PRIORITIZE" line
Repeat this last command several times on the topics remaining above the line	Each selected topic moves just below the "PRIORITIZE" line
Press: Esc Esc	Returns to the MAIN menu with a segment of your task list sorted as you desired.

Notice that I begin and end this action-block by using an "Esc Esc." Here's why.

While a single Esc will return control to the MAIN menu, there are cases in MaxThink when two Esc's are needed (e.g., the F1 key in the editor).

Rather than remember or describe all these special cases, I automatically press Esc twice after most commands.

Here's my observations.

If you use the F2 key to collapse the text in each topic to just the first line, the PRIORITIZE command has room to display 18 topics.

I use the MOVE command to rearrange up to four topics. I use the PRIORITIZE command if I'm making major changes in the order of 5 to 15 topics. However, with 15 topics to perhaps several hundred topics, the next chapter describes a command that is much more useful than PRIORITIZE.

The advantage of PRIORITIZE is that it is fast if you can see all the topics at once before each selection. But if your list is so long that you can't easily compare all topics, then prioritizing becomes much more difficult.

History of PRIORITIZE

The PRIORITIZE command is the first of many unexpected ways to rapidly organize information using MaxThink. Here's a bit of the history behind this command.

Word processors are severely deficient in commands for organizing information

One of my early frustrations with word processors was their total dependence on a block move concept for organizing information. I felt that the process of marking beginning and ending locations of text, then selecting the new location was clumsy at best. This eventually led to my creating MaxThink and my "domino theory" of thinking.

"Domino Theory"

For example, if I let you put your ideas on dominos, then sit back and watch how you rearrange your information, I can tell your style of thinking. The ways you move information identify styles of thinking. For that reason, you're about to learn several dozen different ways to think, because MaxThink contains that many ways in which to organize and display information.

"The Art of Thinking"

Robert Bramson's **The Art of Thinking** contains a short test that quickly measures different styles in thinking. This is not to say that one is better than another, but people do process information in characteristically different ways. For that reason, one of the purposes of this manual is simply to help you find the commands of MaxThink that match your personal styles for organizing information.

Language is dynamic as usage defines meaning

Back to PRIORITIZE. When I first created it, a professor informed me that no such word existed in the dictionary, and that he preferred the words RANK or ORDER to describe this command. But, I happen to like the name "PRIORITIZE" -- it has that fine, rich tone of bureaucratic newspeak.

Summary

If the attributes for organizing information are in the information itself, then a database could rapidly organize it.

With 10 topics, there are 3,628,800 ways (10 factorial) to arrange them by order.

The beauty of the PRIORITIZE command is that it lets you rapidly organize information by attributes in your mind. In this sense, PRIORITIZE goes beyond organizing information because it identifies and clarifies relationships in both values and information. After you've used this command, the resulting list shows how you've organized your values.

PRIORITIZE finds the best order in seconds.

Most important, this command clarifies values by the order in which information is arranged.

That's why this process is called evaluative thinking. It literally connects and clarifies your values with your information. Wow!

Synthesis thinking -- combining existing information in new ways

Chapter 8

BINSORT And RANDOMIZE

This chapter covers:

- Creative Thinking
- How to RANDOMIZE a List
- How to BINSORT a List

Creative Thinking

When creative thinking is mentioned, you probably think of flashes of lightning or imagine light bulbs automatically turning on.

In contrast to the characteristics of creative thinking, the analytical and evaluative thinking processes discussed in the two previous chapters seem to most people to be ordered, understandable, and measurable. Why not the same for creative thinking?

To begin with, the human mind is brilliantly organized to avoid thinking. In fact, perhaps only 1/10,000th of the information flowing through the nerves ever comes to your attention for a conscious decision. Instead, your mind automatically recognizes and responds to familiar patterns. Only if no guiding patterns exist does your mind ever let you know that you're alive, well, and breathing.

You are spectatular in pattern recognition and deficient in short-term memory.

Computers are just the opposite.

This shouldn't surprise you. According to George Miller's research at Harvard, humans — the ultimate rational animal — can actually keep seven (plus or minus 2) different ideas in their minds at one time. At least, after 10 million years of evolution, 10,000 years of society, and 1,000 years of education, we're only slightly better than dogs and cats (which can only keep one or two ideas alive at a time).

Bad? Heck no! You may be short in the short-term memory department, but you're hell-on-wheels in pattern recognition. That's just the opposite of a computer, which tends towards epic short-term memory and zero

pattern processing capabilities. That's why machine intelligence (with AI, expert systems, operations research, etc.) is a big zero.

Now, it is your pattern-processing skills that determine your abilities for creative thinking (seeing new patterns in existing data). That's why the light-bulb/lightning-flash metaphors are appropriate when you suddenly find a new way of organizing information.

Synthesis

These processes of assembling information in new ways are called SYNTHESIS. Synthesis is another one of Bloom's high-level thinking skills (don't forget ANALYSIS). Here's how MaxThink aids this process.

How to RANDOMIZE a List

The RANDOMIZE command does nothing more than randomize the order of a list. While intellectually, this may seem like a trivial process, your subconscious mind doesn't think so. Mix up a list, and your mind will automatically generate new images just from its magnificent ability to find new patterns in the most ordinary information. Let's try it.

RANDOMIZE command

Action	**Results**
Press: F L	Selects the FILES menu and LOAD command
Press: Y	Confirms your intention to clear memory of the existing information in order to load a new file.
Type: Chap-8A (Enter)	Loads the file
Press: B R	Selects the BRAINSTORM menu and RANDOMIZE command
Press: Enter	Selects the RANGE default to randomize the entire list
Repeat the previous two commands several times.	Changes the order of the list

Notice that even with the most commonplace information, your mind associates information in two adjacent topics in new ways. In a nutshell, the RANDOMIZE command rapidly presents new patterns that automatically trigger a "flash of lightning" or turns on a light-bulb in your mind. This is one kind of synthesis thinking.

How to BINSORT a List

Let's consider a different kind of synthesis thinking. Where the RANDOMIZE command depended on almost instantaneous mental synthesis, the BINSORT command is the reverse, as it focuses on the careful assembly of information in new ways.

Now pay attention! Many users (writers and other such creative types) say BINSORT is their favorite of all MaxThink commands. Perhaps the easiest way to describe BINSORT to you is in metaphor:

Classification scheme

Imagine yourself as a truck farmer with a million cantaloupes to sort before sundown. First, you set up a series of classification bins for size, quality, or aroma. Then, after a quick inspection and a flip of your wrist, cantaloupes start flying into appropriate bins.

Create bins

Or, you've got a new 500-piece picture puzzle that needs expert assembly. First, you lay out all the pieces (create topics), look for the unique colors or flat edges (create the bins), then gather the pieces together that share some quality in common.

Bottom-up outlining

So far, you've understood MaxThink as a tool for organizing subtopics or as a list manipulator. BINSORT introduces a new outline concept of building an outline from the bottom up. Sounds unusual? Let's try it:

Load data

Action	**Results**
Press: F L	Selects the FILES menu and LOAD command
Press Enter	Confirms the loading of a new file
Type: Chap-8B (Enter)	Load the file

The example list of TV shows contains some winners as well as the obligatory mindless drivel. Your task is to sort the wheat from the chaff. The first step is to create the categories.

Enter category names

Action	**Results**
Press: F10	Creates a new topic
Type: Favorite Show	Text appears
Press: F10	Creates another topic
Type: So-so Show	Text appears
Press: F10	Creates another topic
Type: Mindless Drivel	Text appears
Press: F10	Creates another topic
Type: No opinion	Text appears
Press Esc	Returns to the MAIN menu

You've just created the four categories for all the TV shows. The next step is to mark them as bins by:

Mark bins, then select the BINSORT command

Action	Results
Press: F5	Highlight appears before "No Opinion" topic
Press arrow key to move cursor to "Favorite Show" topic	Cursor moved to specified topic
Press: F5	Highlight appears before each of the category topics
Press: B B	Selects the BRAINSTORM menu and BINSORT command

At this point, the marked topics move to the top of the list. These category topics are separated from the TV-show topics by a dividing line labeled BINSORT. Here's how to categorize a topic, postpone the decision, or put a topic into multiple categories:

Selecting a bin

If you select one of the category topics (using the cursor or topic number, then press Enter), the TV-show topic just below the dividing line is moved to a subtopic position of the selected topic.

Rotating the list

If you press Enter, the TV-show topic just below the dividing line is moved to the end of the list.

Duplicating a topic

If you press ALT-C, the TV-show topic just below the dividing line is duplicated.

Now, try your luck at tossing topics (bin-sorting) into categories. For example:

BINSORT Helps

BINSORT

Action	Results
Press: F1	Review the BINSORT keyboard options
Press: Esc	Returns to BINSORT
Press a category number	Select a bin
Press: Enter	The topic disappears and the list moves up
Repeat the two previous commands until the list is categorized.	List becomes shorter as topics are sorted

That's all there is to it . . . except for a few hints.

Using a single bin

If I can't clearly see enough commonalities in my topics to create a set of categories, I often create a single bin, rotate the entire list by it to remove a few topics, then repeat this process on the remaining topics.

Too many bins

While I haven't yet mentioned much in the way of outline philosophy, generally, each level in a good outline should end up with three to seven topics at a level. This matches the capabilities of most readers to keep parallel ideas in mind regardless of how high their IQ is. For that reason, any more or less topics indicates sloppy categorizing (and showing poor mental housekeeping) on your part. O-o-o-uch! More on this later.

Using SORT to gather your bins

MaxThink includes several powerful sort options that you'll learn about shortly. If I have a very long list of topics (50-500), I'll often enter each category topic throughout the list as I read through it, but include a leading hash mark (#) in only those topics. Once I've reviewed the list, I sort it so that the hash-marked topics (#) are all together at the top. I remove the hash-marks, F5 mark these topics, then select the BINSORT command. Slicker than waxed ice!

Other Synthesis Processes

If RANDOMIZE and BINSORT aren't enough to flash light bulbs in your mind, MaxThink includes a setting in the OPTIONS DETAIL menu that allows you to set the Enter key to create a new topic whenever it is pressed. Here's why you may want to use this option.

The goal of brainstorming is to generate as much information as possible, without constraints or restraints.

Kill the backspace key

Unfortunately, when most people make a typing error, they backspace to correct it before continuing. That's a good trait in secretaries and a lousy method for keeping the creative juices flowing. Backspacing retards the creative processes.

How to increase creativity at the keyboard

Stephen Marcus at the University of California, Santa Barbara, has run numerous tests using word processors for creative work with interesting results. Creativity increases if students type with the screen turned off or with their eyes shut; creativity decreases if they look at the screen. Why?

When they type without seeing the text, they keep going. When they type and look at the text, they spend more time editing than creating.

Soap-box opinion or the hoax of the century?

Ain't text editors wonderful — in how their very design inhibits creative thinking. Yet, the largest software firms and dumbest reviewers in the PC market blindly push word processors as God's gift to writers. However, they are not the first to confuse secretarial tasks with thinking. Just consider all the companies that went hook, line, and sinker into teaching executives how to do entry-level work faster. They're born every micro-second.)

Brainstorming tips

The answer is to separate your creative and editing tasks rather than try to do both at once. That fits MaxThink's philosophy of separating the conceptual and structural processes in writing from the final editing and appearance tasks.

While both are necessary, I'l bet my socks that you're smart enough to know which are the real determinants of quality in thinking and writing.

Reminder: You're now up to speed with analysis, evaluation, and synthesis

Summary

Jolly good show! You reached the third level of thinking with MaxThink. You've mastered a set of commands for analysis, evaluation, and synthesis processes.

As the designer of MaxThink, I'd say BINSORT was one of our unexpected discoveries. We didn't design it, or plan for it, but just happen to create it. And, that's what synthesis is all about — using existing concepts in unexpected new ways. Hurrah!

Curiosity — An inclination to ask unbiased questions of information

Chapter 9

Experimental Thinking and the LOCK Command

This chapter covers:

- The UNDO command
- The LOCK command

Experimental Thinking

Time for a story. After ten years of academia, my Ph.D. in high-energy physics brother decided to be a medical doctor. He enrolled in a special medical school program that accepted only PhDs in hard sciences. His interesting observation about his medical training was that only two of the 400-plus teaching doctors he encountered were actually smart. Why?

He and his fellow students (all Ph.D. researchers) constantly played a game with every lecturer in the medical school. In each class, a student would casually ask one technical outer-fringe question to which one of the classmates knew the answer and the lecturer didn't, to only to look at the lecturer's thinking skills. Here's how all the doctors responded.

The doctors would either make up an answer, use fallacious reasoning to reach a correct or incorrect answer, recommend whatever worked in the past, or simply dismiss the question as unimportant. Suprisingly, he says only two of 400-plus teaching doctors responded with a sense of wonder, curiosity, and interest in the question itself instead of jumping to answers.

What the class observed was that the automatic processing patterns of the lecturers' were biased toward finding a workable answer within a very short time. Such empiricism and pragmatism may be reasonable for practicing doctors (and business, political, or military leaders), but were foreign to the students who had previously worked at the limits of theory and usually with no time limits on finding answers.

A couple of comments:

The types of questions you ask determine the types of thinking used to produce answers

First, if you ask questions with known answers, you're testing memory or pattern-processing efficiency (i.e., low-level thinking skills). If you ask questions with unknown answers, you're testing high-level thinking skills.

Second, in information systems as complex as the human body, perhaps empiricism or trial-and-error methods are the best approach because any general theory carries with it several hundred (or thousand) exceptions.

The UNDO command

The reason I mentioned this story is that often you don't know which is the best way to organize information until you try all the possibilities. That's called "empirical" thinking. Let's first try it with the UNDO command.

UNDO command

Action	Results
Press: F10	Creates a new topic
Type: Stanford	Text appears on the screen
Press: F10	Creates a new topic
Type: Harvard	Text appears on the screen
Press: F10	Creates a new topic
Type: UC Berkeley	Text appears on the screen
Press: Esc	Returns to the MAIN menu
F5 mark UC Berkeley	Topic is marked
Move the cursor to Stanford	Cursor identifies a topic
Press: M B (Enter)	Selects the MOVE command and BEFORE option, which moves the selected topic
Press: U	Reverses the previous MOVE command
Press: U	Reverses the previous UNDO command

Press U until you decide which U displays the better order. That's one kind of a trial-and-error technique for organizing information.

The LOCK command

The LOCK command provides an interesting way to organize topics. This command lets you attach one or more topics to the cursor, drag them with the cursor until they seem to fit, then dump them at the new location. For example:

LOCK command

Action	Results
Press: F5 to mark two of the schools	Topic numbers are highlighted
Press: L	Selects the LOCK command
Press any sequence of the Arrow, Home, End, PgUp, PgDn keys	The F5-selected topics move as a unit
Press: Esc	Unlocks the topic(s) from the cursor

Perhaps you have discovered that the LOCK command also moves topics up and down levels. For example, to move the LOCK topic(s) to a subtopic of a selected topic, first move the LOCK highlight just below the desired topic, press the right arrow, and then the Esc key.

Summary

Trial-and-error thinking

Even in math, the queen of sciences, some solutions are deterministic (algebra, calculus) and some are trial-and-error (differential equations). It's the same in organizing information. Sometimes, you reaffirm your talents by knowing exactly how to organize information. That's when you use the MOVE command.

Joggle your information to joggle your mind

Other times, you may wish to explore different concepts in organization and structure. That's what the LOCK command does best . . . joggle your information around to find the best format.

Destination versus journey approaches

In this sense, LOCK joins BINSORT and RANDOMIZE as commands that trigger synthesis thinking. Whereas the MOVE command is a jump-to-the-destination process, LOCK is an incremental move or journey concept. As a result, LOCK produces new thought patterns as the topics next to the F5-highlight shift with each press of the arrow key.

Ver-r-y Interesting! You can either zap your information into new slots (use MOVE) or make discoveries in the journey (use LOCK).

My goals center on building software that daily changes your view of yourself or of your world. For that reason, I want active participation in the organization of my information. Why? Because, the process itself changes my views.

To smell the roses!

To go a step further, if some piece of software would automatically organize my information at the push of a button, I wouldn't want it. Why? I like to think, make discoveries, expand my language, and create classifications. Such pattern recognition is too much fun to delegate to any machine, regardless of its cost or efficiency, now or in the future.

I think, therefore I am!

Systematic thinking -- organizing information in preplanned ways

Chapter 10

GET, PUT, GATHER

This chapter covers:

- The Topic Buffer
- PUT Command
- GET Command
- GATHER Command

How the Topic Buffer Works

Try to remember that day in September when. . . a couple of chapters ago you first learned the COPY command. I didn't tell you this, but besides making a copy of your marked topic(s), the COPY command also left a duplicate of the information in a buffer. So, let's pause to consider the MaxThink buffer.

Topic buffer

The MaxThink buffer is a temporary storage area where a copy of your information is placed whenever you use commands such as INSERT, INS, F7, F8, F9, F10, UNDO, DELETE, DEL, COPY, or MOVE. Each of these commands clears the buffer, then leaves a copy of the topics created or affected by these commands. Here's why.

If MaxThink secretly remembers what you did, then it can figure out how to undo what you did . . . which is exactly how the UNDO command works. Since MaxThink contains just a single buffer, it only undoes the last command. But, beyond making the UNDO command possible, the buffer provides a number of neat ways to organize topics.

Using the PUT Command

I've told you about the commands that automatically leave information in a buffer. Let's see if anything is still in the MaxThink buffer.

PUT command

Action	Results
Press: F10	Creates a new topic
Type your name	Very important text appears on the screen
Press: Esc	Returns to the MAIN menu
Move the cursor	Moves the cursor
Press: P	Selects the PUT command
Press Enter twice	Your name appears
Repeat the previous three commands several times	Your name appears three more times

Having tried the PUT command, here's what happened.

The PUT command makes a copy of the buffer information, then inserts it back into your outline at a specified location. Each time you select this command, it just repeats this process.

Using the GET command

The GET command moves information into the topic buffer. It is similar to the COPY command as both duplicate topics — one to locations in your outline; one just to the buffer. To just copy information into the buffer, let's GET going:

GET command

Action	Results
F5-mark several topics	Highlight appears in the margin
Press: G	Topics are copied into the buffer

It's that simple. Now, the interesting part.

A DEL followed by PUT are the same as a MOVE, or a GET and a PUT are the same as a COPY. Sounds like semantic calculus, but it works.

Which should you use?

The PUT command dumps a copy of the information in the UNDO buffer into specified locations in an outline

If it's only a one-time operation, I use MOVE or COPY. However, If I need to dump duplicate topics all over my outline, then PUT is much faster than COPY because I don't need to indicate the range with each subsequent copy operation. That reminds me of one of my kid's jokes.

Where does the Lone Ranger take his garbage? Pause . . . to the dump, to the dump, to the dump, dump, dump (while humming the 4th movement to the William Tell Overture). Oh-h-h!

And that's what the PUT command does best — dump, de, dump, dump!

One final word on GET and PUT. In a future chapter, you'll learn about our Z command which maintains two separate outlines simultaneously in memory. The fastest way to transfer information between each outline is to GET topics into the buffer, switch outlines, then PUT the information into the new outline.

Using the GATHER Command

If you haven't suffered enough of my humor, let me tell you about our stacked GET/PUT buffer . . . and keep your snickers to yourself.

MaxThink also includes a command that runs like a two-way vacuum cleaner for rapidly picking up and depositing groups of topics throughout your outline.

Using this vacuum cleaner metaphor:

GATHER command

Actions	**Results**
Press: B G M	Turns on the vacuum (selects the BRAINSTORM menu and GATHER command
Select a topic, press F5, then move cursor to a new topic. Repeat six times	Vacuums up six selected topics
Press: F10	Squirts out the last topic in the stack AFTER the current topic
Press: F9	Squirts out the last topic in the stack BEFORE the current topic
Press: F8	Squirts out the last topic in the stack as a SUBTOPIC of the current topic
Press: F7	Squirts out the last topic in the stack AFTER THE PARENT of the current topic
Press: First Enter	Prompts for decision to COPY or MOVE the topics remaining in the stacked buffer.
Press: Second Enter	Prompts for PATH/LOCATION to insert topics remaining in the buffer.
Press: Esc	Puts the topics remaining in the stacked buffer back in their original location

Sounds complex? I like it. Instead of the overhead found in doing a series of MOVE commands, GATHER is kind of a hot-rod version of the DELETE and MOVE commands.

New addition: GATHER with or without replacement

If you select the COPY option, the topics you gathered are reinserted in their original position and a duplicate of each is inserted into the outline as specified by your response to the PATH and LOCATION prompts.

If you select the MOVE option, the topics you gathered are inserted back into your outline by your response to the PATH and LOCATION prompts.

This choice of a COPY or MOVE approach to the GATHER command lets users organize their information by using a pick-with or pick-without replacement method of thinking. However, during the picking process, both methods remove topics to eliminate duplicate selection.

Auto GATHER

You've already tried the Manual option of the GATHER command. Now:

Action	Results
Press: B G A	Selects the Automatic mode

If AUTOMATIC is selected, the command contains two further prompts. The first, TEXT PATTERN, prompts for the desired gather search pattern, then for the following options — ALL or SELECT.

If ALL is selected, MaxThink gathers all topics containing the specified text. If a topic contains multiple copies of the specified TEXT PATTERN, each is gathered.

If SELECT is selected, MaxThink highlights each in turn with the option to gather it (press F5) or to continue the search (press F4).

Once the gather operation is finished (press ENTER), the program prompts for — MOVE, COPY, or DELETE. This new DELETE option allows users to automatically remove all topics from an outline that contain specified text.

GATHER versus PRIORITIZE

When ranking information:

Use PRIORITIZE with 15 or less topics

Use GATHER with up to 128 topics

GATHER is a first-cousin relative to the PRIORITIZE command. If you use the F5 key in the GATHER command to delete topics by importance, then press Enter to reinsert them as a list, the list is prioritized in the order in which they were selected.

The PRIORITIZE command organizes topics without removal as the same number of topics is displayed throughout the command. In contrast, the GATHER command works well with larger lists as it or ganizes topics with removal at each press of the F5 key. In addition, GATHER uses one instead of two keystrokes to select topics, and mistakes in the order of selection are also easier to correct.

Gentlemen! Start your engines. — Traditional call to start the Indy 500

The DEL/GET/PUT versus COPY/MOVE argument is simply this: Some people like Buicks; others prefer Pontiacs. The PRIORITIZE versus GATHER argument is that some folks race Porsches; others race BMWs.

Sort — organizing information by attributes contained within the information

Chapter 11

SORT

This chapter covers:

- How to use the SORT Command

How to Use the SORT Command

The SORT command sorts topics . . . by any column and field size, using four different methods.

To begin, the SORT command prompts for a RANGE. The default value for the RANGE is the entire current list, which is the same as the PRIORITIZE and RANDOMIZE commands. Let's try it.

Load example

Action	**Results**
Press: F L	Selects the FILES menu and LOAD command
Press: Enter	Confirms your wish to load a new file
Type: Chap-11 (Enter)	Loads the example file

This file contains upper and lower case words at both ends of the alphabet. Do this:

SORT command

Action	**Results**
Press: B S	Selects the BRAINSTORM menu and SORT command
Press: Enter	Selects the entire list as the default RANGE
Press: Enter	Selects Column 1 as the default sort column
Press: Enter	Selects 10 characters as the sort field length
Press: Enter	Selects the DICTIONARY type of sort

BINGO . . . the list is sorted!

Repeat the above commands, but try the other types of sorts. For example:

Types of sorts

Type of Sort	Example of order
DICTIONARY	A, a, B, b,.....Z, z
ASCII	A, B, C.....a, b, c,
INVERSE	z, Z, y, Y,...., a, A
REVERSE	z, y, x, ...Z, Y, X

Why all these different ways? Well, the letters of the alphabet that appear on your screen are stored as numbers in memory. As the result of the early days of computing when only upper-case characters were used, a vanilla-plain sort of these numbers does not match the standard order of words in a dictionary. That's why MaxThink includes both the ASCII and DICTIONARY sorts.

As backwards sorts are sometimes useful and since the only additional programming required is a reversal of the comparison routine, that's why MaxThink includes the INVERSE and REVERSE sorts.

How to Prioritize with the SORT Command

Given the number of options in the SORT command, let's cover a number of MaxThink's tricks.

Insert codes into specified columns, then sort on

Perhaps you have a large number of topics to organize, and you don't want to use PRIORITIZE, BINSORT, or GATHER. You could insert a number or letter code at the beginning of each topic, then select SORT using 1 for both the sort column and sort field length.

This instantly prioritizes your list. The only problem is then removing the leading character from each topic. Well, don't fret. In a few chapters, I'll tell you about our UNTAG command, which removes text from topics.

Finding BINSORT Categories

Perhaps you have a list of 500-1000 topics to organize. BINSORT is certainly the only way to go. But how do you find the best category for all this information? Well, consider this:

Insert the bin-topics throughout the list, then use SORT to move them

MaxThink includes an ALT= command that creates topics that begin with 10 equal signs. Again, I'll save it for another chapter to describe the details. But, here's how it works extremely well with the SORT and BINSORT command.

As you scan your gigantic list of topics, whenever you think of a possible BINSORT category, press ALT =, then type in your description. Repeat this process throughout your list, then select SORT, using all the default options.

Surprise! Your category topics automatically ends up at the top of the list where they're easy to F5-mark before selecting the BINSORT command. And if you don't like the equal signs (=), the soon-to-be-announced UNTAG command takes care of that problem.

Just to make sure this works, do this:

Alt = command

Action	**Results**
Press: ALT =	Creates a new topic from MAIN menu
Type: (any text)	Text appears after the equals signs
Move cursor	Cursor points to another topic
Press: Alt =	Creates a new topic from the EDITOR
Type: (any text)	Text appears after the equals signs
Press: Esc	Returns to the MAIN menu

Now try the SORT command again, using the default options. That automatically moves the potential category topics to the top of the list.

Sorting Fields

I imagine you've already figured out that since the SORT command includes a column option, you can add fields of text in each topic, then mimic typical database sort options. Well, yes and no!

MaxThink's editor includes a tab command (Press Tab key) that moves the cursor to positions set in the OPTIONS DETAIL menu. That works fine if you can remember the column multiple (usually 10 characters).

Two problems:

First, if you change the text in a field, be sure to change the text cursor to overtype (press Ins) so that you don't misalign subsequent fields in the topic.

Second, MaxThink uses an extremely fast quick-sort routine that's great for rapid one-pass sorts, but is not suited for multiple-pass or nested sorts because the quick-sort doesn't preserve the order of each previous sort. Whether that's clear or gobble-de-gook, let's try it.

Sorting Disk Files

Yes, that's right. MaxThink sorts files. Whereas I'll save the heavy discussion of file operations for another chapter, here are some hints:

Filenames as topics

Action	Results
Press: ALT I	Prompt appears for a location
Press: Enter Enter	Accepts default location and path
Press: Enter	Accepts the default directory
Press: Y	Loads filenames along with size, date, and time

How about that? As I said, I'll hold off telling all the tricks MaxThink does with topics that begin with filenames. But, now's your chance.

Try sorting your files alphabetically, then by size, date, and time. It's all in your fingertips with the options of MaxThink.

Make a measuring rule to identify sort columns

For a hint, rather than count spaces to determine the desired sort column, use F10 to create a topic, then insert the text such as "123456789 123456789 123456789" to create a measuring-rule topic that you can move about. That quickly identifies columns positions for the SORT command.

Commentary

A simplistic view is to use SORT to only alphabetize text. Clever users find the SORT command helpful in also prioritizing and categorizing information.

Perhaps the most unexpected concept in this chapter is the number of steps needed to execute some of the MaxThink commands. For example, both the ALT I and BINSORT commands require six steps because of the number of available options. If that's too many, here's relief!

One-button commands

The OPTIONS DETAIL menu includes a setting called "Rapid Entry (Y/N)." If you set this option to YES, then anytime you press a command key using a capital letter, all subsequent prompts automatically use the default values.

For example, this feature converts the six-step ALT-I or BINSORT commands back into one-step commands. Very powerful once you know MaxThink!

Outlines show groupings whereas segmented lists show boundary conditions

Chapter 12

LEVELIZE, CATEGORIZE, TAG, UNTAG, and FENCE

This chapter will cover:

- Aristotelian Thinking
- LEVELIZE Command
- CATEGORIZE Command
- FENCE Command
- ALT= Command
- TAG Command
- UNTAG Command

New Views

In my conversations with MaxThink users, I'll often ask which commands are used or liked most. Many say they understand and enjoy the commands I've covered so far in this manual. But the power users say their real pleasure with MaxThink comes with commands I've yet to describe. This rest of this manual should awaken the power-user in you.

I've broken MaxThink's support for thinking into seven stages. To review, so far, we've gotten through these following stages:

Types of thinking so far covered in this manual

Stage 1 Analytical Thinking (F7-F8-F9-F10, COPY, MOVE)
Stage 2 Evaluative Thinking (PRIORITIZE, GATHER)
Stage 3 Synthesis Thinking (BINSORT, RANDOMIZE, LOCK)

These high-level thinking processes all depend on different ways to move information. The next MaxThink stage, Perceptual Thinking, depends less on movement and more on format. Let's begin.

Kinds of Perceptual Thinking

I've broken this category of perception into five categories of MaxThink processes — Aristotelian, Structural, Focused, Boundary, and Linguistic. For a brief description:

Type of Perception	Central concept
Aristotelian	Classification affects how you think
Boundary	New ideas are found at conceptual boundaries
Focused	Eliminate textual distractions to thinking
Structural	Communication transmits structure as well as words. (Guess which you first hear.)
Linguistic	Language controls conscious vision

Each of these methods provides insights into different ways to use MaxThink to support your thinking. Let's satisfy your curiosity.

Aristotelian Thinking

Aristotle may be considered the father of the outline. He refined the ideas of categorizing and classifying as a means to understanding.

Consider this: The objects in the world don't change . . . but your perception of the world easily shifts by the way in which you group objects. This leads to the idea of a conceptual knife.

You control the conceptual knife

The way you slice up the world is the way you see it, which may not be the way others see it. If you recognize that you control the knife, you can generate countless insights just by using your language to cut or sort objects in different ways. Let's try it.

Load example file

Action	Results
Press: F L	Select the FILES menu and LOAD command
Press: Enter	Confirms removal of data in memory
Type: Chap-12A (Enter)	Loads example file
Press: Ctrl-right arrow	Displays the outline

At this stage, you're looking at a 2-level display of the outline. You are already familiar with the following three ways to display the contents of this outline.

What is the best way to view information using outline formats?

Arrow key method	Use arrow keys to review the outline
View method	Use the FILES VIEW command to examine the outline
Ctrl-Right arrow	Expand the outline to see multiple levels

Use 3-7 topics per level

If the outline is well-constructed (3-7 topics per level), I generally use the arrow key method. Displaying your outline, ideas, or thinking a level at a time shows the quality of your organizing patterns.

Quality of Organizing Patterns

Now, if MaxThink displays a list of topics that are complete at each level, parallel in concept, and in the best order, that's the result of focused thinking.

The 2-level working display lets you focus on a level at a time

MaxThink's display is biased just that way. Rather than always display the outlines in multi-level splendor, I believe the tasks of organizing are better served if you focus your thinking a level at a time.

The VIEW command displays too much for critical thinking

I think this kind of critical thinking about an outline is best seen by displaying outlines only one level at a time. If done correctly, your efforts in organizing a piece at a time produces the most complete thinking.

In contrast, the VIEW command is better suited for displaying the overall size, topic density, and lowest level topics.

The expanded format usually exceeds the screen

Finally, the Ctrl-right arrow method is the least satisfactory display because the information typically exceeds the screen size.

So, sticking with the 2-level display for focused thinking, do the following:

Full traversal of an outline

Action	**Results**
Press: Right Arrow	Displays the first subcategory
Press: Left arrow	Move cursor up a level
Press: Down arrow	Move cursor to next parent
Press: Right arrow	Move cursor to next subcategory
Repeat the previous three commands	Moves from cousin to cousin topics

Cousin move

I call this left-down-right-arrow sequence a "cousin move" (i.e., to the child of your mother's younger brother) and I use it automatically for cruising through an outline.

LEVELIZE Command

At this point, you know what the outline contains -- categories of colors. Now, let's flip this outline from a 2-level format into a segmented list. Starting with just the color categories displayed:

Segmented-list format

Action	Results
Press: B L	Selects the BRAINSTORM menu and LEVELIZE command
Press: Enter	Selects the default RANGE of the entire list
Press: Y	Selects the WITH-FENCES option
Press: Enter	Selects the default number of levels.

Wow! You've got a very different way to look at an outline.

LEVELIZE is like a steam-roller

The LEVELIZE command is like a steam-roller — it flattens outlines by moving sublevel topics back to the level of their parents. The first option, FENCES, inserts the 10 equal signs before each of the parent topics. These equal signs visually segment the list.

The second option, LEVELS, controls the number of sublevels that are removed. I always leave it at one (1) unless I really want to try a totally new approach at reorganizing my information.

Imagine the 10 equals signs as Aristotle's conceptual knife. Lets move the knife to see how it shifts your perception of the colors in the world:

Aristotle's knife

Action	Results
Cursor to "Moderate"	Topics pointer on topic "Moderate"
Press: L	Select the LOCK command
Press: Up/Down arrow	Changes the classification of colors

Outlines emphasize groupings

Outlines emphasize the grouping of information appropriately under each parent topic. In contrast, this segmented list format emphasizes the boundaries or junctions of each group. The same information is contained in a 2-level outline or 1-level segmented list, but the change in format shifts your perception.

Segmented lists show boundaries

Aristotelian thinking

If you insert FENCES to create segmented lists, that's Aristotelian thinking. The objects in the world didn't change, but your perception of the world shifted because of the subgroups you created.

Boundary thinking

As I was saying, most new ideas are found at the boundaries of existing thinking, I often select MaxThink's segmented-list format for just that reason. It helps me better define the boundaries between my topics. If you add new topics on either side of the FENCE to narrow or sharpen the definition of your boundary, that's boundary thinking.

Linguistic Thinking

To go a step further, it's obvious that the way you move the separator topic changes the meaning of both "Hot" and "Moderate," especially when you work with information organized across a continuum.

I call this shifting of the meaning of a parent topic by the range of associated subtopics "Linguistic Thinking."

In effect, I'm using LEVELIZE and LOCK to play with my definition of a topic. While the words describing the topic didn't change at all, I shift the meaning of that topic by what I choose to include as subtopics.

Insight is nothing more that a shift in the meaning of language or memories

For this reason, I think MaxThink produces insight (which is sudden shift in meaning) as it helps me sharpen my use and understanding of language. While this may seem abstract, it is important and beautiful to philosophers and linguists.

Try the LEVELIZE and LOCK commands. If these commands "ring bells" in your mind, you're a linguistic thinker. If these commands don't make sense, stick with what does make sense in MaxThink, as not everyone thinks the same way.

CATEGORIZE Command

Hang on. Here's the next surprise! With the "Moderate" topic in a new location on your list, do the following:

CATEGORIZE command

Action	Results
Press: B C	Selects the BRAINSTORM menu and CATEGORIZE command
Press: Enter	Selects the complete list as the default RANGE

CATEGORIZE and LEVELIZE shift information between formats that emphasize groupings or boundaries

Hot Dog! The CATEGORIZE command folded the segmented list back into a 2-level outline. The FENCES (topics with 10 equal signs) told MaxThink which topics would remain as parents, and which would become subtopics again. That's why I chose the FENCE option in the LEVELIZE command.

If you take a close look at the subcategories, you'll notice that they've changed. Instead of moving subtopics from one parent to another, the net effect of the LOCK command followed by the CATEGORIZE command changed the parentage as brother topics became cousins and cousins became brothers.

If you want to repeat this LEVELIZE and CATEGORIZE sequence, this time say "NO" to the option to use FENCES, as the parent topics already contain them.

UNTAG

The UNTAG command removes text from topics. The default setting for this command removes fences. Starting with the fenced topics:

UNTAG command

Action	Results
Press: B U	Selects the BRAINSTORM menu and UNTAG command
Type: 1-$ (Enter)	Selects the entire list for RANGE
Press: Enter	Accepts one (1) as the default column
Press: Enter	Accepts eleven (11) as the characters removed

UNTAG defaults remove FENCES

In a moment, you'll see why the UNTAG command uses default values that remove fences. If you use this command with non-default values, however, these new values are remembered until you quit MaxThink. This remembering of the column position and text length applies to the SORT, UNTAG, and TAG (give me a minute to tell you) commands.

Many of the MaxThink commands remember changes to their default settings. This remembering lasts only until the next time you load MaxThink, which resets the default values of SORT, UNTAG, and TAG.

TAG

Let's return to the segmented list format with your file.

Set up example

Action	Results
Press: B L	Selects the BRAINSTORM menu and LEVELIZE command
Press: Enter	Accepts the default RANGE
Press: Y	Selects the WITH-FENCES option
Press: Enter	Accepts the default number of levels affected

To be really fancy in this format for Aristotelian thinking, move the cursor to one of the fenced topics (10 equals signs), then:

Removes a FENCE

Action	Results
Press: B U	Selects the BRAINSTORM menu and UNTAG command
Press: Enter twice	Accepts the default column and text length

By removing the fence, you've converted a parent topic into a child topic (if you then used the CATEGORIZE command). Now:

Inserts a FENCE into an existing topic

Action	Results
Press: B T	Selects the BRAINSTORM menu and TAG command
Press: Enter twice	Accepts the default column and text length

That converts the child topic back into a parent topic. The TAG and UNTAG commands are mirror images — the first inserts text across multiple topics; the second removes text. But, because their default values match the fence parameters, these commands are also useful in segmented list displays.

FENCE Command

I often prefer to work with segmented lists rather than hierarchical formats, especially if my information already contains some order. The FENCE command, which inserts new topics with defined text, uses the equals signs and the word "FENCE" as default values.

Let's try it:

Creates a new topic containing a FENCE

Action	Results
Press: B F	Selects the BRAINSTORM menu and FENCE command
Press: Enter 3 times	Accepts the LOCATION, PATH, and TEXT defaults

FENCE is one of the older commands in MaxThink. I'm about ready to take it out because of a new command I have just added to MaxThink. Let's look at this new competitor to the FENCE command.

ALT= Command and Ctrl-PgUp/PgDn

ALT= is a shortcut method to create a fence after the current topic. This command is more convenient than the FENCE or TAG commands because it works both the MAIN and EDITOR menus and eliminates the string of prompts found in the TAG and FENCE commands.

Shortcut method to insert a new FENCE

Action	Results
Press: ALT = after the current topic.	Creates a new topic beginning with a fence
Type: (any text)	Text appears on the display
Press: ALT =	Repeats the process.

Works from either the MAIN menu or Editor

I use ALT= to segment my thoughts, mark the initial end of a BINSORT list, or create flags within lists.

Use SORT to remove FENCES

To quickly remove fences spread out throughout a long list, use the SORT command. The SORT command moves all fences to the top of a list where they are all grouped for easy removal.

While you may or may not find heavy uses for ALT = in MaxThink, in our System Processing program called Houdini, ALT = is a very important command. In fact, it is so important that both MaxThink and HOUDINI include the Ctrl-PgUp and Ctrl-PgDn commands to shift the display to the previous or next fence. Try this:

Moves cursor by categories on a segmented list

Action	Results
Press: Esc Esc	Returns to the MAIN display
Press: Ctrl-PgDn	Display shifts to the next fence
Press: Ctrl-PgUp	Display shifts to the previous fence

In using MaxThink for Aristotelian thinking, you learned a number of new commands: LEVELIZE, CATEGORIZE, TAG, UNTAG, FENCE, and ALT =.

Aristotle's corollary

As you remember, Aristotelian thinking centers on the concept that the way in which you classify information affects your perception. The corollary is that if you want insights (a shift in perception), simply examine your classification methods.

Boundary Thinking

Now consider a different perceptual process called "Boundary Thinking." Start all over by loading the original file.

Load example file

Action	Results
Press: F L	Selects the FILES menu and LOAD command.
Press: Enter	Confirms clearing memory of existing file
Type: Chap-12B (Enter)	Loads the file named.
Press: B L	Selects the BRAINSTORM menu and LEVELIZE command
Press: Enter	Selects the default 1-$ range
Press: Y	Selects the WITH-FENCES option
Press: Enter	Selects the default of one (1) level

This seems familiar. But, instead of moving the fenced topic (Aristotelian), I want you to add more colors to either side of the topic "========= Moderate."

In effect, I want you to sharpen your conceptual knife by narrowing the boundary between the two categories. For example, what happens to your concept of "Hot" and "Moderate" if you add these colors:

Add these colors

Action Step
Use F9 and F10 to insert the following topics:

Pink
Brown
Chartreuse
Mauve
Burnt Ember
Amber

If your mind works like mine does, the process of adding topics to clarify the boundaries between existing topics always sharpens and often changes thinking. Why?

New ideas are found at boundaries

Most new ideas occur at boundaries of knowledge or action. So when you focus on the boundaries, you're looking at the richest areas for finding new insights. In this sense, the value of outlining is not found in the grouping by commonalities, but rather at the edges of each group.

Focused Thinking

The third of the perceptual thinking processes that MaxThink aids is "Focused Thinking."

The unchanging solid-text formats of most word-processor displays inhibit most critical thinking.

I've already told you about the work of George Miller (Harvard) from the 1960s. In his research in psycholinguistics, he established that the average adult could handle only seven plus or minus two ideas at one time.

Go to the store with five things to buy and you are OK. Try 10, and you come back with six . . . or 20 if you're like me.

MaxThink removes all but the essential text from the screen to focus thinking.

Consequently, I've designed the MaxThink display so that it focuses on the current level at hand, and displays the number of topics that fits the capabilities of most humans. In effect, I use MaxThink to eliminate all extraneous information from the screen except for tasks at hand, which are:

Essence of good outlining

- Is there information missing from the list (COMPLETE)?
- Is there information that doesn't belong on the list (PARALLEL)?
- Is the list in the right order (SEQUENCE)?

If you only focus on these three questions, you'll always build very good outlines. Here's why:

Breadth-first thinking

These questions prompt you to take care of your outline one level at a time. Only after you complete a level do you move to another level. This discipline of "breadth-first thinking" or "top-down" thinking does not require any more information displayed on the screen. It breaks large organizing tasks into modules that are easy to complete, and it organizes information in ways that are both logical and easy to follow.

That's the design behind MaxThink's screen. But more importantly, this kind of working display always triggers the kinds of questions I listed. Here's why.

"Processing" is not thinking, but following routine patterns

If your work is processing (e.g., pushing a button to run some automatic process), not much thinking occurs while you are waiting for the task to finish. If your work includes representation (i.e., what are the relationships), you want as many questions to occur as possible to help you understand your information.

Good thinking is measured by the questions asked, not by the answers given

In this regard, I've suppressed all but the current topics to subliminally create questions in your mind of how what you see on the screen fits with what is off the screen. In contrast, if I displayed the entire outline, few of these questions would ever enter your mind.

Structural Thinking

In communication, it is not the words but the relationships that are remembered

In the early 1960s, Noam Chomsky (MIT) was the big name in linguistics. His basic theme was structural linguistics . . . and that structure was more powerful than words. He suggested that when complex information is communicated, the comprehension process of the listener worked by translating the words while retaining the relationships.

In everyday language, Chomsky said that people can't remember or repeat words (unless it's music, poetry, or foul language). Instead, they only remember the relationships. That's why analogies, stories, fables, metaphors, and similes are useful and important to most communication processes.

That's also why a word processor is inadequate for writing. It emphasizes word editing and ignores conceptual or structural editing. In fact, most structure is invisible on a word processor as it typically transcends the screen or is buried in paragraphs.

Now, how about MaxThink?

Word processors edit words — MaxThink edits relationships and structure

MaxThink emphasizes and displays the structure of your ideas. It provides many ways to create, manipulate, and polish your organizing patterns. Once organized, all that's left is fill-in and connect tasks, which are then easily accomplished by any word processor.

To see a Chomsky view of your ideas, display your outline with all subtopics expanded. If that exceeds the screen, print your outline. That's the only way to view all the structural relationships at one time.

Good writing is hierarchical which makes it easy to browse or comprehend

Just remember, since your reader will never see it all at once, but a piece at a time, it is perhaps more important to make sure each piece is clearly related to the overall structure than the other way around. You write with a global viewpoint of how everything fits together; your reader sees only small units of information at a time and attempts to reassemble these pieces using whatever guide you've provided.

Perception Depends on Language

The expression, "Eskimos have 200 words for snow" is vintage Whorf. Benjamin Whorf, an anthrolinguist, believed that language itself determined perception, and that each culture contained words or jargon that were untranslatable to outsiders.

Language determines your reality

Classifying your language usually shifts your reality

For example, Whorf would say that you see and comprehend only those ideas and objects you have words for. If one culture has 200 words for anger, and another only 20, then the first sees the world (or has conflicts) that the second would never comprehend.

Insight is nothing more than a shift in your reality

To extend this concept, the rods and cones in your eyes work the same for all cultures, but what enters your mind as a result of nerve stimulation depends greatly on your language.

How does MaxThink fit into this?

It is impossible to create an outline that doesn't change as you classify your information

As I use MaxThink to organize words on the screen that represent ideas in my mind, the words on the screen don't often change, but their meaning in my mind shifts, expands, or sharpens.

Whorf said, "Language determines your reality." Therefore, in order to generate insights (create new realities or shift perception), I use MaxThink to display the boundaries of my ideas.

Summary

IQ has almost no relationship to creativity

Congratulations. You've finished an area of MaxThink at a level that perhaps most past MaxThink users never reached — that of using commands for "perceptual thinking."

In thinking, completeness is more important than IQ

Now, I don't want you to confuse good thinking with a high intelligence quotient (IQ). While most people envy or celebrate high IQ, IQ is more a measure of speed rather than completeness in thinking.

The purpose of questions is to generate as much information as possible before you attempt to pick an answer

In many ways, high IQ and completeness in thinking are like Aesop's "The Tortoise and the Hare" fable. High IQ thinkers are fast, but often jump to immediate conclusions. They tend to show off, interrupt, and intimidate other kinds of thinkers. Finally, there is little correlation between creativity and IQ.

On the other hand, people who take more time to focus on the completeness of their thinking tend to produce better answers. After all, if you have complete information, good thinking is simply picking the best answer from your list. Picking the best answer depends mostly on comparative and evaluative thinking (i.e., the PRIORITIZE command), and not on raw or refined IQ.

If you have complete information, thinking becomes nothing more than picking the best answer

Here's the secret! The real keys to good thinking are not in finding immediate answers, but in first finding good questions to answer in order to guarantee the completeness of your thinking. I'll provide more on this in future chapters. Stay tuned!

Frames - the smallest unit of information that contains a complete idea

Chapter 13

JOIN and DIVIDE

This chapter covers:

- How to Divide Topics
- How to Join Topics

DIVIDE Commands

MaxThink includes two kinds of DIVIDE commands — manual and automatic.

This first example describes the manual operation (Shift-F10 key) which splits the text at any point in a topic to create two topics. Let's try it.

Split a topic

Action	**Results**
Press: F N	Selects the FILES menu and NEW command
Press: Enter	Confirms the removal of information in memory
Press: Ins	Creates a new subtopic
Type: Now is the time for all good men to come to the aid of their country	Familiar text appears on the screen
Move text cursor so that the flashing box is on the "g" of the word "good"	Text cursor moves to specified location
Press: Shift-F10	Splits the text into two topics

That was the manual operation. Let's try the automatic DIVIDE command.

Divide Command

Automatically split topics by word, line, sentence, or paragraph

The default RANGE is the current topic

Action	Results
Press: Esc	Returns to the MAIN menu
Press: B D	Selects the BRAINSTORM menu and DIVIDE command
Type: 1-$	Enters the entire list for RANGE
Press: W	Divides text in all topics by words

The last prompt includes options for dividing text by WORD, LINE, SENTENCE, and PARAGRAPH. Two comments:

First, occasionally people ask what is a SENTENCE. A SENTENCE to MaxThink contains a sentence ending character (i.e., period, quote, question mark, or exclamation point) followed by TWO spaces.

Second, MaxThink includes the space between WORDS, SENTENCES, and PARAGRAPHS with the previous topic so that each of the new topics created contain left-justified text.

How to JOIN Topics

You already know what JOIN does. But, just for practice, do this:

JOIN command

Action	Results
Press: B R (Enter)	Randomized the list of words
Press: B J	Selects the BRAINSTORM menu and JOIN command
Press: Enter	Accepts the default RANGE of the entire list
Press: W	Selects the WORD option

MaxThink adds extra spaces if needed when joining topics to prevent words from running together

If you have sharp eyes, you'll notice that MaxThink inserted an extra space between each word. Here's why:

Your sequence of DIVIDE, RANDOMIZE, then JOIN is not the typical use of this command. More likely, you created a long list of topics containing words or phrases, then wished to join similar ideas into single topics. If MaxThink didn't add the extra space in the WORD operation of JOIN, your text would run together.

Default RANGE for the JOIN command is the current list

A second important point to remember: The default range for JOIN is the entire list, which is opposite of the default RANGE of DIVIDE. Why? Because issuing a command with a default to JOIN a single topic doesn't make any sense. That's why the RANGE default is the entire list.

Commentary

This chapter was short and sweet. Nothing complex about the SHIFT-F10, DIVIDE, or JOIN commands. But, consider this:

Your initial view of MaxThink was that it was an outline manipulator. Then you learned that MaxThink could convert outlines into lists (LEVELIZE or convert segmented lists into outlines (CATEGORIZE).

In this sense, JOIN converts lists into text, and DIVIDE converts text into lists. That introduces you to structure manipulation.

Structure Manipulator

DIVIDE converts text into lists

CATEGORIZE converts lists into hierarchies

LEVELIZE converts hierarchies into lists

First, MaxThink is a structure manipulator. It includes commands for converting information between and working within text, list, and outline structures. These underlying capabilities are the factors that make MaxThink powerful. Whereas most programs are structure dependent (i.e., word processors, databases, spreadsheets), MaxThink isn't. That notion is abstract to some users and obvious to others.

Second, textual databases find it almost impossible to find and index ideas. For example, the elaborate relational-word searches in legal databases or document-retrieval systems are not very efficient. In finding information, they typically produce too much, not enough, or miss synonym descriptions.

JOIN and DIVIDE quickly organize text and topics into "frames" which are integrated idea units

The theory of what constitutes an idea centers on the concept of a "frame," or smallest unit of information that contains meaning. For example, when a textual database is organized and indexed by idea frames instead of words, the contents are much more accessible and understandable. What's this got to do with MaxThink?

I organize ideas by frames. My frames vary from a word, phrase, sentence, or paragraph to pages of data. Consequently, I use the F10, DIVIDE and JOIN commands to always keep my topics in a desirable frame size.

MaxThink works well with both outlines and lists. Just as subtopic management is essential to outlining, the amount of text in each topic is essential to the creation of effective lists. That's the importance of the DIVIDE and JOIN commands.

Define 20 "jump-to" locations in each outline for current or future reference

Chapter 14

JUMP and X Commands

This chapter covers:

- JUMP Command
- ALT-F9 Jump
- X Command

Special Commands

The early versions of MaxThink depended heavily on numeric entries for PATH and RANGE. But with major speed improvements in using the arrow keys to control the display, the universal use of the F5 key for RANGE entries, and the emergence of a "focused work-area" concept in MaxThink, the need to instantly move the cursor to remote areas of the outline has diminished. Still, several of these move-to-a-special-location commands remain important. Let's try a few:

ALT-F9 and JUMP Commands

Two ways to select JUMP

Action	Results
Press: J	Selects the JUMP command which prompts for PATH
Press: Esc	Returns to the MAIN menu
Press: ALT-F9	Alternate way to select the JUMP command.
Press: Esc	Returns to the MAIN menu

These commands are great if you've remembered the PATH to a special location. The problem is that as you add, move, or delete topics, the PATH to special locations can change. But hold on, I'll show you a better approach in a minute.

X Command

I think the best way to remote locations in MaxThink is to use the "X" command. Remember your Hardy Boys adventures and their finding of secret maps marked with a significant "X" (every third story). Well, that's what the X command does — finds your hidden treasures in MaxThink. Here's how it works:

Important topics list

Action	Results
Press: Shift-F5	Adds current topic to the X list (first method)
Move cursor	Selects a new topic
Press the X then INS key	Adds current topic to X list (second method)
Move cursor	Selects a new topic
Press: X	Displays the first line of the marked topics
Press: F1	Shows the keyboard actions available

X-list continued

Action	Results
Press: F1	Returns to the X list
Press: Up arrow	Selects one of the X list topics
Press: Enter	Shifts the topic pointer to the selected topic

The X command maintains a list of up to 20 marked locations in your outline. Use the Up/Dn arrow keys to select a topic, then press Enter to move to that topic. The DEL key erases entries; the INS key adds the current topic to the list.

Now this is fancy:

X-list topic selection

Action	Results
Press a number	Cursor jumps to that topic

To go a step further, if you have, for example, 13 topics listed on the X list, press the 1 key (cursor moves to the first topic), then press the 2 key (cursor moves to the 12th topic). That's nice.

X-list information is saved with each file

One new feature of the X list is that when you save an outline to disk (I'll show you how in a few chapters), the X list is also saved at the end of the file. If you save only a small part of an outline to a file, only the X markers to that portion are saved.

The addition of the X markers at the end of a MaxThink file are visible only if you SAVE the file. If you VIEW, WRITE, or PRINT the outline, the X markers listed at the end of the file are ignored.

Now if you think that is hot, just look at this:

Action	Results
Type: X	Display the X-list choices
Think of an x-list number	Number is mentally recorded
Press: Esc	Hide the X-list and return to MAIN menu
Press: your number	Cursor jumps to that topic

Comments! When you press Shift-F5 on several topics, each is added in order to the X-list. Then without looking at the X-list, press the numbers starting from one (1) to ten (0 key) to jump between locations.

Here's the exceptions — the number jumps don't work with the X-list topics from 11 to 20, but do work with the 1 to 10 X-list topics. Neat!

Summary

What's the best way to move about MaxThink?

The arrow keys are like hiking while the X-list command is like a jet plane

If it's only a short distance, then I use the arrow keys. They provide a familiar journey through the countryside of my ideas.

But, if it's a long, difficult journey to each of my special locations, then I use the X command to mark all the important places. The X command provides instantaneous movement to these locations.

Historically, the travel literature of the 17th to 19th century focused on the "journey" as the experience worth communicating. In contrast, 20th century travel focuses on the "destination" as the justification for the experience. In this metaphor, the arrow keys are very different from the X method of movement.

So, it's your choice. If you think you might learn something while moving through your outline, use the arrow keys. If you just want to get to a familiar location rapidly, use the X-list or just press the number keys.

Instantly switch and transfer information between two separate outlines

Chapter 15

Z Command

This chapter covers:

- Running Dual Outlines With The Z Command

Dual Outlines

The Z command instantly toggles between two separate outlines in MaxThink. While each outline is totally separate, they share the same OPTIONS DETAIL settings.

Information is passed between each outline only through the MaxThink GET/PUT buffer. Commands that transfer information into this buffer include COPY, DEL, MOVE, and GET. The only command that transfers information out of this buffer is PUT. To move information from one outline to another, transfer information into the buffer, press Z to switch outlines, then select the PUT command to copy the information from this buffer. Wow! Let's try it:

Example of dual outlines

Action	Results
Press: DEL	Deletes a topic; deleted topic is in buffer
Press: Z	Switches to the opposite outline
Press: P	Selects the PUT command
Press: S (Enter)	Selects the SUBTOPIC option of the current PATH
Press: Z Z Z	Switches between the two outlines

Smart topic pointers remember locations

One of the nice features of the Z command is that it remembers the previous topic pointer location in both outlines. Also, If you have two outlines in memory that have not been saved, the Save&Exit option in the Quit command will prompt you for the file names for saving each outline.

Split screens

You can also display two outlines at the same time on one screen, with varying vertical or horizontal splits, then switch between each using the Z command.

The SCREEN FORMAT setting of page 3 of the OPTION DETAIL menu includes entries — (blank), Vn, and Hn — does the following:

> If SCREEN FORMAT is blank then MaxThink displays the normal single outline screen. The Z command switches between two full displays.
>
> If SCREEN FORMAT is Vn (with n=25 to 50), then two outlines split by a line at column n. The Z command switches the cursor between each.
>
> If SCREEN FORMAT is Hn (with n=5 to 14), then MaxThink creates two outlines, splitting the screen at row n. Press Z to switch the cursor.

Special Considerations

Now the Z command gets complex. I haven't even told you about the REF command that cross-references every word in your outline.

When using the Z command to transfer between outlines, the CLONE (oops, that's something else new) and the X marker list are not transferred between the two outlines.

ALT-R and ALT-W commands

On a separate topic, if you use ALT-R and ALT-W (oops . . . special commands that load and save files) from both outlines on the same file, it's very easy to write out information to a file from one outline, then overwrite that information from the other outline.

Someday, MaxThink may include network features that would track changes to files by various people. But until that day arrives, I'd suggest that you don't access the same disk files from separate Z outlines.

Summary

The Z command is most useful

I created the Z command so that you could keep your name index, to-do lists, and flash insights separate from your current working outline. Over time, I think you'll wonder how you ever used MaxThink without the Z command.

One final note: Don't worry about the new commands mentioned in this sections such as REF, SAVE, LOAD, ALT-R, ALT-W, and CLONE. We'll cover them in detail in the next few chapters.

CLONE converts outlines into moderately cross-linked networks

Chapter 16

CLONE Command

This chapter covers:

- How to Create and Use CLONE Topics

Automatically transmits Editor changes in one topic to other topics

ALT* Creates CLONE Topics

The Clone command allows you to group together a series of identical topics such that editor changes made in any one of the topics are automatically made in the remaining group. The process takes a number of steps. For example:

CLONE process

(1)	To create a group of clone topics, either create a new topic or move the topic pointer to an existing topic.
(2)	To mark the current topic as a clone topic, press ALT*. The ALT* command puts an asterisk (*) in the left margin to identify topics with clone attributes.
(3)	To duplicate the clone topics, use the Get/Put or Copy commands on the Main menu, or press ALT-C in the editor. These commands also duplicate the leading asterisk that marks a clone topic.
(4)	To change the text in all the clone topics, use the editor to change the text in one of the clone topics. Once you leave the clone topic by pressing Esc or by moving the edit cursor to another topic, the remaining topics are automatically changed to match the edited topic.

It's actually simpler than it sounds. There are three ways to begin the command -- press either ALT-8, ALT-Shift 8, or ALT*.

Creating clones

Action	Results
Press: ALT*	An asterisk (*) appears before the topic signifying that it is a clone
Press: E	Selects the Editor
Press: ALT C	Duplicates the current topic (faster than COPY)
Change text in either clone topic	Test changes in all CLONE topics
Press: Esc	Changes in one topic are made to the other

Special Considerations

MaxThink's clone process contains four restrictions.

Maximum number of clones is 2500

First, MaxThink is limited to 2500 clones, which can be organized as either a large series of clones to a few topics or a few clones to a large number of different topics.

Clones do not merge

Second, while the SAVE and LOAD commands retain all clone information, the READ command does not link cloned topics together when separate files containing identical clones are merged.

Topics removed from a clone group cannot be rejoined to that group

Third, once a clone is removed from its series, it cannot be returned to the series. The ALT* command can create the initial clone or remove clone linkage, but it can't link another topic into an existing group of clone topics.

Finally, the clone linkages are not retained when clone topics are transferred into another outline using the Get/Z/Put commands.

CLONE Comments

Two ways to create

Three comments on this command; then the complexities:

The ALT key makes or breaks clone relationships*

First, the clone command has two keyboard equivalents -- ALT SHIFT 8 and ALT 8. While the first is technically correct, the second is easier to remember and more convenient.

Clone information is saved at the end of the files

Second, the ALT* command serves as a toggle. Pressing ALT* on a topic without a leading asterisk begins a new clone series with that topic. Pressing ALT* on a topic with a leading asterisk removes that topic permanently from the associated clones.

Finally, the clone information (ASCII format) is contained at the end of the MaxThink file. The clone information begins with the word "~C~L~O~N~E" followed by the list of numbers then a zero "0" delimiter. These numbers and delimiters identify the topics that belong to each clone group.

CLONE Complexities

The Clone command seems straightforward until you use the TAG, UNTAG, or editor replace command (ALT-R) with clone topics. These commands change text across a series of topics.

Don't use CLONE with the TAG command (which I'll soon describe)

For example, create three clone topics. F5-mark the three topics, then use the TAG command to insert "Hello" into each. Surprise! You'll end up with not three, but nine "Hello" comments.

The first time I tried this, I thought MaxThink was broken. My programmer and I spent 20 minutes trying to debug this before I finally realized it was correct. To amaze your friends, use this feature to multiply, divide, and do textual square roots in MaxThink.

On another topic, the CLONE command does not cross-link changes in the subtopics of topics that are marked as clones. While there are arguments for both sides of this approach, I'll probably change this in the future version of MaxThink

Summary

Although the CLONE command allows me to convert a pure hierarchy into a mild cross-linked network with perhaps 100 cross-links, I don't use it that way. Here's why.

HOUDINI is designed for working with cross-linked information

We also sell another software package called HOUDINI that compliments MaxThink. HOUDINI is a complete system/network processor. While most the commands are the same as MaxThink, this software handles up to 2500 topics and 7500 separate links. For that reason, HOUDINI is much better suited for making, modifying, and displaying cross-referenced information than the CLONE system of MaxThink.

REF — automatic cross-reference and indexing of every duplicate word in a file

Chapter 17

REF Command

This chapter covers:

- How to use the REF command

How to Use the REF Command

MaxThink includes a word-frequency index that displays an alphabetical listing of all words in your outline, along with the number of times each is used. Here's how it works

REF command

Action	Results
Press: R	Selects the REF command
Press: End	Shows number of unique and total words
Press: (any letter)	Moves cursor to that part of the word list
Press: Arrow keys	Moves cursor to a particular word
Press: Enter	Shows that word in context
Press Enter again	Moves to next occurrence of the selected word
Press: Esc	Returns to the MAIN menu

The REF command is in two stages. The first stage displays the list of words for selection. Press Enter on a selected word to move to the second stage of the REF command. The second stage is a menu for paging through each occurrence of the word, editing the word, or returning to the REF list again.

With that in mind, select the REF command again, then press F1 to review the keyboard options at each stage.

Why the REF Command?

The REF command makes MaxThink into a (hold your breath). . . free-form, file anything, instant cross-reference, common-word windowing database. Some of the clever tricks include:

Leading hash-marks and hyphens

Master list for spell-checking or indexing

- Inserting a hash-mark (#) at the beginning of selected words so that they are displayed at the top of the REF list.
- Adding phrases to the REF list by using hyphens to join words
- Printing out the REF list to a spelling checker to speed up checking on very long documents.
- Printing out the REF list, editing it, then using that as an input to word processors that create automatic indexes.

Some of the suggestions for future versions of the REF command include displaying the words by frequency and suppression of the garbage (common usage) words. The latest release of the HOUDINI program from our company already includes garbage word suppression and listings of the selected word in context.

Memory and the REF Command

REF doubles the amount of memory needed for a file

Now, all this power in the REF command doesn't come free. When the REF command is first selected, MaxThink pauses while the index system for every word is built. If you press Esc while MaxThink is building this index or if there is insufficient memory to build the index, the program returns to the MAIN menu.

Note to Max94 users: In the virtual memory mode, the REF command is almost impossible . . . so it doesn't work yet!

As a general rule, turning on the REF command doubles the amount of memory needed for a file and cuts the keyboard speed in half. During file loading, if REF is on, the process really slows down even more.

To solve this problem, whenever the EDITOR is selected, MaxThink turns off the REF index.

Summary

The Z command also automatically turns off the REF command

For people in sales and managers who work on the telephone, REF is a very fast and powerful way to find first names, last names, phone numbers, companies, promises, products, appointments, or prices.

One final hint. The Z command, which switches between two outlines, is another way to turn off the REF command.

Macros — recording repetitive keystrokes to

Chapter 18

Shift-F6, ALT-K, and Sign-off Message

This chapter covers:

- Creating Keyboard Macros
- Creating Keystroke Logs
- Sign-off Message Options

Creating Keyboard Macros

MaxThink includes two separate processes for recording and playing back sequences of keystrokes. The first process uses the F6 key to execute a short user-defined macro. The second process uses the Ctrl-F6 key to repeat the macro down a list of topics.

I use the F6 key any time I know I'm going to repeat a sequence of commands or a sequence of text. Building such a macro (sequence of keystrokes) requires three steps — initializing, logging, terminating — followed by execution (F6) or auto-repeat (Ctrl-F6). Let's try it:

F6 macros

Action	Results
Press: Shift F6	Starts a keyboard macro; word "KEY" appears on the bottom line of the screen display.
Press: E	Edits the current topic
Type in your name	Your name appears
Press: Esc	Returns to the MAIN menu
Press: Shift F6	Ends the macro; word "KEY" disappears from the bottom line of the screen
Press: Ctrl-F6	Automatically repeats the macro from the current topic to the end of the list.

MaxThink macros are limited in size to 64 keystrokes. MaxThink also maintains only one such macro in memory at a time. However, as macros are saved in the CONFIG91.MT, you could create a collection of such processes, index, and retrieve them using the OPTIONS menu.

Creating Keystroke Logs

As mentioned, MaxThink also includes a method of recording keystrokes on disk. The ALT-K command both starts and terminates these logs. When first initiated, the program prompts for a log filename and description. Both the filename and descriptiong are first added to the MACRO.MT file. Then, roughly every 500 keystrokes, MaxThink pauses for a second to write the keystrokes to the selected filename (word LOG is shown). When done, press Alt-K and Esc to stop recording the LOG.

Keystroke log

Action	Results
Press: ALT-K	Starts a keystroke log
Type: X (Enter)	Opens a file named "X" for logging the keystrokes
Type: My name (Enter)	Describes the keystroke log
Press: E	Selects the editor
Type: (your name)	Your name appears as expected
Press: F10	Creates a new topic
Type: <X> (Enter)	Inserts the letter "<X>" to the topic
Press: Esc	Returns to the MAIN menu
Press: F4	Determines that X is a file name, opens the file, then runs the keystroke log contained in the file.
Move cursor to <X> topic	Getting ready to try again
Press: Right arrow	Macro executes again
Press: Ctrl-K	Displays MACRO.MT list of keystroke logs
Hypertext select <x> topic	Macro executes again

I use Ctrl-K rather than adding the keystroke log filename into my outline as a hypertext jump

The F4 key is one of the more unusual features of MaxThink as it works on topics with subtopics (Right arrow doesn't)

The F4 key probably surprised you. F4 does unusual things on topics that start with file names. The F4 key displays ASCII files, Color-Tx graphics, or load MaxThink files. In addition, F4 runs macros created by ALT- K. I'll cover all these F4 details in future chapters.

I've used ALT-K keystroke logs for a long time for automatically testing new versions of MaxThink against a standard set of processes. For short macros, I use the F6 keys. But if you need macros longer than 64 characters, then use ALT-K. If you need macros with more sophisticated capabilities than F6 or ALT-K, then I recommend programs such as ProKey or SuperKey.

Log-off Processes (DOS macros)

MaxThink Forever!!!

The OPTIONS DETAIL menu contains a setting for the sign-off message. Initially, the sign-off message is set to "MaxThink Forever!!!," which reflected a bit of the whimsy and initial dreams I had when I first formed this company in 1983.

Custom messages

This message offended a few users who either wanted it eliminated or desired an option to create their own personalized sign-off such as: "You think, therefore I am" or "Thanks Dave, I needed that."

DOS commands

So, several updates ago, we let users enter their own exit messages, or include a sequence of DOS commands that MaxThink automatically executed when the program quit.

Initially, if the text entry included a leading exclamation point (!), the subsequent text was processed as DOS commands. If the text entry did not include a leading exclamation point (!), then the text was printed as entered.

Freeing memory

This arrangement worked fine, but under certain circumstances the memory used by MaxThink was not returned to the system pool upon exit because MaxThink needed to remain in memory to provide the sequence of DOS commands. So, our second solution:

Keyboard buffer limit

We limited the length of the text/DOS information to 15 characters. Then MaxThink loaded the keyboard buffer with the 15 characters (normal maximum buffer size), cleared MaxThink from memory, then dumped the text to the screen or DOS command interpreter. Next problem:

Slow screen update

On a few computers (TOSHIBA laptops), the sign-off message took forever for the characters to print on the screen (keyboard interrupt handlers fighting MaxThink). Now, our third solution. We modified the option driver to eliminate the screen delays.

In retrospect, perhaps I should have kept the initial statement "MaxThink Forever!!" out of the program. But, as it has survived this far, I leave it to you to modify. Here's how:

Testing the DOS call

Action	Results
Press: O D	Selects the OPTIONS menu and DETAILS command
Move the cursor to "Sign-off Message"	Cursor positioned to change setting
Type: !DIR A:	Instructs MaxThink to execute a DIR upon exit
Press: Enter Enter	Returns to the MAIN menu
Press: Q E Y	Selects the QUIT EXIT YES sequence of commands

As expected, MaxThink displays the file directory for drive A.

Summary

That's all there is to macros. Not much on thinking in this chapter . . . and that's the problem with most of computing today. For example, when you create an automatic process that runs without much effort, not much else is happening in your mind either.

Dangers of processing

It seems that 99 percent of computing is justified for efficiency (do routine tasks faster) rather than effectiveness (thinking about choices in what, why, and how). I'd even go so far as to say that computing is inversely correlated with thinking — the more you compute, the less you think.

Processing capability converts users into data processors

Yet, that's what 99 percent of the current computer software focuses on — efficiency in lower-level processes of memory, understanding, or speed increases in routine tasks. In many cases, the computer has offered more job enlargement than office productivity. It has, for the most part, only helped expensive people to spend money and time to do inexpensive no-brainer tasks slightly faster.

In contrast, when I showed you all the different ways to think with MaxThink, I'm not talking about processing but about representation and how to clarify what is in your mind.

Here's the key. Processing is "automatic mindless" work, whether with objects or information — hit a button, turn off your mind, and something happens. Representation is like the work of composers or inventors — collect information, then use your mind to improve the organization.

Representation is the work of composers, inventors, or thinkers

Building processes or representing relationships takes talent. Using macros or packaged processes (most software) may or may not require talent. Make sure you understand the philosophic differences between processing and representing because, concerning computers, that's the separation between high-level thinking and using a computer in ways similar to running a fancy toy-train layout for recreation.

Running DOS commands from within MaxThink

Chapter 19

DOS Equivalents

This chapter covers:

- MaxThink File Commands That Are Similar to DOS Commands

A number of commands on the FILES menu of MaxThink are similar to commands in DOS. This chapter is easy as it covers familiar territory. So, let's start.

FILES and MAIN Menu

If you followed the action steps in the previous chapter, you now need to load MaxThink again. At the DOS prompt:

Display FILES menu

Action	Results
Type: MAX (Enter)	Boots the MaxThink program
Press: F	Selects the FILES menu

By now, you've figured out that not all the commands listed on the MAIN menu are commands that modify data. For example, the FILES command along with the BRAINSTORM and OPTIONS commands simply select other menus. MaxThink provides two conventions with these three menus:

- First, except for these three menus and the EDITOR, all other commands return to the MAIN menu upon selection, execution, or interruption (by ESC key).
- Second, press Enter to return to the MAIN menu after selecting any of these three menus.

How to Display an Index

MaxThink includes two ways to display a listing of the files on any directory — ALT-D and the FILE INDEX command.

As for the ALT-D command, many of the commands on the FILES menu prompt for filename. If you press ALT-D at any filename prompt, MaxThink displays the directory listing showing only the name of each file. For example, starting at the FILES menu:

Display a disk directory

Action	Results
Press: C	Selects the COPY command of the FILES menu
Press: ALT-D	Displays the files of the current directory
Press: Esc	Returns to the MAIN menu

I think the FILE INDEX command is more useful for three reasons — directory selection, wild card filenames, and detail selection. As a result, it is a lot closer to the DIR command of DOS. Let's try it.

FILE INDEX command

Wild card feature

Action	Results
Press: F I	Selects the FILES INDEX command
Type: CHAP* (Enter)	Selects only files in the current directory that begin with the word "CHAP"
Press: Y	Selects the YES option to display details

Try this command several times with different directories and wild card filenames.

Setting DATE and TIME

MaxThink uses the system date and time information in a number of ways. For example:

The EDITOR includes a command (ALT-S) that inserts the current system date and time into text.

The OPTIONS DETAILS menu includes a setting that automatically inserts this same information at the beginning of each new topic. This option includes setting for stamps with or without the time, and settings to include the date stamp whenever a topic is created.

And finally, there's the ALT-Z command that rapidly changes the dates in the beginning of each topic.

To try the DATE and TIME commands of MaxThink which set or change the system values, do the following:

DATE command

The YY/MM/DD format sorts into calendar order

Action	Results
Press: F T	Selects the FILES menu and DATE/TIME command
Type today's date and time	Note the unusual yy/mm/dd format
Press: Enter	Returns to the MAIN menu
Press: F10	Creates a new topic
Press: ALT-S	Inserts the current date and time into the text
Press: Esc	Returns to the MAIN menu

You might wonder about why MaxThink uses a YY/MM/DD format. The reason is that if you create a number of topics using this format, the SORT command quickly organizes them into ascending or descending calendar order. Continuing:

DOS commands

MaxThink can execute DOS calls and programs in two very different ways (both swap MaxThink out of memory).

The first approach uses the FILES DOS command (F D) to enter a DOS command or program name. When finished, both return to MaxThink.

The other method is a <DOS DIR> or <DOS program filename> hypertext jump. Put it in a topic, then press the Right Arrow (or F4 key if it has subtopics) to execute.

Both of these methods work if the OVERLAY PATH entry is set (such as C:\). See OPTIONS DETAIL screen file 5 for this entry.

Using the ALTER-NAME Command

The RENAME command of DOS changes the names of files. MaxThink includes a similar command. But since MaxThink already includes a command that begins with R (the READ command), I named this command ALTER-NAME. Do this:

ALTER-NAME command

Matches the RENAME command of DOS

Action	Results
Press: F A	Selects the FILES menu and ALTER-NAME command

ALTER-NAME continued

Press: ALT-D	Review the filenames on the current directory
Type: Chap-19A (Enter)	Identifies the original filename
Type: Chap-19B (Enter)	Identifies the new filename; changes the name

For a fancy way to confirm that the old filename no longer exists and that the new one does, do this:

Another F4 example

Action	**Results**
Press: F10	Creates a new topic
Type: Chap-19A	Inserts the text "Chap-19A"
Press: F10	Creates a new topic
Type: Chap-19B	Inserts the text "Chap-19B"
Press: Esc	Returns to the MAIN menu
Press: F4	Displays the contents of "Chap-19B" file
Press: Up arrow	Tries to display the "Chap-19A" file which no longer exists

Complexities, Defaults, and .BAK Files

So far, this all seems too simple. So, here are the complexities . . . the default directory and .BAK files.

First, the default directory. The bottom right corner of your display shows the filename of the last file saved or loaded. But, if you change directories using the OPTIONS or OPTIONS DETAIL menu, the default filename at the bottom of the screen remains the same even though you changed directories. While these directories normally match, make sure you don't confuse our default filename information with our default directory.

As a safety measure, MaxThink will not load files that contain the ".BAK" extension

Second, with filenames that include a .BAK extension, as a protection measure, MaxThink won't let you load or change the name of such files. Use your DOS commands or MaxThink's COPY_FILE command to create files that do not include the .BAK extension.

Using the COPY-FILE Command

Matches the COPY command of DOS

MaxThink includes a command that is similar to the COPY command of DOS. However, since MaxThink already includes a COPY command on the MAIN menu to copy topics, I named our file copy command COPY-FILE. Try this:

COPY-FILE command

Action	Results
Press: F C	Selects the FILES menu and COPY-FILE command
Type:Chap-19B (enter)	Identifies the source file
Type: Chap-19A	Identifies the destination file
Press: Enter	Creates a copy of file

Using the ERASE Command

Matches ERASE of DOS

MaxThink includes a file ERASE command that matches the ERASE command of DOS. Are you with me? Ok:

Erase command

Action	Results
Press: F E	Selects the FILES menu and ERASE command
Press: ALT-D	Displays the names of files in the current directory
Type: Chap-19B (Enter)	Erases the file named

Summary

That didn't take long. The commands covered in this chapter are familiar with few surprises.

The only greybeard (old-man-at-C) advice I can offer is to include your different working directories in your OPTIONS list. I prefer to use this list to change my default directory instead of entering full path names with each file specification.

Sounds brilliant, but I confess that I used MaxThink for a year before it occurred to me to create such configurations. Perhaps I couldn't see the forest for the hierarchy trees.

Powerful I/O features translate information into many alternate formats

Chapter 20

SAVE, LOAD, READ, WRITE, And PRINT Commands

This chapter covers:

- Using the FORMAT Command
- How to NEW a File
- How to LOAD a File
- How to READ a File
- How to SAVE a File
- How to PRINT a File
- How to VIEW a File
- How to WRITE a File
- Looking Out for Input Control Strings

The previous chapter covered the "hors d'oeuvre" of the FILES menu. Now, we're seated for the "meat and potatoes" chapter of MaxThink. Once you've finished this section, all you'll have left with MaxThink is a few chapters of frosting. Let's dig in . . . and please pass the vegetables!

Using the FORMAT Command

Background

The FORMAT command of MaxThink is like your appendix (in your stomach) — more a reminder of times past than a current necessity.

In previous versions of MaxThink, the information contained in the OPTIONS DETAIL menus was split and separately accessed by our OPTIONS and FORMAT commands. But, as the list of options grew in MaxThink, I combined the information from these two commands into the six (6) pages of options.

Here's the difference between these two commands. The OPTIONS DETAIL command jumps to the first page of these settings while the FILE FORMAT command jumps to the fourth page of these settings.

While, as my kids say, "it's no big deal," try this:

Displaying options

Action	Results
Press: O D	Jumps to page one of the listed options
Press: Esc	Returns to the MAIN menu
Press: F F D	Jumps to page four of the listed options
Press: Esc	Returns to the MAIN menu

Just as all commands in MaxThink return to a standard starting place (the MAIN menu), I prefer a standard starting place for accessing the options list. As a result, I've switched to using the OPTIONS DETAIL command no matter which page I'm ultimately interested in. However, like many things in MaxThink, there are different ways to accomplish the same task. For that reason, the FILE FORMAT command remains in MaxThink.

How to NEW a File

A friend, who just spent two years reading James Joyce's Finnegan's Wake with all the glosses, would say, "Do you really ever KNEW a file?" If you've read it, then you mean what I NEW! If not, ask a friend about it.

With that awful pun, the NEW command in MaxThink simply cleans house on the memory in your computer. Let's try:

NEW command

Action	Results
Press: F N	Selects the FILES menu and NEW command
Press: Y	*Confirms your desire to clear memory*

Just to make sure we're together, don't be confused by the word "file." The NEW command affects only the data in memory and has nothing to do with the files on your disk. NEW is like the CLS command rather than like the ERASE command of DOS.

How to LOAD a File

ASCII compatible

MaxThink files are ASCII compatible. If the first line of the ASCII file contains the word "M~A~X~T~H~I~N~K " or the ASCII file has an indented or paragaph format, MaxThink loads it in an outline format.

Continuing, the LOAD command will load any IBM format file whether it is binary, graphics, ASCII, or MaxThink. Let's start by loading a file:

LOAD command

Action	Results
Press: F L	Selects the FILES menu and LOAD command
Press: Y	Confirm clearing of memory
Type: Chap-20A (Enter)	Loads the specified file

No great earthquake (as the natives say in California)! The example outline is loaded, with topics, subtopics, short lines of text, and wrapped text all in order. Now, the question is, "How did this happen?"

Converting an ASCII File Into An Outline

Here's how the LOAD command converts an ASCII file into an outline.

ASCII file — While MaxThink can load binary or graphic files, don't do it unless you have some reason to display a screen full of smiling faces or funny characters. If you generally stick to files of text characters, from space (ASCII 32) to small z (ASCII 122), MaxThink works just fine.

Short lines of text — For each carriage-return character (your Enter key or ASCII 13) found during the loading process, MaxThink creates a new line of text.

Long lines of wrapped text — If MaxThink doesn't find a carriage return (ASCII 13), the text is wrapped to the next line according to the screen setting for left (column 10), right (column 80), and annotation (column 13) margins. If you change these screen margins, the text wraps at different points.

New topics — For each line-feed character (ASCII 10), MaxThink creates a new topic.

Outline levels — MaxThink keeps track of the number of blank spaces (ASCII 32) after each line-feed character (ASCII 10). If the number of such spaces is the same as for the previous topic, then MaxThink creates a new topic on the same level as the previous level. If the number of spaces is larger, then MaxThink makes the new topic a subtopic of the previous topic. If the number of spaces is less, MaxThink inserts a topic at the proper higher level.

This MaxThink outline-coding algorithm offers three advantages.

First, it is easy to understand . . . no complex coding is used.

MaxThink automatically translates any ASCII file with indented text into an outline format

Second, regardless of the number of leading spaces, MaxThink correctly loads outlines created by any program as long as the indentation method remains consistent. While MaxThink typically saves files using a single space to mark each level, the system works equally well if you use two to 50 indentation spaces for each level.

Third, this format lets MaxThink save outlines in formats that other programs can read.

The big NO-NO: Do not insert blank spaces at the beginning of a topic

Here's the only caution: DON'T USE LEADING SPACES IN MaxThink TOPICS. If the text in your topics does not begin at the left-most position in each topic, when you LOAD such files, the leading spaces in a topic make it a subtopic of the previous topic instead of leaving it on the intended level.

Control Codes — As for ASCII control codes, MaxThink only looks for ASCII 13 (carriage return), ASCII 10 (line feed), and ASCII 31 (underline marker) and ignores all others (ASCII 0 to ASCII 30). However, if you want to load these other codes along with your text, the OPTIONS DETAIL menu includes a setting for stripping or not stripping these codes.

Removing control codes

I use the setting in the OPTIONS DETAIL menu that strips the remaining control codes, as I don't need smiling faces in my topics.

Graphic Codes — MaxThink normally subtracts 128 from the ASCII codes from 128 to 255 to automatically convert Wordstar files. However, if you wish to use an overseas DOS (which uses the codes to represent special European characters), then turn off the OPTION DETAILS setting for the American keyboard.

Don't play with the setting for "Input Control String" unless you know what you are doing.

Splitting Topics — If you LOAD non-MaxThink files and find that the topics do not split as you desire, you have two options. Either manually organize the topics using the JOIN, DIVIDE, or Shift F-10 commands, or change the OPTIONS DETAIL Input Control String setting to create topics using whatever codes are contained in your text.

For example, consider the effect of the following settings for Input Control String:

Setting	Results
\13\10	Standard MaxThink file setting
\13	Creates a new topic on each ASCII 13 (carriage return)
\10	Creates a new topic on each ASCII 10 (line feed)
\20	Creates a new topic on each ASCII 20 (soft return)
MAX	Standard MaxThink file setting
Sentence	New topic if sentence end followed by 2 spaces
Paragraph	New topic if sentence end followed by 2 carriage returns

While all this is probably more than you ever wanted to know about the LOAD command, it's this flexibility that makes MaxThink MaxThink.

MaxThink converts flat files (ASCII lists) to a 2-level outline

One unusual operation of the LOAD command occurs if you load a completely flat file, such as a name/address/phone listing. Since none of the elements are indented, MaxThink automatically adds the word TITLE to the file as it is loaded, then makes all the subsequent text subtopics of the title topic. The reason for this action is that MaxThink allows only one topic in the topmost portion of the outline. Clever!

Hint: MaxThink loads much faster if you first turn the REF command off

Second, from a past chapter, you know about our REF command which cross-references every word in your outline. The key point to remember is that if the REF command is on, loading takes about three times as long as when the REF command is off. If this concerns you, use the OPTIONS DETAIL menu to check the status of the Auto-word Reference setting before loading larger files.

Use ALT-I to manage many smaller files instead of creating giant single-file outlines

Third, the loading of MaxThink files is slow with very large files as MaxThink untangles the text and topic relationships. While this is scarcely noticeable with a 10-20K file, I'd recommend that you organize your work in a series of small outlines instead of creating a 300K Fibber McGee's closet style of outline. The next chapter describes the ALT-I command, which provides a perfect answer to management of many smaller files containing segments of a giant outline.

Use the FILE NEW command first when loading files that approach the limits of available memory

Fourth, the LOAD command does not clear the previous file from memory unless the current file successfully loads. For that reason, if you are loading a file that is larger than one-half of available memory, first use the NEW command to clear memory, then use the LOAD command.

Finally, if you have files from a particular word processor or database that you regularly load into MaxThink, use the OPTIONS DETAIL menu to create a separate configuration containing the necessary settings.

How to READ a File

The READ command is just like the LOAD command — the only difference is that the READ command doesn't clear memory. This allows you to merge different files into a single outline.

READ's only new feature is that it prompts for a PATH and LOCATION. Try this just to say you've done it:

READ command

Action	Results
Type: F R	Selects the FILES menu and READ command
Press: Enter	Selects the AFTER location
Press: Enter	Selects the current topic for PATH
Type: Chap-12A (enter)	Reads file into specified location

The only unexpected result is that the title topic is put in the specified location with the actual data starting as subtopics.

If you READ a file in as a subtopic, the title topic is put in the subtopic location, and the data start as sub-subtopics. If you want to move all the topics up a level, F5 mark the topic, move the cursor up a level, then select a MOVE AFTER command.

How to SAVE a File

The SAVE command of MaxThink transfers the information in memory to a disk file. Let's try it:

SAVE command formats are:

MaxThink Wordperfect, ASCII and DosWORD (WORD)

Action	Results
Press: F S	Selects the FILES menu and SAVE command
Press: Enter	Selects the default RANGE of the entire outline
Press: Enter Enter	Selects the default filename of the last file loaded or saved using the MaxThink format

That was easy. Now for the details.

The SAVE command has two purposes — to backup work in progress and to retain your outlines in a format easily read by the LOAD command.

First, the backup process. Good data processing habits includes creating backups of any work you don't want to do again in case something goes wrong. Just as dentists say "Brush regularly and often," give the same attention to your mental efforts in memory or on disk.

Use our automatic reminder to regularly save your work in progress

As an automatic reminder, the OPTIONS MENU contains a setting to both beep and print the message "Time to Save File" every so many minutes. I set this option to 10 minutes and use it regularly.

Second, the SAVE/LOAD combination. The SAVE command puts files in a format easily understood by the LOAD and READ commands. If this format is easily understood by your word processor, then SAVE to transfer information to it.

If the format of the SAVE files is not easily read by your word processor, use the WRITE command to create files that match your word processor. But use a different file name so you don't lose the MaxThink format

However, if the SAVE format is not easily understood by your word processor, then don't worry as the WRITE command easily solves the problem of transferring information between different programs.

But, that's not all. Consider these issues.

FILE FORMAT — The text in MaxThink is written on the disk using sequences of 255-character long strings. For every carriage return (Enter key), MaxThink inserts an ASCII 13. For every new topic, MaxThink inserts an ASCII 13 followed by an ASCII 10 (line feed).

MaxThink inserts spaces after each ASCII 10 (topic end), which indicate the outline level information. The LOAD command then uses this information — carriage returns, line feeds, and trailing spaces to wrap the text and reconstruct your outline. That's why you don't use leading spaces in MaxThink topics . . . it confuses the LOAD command.

Here are the problems. If your word processor can't wrap long lines of text, use our WRITE command to convert your MaxThink information into a format that better matches your word processor.

If your spelling checker inserts or removes the special characters (linefeed followed by spaces) used by MaxThink to describe the outline relationships, either switch spelling checkers or first transfer the file to your word processor before checking spelling.

Use F5 to mark segments of an outline for saving

Saving Outline Segments — Normally, as I always save the entire outline, I accept the default RANGE of the entire outline. However, if I want to split my file or save only portions of my outline, I use the F5 key at the RANGE prompt to mark those sections, then press Enter.

CLONE and X-LIST information are included at the end of SAVE files

System Information — The SAVE command also includes both the CLONE and X LIST information at the end of the file. If included, the LOAD command reconstructs this information. If you save only a segment of your outline, only the CLONE and X LIST information affecting that segment is included.

No Other Formatting — As you become acquainted with MaxThink, you'll discover over 30 OPTIONS DETAIL settings that affect the appearance of the outlines that you VIEW, PRINT, or WRITE. Just remember that the SAVE format is very simple, and that all the listed format options affect the WRITE command, not the SAVE command.

Automatic Backup Files — If you save a file, and the same filename already exists on the disk, MaxThink does a number of acrobatics. First, the new file is saved under the name $$$$$$$.$$$. MaxThink remembers the old filename, adds a .BAK to it, then renames the $$$ file using the original filename. This protects both the old and new files if anything goes wrong during the process (like a sudden loss of power).

Errors — The memory in MaxThink is a mass of pointers that make heavy recursive use of stack space in the SAVE command. If you have any undisciplined keyboard routines, spoolers, memory resident software, or non-standard hardware that leaves garbage bytes in MaxThink's stack space, these stab-us-in-the-back problems show up during the SAVE command. Your solutions are: eliminate the conflicting software, increase MaxThink's stack space, make smaller outlines, or backup your files more often.

How to VIEW a File

On a clear day, you can...

The next three commands — VIEW, PRINT, and WRITE — are almost identical. The only differences is that these commands direct the formatted output from MaxThink to either the screen (VIEW), the printer (PRINT), or the disk (WRITE).

The VIEW command lets you preview all the format settings before you either print or write the file to disk in a word-processor compatible format. To VIEW the current file:

VIEW command

Action	Results
Press: F V	Selects the FILES menu and VIEW command
Press: Enter	Selects the default RANGE to view the entire file
Press: Enter	Bypasses OPTIONS menu choices. Displays the file using the current configuration.

At this point, you have three choices: line advance, page advance, and return to MAIN. For example:

Display control

Keys	Action
Down arrow	Displays the next line if the file exceeds the screen
Spacebar	Displays the next page of text
Esc	Returns to the MAIN menu

Two Comments:

First, this display of MaxThink is the only one where the keyboard help options are not displayed by pressing the F1 key. Amazing!

Second, the screen displays only text from column 1 to column 80. If you set the right margin for printing greater than 80, the file prints as desired, but wraps the extra text on a subsequent line. Other than that exception, the display provides a "what-you-see-is-what-you-print" preview.

Don't confuse "making-it-pretty" with conceptual thinking.

I'm thinking about modifying MaxThink in future versions to allow for both up/down and sideways scrolling of this formatted information, and possibly allowing for text or topic editing in a formatted environment.

Ever hear the story about the emperor's new desktop publishing system

While this may initially sound exciting, I'm concerned over the conflicts between conceptual and structural thinking and appearances and formatting tasks. In my mind, the computer has already created a world where users of word-processor and desktop publishing software confuse "pretty" processes with "completeness and clarity" in thinking.

How to PRINT a File

The PRINT command prints files. Sounds simple.

PRINT command

Action	Results
Press: F P	Selects the FILES menu and PRINT command
Press: Enter Enter	Accepts RANGE and CONTINUE defaults

To stop printing at any time, press the CTRL-BREAK or ESC key.

The OPTIONS DETAIL menus include a large number of options that affect the appearance of your outline (i.e., numbering, margins, indentations, headers, topic skipping, etc.). Appendix B covers each of these settings in detail.

However, there are two kinds of settings that you should know right now — printer control strings and laser printer compatibility.

Send user-defined control codes to your printer, both before and after printing

As for printer control strings, MaxThink includes settings on the OPTIONS DETAIL menu that let you send special control characters to your printer both before and after you print. For example, you can use these codes to eject pages, change fonts, change spacing, etc. That's worth remembering.

Laser printer compatibility

Second, MaxThink is initially set for 66 lines of text per page. However, most laser printers print 59, 60, or 61 lines of text per page. So, if you're using MaxThink with a laser printer, change the page-length setting in the OPTIONS DETAIL menu to match the capabilities of your printer. Enough said?

On another topic, don't use the PRINT command if you forgot to turn on your printer, didn't connect the printer to the computer, or your printer is out of paper. Here's why.

Under these error conditions, your DOS kicks MaxThink out of the way to ask the familiar "Abort, Resume, or Ignore" question. If I wanted to hack the BIOS (which I don't), I could perhaps create more useful responses to your printer problems. So here's my solution:

It's a good idea to always save your files before printing

I always save my files before any printing. And unless you can guarantee that your printer will work perfectly every time, I'd recommend that you also habitually save your files before printing.

Press Shift PrtScr for a print-listing of the screen

Finally, MaxThink also supports the screen-printing operations of DOS. Use Shift-PrtSc to start printing the current screen; use the Ctrl-Break to stop the screen print function.

How to WRITE a File

By now, you've probably figured out what the WRITE command does. It's just like the PRINT and VIEW commands. Let's try it:

WRITE command

Action	Results
Press: F W	Selects the FILES menu and WRITE command
Press: Enter	Selects the default RANGE

Type: Chap-20B (Enter)	Enters the filename XXX
Press: Enter	Selects CONTINUE option, which saves the file

Now, for the details.

The real use of the WRITE command is to create a file that matches the needs of your word processor. For example:

The real use of the WRITE command is to create files that match the needs of your word processor

What are the left and right margins in your word processor?
What ASCII codes are needed at the end of each line?
What ASCII codes are needed at the end of each paragraph (topic)?

The OPTIONS DETAIL menus contain settings that let you match the output of the MaxThink WRITE command to the file format your word processor is accustomed to. Consider these topics:

MARGINS — Generally, you want to have files such that the margin setting in the write command match those of your word processor. For example, if MaxThink's margins are longer, text is wrapped by your word processor in ways that ruin the outline format. If MaxThink's margins are smaller, the outline will retain its format only if you include hard carriage returns at the end of each line. So, be aware of differences in margin settings between MaxThink and your word processor, and watch how your word processor wraps text.

These are the most important settings in the OPTIONS DETAIL menu

LINE and TOPIC END CODES — These are most important settings in the OPTIONS DETAIL menus for linking MaxThink to your word processor. Standard ASCII files use carriage returns (ASCII 13) and line feeds (ASCII 10) in uniform ways. However, that's not the case with many word processors that, for various reasons, use these and other codes to identify the ends of lines and topics. For example:

Word Processor	Line End	Topic End
MaxThink	13	13\10
Word Perfect	13	13\10
WORD	—	13
Wordstar	141\10	13\10
Volkswriter	13	20
DisplayWrite II	13\10	29 (use their GET command)

Enter these values to the line and topic end settings in the OPTIONS DETAILS menu so that MaxThink creates files that are easily read by your word processor.

Minor point — Remember how SAVE automatically makes backup files whenever you use that command. The WRITE command doesn't do that. Instead, if you attempt to use a filename that is already in the current directory, MaxThink asks if you want to overwrite the existing file.

The normal way to print files uses the PRINT command. However, some users prefer to WRITE a file, then use the DOS print command or a spooler to print the file.

Finally, one of the formats on the OPTIONS MENU is called "TEXT - Ideas Flagged." I often use MaxThink to organize topics containing either key words or short phrases. Once organized, I transmit this outline to my word processor in a format that turns off the numbering, flattens the hierarchy, and inserts several blank lines between each comment in any sequence I desire.

"Chunking" information to your word processor

Then, I load this file into my word processor and proceed to fill in the blanks. Technically, this is called "Chunking." You can do it by using MaxThink to organize your structure and relationships. Once that is finished, send this file to your word processor to then expand your ideas and polish the transitions between each text unit.

Summary

As my older teenagers say, "Heavy!" This was an intense chapter.

Of all the topics covered in this chapter, make sure you understand these two — input control string for loading files and word processor file transfer. If these concepts make sense, then two-way file linking between MaxThink and your word processor is a breeze.

And if they don't make sense, then reread this chapter, use MaxThink by itself, get a friend to help you, or call me. One way or another, let's make it easy for you to transfer files.

Hypertext to organize, index, and manage large numbers of disk files

Chapter 21

File Management and the ALT I Command

This chapter covers:

- Using the ALT-I Command
- Using the F4 Command
- How to Display Graphics
- How to Manage Files
- Using the ALT-R Command
- Using the ALT-W Command
- Using the ALT-E Command

After several chapters covering the technical details of MaxThink, we're now back to thinking skills. This chapter focuses on ways to manage and integrate your thinking by using powerful new ways to access the information in a number of files. Wow!

Using the ALT-I Command

The ALT-I command creates topics that contain filenames. It is similar to the PUT command as it requests LOCATION (after, before, or sub) and PATH.

Here's the difference. ALT-I requests file directory information and your preference for file details, then inserts the filenames from the selected directory as topics in MaxThink. In a moment, I'll explain why this is significant.

ALT-I command

Action	Results
Press: ALT-I	Selects the filename insert command
Press: Enter	Selects the AFTER option for LOCATION
Press: Enter	Selects the current topic for PATH
Press: Enter	Selects the current directory
Press: Enter	Selects the NO-DETAILS option

ALT-I actually created a new topic containing a filename for each file in the directory. Here are some of the uses for the ALT-I information.

Ways to Use ALT-I

ABSTRACT — Add a short text description of the contents after each file name.

SORT — Use the SORT command to alphabetize your list of files. If you had selected the YES-DETAILS option, you could also sort your files by size, date, or time.

BINSORT — Create hierarchies of your disk files in MaxThink by type, purpose, length, etc.

PSEUDO-DIRECTORIES — Since the ALT-I command includes the full path with each filename, use ALT-I to combine files from different directories to maintain in MaxThink a "pseudo-directory" that perhaps organizes the information in better ways.

Using the F4 Command

Now for the magic!

F4 key

Action	Results
Press: F4	Displays the contents of the file named in the current topic
Moving through the current file	
Press PgDn	Displays the next page of the current file
Press: End	Displays the last page of the current file
Press: Home	Displays the first page of the current file
Moving to adjacent files	
Press: Down Arrow	Displays the contents of the next file
Press: Up Arrow	Displays the contents of the previous file

Right Arrow is the same as the F4 (if the current topic has no subtopics)

I think you get the picture. Once you press the F4 key, MaxThink attempts to display the contents of the file if the topic contains a file name. If the topic doesn't begin with a filename or contain a filename in angle brackets (<>), then MaxThink exits from this special "file-viewing" mode.

How to Display Graphics

But there's a lot more. For example:

MaxThink and ASCII files If the file is ASCII, MaxThink, or binary, MaxThink displays the text in the file (press E to edit it). If is another MaxThink file then it is loaded.

Color-Tx format If the file was created by Color-Tx (our graphic word processor that creates slides by combining text and 400-shades on 8-color monitors), then MaxThink functions as a slide projector displaying the files as slides.

Keyboard micros Finally, if the file is a MaxThink keystroke log, MaxThink executes that file as a macro.

These features help you organize and display hierarchies of text as well as hierarchies of files, graphics, and macros.

Hum-m-m-m . . . wondering how to use these features? Well, many consultants and academicians use MaxThink in meetings and lectures as a combination agenda manager and slide projector. I'll cover this in a few chapters.

Using the ALT-R Command

Now for the grand fanale fireworks!

Besides the F4 and Right arrow keys, MaxThink includes three more commands for manipulating topics that contain a filename in angle brackets. The first is ALT-R, which loads the file named in the angle brackets of the topic as a subtopic of the current topic.

In short, rather than select the READ command to merge files, simply press ALT-R. Let's try it:

ALT-R command

Action	**Results**
Move the cursor to the topic containing the filename "<xxx>"	Cursor points to a specified topic
Press: ALT-R	Loads the file named in the topic as a subtopic of the current topic. The subtopic marker appears to flag that topic as containing sub-information.

If you want to check what happened, press either Ctrl-Right or simply press the right arrow key to explore this UFO (unfamiliar outline).

Using the ALT-W Command

The ALT-W command is the reverse of the ALT-R command. If the ALT-R command added subtopics to your list, then ALT-W removes the subtopics and saves them in a file. First, return to the topic containing the "<xxx>", then:

ALT-W command

Action	Results
Press: ALT-W	Writes out the subtopics of the current topic to a file named by the first word in the current topic.

If the file already exists on the disk, MaxThink automatically makes it the backup file (adds .BAK extension) and transfers the original filename to the new file just saved. In addition, ALT-W also erases the subtopics of the current topic.

F5 works with ALT-R and ALT-W

Now, everything is back as it was before . . . except that you've learned another hypertext way to swap one or more files in and out of MaxThink.

Using the ALT-E Command

Finally, the ALT-E command lets you rapidly remove unneeded files from your disk. Upon selection, this command first prompts for a Y/N confirmation to erase the file(or files if F5-marked), then erases the file(s) from the disk named by the "<filename>" word in the current topic. In addition, ALT-E also deletes the current topic (or all marked topics). Begin by moving the topic pointer to the topic beginning with "xxx."

F5 also works with the ALT-E command

ALT-E command

Action	Results
Press: ALT-E	Selects the file named in the current topic for erasure
Press: Y	Erases the file from the disk and the topic from the outline

That's a slick way to spring clean your hard disk of old dusty data.

How to Manage Large Text Files

Here's the importance of these ALT-I, F4, ALT-R, ALT-W, and ALT-E commands along with the automatic hypertext file coupling using the Right and Left arrow keys.

Concept of "FRAMES"

Rather than work with one or two gigantic files, simply organize and manage your information by "frames." A frame contains a cohesive module of information.

Topics may or may not be frames. Rather, a number of topics and subtopics that present information in an organized and easily understood unit form a frame, which is similar to a section or chapter in a book.

I like to organize my information by frames. I first create a master outline for my information, then insert filenames in angle brackets in each of my major topics.

As my chapters grow from rough notes to organized topics, I manage all my information using hypertext jumps from my master outline of topics that contain a <filename> and a short description of the file.

Then, instead of maintaining a giant outline, I only keep in memory the portions of the outline I'm currently working with. Here are the advantages of this kind of file management.

Advantages of keeping in memory only those portions of the outline

(1) The loading and saving time of small files is not noticeable.

(2) Each of these outline files are smaller, having fewer levels of depth. These factors keep the size and scope of my information within my capabilities for comprehension and management.

(3) If the dog accidentally unplugs my computer, only small segments of my work are ever at risk!!!

(4) With my efforts organized as a series of smaller tasks, I don't procrastinate, but dig right in. If I organize my initial modules into units that roughly represent an hour of work each from start to finish, MaxThink helps me pace my efforts.

(5) This method also supports non-sequential work. I add short notes after each of the filenames (e.g., DONE, CHECK, REWORK, EDIT) to remind me of the status of each component of the overall task. Rather than writing using a systematic brute-force assault approach, I like to work on the tasks that best match my interest, moods, and intensity at the time. I enjoy the work more, finish faster, and produce better results.

Summary

The commands in this chapter are unusual. I know of no other programs that let users work in this wide-open file-swapping format. Yet, once introduced to these commands, most users find these ideas indispensable.

I'd like to claim that this all resulted from sheer brilliance, but, truthfully, the nice relationships between the ALT-I, F4, and the trio of ALT- R, -W, and -E commands grew out of long years of experiments with MaxThink.

The current addition of arrow key linking (hypertext) between various MaxThink and ASCII files is just adding automation to these unusual commands for managing a mesh of information.

All project management depends on the quality of task definition

Chapter 22

ALT-Z, ALT-S and Project Management

This chapter covers:

- How to Use ALT-S
- How to Use ALT-Z
- Using the Auto Date Stamp

Project Management

In keeping the our efforts to cover various styles of thinking, this chapter focuses on thinking about schedules and the management of time.

How to Use ALT-S

The ALT-S command inserts a date/time stamp into text at the cursor position. For example:

ALT-S command

Action	Results
Press: E	Selects the Editor
Press: ALT-S	Inserts a date/time stamp into text
Press: Esc	Return to the MAIN menu

The SORT command converts topics using the YY/MM/DD format into calendar order

As mentioned earlier, MaxThink sets the date/time stamp using the system date and time. You can change the date/time stamp setting from DOS using TIME&DATE command. In addition, the MaxThink FILES TIME&DATE command also updates the date/time stamp.

As expected, MaxThink can insert the data/stamp by pushing or by over-righting existing date/time stamps.

In the INS mode of the editor, the backspace key uncovers previous text.

Now, for the unexpected, hold down the backspace key. The backspace removes the overtype text to show the original text. The original text always remains behind the overtype text until you either switch modes (press Ins key) or move the cursor (arrow keys).

Using the Auto Date Stamp

MaxThink includes a setting on the OPTIONS DETAIL menu that automatically inserts the current date/time into the beginning of EVERY new topic you create. In addition, you can set the automatic option to include the entire date/time stamp or only the date stamp. Let's try it:

Auto-Date Stamp

Action	**Results**
Type: O D	Selects the OPTIONS menu and DETAIL command
Change the automatic date setting halfway down the first screen to "DS"	Erases old setting — New setting does not include time. (DL - time, DS - no time, ES - no time/all topics, EL - time/all topics)
Press: Enter	Prompts for decision of saving changes
Press: Enter	Selects the CONTINUE option
Press: F10	Creates a new topic beginning with the date stamp

Perhaps a better way to accomplish this is to simply select the "Date Stamp - Short" configuration on the OPTIONS menu list. Either way, this format creates topics with oven-fresh dates.

How to Use ALT-Z

Here's the unexpected. MaxThink lets you rapidly toss topics forward or backward in time.

The ALT-Z command changes existing date/time stamps or inserts new dates. In addition, it changes existing date/time stamps by user-selected offsets in days, weeks, months, or years. For example:

ALT-Z command

Action	**Press**
Press: ALT-Z	Selects the command to insert/change date stamps
Press: Enter	Selects the current topic for RANGE

Absolute date

Type: 88/07/04 (Enter)	Sets the current topic to July 4, 1989
Press: ALT-Z	Selects the command to insert/change date stamps
Press: Enter	Selects the current topic for RANGE

Relative date

Type: 7 (Enter)	Adds seven days to the current topic.

Here's the instant-replay commentary.

The first ALT-Z puts an absolute date into a topic. The second ALT-Z added an offset of 7 days to the date at the beginning of the topic. However, if the topic didn't contain a date, then MaxThink added a 7-day offset to the existing system date and time.

Examples of the type of offsets you can use are:

ALT-Z examples

Offset entry	**Results**
2W	Adds 2 weeks to the topic or system date
-3M	Subtracts 3 months from the topic or system date
1Y	Adds 1 year to the system date
1W+2Y+3M-4	Adds 1 week, 2 year, 3 months, minus 4 days

Order independence

ALT-Z is independent of the order of the offset operators (day, week, month, years). However, unlike conventional algebra, MaxThink always requires a number in front of each operator. For example, the entry "W+Y+M" will not work, whereas the entry "1W+1Y+1M" will.

Subtopic dates

One final comment. The ALT-Z command also updates all the subtopics of a topic. If you use an absolute date (YY/MM/DD), then the leading date in all the subtopics will be changed to this date. However, if you use an offset date (i.e., D + aW + bM + cY), then all the dates in the subtopics are changed by this offset. OK?

Project Management

Good project management starts with superior thinking in task definition

MaxThink is often used for project management. One such management approach is to include a date/time stamp at the beginning of every topic; the SORT command quickly organizes topics into calendar order. However, this is not "good project management."

Good project management in not found in PERT, Critical Path, or date/time stamping processes. Good project management starts with superior thinking in task definition. Increasingly, even the manuals for the most expensive project management software now recommend that users

start their projects using outline programs like MaxThink. Only after each of the component tasks are carefully defined and understood should managers use their scheduling software.

While the date/time stamp capabilities are a powerful addition to MaxThink, the dates you attach to each topic may be meaningless if you've made mistakes in thinking about the scope of each task.

Hints

There are two basic ways to use the data/time stamp capabilities of MaxThink — before and after the creation of topic text.

For the "before" method, select the date stamp configuration from the OPTIONS menu. MaxThink automatically inserts the date stamp in the beginning of every new topic.

With the "after" method, first create your topics, mark all using the F5 key, then select the ALT-Z command, which inserts a selected date into all topics.

MaxThink also creates integrated multi-project calendars. Simply use the READ command to merge all of your date-stamped topics for different projects into one large outline. Use LEVELIZE to convert all the hierarchies into a large list, then use SORT to organize them in calendar order. I then use the ALT = key to separate the list of tasks by weeks. Interesting!

One last observation. If you F5-mark a series of topics containing different dates, using ALT-Z with an absolute date changes the date in each of the marked topics to that date. However, using ALT-Z with an offset date shifts the date in each of the marked topics by a uniform amount of time (days, weeks, months, or years).

Summary

If your to-do lists contain no due dates, then you're dealing in dreams. Daydreams and aims do hint at directions you'd like to go. But they are both deficient in time and measurement. If you haven't set deadlines or organized your tasks using language that identifies to impartial observers whether or not you've actually completed an item, then your list contains dreams and aims, not goals.

On the other hand, if your list contains dates, then you've got a list of goals (or at least objectives). Either way, that's dealing with reality.

Of course, the extreme in this type of thinking is project management software. While MaxThink is not designed for slack-time and critical-path issues, heavy users of both MaxThink and project management software often see the MaxThink program as being more flexible and in many ways more powerful. That's an unexpected surprise!

Automatic fielding and abstracting of selected information from an outline

Chapter 23

Report Generation

This chapter covers:

- Using the Report Generator
- Creating a Unique Word List

Using the Report Generator

One of the more unusual MaxThink features is it's report generator.

Page 5 of the OPTIONS DETAIL menu contains under SPECIAL I\O FORMATS a setting for "Report Generator Format." Normally, this is blank. However, let's experiment with this option.

Load example file

Action	Results
Press: O D	Selects the OPTIONS menu and DETAIL command
Press: PgUp twice	Selects page 5 of the DETAIL settings
Move cursor to "Report Generator Format"	Cursor points to the selected topic
Define the field identifiers Type: name\phone (Enter)	Text added to the option setting
Press: Enter	Return to the MAIN menu
Press: F L	Selects the FILE menu and LOAD command
Press: Enter	Confirms clearing of the existing outline from memory
Type: Chap-23 (Enter)	Loads the named file into memory

Who dealt this mess? You're looking at a pretty sloppy database. The fields — Name, Address, and Phone — are not fixed length and are mixed in both order and case. Now for the handy-butler command.

Action	Results
Press: F V	Selects the FILES menu and VIEW command
Press: Enter Enter	Selects the default RANGE and CONTINUE option

Amazing! Your raggedly-scraggly database is suddenly picture perfect. What happened?

REF command

The key words you entered (name\phone) told MaxThink to first find these words (using the REF command), locate the text after these key words, then print the text in a column-aligned format.

How it works

Here's the key. The VIEW, WRITE, and PRINT commands work conventionally if the report generator field is blank. But if you enter key words separated by a backspace (\), the VIEW, WRITE, and PRINT commands select only text that follows each key word.

Just to check your understanding, change the order of the key words in the OPTIONS DETAIL menu, then select the VIEW command again.

Creating a Unique Word List

The report generator does a further bit of magic if you use the word "INDEX" as a setting. With the "INDEX" setting, the VIEW, PRINT, and WRITE commands display, print, or save the REF list. For example:

Word frequency list

Action	Results
Press: O D	Selects the OPTIONS menu and DETAIL command
Press: PgUp twice	Selects page 5 of the DETAIL settings
Move cursor to "Report Generator Format"	Preparation to change the setting
Type: INDEX (Enter)	Changes the setting
Press: Enter	Return to the MAIN menu
Press: F V	Selects the FILES menu and the VIEW command
Press: Enter Enter	Select the default RANGE and CONTINUE option

As mentioned, the PRINT and WRITE commands transfer your word list to formats that may be useful in the following ways.

Faster spell-checking — First, rather than spell-check a very long document, just check the spelling of the listed words.

Synonym reminder — Second, use a synonym checker against this unique word list to add color, variety, or preciseness to your text.

Automatic indexing — Finally, this list of key words is useful with word processors (e.g. Word Perfect) that automatically create page indexing from such a list.

Summary

MaxThink's listing of the unique words (REF command) is a powerful process. Once used, the column-aligned reports and outputting of the unique word list are fairly simple.

Garbage-word suppression — In the newest version of HOUDINI, I've improved the REF concept to include user-defined garbage-word suppression, showing a list of all text lines containing a selected word in context and key-word hierarchies.

As a result of these developments, you can be sure that I'll include more ways to automatically abstract information from your outlines in future updates.

Chapter 24

RTF Files and MaxThink

Max94 includes the following three files for converting between MaxThink and RTF file formats:

MAX2RTF.EXE	Reads a MaxThink file and creates a RTF file
MAX.RTF	Example RTF file containing outline format
RTF2MAX.EXE	Reads a RTF file and creates a MaxThink file

While MaxThink supports outlines up to 99 levels deep, both Windows Wordperfect and Windows WORD are limited to relatively shallow outlines, perhaps only 9-10 levels deep . . . meaning you can create in MaxThink outlines that exceed the capabilities of the RTF format.

However, outside of this restriction of outline depth, these RTF-MAX conversion programs allow you to easily move MaxThink outlines in and out of the contemporary Windows word processors . . for spell checking, formatting, or system compatibility.

MAX2RTF.EXE

To convert the MaxThink file GOODBY.MAX to HELLO.RTF, at the DOS prompt type the following:

```
MAX2RTF  GOODBY.MAX  HELLO.RTF
```

I have enclosed my MAX.RTF (a 9-level outline created under WORD 6 and saved as an RTF file). The MAX2RTF.EXE program uses the font, style, outline, author, etc. information in this MAX.RTF file when creating the output.RTF file. To create a MAX.RTF file containing your own default settings, simply make a 9-10 level outline in your word processor, then save it as MAX.RTF.

One final note! In testing the RTF file-conversion capabilities of various word processors, I don't think WordPerfect 5.1 creates RTF files using the same conventions as WORD 2 or WORD 6.

RTF to MAX

To convert the file GOODBY.RTF to a MaxThink format HELLO.MAX, at the DOS prompt type:

```
RTF2MAX  GOODBY.RTF  HELLO.MAX
```

Chapter 25

HyGEN Multimedia Hypertext

MaxThink also contains a multimedia demo hypertext system named HyGEN. To install this system with the demo disk in drive A, do the following at the C:\ DOS prompt:

Type: MD C:\HYGEN	Creates a HyGEN directory
Type: CD \HYGEN	Move to the HYGEN directory
Type: A:PKUNZIP *.ZIP	Uncompresses demo file
Type: HYGEN	Loads HyGEN
Press ARROW keys	Select topics - execute jumps

This HyGEN demo shows how you can link together ASCII, PCX, COLOR-TX, Wordperfect, WAV, VOC, MID, CMF, GLOSSARY, KWIC, etc. files.

If your system includes a sound card, this demo also shows how you can link together both image and sound file . . . plus add automatic chaining and menus to graphic files.

After experimenting with HyGEN, to create your own hypertext system, copy the HYGEN.EXE and CONFIG.HN files to a new directory then create a START.TXT file containing <jumps> to whatever new files you wish to include. It's that simple!

M2A

Your Max94 program also contains an M2A.EXE program that automatically converts a MaxThink file into a series of hypertext <jump> connected ASCII files (with one for each level).

The following screen appears if at the DOS prompt you type M2A:

```
M2A — Transfer Maxthink file to ASCII files
(C) MaxThink 1988  44 Rincon, Kensington, CA  94707  (415) 540-5508
Input    Maxthink filename Output    Starting ASCII filename
(AlphaNumeric only) usage: m2a input_name output_base_name
```

Thus to convert the MaxThink file BIG to a hypertext system of ASCII file with <jump> links with the first link named EXE01, type the following:

```
M2A BIG EXE01
```

The M2A program reads the BIG MaxThink file and creates files and <jump> links EXE01, EXE02, EXE03, etc. as needed. If needed after creating link EXE99, the program increments the next higher element in the link name to EXF00 followed by EXF01 and so on.

Once the program is finished creating all the ASCII files with links to subtopics, copy the initial starting file EXE01 to START.TXT. With HyGEN and CONFIG.HN in the same directory, type HYGEN to use the BIG MaxThink file as a hypertext system.

While you can use any starting file name in the M2A program, I recommend a 5-character format of XXX01 (three letters followed by 2 digits). The reason for this is that file access speed under DOS becomes progressively slower as the number of files in a directory exceeds 256 (and slower on a CD as the number of files in a directory exceeds 150).

To solve this problem in systems that I have built with more than 40,000 linked ASCII files, HyGEN first looks for a file in the same directory as the START.TXT and HYGEN.EXE file. If the file is not found in that directory, the HyGEN looks for the file in the subdirectory named by the first three letters of the file name.

For example, if HyGEN can't find file ABCD in the root directory of the hypertext system, it looks for it in directory ABC.

Using this 3-letter directory search convention and naming my starting file using a 3-letter plus 2 digits format, the M2A program automatically creates the 3-letter subdirectories and puts a maximum of 100 files in each created subdirectory.

This all makes no difference if you use M2A to convert an outline to 50-100 hierarchically-linked files. But if your MaxThink outline or the MaxThink file created by our PERM expert system has 1,000 to 10,000 or more subtopics, this link-naming approach is the only way to fly.

Why hypertext?

Finally, there are several important reasons for converting outlines into hypertext systems.

First, MaxThink outlines are primarily hierarchical . . . where as good knowledge systems also include non-hierarchical links for access, relationship, expansion, boundary, and vocabulary (supported by HyGEN).

Second, HyGEN hypertext systems are easily extended by anyone familiar with any ASCII word processor ... meaning many can participate in the improvement of the system (called information annealing on a LAN system).

Finally, HyGEN also allows the addition of graphics and sound into the conceptual structure initially created by MaxThink. While MaxThink is very powerful for hierarchical thinking, the M2A and HyGEN programs allow you to easily add other important types of relationships to the contained knowledge. Call me for details.

Makes all software co-resident

Chapter 26

Using DESQview

In this chapter, you will learn about:

- DESQview

DESQview is a popular program for both multi-tasking and/or managing co-resident programs in separate memory segments.

With DESQview, you can simultaneously keep your favorite word processor, database, communications package, and MaxThink all instantly available without clobbering each other. Here's how.

How it Works

When MaxThink is loaded, it determines if DESQview is present. If DESQview is not present, everything runs as described. If DESQview is detected, MaxThink automatically remaps the screen display to DESQview's own screen driver. MaxThink still runs as described, except that you can instantly shift to or cut and paste text between programs and MaxThink. Best hint: Set MaxThink's time to save/beep option to 0.

Requirements

DESQview creates memory partitions for each program. You should set aside 300K of memory for the MaxThink program and data files.

Summary

The PC and its memory segmentation design were never intended for multi-tasking or co-resident operation. However, as many MaxThink users recommended DESQview, we modified our program to run under this environment. If you have similar requests, please let us know, as it is fairly easy to customize MaxThink to your needs.

Chapter 27

CTRL-P and F4 Commands, SHOW, and SLIDE Programs

This chapter covers:

- Using the CTRL-P Command
- Using the F4 Command
- How to Create APPLAUSE Files
- How to Display Graphic Files
- How to run the SLIDE program
- How to run the SHOW program

Desktop Presentations

While this manual has focused primarily on using MaxThink to support solo thinking, many users actively use MaxThink in a wide variety of group processes. With the aid of overhead projectors, large monitors, or video projectors, MaxThink supports both presentations and group decision making.

Uses of MaxThink

Of course, before a presentation, MaxThink also serves tasks of organizing the speeches or the event itself. In addition, MaxThink and our SLIDE program can create graphic slides for direct projection or camera-ready art.

During presentations, people use the MaxThink display to present pre-organized information in an outline format.

In addition, MaxThink is often used as a slide projector to display the contents of files organized in a list or outline format. The files formats supported for display are ASCII, MaxThink, PC-Paint, PC-Paintbrush, or APPLAUSE formats.

Finally, the SHOW program displays such files with controls for automatic repeating and variable time-delays for each file.

Group Decisions and MaxThink

For interactive meetings, the MaxThink screen is often projected to create a giant electronic "blackboard" to collect, revise, and track the ideas and suggestions that arise. At breaks, the information is quickly printed, then photocopied to provide each participate with instant "hard-copy" of their thinking and organizing efforts. Group members at such meetings credit MaxThink as a powerful facilitator for effective group interaction and thinking.

In groups with familiar working relationships, one member often functions as the recorder of comments during the information-generation phases. But during the tasks of organizing (MOVE, PRIORITIZE, CATEGORIZE, BINSORT), it is very easy for the person at the keyboard to make decisions that dominate organizing efforts of the remaining members.

For that reason, in most groups (and especially with members without daily working relationships), the facilitator or group leader (who is familiar with all the MaxThink processes) is generally not the best person to run the keyboard to prevent one view from dominating the organizing methods. Instead, use a separate person at the MaxThink keyboard who makes no decisions on the organization of information until the group reaches a consensus or majority opinion.

Skills for this type of MaxThink meeting start with several co-workers sitting behind a single monitor. Ultimately, in the best of such meetings, all the participants understand the various MaxThink commands, and actively suggest information and the commands to organize the information. That creates very successful meetings as each member functions as a facilitator.

Wow! That gives new meaning to group brainstorming and MaxThink!

Creating Graphics

In creating screen graphics for either solo or group presentations, MaxThink includes two ways to provide graphics to support presentations using the CTRL-P command or the SLIDE program.

CTRL-P Command

Every time you select the CTRL-P command, MaxThink writes the current screen to a file. The CTRL-P key creates files that are numbered sequentially starting with MAX00000.SCR, MAX00001.SCR, MAX00002.SCR, etc. With MaxThink loaded, let's try it.

CTRL-P command

Action	Results
Press: F1	Display Help file
Press: CTRL-P	Writes the current screen to a file named MAX00000.SCR
Press: Esc Esc	Returns to the MAIN menu
Press: F10	Creates a new topic
Type: MAX00000.SCR	Text appears on the screen
Press: Esc	Returns to the MAIN menu
Press: F4	Displays the contents of the MAX00000.SCR file which is a copy of the F1 help screen

While pressing "Esc" twice is not really necessary, it is a good habit to develop.

F4 (or Right Arrow) Key hypertext

As in the previous example, the F4 (or if no subtopics the Right Arrow) key provides magic with topics that begin with a file name.

For example, if you created several CTRL-P files, you could load all the MAX00000.SCR files using the ALT-I command, press F4 to display one of the files, then use the arrow keys to shift the display to show the contents of the other files.

With hypertext jumps contained in terminal topics (topics without subtopics), the RIGHT arrow key automatically makes the jump.

With hypertext jumps contained in any topic (topics with or without subtopics), press the F4 key to execute the jump. Unlike previous versions of MaxThink which required the jumps for the ALT-R and F4 command to be the first text of the topic, MAX91 allows users to place the jump at any desired location within the topic.

For types, the F4 key makes jumps to five kinds of files — MaxThink, ASCII, Color-Tx, Dos programs, and macro keylogs.

While I can easily add F4 jumps in MaxThink to display all formats of PC-Paintbrush files, the requirements of 12K in code space and 30K in buffer space suggest that such graphic jumps are better handled by my current release of Hyplus. Besides, one of the features of MaxThink's utilities is the M2A program that automatically converts MaxThink files

into a maze of hypertext cross-linked ASCII files for easy use by either my Hyplus or HyperRez program (both are available at no cost).

As a final note, in prior versions the F4 key toggled the display between the MaxThink format and the first screen of the filename delimited by angle brackets. With MAX 89, the F4 key does not toggle the display. Rather, it functions identically to the RIGHT arrow or ENTER keys.

MaxThink hypertext

The automatic coupling of various MaxThink files into a unified system with access to all files controlled only by arrow keys requires two essential pieces — other MaxThink files, and angle bracketed filenames <FILE2> in terminal topics. Terminal topics are those topics in a MaxThink outline that do not have subtopics. For example:

> If you press the RIGHT arrow key on a terminal topic (one without subtopics), the program first checks the current topic for a hypertext jump <FILE2> contained anywhere in the topic.
>
> If neither a hypertext jump nor a subtopic exits, then the program beeps.
>
> If, however, a hypertext jump to another file (MaxThink or ASCII format) is found in the text of the current topic, then the program makes a hypertext jump to that file, displaying it in the correct format

Continuing, if the format of the file is MaxThink, the program loads that new outline providing that the most recent changes in the current outline are saved. If not saved, MaxThink first prompts to SAVE the existing outline before loading the next outline. The program records the use of the RIGHT arrow key to automatically load new MaxThink outlines (up to 64 levels deep). For example:

> To return to previously loaded outlines, press the LEFT arrow key. The LEFT arrow can backstep through 64 levels of previously loaded outlines.

For complexity, this one feature of MaxThink (hypertext coupled structures) is a step beyond normal hypertext (hypertext coupled files).

SLIDE Program

Many consultants and academicians already use MaxThink in group processes. Large monitors, projection video systems, or LCD-overhead displays provide new ways to collect, present, and organize information. These electronic images are often called "slides" and in this context, MaxThink serves as a camera, slide organizer, and projector.

MaxThink contains a SLIDE program which automatically converts a MaxThink outline into an organized sequence of full-color Color-Tx format slides. Type SLIDE at the DOS prompt to load this program:

SLIDE options

Prompts	Description of Input
Input file name	Enter input filename created by MaxThink
Output file name	Enter an output filename without adding a specification. The SLIDE program will add a sequence of file specifications such as filename.001 followed by filename.002 for each APPLAUSE file created.
Number of outline levels used	Enter the lowest level for slides

Numbering options

Numbering scheme for slides	
. or \	Periods (.) or backslash (\) delimit entries.
A or a	Numbers in a,b,c format
1	Numbers in 1,2,3 format
- 0	Prints other ASCII characters without incrementing

Below these file prompts, a table of numbers shows the colors selected for the slides generated at each level in the outline. The row labels show the various components of a slide, the column labels show the level in the outline (title on left, lowest levels to the right). The number at the intersection of a selected row and column marks the color of that component at that level in the outline.

Below this table, if MaxThink detects a color card, a second table shows all combinations of text and background colors. To the left of this second table (in the lower left corner of the display), a small diagram shows the colors selected for the components in a slide.

The program operates in three stages — file prompts, color selection, and slide generation. The arrow keys move the cursor between the file prompts and color selection entries and F4/F5 function keys control the generation of slides.

The following commands support the color selection process:

Color selection

Command	Action
Left\Right Arrow	Moves to higher\lower levels in the outline
Up\Down Arrow	Selects components to change in the current slide
Del	Delete line
Plus (+)	Selects next higher color number

SLIDE commands

Minus (-)	Selects next lower color number
Spacebar	Toggles current color between low and high intensity
F3	Toggles between large and small symbolic displays
Numbers (0-9)	Selects that color associated with that number. If you can't remember the color, use the number/color guide in the MaxThink OPTION DETAIL command. Numbers from 0-8 are normal intensity. Foreground numbers from 8-15 are their high intensity equivalents. Background numbers from 8-15 cause foreground text to blink. To clear a number above 9, press 9, then press the number.

The other function keys are:

SLIDE function keys

F1 Displays online help information
F4 Displays first screen. Press any key for each subsequent screen.
F5 Writes a sequence of output screens using a filename.### format
F6 Saves the current configuration settings of the SLIDE program
F8 Returns to DOS

The SHOW Program Graphics Projector

As previously mentioned, the F4 command makes both MaxThink and HOUDINI into manual slide projectors. Once in the F4 hypertext mode, the arrow keys permit linked life jumps for displaying MaxThink files, ASCII files, or Color-Tx graphic images.

For a different way to display graphics, the SHOW program provides a way to also intermix the display of MaxThink, Color-Tx, and ASCII format files in either automatic loop or manual modes. Here are the steps for using this program.

First, create the files that you wish to display. Use the SLIDE program, the CTRL-P command in MaxThink to create such files.

Second, use ALT-I and other MaxThink commands to organize the files into a list as you wish them displayed.

In the title topic for this list of graphic files, include the mode (AUTO/MANUAL/LOOP) and the hold time (delay between each slide) for each slide. In the filename topics, you can enter text to change the mode (AUTO/MANUAL/LOOP) or enter a temporary delay time for that particular slide.

For example, consider a file called DEMO that contains the following as an ASCII list:

Sample file

File listing	Meaning
LOOP 6	Auto file-repeat and 6-second delay with each file
MAX00001.SCR	File created in MaxThink using the CTRL-P option
MAX.001 10	SLIDE program file with 10-second delay
MAX.002	SLIDE program file (uses the 6-second delay)

To run this file, do the following at the DOS prompt:

Run SHOW

Action	Results
Type: SHOW DEMO (enter)	Loads the SHOW program and runs a continuous display of these three screens.

The program displays the first slide for six seconds, the second for ten seconds, the third for six seconds, then repeats this process until interrupted.

The following options control the SHOW program:

SHOW options

Options	Results
AUTO	Automatically advances to the next slide as set by delay number
MANUAL	Arrow keys move display forward or backwards on the slide list
LOOP	Displays slides with auto-repeat from the last file to the first (number). Sets delay time between slides to a defined number of seconds

Insert these words at the beginning of the list or after a filename to control the SLIDE program. Save this file listing the graphic filenames and options listed above.

At the DOS prompt, type in the word SHOW followed by the filename containing the instructions to the SHOW program. Press enter to run the SHOW program with the associated sequence of file names for display.

Conclusion

As MaxThink evolves, I hope to add more screen-layout formats to SLIDE or my Hyplus/Hynet programs. In addition, I hope to support the graphic formats from other programs such as CD-ROM and several of the CAD/CAM and project-management programs.

All I need to do is identify the formats to include, create the code to interpret the formats, then add the code to MaxThink. In my mind, the only problem is that this sharply conflicts with my desire to keep the code in MaxThink within reasonable limits.

Chapter 28

Multimedia Storyboarding with MaxThink

This chapter describes my explorations in using MaxThink to storyboard multimedia CD-ROMS then convert it first into a working then polished presentation.

In my view, each group of topics under a single MaxThink parent topic describes a multimedia image, the associated sound bite, its menu, control structure, or sequencing, and finally the links to other multimedia units.

Storyboard image and sound

For example, using MaxThink to storyboard the display of a PCX image of an ocean along with the automatic playing of the sounds of the ocean, I would create the following MaxThink entries:

Title
1. PCX Picture of beach and ocean with Golden Gate Bridge
2. WAV Sounds of crashing ocean waves
3. AUD

The PCX code in topic 1 identifies the needed image, while the WAV code in topic 2 identifies the needed sound. The AUD code in topic 3 tells me to create an AUD file containing jumps to the PCX and WAV files . . . which is HyGEN's method of binding sound and images.

Storyboard image and sound with automatic chain to next event

If at the end of the playing of the sound in the previous example, I wanted to automatically chain to a new event, I would add to topic 3 a subtopic of what I wanted to happen . . . such as display a file or image, run a program, play a sound, etc.

Storyboard static image with branches to various audio segments

Using the above ocean content, I would create the following MaxThink file:

Title
1. PCX Picture of beach and ocean with Golden Gate Bridge
2. WAV Sounds of crashing ocean waves
3. WAV Sounds of fog horn and buoy bell
4. WAV Vocal description of beach and ocean file

In this format, because there is no AUD code, initially only the PCX image is displayed. However, this image contains a menu of cursor selected sound bites (using HyGEN's PCM file to identify the hot spots on the image). Thus, the user could select and replay the sounds that accompany the image.

Storyboard image with standard control structure

Title
1. PCX Picture of beach and ocean with Golden Gate Bridge
2. >
3. ?
4. !
5. ^

Assuming the MaxThink topics 2 thur 5 each contained subtopics, I define the codes as:

2. > Pressing the RIGHT ARROW jumps to the subtopic event . . . which may be text, graphics, sounds, linked graphics and sound, the execution of a program, or a return to a previous event.

3. ? Selecting this topic jumps to a screen containing a picture of the person, plus a menu of immediate relevant questions. Upon selection, an audio answer is played. To continue, the user selects an included > option which moves to the subtopic event . . . . or presses the LEFT ARROW to return to the ocean image and control structure menu.

4. ! Selecting this topic retains the current screen while playing a 3-5 second summary audio statement that clearly describes without elaboration the key idea.

5. ^ Selecting this topic displays a two level cursor selected menu showing the immediate hierarchy the current topic belongs to along with a description of each topic and running time of each associated sound bite. This screen would also contain ^ jump to the next higher level in the conceptual structure.

Why these control codes?

Here's why I consider these four characters (>, ?, !, and ^) the standard multimedia control structure.

Selecting the default > symbol is useful to initially move users through a natural linear sequence of the contained material.

Selecting the ? symbol allows users to interrupt the multimedia sequence to ask various types of questions, such as:

Definition	Does the SF bay stop and ocean start at the bridge?
Expansion	What the significance of the Golden Gate?
Expansion	What were the engineering difficulties of the bridge?
Critical	Why use fog horn and bell sounds with the bridge?
Personal	Where did you get the picture of the bridge?

Selecting the ! symbol allows users to bypass the normal audio and to quickly acquire the key ideas associated with each screen . . . which is useful in rapid browsing for interesting topics or rapid reviewing of the entire contents of the presentation.

Finally, the ^ symbol allows users to see a hierarchical view of any and all portions of the contained material. While word search approaches to material typically finds what people already know, a hierarchial view quickly shows users what they don't know. Furthermore, the hierarchical views also provide users with conceptual structures that unify the material and simplify both the acquisition and retention of knowledge.

With that, having discussed my method of using MaxThink to storyboard multimedia presentations, I use M2A to convert my MaxThink outline into a coupled ASCII file hypertext system . . . then replace theses ASCII files with the needed PCX, WAV, PCM, and AUD files.

While I have also created programs that create work lists for each of the needed PCX and WAV files along with their descriptions, it currently doesn't create the necessary AUD and PCM files used to couple images and sounds or allow menu selections on PCX images.

However, once my storyboard exists in a correctly coupled but rough ASCII model, I prefer a piecemeal discovery approach of converting bits of it at a time into polished multimedia . . . as I'm not mentally ready to automatically replace my entire working ASCII system with the necessary PCX, WAV, AUD, and PCM files.

In my mind, my multimedia hypertext constuction technique is still more interactive art than a mechanical linking processes. However, I'm open to your ideas and the sharing of the specialized programs I am currently using. Call me for details.

55 ways to approach tasks that require high-level thinking

Chapter 29

Context-free Thinking

This chapter covers:

- Levels of Thinking
- Questions and Thinking
- Context-free Thinking
- Mechanical Thinking
- Thinking and Self-esteem

Congratulations

You are now at the high point of MaxThink. The previous chapters have been only preparation or stepping stones to the ideas I'm about to describe. But first, let's review the thinking skills you've acquired so far.

Levels of High-level Thinking

In the beginning when first discussing high-level thinking, I mentioned that I saw seven (7) levels of thinking in MaxThink.

Here are the six high-level skills you've learned so far:

First level

Type of Thinking	Description
ANALYSIS (Chapter 6)	Using the COPY, MOVE, UNDO, and DELETE commands to break information into component parts to better understand the purposes and use of each part. That's building conventional outlines using top-down thinking.

	Type of Thinking	Description
Second level	EVALUATION (Chapter 7)	Using the PRIORITIZE command to organize information by values not contained in the information, but contained in the mind of the thinker. Evaluative thinking on the sequence of information which is list manipulation.
Third level	SYNTHESIS (Chapter 9)	Using the BINSORT command to organize new patterns in information. BINSORT uses a systematic bottom-up form of thinking to convert unordered lists into outlines.
Fourth level	EXPERIMENTAL (Chapters 9,10,13)	Using the RANDOMIZE and LOCK command to trigger unexpected associations within familiar information as a means to produce new ideas (Chapter 9 and 10). The GET, PUT, AND GATHER commands (Chapter 10) which expand the ways to rearrange information also belong in this same category. Finally, I'd include the DIVIDE and JOIN command (Chapter 13) as textual ways to rearrange information into convenient idea "frames."
Fifth level	PERCEPTUAL (Chapter 12)	Using the LEVELIZE, CATEGORIZE, TAG, UNTAG, and FENCE commands to shift the structure or format of information. Such changes support a variety of thinking skills which I've put under headings of Aristotelian, boundary, focused, structural, and linguistic approaches.
Sixth level	MANAGERIAL	Many of MaxThink's commands and function keys manage details such as the display (F2/F3 and Z), dates (ALT-Z), files (ALT-I and TREEDIR), lists (SORT), relationships (ALT-* cloning), presentations (CTRL-P, SHOW, SLIDE, WALL), and format (PRINT, OPTIONS, WRITE). While these and other such commands are individually spread throughout the manual, together they provide the housekeeping support that makes other forms of thinking possible with MaxThink.

With that, you're probably wondering what marvelous new command remains in MaxThink for the highest skill in high-level thinking. Well, there's no new command.

Highest level thinking

The truth is that the most sophisticated thinking you can do has nothing to do with hierarchies. What is this? Heresy? Blaspheme?

Better yet, you don't even need MaxThink to do it, though MaxThink greatly expands your capabilities. Gasp! Give me air!

Socrates Hold on! The process I'm thinking about is 2,500 years old. It started with Socrates and his belief that you can find what is good, true, and lasting simply by your openness in asking conceptual questions. You'll see how MaxThink fits in to this in just a moment.

Types of Questions

Remember my "Domino" theory of thinking that if I let you label mechanical blocks with your ideas and information, then watch how you move or rearrange your blocks, I can identify your personal style of thinking? Well, it's the same with the questions. The questions you ask determine the style of thinking used to produce answers. Consider these kinds of questions:

Questions of Fact

The simplest questions are questions of fact. For example:

What time is it? How heavy is the moon? Are you a Democrat?

Questions of fact tend to have single answers. Easy questions of fact require only memory. Slightly more complicated questions of fact require perhaps a yes/no response (i.e., Are you cold?).

Even the most difficult questions of fact (i.e. the weight of the moon) are easily answered by finding the process to follow that produces the answer e.g., How far away is the moon and how fast does it travel around the earth?).

Because questions of fact depend on single answers that independent observers can agree about, such questions offer more validation than new insights. Consequently, questions of fact are trivial as far as the thinking skills required.

Questions of Values

Questions of values (e.g., Was it a good show, plan, or decision? Is it better to be a Republican or Democrat?) are much more difficult. The problem is that because people have different values, such questions often produce conflicts in answers that are unresolvable .

As a result, questions of values are also trivial, not because of the thinking skills used (e.g., in debate), but because often there is no way to establish a single satisfactory answer from the premise that such an answer exists.

Questions of concepts

I believe questions of concepts (e.g., What is a good decision? What is a Republican?) are the most productive. The purpose of these types of questions is to generate information to expand or clarify thinking. Here's why that's important.

Simply, if you have complete information and it is well organized, then thinking is trivial. Conversely, if you have incomplete information, then all the talent, schooling, IQ, and money in the world may not keep you from making errors in your thinking.

Consequently, the first goal in most thinking is to ask questions that generate information. Now the surprise.

It is far harder to ask significant questions than to answer them.

For example: What questions should you be asking to best prepare for the next few years of your life? But, before you become unglued at the millions of such questions to ask of the universe, consider this:

There are only fifty-five basic questions worth asking in the world!

Once you ask the right one of these questions, just sit back, and watch the information come rolling in. Here's how I arrived at that number of questions.

Context-free Thinking

I like the work of Edward De Bono, author of **Laterial Thinking** and more than 25 other books on thinking and creativity. At the core of his various approaches to generating information, he recommends using questions that work in any context and that are conceptual (have many answers) to generate as much information as possible. I've collected these questions and categorized them.

As I mentioned, these questions have two unusual features — context independence and multiple answers. For example, the question "What's missing?" works whether we're talking about MaxThink, this manual, your home life, or the state of the nation. It focuses your attention on producing information that might otherwise be ignored had not this question been asked.

With that short introduction, let's look at the questions themselves. Do the following:

Action	Results
Type: F L	Selects the FILES menu and LOAD command
If prompted, Press: Y	Clears the previous file from memory
Type: THINK.MT (enter)	Loads the requested file

Ways to expand information

PMI - List the plus, minus, and interesting factors to avoid premature acceptance or rejection of information

MISSING - List what's missing from your information in order to focus on the completeness of your data.

LIMITS - List the limits of your information or task to better define the boundaries for acquiring information.

RULES - List both the written or unwritten process or guidelines that you are expected to follow.

CONSEQUENCE - Separate the possible consequences of your information in categories of immediate, short, medium, and long-term benefits and costs.

OTHERS - List the viewpoints of other participants to identify the different motivations, needs, interests, or goals.

Ways to organize information

AIMS - List your needs and wants to clarify your overall direction or purpose

GOALS - List what happens if your goal is reached in terms of measurable events that can be verified by independent observers.

OBJECTIVES - List what must occur to achieve stated goals in order to identify ways to measure progress toward predetermined goals.

PLANNING - List all possible approaches before selecting any to identify applicable thinking and organizing methods.

APC - List your alternatives, possibilities, and choices in order to expand the number of available options beyond the obvious approaches.

PRIORITIES - Organize your information by importance to examine and clarify your methods of evaluation and selection.

DECISION - List the reasons for your decision to identify the processes you use to make decisions.

Ways to process information

RECOGNIZE - List all familiar and unfamiliar factors to simplify your task of understanding new information.

ANALYZE - Separate your information into component parts to better understand the purposes and uses of each part.

COMPARE - List what is similar and different to focus understanding on the boundaries of your information.

OTHER WAY - List other possible ways of viewing your information to help shift your perception away from current perspectives.

SELECT - List your requirements by priority to focus attention on comparing your needs with any proposed solution.

Ways to manage information

START - List all possible ways to start in order to identify your choices for beginning a task

ORGANIZE - List all possible ways to organize in order to focus your efforts on developing a plan before proceeding.

FOCUS - List your current thinking to ensure current actions are relevant to your overall goals.

CONSOLIDATE - List what you've achieved so far to see if your plans are still valid or need changes.

CONCLUDE - List what you did and did not conclude to establish your current viewpoint on the relationships of your information.

Ways to examine information from others

EXAMINE BOTH SIDES - List the arguments of your opponents to expand your understanding of both sides of your information.

FACT/OPINION - List separately the facts and opinions to distinguish between objective and subjective information.

STRONG/WEAK - List separately the primary and secondary pieces of information to identify which arguments are most valuable or important.

STRUCTURE - List separately the independent and dependent pieces of information to identify how data may or may not support the conclusions.

ADI - List your beliefs and opinions of your information to define areas of agreement, disagreement, or irrelevance.

EXAGGERATE - List the statements not supported by fact to identify areas where language exceeds information.

LEAVE-OUT - List what is missing from your information in order to analyze how information is presented.

MISTAKES - List the mistakes found in your information to identify conflicts with truth or reality.

PREJUDICE - List the concepts in your information that are perhaps beyond discussion or argument.

Ways to use information to persuade others

SHOW - List the ways to show, demonstrate, or provide direct evidence of the correctness of your information.

REFER - List the ways to use facts, feeling, or authorities to provide indirect evidence of the correctness of your information.

NAME - List the ways to name, classify, or label information to use language skills to support your information or viewpoint.

JUDGE - List the ways to attach values to your information as a means to support your arguments or information.

OUTCOME - List the results of your efforts to persuade others to see what was and was not achieved.

Ways to create new information

PO - List all possibilities without passing judgement to prevent immediate dismissal of potentially useful information.

STEPPING STONES - List outrageous, magical, or fanciful solutions as a way to trigger perhaps more useful solutions.

RANDOM INPUT - Combine essential components with unrelated ideas to stimulate creative or associative thinking.

CHALLENGE - List ways to eliminate each component part to focus attention on the actual purposes of each component.

DIVERGE - List the divergent ways to achieve your goals to shift from current solutions to new perspectives.

CENTRAL IDEA - List ways to redefine the central idea to change the constraints on acceptable solutions.

REMOVE FAULTS - List how to remove each existing fault to identify ways to improve the current solution.

COMBINATION - List different ways to organize the components in order to find new ways to view the relationships of components.

REQUIREMENTS - List your requirements by importance to find the central elements of any solution.

EVALUATION - List the differences between your needs and possible solutions to establish standards for selecting a suitable solution.

Ways to expand existing information

I/O - List what is in and left out of your information to establish the completeness of your data.

QUESTIONS - List all the questions to ask in order to clarify your need for and ways to obtain more information.

CONTRADICTION - List the contradictions or false conclusions to find unintentional or perhaps purposeful errors in your information.

GUESS - List the probabilities in guesses and forecasts to establish the reliability, value, and usefulness of your information.

BELIEF - List your own beliefs in your information to identify personal attitudes toward your information.

SUBSTITUTES - List the language and ideas found in your information that serve to eliminate thinking.

EMOTIONS - List the appeals to basic human needs in order to identify the fundamental messages in your information.

SIMPLIFY - List the most basic relationships found in your information to aid understanding and memory of information.

How to use the THINK.MT file

Here are my recommendations for using these questions:

First The World's Fifty-five Greatest Questions are listed in the THINK.MT file on your master disk. Load this file using MaxThink, then select those questions that may produce additional information to your particular task at hand.

Second While all the questions are important, try to limit your selection to the best two or three questions. Don't attempt to answer a larger number of these questions as you'll produce so much new information as to overwhelm your thinking efforts.

Third As you understand the power of such questions, assemble several of these questions into a standard "meta-thought processes" such as linking the questions of AIMS, GOALS, and OBJECTIVES.

Fourth One big surprise is that the answers to these questions produce lists of information. For that reason, lists may be a more powerful format for thinking than hierarchies, and while the roots of MaxThink come from outlining, I've purposely designed the program as a strong list manipulator.

Fifth The other surprise is that you don't need a computer to answer these questions, although MaxThink help is immeasurable when it is time to organize and select the best answers.

Commentary

The best working-test of thinking skills centers on how you acquire information in a field not previously known to you. That depends on your willingness to learn and the efficiency in the ways you use to acquire your desired information.

Consider this. In John Nesbitt's book, **Megatrends**, he argues that the major shifts in society are easily discovered by looking at the shifts in information reported by newspapers. For example,

Hints of the 1990's

Era Shifts in the kinds of news reported	
1950's	Increased lineage on racial inequality
1960's	Increased lineage on feminine rights
Early 1970's	Increased lineage on retirement rights
Early 1980's	Increased lineage on personal computers
Early 1990's	Lineage on AIDS and foreign competition

To me, one of the sad truths is that with thousands of computer firms in the San Francisco Bay area, the major papers can't write one story a week on the topic. As a result, the computer era may be over, as editors enmasse have decided that most events in the computer industry are no longer newsworthy topics.

Why? I think the marketing hotshots cried "WOLF!" so many times that editors finally just gave up trying to separate real innovation from flash and vapor. Printing PR releases as industry news is not serious journalism.

Back to the topic of thinking. Your skills in thinking are best displayed by the ways you acquire information in unfamiliar areas. For example, this lineage analysis suggests the next areas for major societal changes. The reason I mention this is that you can easily measure the capacity of your associates to think by watching if they acquire expertise beyond two-sentence platitudes or knee-jerk opinion in these predicted society-significant areas.

Two Hundred Words for Snow

In a previous chapter, I mentioned that language determines your reality.

For example, the Eskimos are the masters of the snow environment as their language describes the subtle differences within their environment. Well, it's the same with thinking.

One of the goals of this manual has been to expand your descriptive language for thinking. As a result, you should be able to name many times more processes than your contemporaries. That as much as anything makes you a superior thinker.

Mechanical Thinking

Thinking as manipulation of "idea-objects"

Because many people view thinking as an "abstract" idea, I've chosen to describe thinking processes in mechanical or object-manipulation terms. The reason I used the "do-this-sequence" or "ask-this-question" approaches was to illustrate the processes of thinking in the most literal ways possible. Users that followed these patterns were rewarded by discovering their capacity to generate new ideas and information.

However, please keep in mind that my pragmatic "Western-scientific" thoughts do not invalidate concepts of generating new information by dream analysis, fasting, describing ink spots, rhythmic chanting, martial-arts exercise, or divine intervention. Without arguing the merits of these unusual approaches to altering or creating information in your mind, I'd rather just say that such processes are difficult to enhance by using a computer.

In contrast, with my suggestions of ways to expand your thinking, the computer offers three significant advantages — magnitude, precision, and openness.

MaxThink helps you handle more information

In **magnitude**, MaxThink helps you manage several magnitudes more in current ideas than your mind can handle in short-term memory. While your short-term memory handles approximately seven simultaneous thoughts, not all problems are solved by seven ideas. That's one for MaxThink.

MaxThink helps you organize information with greater precision

In **precision**, the beauty of your mind is that it finds relationships within even the roughest information. That happens because your mind is a spectacular pattern processor. But to make ideas work in this world, good thinking includes looking at the ramifications and subtleties behind the immediate perceptions. For that reason, the hierarchical nature of MaxThink forces the naming, categorizing, and prioritizing actions to convert tentative thoughts into more complete thinking. That's two for MaxThink.

MaxThink helps you create alternate patterns in your information

Finally, in **openness**, MaxThink provides tools to rapidly rearrange, change, or modify the relationships in information. Because of ways your mind recognizes patterns, shifting your perspective at will is very difficult.

Your mind is brilliantly organized to eliminate thinking

In fact, your mind is not designed for thinking, but designed to eliminate thinking by always attempting to convert information into patterns previously handled.

Shocking? Heck no! If your mind spent time thinking about all the information it receives, you'd hit overload in a second. You have a million nerves in your spine and several million in each eye . . . all firing many times a second. What your mind does is automatically and unconsciously respond to all but the most unrecognizable of these patterns.

For this reason, once you acquire information (and all the hidden pattern baggage), your mind by itself is most reluctant to consider alternate views. In contrast, when you use MaxThink to represent both information and relationships, it is almost impossible not to start rearranging ideas and relationships. For that reason, MaxThink opens your mind to new understandings. That's the third reason for MaxThink!

Thinking and Self-esteem

But behind all this, I had a hidden agenda. I've wanted to create both a software and a methodology/philosophy that made users feel successful. Here's why.

Good thinking comes not from high IQ, but from skills in asking questions that produce whatever information is needed

In the long run, it turns out that IQ, grades, talent, and position are not very predictive of success. Instead, it is your self-esteem or self-confidence that mostly determines where you end up, regardless of where you started. People with high talent and no confidence never do anything but fantasize why something won't work. People with low talent and high self-esteem (those who don't know any better) try everything. As a result, they usually end up succeeding in the most unplanned ways. And, it's the same with thinking.

My parting shot

Good thinking comes from people who believe they are capable of good thinking and who learned to ask and then answer significant questions.

Final Ultimo . . . or That's all folks!

Your brain is brilliantly designed to eliminate thinking — Edward DeBono

Thinking is the hardest work there is, which is the probable reason why so few do it — Thomas Edison

Imagination is more important than knowledge — Albert Einstein

The value of information lies in the way it is organized — Neil Larson

Is there life beyond MaxThink?

As a postscript, our $89 idea-network HOUDINI program teaches users how to abstract, generalize, check completeness, convert information into knowledge, and comprehend the conflicting relationships in ideas, information, and thinking. This companion program extends the power of MaxThink in many new ways towards hypertext knowledge systems.

Appendix A

Options Details

OPTIONS command

When you select OPTIONS from the main menu, the screen displays a list of configurations. These configurations are the names for various combinations of option settings. To see the actual settings for any of the listed configurations, use the arrow keys to select the desired configuration, then press "D" to select the "Detailed" command.

DETAILS command

The "Detailed" command shows the first of six screens that contain the current settings of the selected configuration. Use the PgDn or PgUp key to switch between the six different screens. Press "Esc" or "Enter" to return to the list of all configurations.

FILE FORMAT command

The "FILE FORMAT" command also selects the configuration list. If the "Detailed" command is then selected, the screen displays the fourth of the six screens of options. This difference between the "OPTIONS" and "FILE FORMAT" commands lets users directly jump to the settings that control either the system or print functions.

Arrow and TAB keys

Continuing, you can change any or all of these options to suit your needs. The cursor is initially positioned on the setting of the first option at the upper left of the screen. Use the right-arrow or Tab key to move to the next option and the left-arrow or Back-tab key to move to the previous option.

Esc and Enter keys

To set an Option, enter either a number, text, or a yes/no answer, depending on the option. To change an option setting, move the cursor to that option and then type the new value. Once you have typed the maximum number of characters for an option setting, the cursor automatically moves to the next option.

Conflict in settings

After entering all changes, press Enter to use the new settings. However, if any of the option settings conflict, an error message will appear, and the cursor will move to the conflicting setting. If desired, save your option settings so that they will be available the next time you use MaxThink. To undo the changes made, press Esc instead of Enter to return to the MAIN menu of MaxThink and retain the original configuration settings.

Finally, many of the options within this command set the format for both printed and word-processor compatible versions of your outline. Make sure you understand all the options.

For example, when I send a file to my word processor, I generally turn off the numbering (put a blank in the Numbering Scheme) and left-justify all topics (Indent between levels set to 0). This eliminates the task of deleting leading blanks and numbers with my word processor, while maintaining the outline structure in my MaxThink file.

Options — Screen 1 of 6

Description: DEFAULT

Each configuration of the Format and Options menu is named. Changes made to either menu are saved under the current configuration name. Changes made in this description field alone rename the configuration. Changes made to other settings and not the description update the existing configuration. Changes made to both the description and at least one other setting add a new configuration setting to the list.

All changes are added to the alphabetized index of all possible configurations if the SAVE option is used after pressing Enter to leave the Format menu.

System Options

Save Every [B/S](1-999) Minutes:S10

Every 10 minutes, this setting causes MaxThink to automatically save the file. An entry of "B10" causes the computer to beep four times and print a short message reminding users to save their data file.

Sound (Y/N): y

Turns sound on (Y) or off (N). Whenever an error occurs or you press the wrong key, MaxThink emits a beep to alert you to the problem. Turn off this warning sound by setting this option to N. Y leaves the sound on.

Sign-Off Message: MaxThink Forever!!!!!

You can replace this touch of whimsy with either your own message or if you include a leading exclamation point (!), then MaxThink automatically executes DOS calls or other programs. Upon exit, MaxThink loads this information into the keyboard buffer (15 character maximum type-ahead), clears memory, then dumps the characters in the keyboard buffer to DOS.

File Options

Current Drive and Path: (boot drive)

This option sets the default directory and disk drive. If this is not set, the default drive is automatically set to the drive MaxThink was initially loaded from. To change the default value, enter the new values with the drive letter and directory path, then use the SAVE option in the QUIT command.

Strip Control Codes (Y/N): Y
When loading files, MaxThink looks for only ASCII 10 (new topic), 13 (new line in same topic, and 31 (turn underline on/off). Set this option to N if you wish other word processor control codes to remain in the file.

American Keyboard (Y/N): Y
Normally, in reading input files, MaxThink automatically subtracts 128 from the ASCII codes above 128. This handles word processors that toggle bits for special purposes.

However, European DOS and some word processors support the ASCII codes above 128 for special characters in each national language. Set this value to N if you are running a word processor that can use these extended characters.

Keyboard Options

Date Stamp (ES/EL/DS/DL): Off
If set to DL, every time a new topic is created, the current yy/mm/dd day_of_week hh:mm is inserted at the beginning of the topic. If set to DS, the time information is not included. Use the ES or EL to insert the date stamp into every topic upon creation.

Alt-S in the editor uses the same format, and Alt-Z, which changes the date, inserts this format into topics that do not already contain it.

Rapid Entry (Y/N): n
This option allows for rapid entry of commands by use of capital letters and/or Ctrl-Enter. If set to Y, the default values of all subsequent prompts are automatically used when a command is selected using capital letters.

Auto Range On (Y/N): n
Many MaxThink commands include a prompt for range with the default values of either the current topic (e.g., Delete) or the entire list (e.g., Sort). If you know the default values, then setting this option to Yes causes MaxThink to automatically use the default settings. Use the F5 key to mark topics before selecting a command for entering ranges other than the default values.

Topics With (1,2,3,' ') Return (null)
This option defines the Enter key in the Editor to work as expected (null) or create a new topic after the current topic with one (1), two (2), or three (3) pushes of the Enter key.

Tab Multiplier (2-10): 10
In the Editor, the Tab or Ctrl-I key move the cursor to the next tab stop. This option sets these stop columns (e.g., 10 means that every 10th column contains a tab stop).

DEL Key Deletes Topic(s) (Y/N): y
At the MAIN menu, the DEL key will delete the current or all F5-marked topics (and the associated subtopics) if this options is set to Y. If set to n, the DEL key will not delete topics.

Display Control — Screen 2 of 6

Screen Settings

Screen Format [V H]:
Sets the screen format to display one full-screen oultline or to display two outlines at a time, split horizontally or vertically at a user-specified position.

If SCREEN FORMAT is blank then MaxThink displays the normal single outline screen.

If SCREEN FORMAT is Vn (with n=25 to 50), then screen format is two outlines split by a line at column n. Example: V50 splits the screen at column 50, displaying the bigger outline screen on left in columns 1 to 48, and a smaller outline screen on right in columns 52-80.

However, eliminating an existing Vn entry (erasing a previous entry) does not restore the RIGHT SCREEN MARGIN setting. To return to a previous wide-format display, enter a new RIGHT SCREEN MARGIN setting to enlarge the screen.

If SCREEN FORMAT is Hn (with n=5 to 14), then MaxThink creates two outlines, splitting the screen at row n. For example, H7 splits the screen at column 7 with an outline (rows 1-6) and an outline (rows 8-19).

Left Margin (10-80): 10
Sets the left-margin column on the screen. This option defines the left margin for topic headings. Normally, the left margin is indented 10 spaces, which leaves room for a number up to 999 and the arrow pointer. If you turn off the numbers, you cannot move the left margin all the way to column 1. If you are using numbers, an attempt to use a left-margin setting that leaves too little room for the numbers and the arrow pointer generates an error message, and the cursor jumps to the Display Numbers setting so that you can set it to No (N).

Right Margin (40-80): 80
Sets the right margin column. This option defines the right margin of the text for each topic. The normal value is the edge of the screen, which is column 80.

To set the right margin, type a column number between 40 and 80 that is also greater than both the left margin and the annotation margin.

You must resolve any margin conflicts before you will be able to use your new option settings. If you press Enter with the right margin set to the left of either the left margin or the annotation margin, an error message will appear, and the cursor will move to the right-margin setting so you can correct the conflict.

Annotation Margin (1-40) 13

Sets the annotation margin column on the screen. Normally, the left annotation margin is set at screen position 13. The purpose of indenting the left annotation margin further than the left topic margin is to visually distinguish these two parts of the text. This option sets the position for indentation of all text after the first line of the topic.

Just as for the left margin, type a column number between 1 and 80 that is also less than the right margin to enter the annotation margin.

Screen Settings

Headings Only (Y/N): n.

Displays headings (Y) or full topics (N). This option sets the display of the screen to show only the heading (first line) of text for each topic. It lets you examine your outline without the supporting text below each topic, making reorganization easier. Without the additional text displayed, more headings can appear on the screen at once, letting you concentrate on the organization of the topics rather than their content. If you type yes (Y), you'll get only headings; no (N) displays full topics as usual.

The F2 function key conveniently turns the Headings Only display on and off, letting you bypass the Options command. Each time you press F2, you change the Headings Only setting, and the topics reappear in the new format. Whenever you set Headings Only to Y, the word HEAD appears on the status line in the lower left corner of the screen.

Numbering on (Y/N): y

Turns screen numbering on (Y) or off (N). This option lets you switch the display of topic numbers on or off. A setting of Y displays the topic numbers as usual. If you want the numbering removed, set this option to N. When the numbers are not displayed, the highlights that normally appear on the numbers appear on the first five characters of the topic heading.

LCD Format (Y/N): N

If selected, the F5 key uses reverse video on the topic numbers to indicate the F5 mark. Subtopics are identified by reverse video on the 2 columns between the topic numbers and the topic text. If not selected, some LCD computer and BW monitors using color cards do not display the subtopic indicator (underline or highlighted topic numbers).

Screen Colors — Screen 3 of 6

Foreground: 7
Background: 0 if CGA or EGA card installed.
These options enable you to set the colors for each of the four areas on the screen: the parent area, the topic area, the separator, and the command area.

During the loading of MaxThink, the program determines if your system contains a monochrome or color card. With a monochrome monitor the choices are limited to black and white; hence only the foreground of each area is displayed. The corresponding background color automatically becomes the opposite of the foreground. While the options display color choices (0-15), use either 0 or 7. Don't use numbers above 7 as they only cause the background to blink.

Color

If MaxThink detects a CGA or EGA card, MaxThink displays options for controlling both the foreground and background colors. To change the color of an area, position the cursor on the setting you want to change and type the number (0-15) that corresponds to the color you want. The basic colors numbers are:

0 - BLACK, 4 - RED, 1 - BLUE, 5 - MAGENTA, 2 - GREEN, 6 - AMBER, 3 - LIGHT BLUE, 7 - WHITE

Intensity/blink

With foreground colors, the numbers 8 to 15 are more intense values of the colors 0 through 7. With background colors, the numbers 8 to 15 remain the same as the colors 0 to 7 except the foreground colors then blink. If you don't like blinking text, don't use background colors 8 to 15.

B/W mode override

If you wish to run a monochrome display using a color card, you can force MaxThink to remain in a monochrome mode by first using the B/W option of the MODE command in DOS, then typing MAX -B.

LCD displays

If your laptop computer (LCD) display doesn't show the F5 actions as distinct from subtopic indication in reverse video, change the foreground/ background text values, set the LCD option to YES, or use a machine-

Remove Snow (Y/N): Y
If set to Y, this option times the updating of the color display with the vertical-retrace signal to eliminate screen flashing/blinking or "snow." On color monitors that contain their own snow-supression routines, set this option to N for faster display speed.

Page Control — Screen 4-6

Page Formats

Page Length (6-99): 66
This option sets the total number of lines on each page. Most printers produce 6 lines per inch, so 66 lines is the normal setting for 11-inch paper. However, the page length for a laser printer may be different (typically 59, 60, or 61 lines per page).

To set the page length for a laser printer, make 70 1-line topics containing the numbers from 1 to 70. Use this file to determine how your printer calculates page length and printed lines per page; then adjust the Page Length and Printed Lines settings to match your printer.

Printed Lines per Page (3-99): 54
This option sets the number of lines of text that can be printed on a page, excluding the header and footer. You can use this setting, in conjunction with the Page Length and Top Margin settings to position topics vertically on a page. For example, a setting of 54 text lines and 6 top margin lines leaves 1-inch margins at the top and bottom on 11-inch paper.

Left Margin (1-40): 5
Sets left margin when printing text. Set it to 1 to eliminate left margin spaces if you are using WRITE to prepare files for your word processor. If set greater than 1, MaxThink inserts hard spaces and not tab controls.

Right Margin (40-256): 80
Sets right printing margin for printing text.

Print Start (0-9) Lines from Top: 0
Provides control of the top-margin for printing text.

Annotation Indent (-10-40): 3
This option sets the number of spaces the annotation (text after the first line of a topic) is indented from its heading (first line of text in a topic). The annotation indent is affected by your setting of the Numbers Aligned on Left option.

Pause between Pages (Y/N): n
Lets you pause between pages (Y) or (N). This option prints a page and then stops. Pressing any key causes this process to repeat. The purpose of this option is to let you print on single sheets of paper, rather than on continuous forms, if you desire.

Header/Footer Contents: date\time\title\page
This option selects the fields and order of information printed in the header or footer lines. If the HEADER/FOOTER SIZE option is set to 1, title fields are limited to the first 20 characters of the title topic.

If the HEADER/FOOTER SIZE option is greater than 1 (e.g., 2-6), then MaxThink prints the specified date-time-page information on the first line and the title information on subsequent lines of the header.

Number First Page as (1-999): 1
This option sets the number at which page numbering begins. Thus, if you are printing an outline for inclusion in a longer document, you can start the page numbering of the outline at the desired page number in the middle of the document.

Print Header (Y/N): y
Prints a header containing the specified date, time, title, and page number at the top of the page (Y) or (N). The format of the header is determined by the HEADER/FOOTER CONTENTS and the HEADER/FOOTER SIZE option.

A Y setting causes a header containing the date, time, title, and page number to be printed at the top of each page. This information is centered on a line halfway between the top of the page and the first line of text.

Print Footer (Y/N): n
Prints a footer containing the date, time, title, and page number at the bottom of the page (Y) or (N). Setting this option to Y causes a footer containing the same information as the header described above to be printed at the bottom of each page. This information is centered on a line halfway between the bottom of the page and the last line of text.

Header/Footer Size (1-6) lines: 1
This option determines the number of lines of text printed at the top or bottom of each page, with the text source being the TITLE topic of the outline. If set to 1, only the first 20 characters of the title topic are printed using the format set by the Header/Footer Contents. If larger that 1, the text is printed on the subsequent lines of the header, freeing the first line for the remaining settings of the Header/Footer Contents option.

Suppress 1st Line (Y/N): n
Prints headings (Y) or (N). This option allows you to print all the information in your outline, starting at the second line of each topic. Suppressing the headings is useful if you have a template outline that you have filled in with text and want to extract the text from the template.

Suppress 2nd Line to End (Y/N): n
Prints headings (Y) or (N). This option prints only the first line of each topic and ignores all remaining lines of each topic. Suppress Annotation allows you to study the organization of your outline while suppressing unneeded text.

Page Control — Screen 5 of 6

Numbering Formats

Example Numbering Scheme: I.A.1.i.a.

Sets the numbering scheme to be used within the outline, for example, the standard scheme of "I.A.1.a.i.1)." This option allows you to select the type of numbering system for each level of indentation in your outline. You can use six different numbering characters in your outline. They are:

Arabic numerals	1, 2, 3, 4,
Roman numerals	I, II, III, IV,
Lowercase Roman	i, ii, iii, iv
Uppercase letters	A, B, C, D,
Lowercase letters	a, b, c, d,
Special characters	(#, blank, o, -)

Use the first number or letter of a numbering system within Example Numbering Scheme to specify that system. A sequence of first numbers and letters specifies the numbering scheme for each successive level of the outline. The first system in the sequence applies to the outermost level, the next system to the first sublevel, and so on. If your outline is deeper than the sequence is long, the sequence repeats from the beginning.

Periods or blackslash characters serve as delimiters between the characters selected for each level. The backslash delimiter lets you include blank numbering at selected levels or control the inclusion of periods after each number.

You can use punctuation such as parentheses (), brackets [], braces {}, and angle brackets (<>) within the Example Numbering Scheme to achieve a more polished look. A traditional numbering scheme for an outline looks like I.A.1.a.i.(1).(a).(i).

The Prefix Attached (Y or N) option of the Format command determines whether the full outline numbering system, or only the last character of the numbering system is attached to each topic.

Numbers Aligned on Left (Y/N): y

Justifies the printed numbers either left (y) or right (n). If the numbers are left justified, then the text is displaced one space right at 10, 100, and 1,000. With Roman numerals, the text is offset if the Roman number uses more spaces than the Indent-between-levels value.

If the text is right justified (n), the text remains aligned unless the number requires more than the spaces set by the indent between levels option. In this case, the text is then offset instead of allowing the numbers to expand into the visual space of a higher level in the outline. Correct this by increasing the indent between levels setting.

Prefix Attached (Y/N): n

Attaches a prefix to each topic (Y) or (N) (without a prefix, a topic with path 0.1.2 prints out with the number 2). A Y setting for this option causes a prefix identifying the exact location of each topic within the outline to be attached to the beginning of the topic numbers. For example, a topic could be numbered 1.4.7.6 rather than just 6. This extended numbering system is sometimes called a mil-spec outline or military numbering.

Printer Control

Print Begin String (ex 27\21): (null)

Sends a preset sequence of ASCII characters to initialize a printer, control form feeds, select typeface, etc. The format uses the decimal value for each ASCII character with entries separated by a backslash. For example, add the value 12 to send a page eject (top of form) before printing.

Break Sequences

Print End String (ex 12\12): (null)

Sends a sequence of preset control codes to the printer after printing a file to add desired form feeds (12) or format codes.

Page Break Sequence (ex ..p): ..p

If the first three letters found in a topic are "..p" MaxThink prints all information in that topic starting on a new page. If you wish, change this non-printing form-feed value to PAGE, TOP, XXX, etc.

Stop Print Sequence (ex ..x): ..x

This option suppresses the printing of any topic (and subtopics) starting with the sequence "..x." Skips in topic numbering are the only indication of hidden topics within a printed outline.

Special I/O Formats

Report Generator Format (blank): If blank, the Report Generator Format field has no effect. However , if it contains key words in your outline separated by a backslash, this format produces a column-aligned report of the words in the outline that follow each key word found in this field. This field then affects the output of the VIEW, PRINT, and WRITE commands.

If report generator field words are not contained in the outline, no output appears. If the words are found in the outline, the text field is terminated by either the occurrence of another report generator field word within the same line, or by the end of the line. Finally, the report generator searches only for the first occurrence within a topic of each of the defining key words.

Input Control String (ex \13\10): max

During LOAD, READ, or ALT-R, this command determines the beginning and end of each topic. This setting can contain ASCII values such as "\32" to make topics by words or "\13" to make topics by carriage returns. This setting can also contain words such as "MAX" for standard MaxThink files, "Sentence" for creating topics by sentence, or "paragraph" for splitting text into topics at each paragraph break.

Outline Controls -- Screen 6 of 6

Outline Options

Indent between Levels (0-10): 5
This option sets the numbers of spaces to indent each sublevel from its parent topic. An indentation of 0 causes all levels to line up at the left margin. If your numbering system exceeds the space available, the text will not align.

For that reason, if you use Roman numbering, increase this value to 6 or 7 to maintain text alignment.

Print Only Levels (1-99): 99
This option slices the levels printed in an outline. For example, a value of 3-4 suppresses printing of outline levels above 3 and below 4.

Indent to Level (1-99): 99
This option sets the number of levels that are indented. This format allows major headings to stand out, with minor topics aligned as blocks of text.

Spacing Formats

Topic Spacing (1-6): 1
This option adds a space before and after all topics that have subtopics. This spacing is useful in separating topics on a list from topics that contain subtopics. Formats of 3.2.1 would insert three lines at the highest outline level, two at the second, and one for all subsequent levels.

Level Spacing (1-6): 1
This option allows you to set the spacing between lists. For example, a list spacing of 2 puts a blank line before every first subtopic and a blank line after every last subtopic. Formats of 3.2.1 would insert three lines at the highest outline level, two at the second, and one for all subsequent levels.

Line Spacing (0-6): 1
This option sets the spacing of formatted text, 1 for single-spacing, 2 for double-spacing, and so on. The 0 value is included for single-space operations with printers (TANDY) that space on both carriage- return and line-feed characters. Formats of 3.2.1 would insert three lines at the highest outline level, two at the second, and one for all subsequent levels.

Print Controls

No of Copies to Print (1-9): 1
This options sets the number of copies that are printed at a time.

Print Starts at Page (1-999): 1
This option lets you select a segment of your outline for printing. It is useful in conjunction with the Printer Ends at Page option for printing only the pages that contain corrections in a large, previously printed outline.

Print Ends at Page (1-999): 99
This option lets you set the number of the final page to be printed.

Print to Level (1-999): 99
This option sets the number of levels of your outline to be printed. Printing only a few levels gives you an overview of your outline. Use a large number such as 99, if you like, to be sure that all levels print.

Control Codes

Topic End Sequence (ex 13\10): (null)
Sends a sequence of up to four ASCII characters at the end of each topic. For example, as Volkswriter wraps text until an ASCII 20, I include 20 when I write files for that word processor. That way, each of my MaxThink topics translates into Volkswriter's paragraph notation. Separate ASCII codes with a backslash. For details on settings for other word processors, see page 20-10.

Line End Sequence (ex 13\10):(13\10)
Most ASCII DOS files contain carriage return (13) followed by a line feed (10) at the end of each line. However, Microsoft WORD prefers nothing at the end of a line, and a 13 at the end of a paragraph.

With experimentation in ASCII values, the line end and topic end sequence options let you match the file format of most word processors.

For translating between WordPerfect, Miscrosoft Word, and MaxThink files, use the following programs in the utility directory:

WordPerfect

WP42M Converts WordPerfect 4.2 outlines to MaxThink outlines
WP52M Converts WordPerfect 5.0 outline to MaxThink outlines

Microsoft WORD

WTM Converts Word outlines to MaxThink outlines

For details on settings for other word processors, see page 20-10.

Appendix B

Reference

This Appendix covers:

- The FIND command in the EDITOR
- The REPLACE command in the EDITOR

Editor Find Command (Alt-F)

The Find command (Alt-F) positions the cursor (within a specified range) at each occurrence, or only the next occurrence, of a specified text pattern. The Find_Next option lets you continue or quit after finding any occurrence of the text pattern.

Certain characters in MaxThink have special meanings if you insert them into the character patterns that you are trying to match in your search. These special characters and their meanings are as follows:

Special FIND characters

?	A question mark in your pattern matches any single character. For example, th?n will match than, then, or think.
$	A dollar sign matches the end of a line. For example," ine$" on this sentence will locate matching word "line" at the end of this line
@	An "at" sign matches a carriage return.
^	A caret matches the beginning of a line.
~	A tilde followed by a character matches any character except that character.
*	An asterisk matches any one or more characters.
\	A backslash nullifies any special meaning of the character immediately following it. For example, \ matches the character @, rather than a carriage return.

Editor FIND command

Find Prompts:	**Default:**
Range	0
Find Pattern	(previous text pattern)
Ignore_case?	Yes
Find_Only_Next?	Yes
Next Quit	Next (only if the no option is selected for Find_Only_Next ?)

Find Example: Alt-F 0 (Enter) xxx (Enter Enter) -- finds the first occurrence of the word "xxx" in the outline and positions the cursor there.

Find Comments: While MaxThink includes a number of fancy features in the Find command, the search is somewhat slow because of the internal pointer system that connects the fragmented text.

Editor Replace Command

The Replace command (Alt-R) positions the cursor at each occurrence or only the next occurrence, of the specified text pattern. Replace lets you replace all occurrences, the next occurrence, or selected occurrences of the text pattern with another string.

If you select Replace All Occurrences, the command will return directly to the main menu after replacing all of the specified text patterns. If you choose Replace Next Occurrence the command will replace only the next occurrence of the text pattern. And if you use Select Occurrences to Replace, the program will prompt you with the choice of Replace, Skip, and Quit at each located text pattern.

Editor ALT-R command

Replace Prompts	**Default**
Range	0
Find Pattern	(previous find pattern)
Replace String	(previous replace pattern)
All Next-occurrence Selectively	All

Limitation: The command is limited by the amount of available memory. Replace cannot be undone by the Undo command.

Example: Pressing E Alt-R 0 (Enter) their (Enter) there (Enter) (Enter) finds and replaces every occurrence of "their" with "there."

Replace Comments: Replace is slow because it must search for text and reallocate memory across fragmented text strings. If you select the "all" option, be prepared to wait as nothing changes on the screen until the program has searched the entire outline.

How do you describe something truly new?

Specifications

Many of the commands in MaxThink which support thinking, writing, and perception are not found in other programs. For that reason, this specification list describes MaxThink in terms of processes contained in familiar programs. However, this list does not show how or why these component processes form a comprehensive system for superior writing and thinking. For that, you'll need to read this manual.

Compatibility

Hardware — For the IBM and compatible machines with 300K or more memory using PC/MS DOS (2.0 or later). The program is not copy protected.

Software — Files are ASCII format for input and output compatibility with other programs. In addition, MaxThink runs within WINDOWS and DESQview, and with most memory resident programs.

Size

Size of program: 300,000 plus bytes (100,000 plus lines of C code)

On-line help file: hypertext ASCII file format

Windowing: 2 split/separate windows with up to 40 defined views

Files

File limits: In virtual outline mode, MaxThink uses EMS, XMS, and disk space whiere files are limited to 91,000,000 bytes; 64,000 total topics; 250,000 total lines; and 99 outline levels. Arrow keys on hypertext links can automatically jump to and from other MaxThink and ASCII files.

Word processing

Text processing: Features standard wordprocessing commands for cursor, block moves, cut/paste, search/replace, tabs, underlines, outline format, and page layout.

List processing: Includes commands for sorting, inserting, removing, prioritizing, gathering, and segmenting lists of information.

Outlining

Outline processing: Provides commands to create hierarchies by moving, inserting, deleting, marking, merging, copying, and cloning topics. Also provides commands to separately expand or collapse both outline levels and topic text displayed along with many numbering and formatting options. Maintains dual outlines in memory.

Structure manipulation

Structure processing: Features commands that move information across and between text, list, and outline data structures (e.g., convert text to lists, lists to text, lists to outlines, outlines to lists).

Text Analysis: Maintains a word frequency and total word count to cross-reference every word in MaxThink as well as its location and number of occurrences.

Powerful extras

Report Generator: Automatic abstracting option selectively converts free-field text into column-aligned reports.

Project Management: Features both manual and automatic topic dating. Options allow for bulk date changes by absolute or offset values.

Presentation Formats: Converts outline information into presentation slides or wall-sized organizational charts.

Matches existing software

File I/O: Reads all ASCII files. Converts any indented format into outline topics. Writes outlines to formats compatible with all popular word processors. Allows control codes to be included for compatibility with impact, dot-matrix, and laser printers.

New hypertext features

HyperText: Includes shareware HyperRez and Hyplus systems. Help system is hypertext. Arrow keys link multiple levels of MaxThink and ASCII files with full backpath recall. M2A utility automatically converts MaxThink files into networks of hypertext linked ASCII files.

Hypertext modes support DOS and program calls <DOS program>. With the display of any of ASCII file via a hypertext jump, press E to swap MaxThink out of memory for temporary use of any defined file editor. Exit from the editor to automatically return to MaxThink.

MaxThink -—Excellent Reviews

Critics' Choice

PC Magazine

MaxThink . . . voted Editors' Choice by **PC Magazine.**

"Very powerful outliner . . . with a multitude of useful word processing functions." Alfred Poor — **PC Magazine**

"ThinkTank . . . does not have as many features as MaxThink." Jared Taylor — **PC Magazine**

PC Week

"MaxThink . . . similar to ThinkTank, but with much more sophisticated commands . . . a thinking aid to let you shape and reshape ideas easily no matter how you think." Carolyn Mullins — **PC Week**

Byte

"MaxThink has the proper tools to help you process your ideas and a well-written manual that goes beyond the mechanics of the program . . . MaxThink ranks the highest (against Framework and ThinkTank) on the most important features." William Hershey — **Byte**

PC World

"More sophistication and flamboyance than any other outliner on the market." Charles Spezzano — **PC World**

Popular Computing

"MaxThink is a delightfully practical program . . . should appeal to writers of all means." Sheldon Richman — **Popular Computing**

Whole Earth Review

"MaxThink picks up where ThinkTank left off . . . for writers, managers, and planners . . . lots of power for a low price."
Cliff Figallo — **Whole Earth Review**

Computer Book Review

"MaxThink does some neat tricks . . . is superior (to ThinkTank) in organizing and analyzing data. One of computerdom's better bargains."
Charlene Char — **Computer Book Review**

InfoWorld

"By far the most comprehensive and versatile outliner available . . . what MaxThink can do with words and ideas is truly amazing."
John Dvorak — **InfoWorld**

Icon Review

"MaxThink . . . is clearly the most thoughtfully designed outliner-idea processor on the market today." Dennis Moncrief — **Icon Review**

Users of MaxThink

Academic

"My best organizing tool . . . used for lecture/lab outlines." -- Professor, Bozeman, MT

"Great! Revolutionary software. Used for designing courses and presentations." -- Seattle, WA

"Excellent concept! Used for brainstorming and preparing doctoral papers, outlining books and papers of others, and abstracting text in general." – Red Bank, NJ

"A revolution in PC software. I use MaxThink for lecture notes, project management, academic papers, teaching students to organize papers and dissertations." – Champaign, IL

Lawyer

"Terrific! . . . used for outlining testimony, reports." -- Consultant, Los Angeles, CA

"Great! Love BINSORT . . . used in the practice of law, outlines for trials, depositions, arguments, etc." -- Tucson, AZ

"Used for outlining briefs, organizing for trials, etc." – Lawyer, NY, NY

"Addictive. Used for analyzing litigation matters, outlining recent legal developments." -- Los Angeles, CA

"Excellent . . . used for legal documents, lesson plans, scholarship articles, office memos." -- Brookline, MA

"GREAT!! . . . for lecture outlines and drafting legal opinions." – Law Professor, New York, NY

Programmer

"Wonderful! Used for project planning, documenting complex systems." -- Oxnard, CA

"Super! Used for writing and developing program logic structures." – Consultant, Marina Del Rey, CA

"Exceptional software! Used for documenting system control flow, lists of tasks by project, project planning, organizing notes." – Los Angeles, CA

"Used for program analysis, systems description, articles, brainstorming new products." – Programmer/columnist, San Jose, CA

"Great! One of the few programs I really enjoy working with!"
– Systems Engineer/Free-lance writer, West Palm Beach, FL

"Indispensable, yet very easy to use . . . used for defining rules for expert systems." – Los Angeles, CA

Serves many professions

Doctors

"Excellent -- very happy!" -- Doctor, College Park, MD

"By far the best organizational tool available." -- Physician, Kalamazoo, MI

"The best software we have ever bought even though we are not yet truly power users. Used for writing scientific/medical papers and talks." -- Greenville, NC

"I use the organizational charts to make committee agendas and assignments." -- Physician, Chowchilla, CA

Educators

"Excellent for developing educational videotapes." -- Van Nuys, CA

"Very helpful and stimulating to try new ideas . . . used for talks, articles, books, and lesson plans." -- Oakland, CA

"Organizing book notes for a curriculum." -- Educator, Santa Ana, CA

"Excellent for provoking creative thinking, fleshing out detail and elemental relationships . . . used for organizing training programs, client presentations, seminars." – Santa Ana, CA

Researchers

"Many thanks . . . used for organizing and outlining scientific papers." -- Professor, Middletown, CT

"A great idea and a great value . . . used for writing my thesis, organizing ideas about research and lecture notes." -- Houston, TX

"Awesome! The best program I have found for my writing needs. Used for organizing research notes and organizing complex writing projects." – Lafayette, LA

"Great. Very pleased with recent update. Used for talks, papers, research proposals." -- Champaign, IL

"Excellent . . . used for research papers and multiple choice examinations." – Knoxville, TN

Consultants

"Use for developing programs in leadership and management development." -- Consultant, Lansing, MI

"After only a little use, I much prefer MaxThink over Think Tank which I had used for several years." -- Technical consultant, Tucson, AZ

"Used for facts analysis, opinion testing, report structuring." -- Consultant, Salinas, CA

Why MaxThink?

Comparison

"It's even better than I thought. Congratulations for a product this well done!" -- Montreal, CANADA

"Excellent, best we have seen!" — Springfield, VA

"The best way to organize I've ever seen." — Statesboro, GA

"Without a doubt the best outline processor. Newest version is a great leap forward. I use it for lecture notes, outlines of books read, preliminary write-ups for articles." -- Hattiesburg, MD

"Excellent program . . . better than the review that prompted the purchase." – Oakdale, CT

"Excellent product!!! It has changed the way I work!!" – Bellevue, WA

"Fantastic -- the most useful software I own. Used for to-do lists, project management, writing, file management, and to amaze my friends." -- Pasadena, CA

Productivity

"The most productive piece of software I own, regardless of price . . . used for everything imaginable." -- La Mesa, CA

"A very good tool . . . better than Framework." — Albuquerque, NM

"Extremely versatile . . . takes the place of a number of one-purpose type software programs." -- Minister, Worthington, MN

"Best darn value around!" -- San Leandro, CA

Power

"Commands like BINSORT and PRIORITIZE make MaxThink 100% better than Think Tank, which I used for two years." – Oakland, CA

"It's great!!! More than I expected!" – Clinton, NJ

"Fantastic software!!" – Alberta, CANADA

"Super! It's a marvelous program! Used as everything database." -- Wilmington, MA

"Greaaat program! Will be very useful." -- Thompson, CT

Satisfies fundamental needs

Value

"Without reservation, I can say it is the most useful piece of software we have, and we have almost everything." -- Greenville, NC

"A valuable adjunct to our software. Used for personal and business conceptual analysis." -- Santa Ana, CA

Manual

"Great! The book is really something." -- Denver, CO

"Manual well written -- enjoy your non-sexist approach." -- Escondido, CA

"Great program! Manual content & concept is really good." -- Denver,CO

Writing

"Documentation on the writing and thinking is superb." -- Teacher, San Bernardino, CA

"Manual is superb -- especially the applications to the process of writing." -- Saskatchewan, CANADA

Thinking

"Great! Superb! Outstanding! Keep up the good work -- your documentation is an intellectual stimulus." -- Tacoma, WA

"Documentation would make a superb "thinking" text." -- Bay Shore, NY

"First software I bought for my new computer. It's great! Easy to learn, easy to use, friendly, and powerful." -- Santa Clara, CA

Easy to learn

"Easy to use and well thought out." -- Doctor, New York, NY

"I already have a four-page outline after an hour of use." -- Petaluma, CA

Service

"Phone assistance was super!" -- New Bedford, MA

"Super!! Useful, helpful, has good support and a commitment to evolve into something better." – Millis, MA

"MaxThink Forever! I love this program!" -- Engineer, Logan, UT

"Long time customer . . . long live this program!" -- Beaverton, OR

How is MaxThink used?

Preparatory writing

"The most important software I use . . . for planning, projects, coordinating first stages of almost all writing." -- Albuquerque, NM

"It's great, innovative, easy to work with and learn, solves a real need, and reasonably priced. Used for creating letters, memos, sales presentations, product brochures, press releases, directory of software documentation." -- San Jose, CA

"Excellent! Keep on growing. I've been with you since your earliest days and each upgrade has been well worth the price. I use MaxThink for outlining articles and applications development." -- Springfield, MA

"Thanks for the new version . . . excellent for writing papers and lectures." – Toronto, CANADA

"This is the most wonderful program ever invented for wordsmith's." -- Santa Monica, CA

"Excellent for to-do lists, early stages of writing, summaries of reading." -- Minneapolis, MN

Writing reports

"A good product. Used for writing technical papers and organizing work plans." -- Knoxville, TN

"Easy to become familiar with! Used for investment analysis, report writing." -- Marina Del Rey, CA

"Found the information on organization and better writing useful and look forward to future versions." -- Wilkes-Barre, PA

"Organizing, planning, controlling, and writing staffing papers." -- Personnel manager, Fairbanks, AK

"Superb . . . outlines and drafts of reports." -- Economist, Wash, DC

Writing books

"Great! Used for outlining novels." – Ontario, CANADA

"Great -- I like it. Used for outlines for fiction writing." – Baltimore, MD

"Terrific! I am an addict. Used for almost everything: telephone lists, urgent items, speeches, articles, books, thinking." -- Westchester, NY

"An untapped treasure house! Used for writing a book." -- Tacoma, WA

"Superb -- incredibly sophisticated. Used for articles, training manuals, and book in progress." – Rochester, NY

"Development of proposals, short stories, novels." -- Oakland, CA

For thinking, planning, and writing

Business writing

"Outstanding! Used for word processing and outline preparation." -- Eldersburg, MD

"Wonderful for lists, scheduling, word processing." -- Minneapolis, MN

"Wonderful! Each update makes it more useful. Used for memos, letters, reports, daily and monthly work plans, monthly work, employee evaluations, lists of idle thoughts, and organizing hard disk." – NY, NY

"Excellent, deserving more attention! For to-do lists, personal writing, planning, prioritizing my projects, notepad." – Portland, OR

"TERRIFIC! Enjoy using it to the MAX! Very versatile tool. Used for putting together newsletters, general administrative tasks." -- Bakersfield, CA

"Terrific . . . used for paper writing, planning." -- Santa Ana, CA

"Good and really easy to use. I use it for to-do lists, report outlining, filing information, problem solving." -- Los Angeles, CA

Thinking

"Excellent thought processor!" -- Portland, OR

"Fantastic! The most useful program I have used in five years! I love it! Used for sales, phone lists, ideas for companies and projects, writing poems and letters." – Denver, CO

"Clever for brainstorming, planning, writing." -- Sacramento, CA

"Great for manipulating ideas into a finished product on paper. Used for outlining novels, stories, and technical writing. Keep up the improvements!" -- Conroe, TX

Planning

"Very good for idea generation and organizing talks and reports." – Oakland, CA

"Used to make structure in unstructured problems . . . a very good tool for managers and consultants." -- NORWAY

"Great! Not slick, but folksy and great! One of the world's better kept secrets. Used for business proposals, wool-gathering, etc." -- SF, CA

For all who work with their minds

Brainstorming

"More difficult to learn at first. Worth the effort, however, as it has more features than ThinkTank. An excellent thinking aid used for beginning stages of all writing. Obviously conceived by someone who knows something about thinking and writing." — Birmingham, AL

"Organizes my thoughts." — CAD Consultant, Lawndale, CA

"Excellent and thought-liberating." — Boston, MA

"Exciting to find a program that incorporates so much thinking about thinking." — Ann Arbor, MI

Presentations

"Very good and gets better with more use. Used for generating ideas, organizing ideas." — San Jose, CA

"Outstanding and gets better all the time. Used for delegating, action lists, structuring presentations, sales prospect follow-up and tracking." — San Francisco, CA

"Excellent! Used for preparing speeches and presentations." — NY, NY

Planning

"Fantastic! Used for project planning, presentation outlining and planning, preparing meeting agendas and formats." — Chicago, IL

"The best tool in this category. I own Ready and ThinkTank and like MaxThink best . . . used for computer-based training analysis and preliminary design work." — San Diego, CA

"Used for to-do lists and planning projects." — CPA, Oakland CA

Management

"Great! Used for project planning, quotation outlines, correspondence outlines." – Golden, CO

"Fantastic for creating plans and analysis." — marketing, Pheonix, AZ

"A good tool . . . for business plans, workshops, project planning." — Dallas, TX

"Excellent! Used for gov't funding projects." — J.R. Washington, DC

Radical new features every year

Reprint of Max91 Update

One of the most important concepts contained in MaxThink is continual innovation. Every year, I release a new version containing a number of significant improvements and new ideas.

In the category of new dimensions, MAX 91 contains a number of unexpected expansions to the outline concept.

New Dimensions

Revised F1 helps

The F1 help system in previous versions of MaxThink primarily listed the legal keystrokes available at any point in the program.

The new F1 help system:

- uses simpler screen formats
- includes advice on use of key commands
- reduces the number of files in the help system

Easier to learn

MaxThink provides several different tutorial approaches, such as:

- follow the exercises in the manual
- listen to the learning cassette tape
- use the F1 key to access the help and advice files

Unlimited number of and lenght for macros

The previous F6 macro capability in MaxThink was limited to one macro per configuration of a maximum of 63 keystrokes. The Alt-K command of Max91 prompts for a filename and a description of the macro, then records all subsequent keystrokes to the named macro file until another Alt-K ESC. LOG appears at screen bottom during keylog recording.

Each ALT-K created macro and description are appended to a file named MACRO.MT. To access this file of macros, from the MAIN menu press Ctrl-K. Hypertext select a desired file using the UP/DOWN arrow keys.

Note: Use Alt-K to make key OPTION DETAIL settings uniform for all configurations.

Execute the selected macro by pressing the RIGHT arrow key. Use your ASCII word processor to edit or modify the MACRO.MT file as desired. Recommendation: To not confuse macro files with other MaxThink files, add a file specification of .MAC to each of your created macros.

More SAVE formats

The FILE SAVE command of MaxThink saves files in formats of:

- MaxThink (default)
- Wordperfect
- Dosword (Microsoft WORD as letters M and W already used)
- ASCII (each MaxThink topic becomes a paragraph)

When saving files in non-MaxThink formats, first save your outline as a MaxThink file such as XXX, then save it in an alternate format using a filename such as XXX.WP for Wordperfect or XXX.WD for WORD.

Outlines into MaxThink

To convert outlines created by Wordperfect or WORD into MaxThink's format, the following programs are included:

- WP42M Converts Wordperfect 4.2 outlines to MaxThink
- WP52M Converts Wordperfect 5.0 outlines to MaxThink
- WTM Converts WORD outlines to MaxThink

As MaxThink does not include a spelling checker, these conversion programs let users create outlines in MaxThink, spell check with a word processor, then return the outline to MaxThink.

The Max89, Max90, and Max91 versions of MaxThink all include the word MAXTHINK in the first line of any saved outlines.

ASCII files to outlines

The FILE LOAD command now looks for the word MAXTHINK at the beginning of each file. If found, the file is loaded in the normal outline format. If not found, previous versions of MaxThink would still assume the file was an outline format and would load it by making a new topic for each carriage return/linefeed combination. If however the file was an ASCII text file then previous versions of MaxThink made each line of text a topic.

With Max91, if the word MAXTHINK is not found at the beginning of the file, MaxThink now assumes the file is ASCII format and creates a new topic for every paragraph instead of every line. This means MaxThink now easily reads files both to and from formats created by ASCII word processors.

Faster hypertext jumps

One of the most important features in Max89 was the ability to make hypertext jumps to other outlines or ASCII files simply by pressing the arrow keys. However, if the current outline contained un-saved modifications, Max89 and Max90 both prompted to save the file.

In Max91, however, the outline is automatically saved to the default filename whenever hypertext jumps are executed. The advantage is speed in execution; the disadvantage is the default file name may not be the filename normally associated with the current outline (because of a seldom occurring intervening FILE READ or partial FILE SAVE command).

Editing ASCII files

Screen 2 of OPTION DETAILS contains a new entry titled ASCII Editor. If you enter the name of your ASCII word processor in this setting, then whenever MaxThink displays an ASCII file (via hypertext jumps), press E to edit that file using your word processor. This all works if:

> Your word processor can boot from any directory
>
> The Overlay path (screen 5) is not blank, but points to a real directory

The best way to use this new command is to press ALT-I to read into MaxThink hypertext jumps to all the files in a directory. Press the MaxThink arrow keys to select and display a desired file then press E to edit it.

Exit from the word processor to return to the previous MaxThink display. At that time press E to add your status, action, or modification comments into the selected topic. This plus the <DOS program file> jumps let you easily manage and access every file and program on your system. Neat!

Joining topics with hypertext

If you have a group of MaxThink outlines connected together by hypertext jumps (technically called a "mesh"), the new MAIN menu ADD command lets you rapidly collect specified topics and associated subtopics from many connected outlines into one file named CLIP.MAX

Each time one or more topics are F5 marked and A is pressed, those topics and all their children topics are appended to the CLIP.MAX file. When finished, load the CLIP.MAX file which contains all of the gathered topics.

Other changes

As MaxThink is a fairly complex program consisting of over 100,000 lines of C code, I occasionally receive a user report of some unexpected action or bug. Basically, if I can reproduce it, it is fixed within a few days.

For example, one very clever user recently reported that the DIVIDE by SENTENCE did not work on lines of 137 characters or longer. That led to an instant correction in MAX91 to a known bug that only 1 in 10,000 users might find . . . and 1 in 50,000 might be able to reproduce.

Torture test of MaxThink

Two comments! If you find anything unexpected in MaxThink, let me know. Second, my personal reason for adding the ALT-K macros of unlimited number and length is for the detection and elimination of any and all possible surprises with MaxThink.

Using incrementing and repeating Ctrl-K macros, I and others can torture-test MaxThink at 40 keystrokes per second round the clock. (V have our vays to make your MaxVink always vork!)

Community of users

Again, it is the insights from the community of MaxThink users that drive the constant improvements in this program. Thanks again for your comments and suggestions as each improvement benefits all!

Press a number to jump

The X command on the MAIN menu of MaxThink jumps to a list of up to twenty marked locations in MaxThink, regardless if your outline is rearranged. Press Shift-F5 to add a marked topics to this list.

Now with Max91, once a topic is so marked, press any number between 1 and 9 (or 0 for topic 10) to instantly jump to that previously marked topic. The results? Rather than press arrow keys to move about MaxThink, I now press a number to instantly switch among key locations.

New swapping code

Finally, my previous Max90 used OVERLAY.COM as a memory swapper for <DOS program> jumps or for the FILES DOS command. However, as DOS 5.0 is so aggressive in the management of memory, no memory was ever made available for OVERLAY.COM to work.

The solution? I removed the OVERLAY.COM call and replaced it with code in MaxThink that works perfectly with DOS 5.0. Now, the OPTION DETAIL Overlay entry no longer needs the dash codes (-d or -e) but just a path (such as C:\MAX). Finally, if you have enough EMS memory, MAX91 automatically uses it instead of the default path.

Oops . . . almost forgot! Max90 always displayed "Hit any key to continue" before reloading MaxThink. Max91 swaps seem much faster as it no longer stops to display this meassage.

What's Missing?

Whether I'm reading, talking, listening, or thinking, one part of my mind always asks the question, "What's missing?"

So, here's three features missing in MaxThink and my comments:

Windows

WINDOWS — As mentioned earlier, MaxThink contains more than 100,000 lines of Lattice C code. To do Windows, I'd first convert my code to Microsoft C and then rewrite all the keyboard, screen, and file access routines as my data structures and algorithms are already OK.

After all this, however, the intellectual processes for better thinking, writing, and planning are not improved in the slightest. Summary: While Windows may be fashionable, it does not extend MaxThink's capabilities!

Pull-down menus

Pull-down menus — I designed the MaxThink interface in 1983 , primarily modeling it after the interface in Microsoft's WORD. The advantage of this design is the screen contents are never hidden during any prompt to any command.

While the now-popular pull-down menus (circa 1986) and dialog overlay boxes may be simpler for beginners, their operations do hide text and screen information often important in prompt selection. Summary: While not hard to do, changing the basic interface may not serve the needs of experienced experts who remain the primary users of MaxThink.

Mouse

Mouse support — While in past years I've developed mouse versions of MaxThink for both the Macintosh and Atari machines, most of my operations in MaxThink (topic creation, level changes, topic movement) remained better handled by the arrows and function keys.

With large quantities of text, a mouse adds speed in editing existing text. However, in my use of MaxThink, I'm primarily work on the hierarchical relationships between single words or phrases that represent ideas in my mind. I call this the — lots of topics, each with little text mode.

Only after my structure is developed do I transfer it to my word processor for expansion into sentences and paragraphs. Furthermore, only after it is completely expanded do I begin the editing activities in which a mouse might be important. Why these three separate steps?

Combining editing with creative tasks is a recipe for disaster because the generation of ideas is severely crippled whenever you stop to dot an "i"! One major university reports that those who first turned off their monitor or typed with their eyes closed before editing produced better writing faster than those who combined their input and editing tasks. Summary: Mouse yes, but does it expand MaxThink? I honestly don't know!

Config files

CONFIG90.MT to CONFIG91.MT — During the first few months of a new model year, each car is made in a slightly different way . . . and it's the same with software.

While MAX91 represents my current thinking, its design is really frozen only after I'm sure it satisfies the needs of a large number of MAX91 users. That means if there is anything else you'd like in the program, let me know right now and I can put it in within the next few weeks.

Once I stop this temporary stage of weekly experimental changes, I'll then make a program to convert your CONFIG90.MT files to CONFIG91.MT. If needed, call me in a few weeks for your free config conversion program or for the latest version of MAX91.

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