

DYNASPELL

The Easy Way to Find
and Correct Spelling Errors

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i/A QUICK START

1.0.0 PREFACE: IF YOU CAN'T WAIT

DynaSpell is the easy way to find spelling errors in your writing. In fact, you'll most likely be able to run DynaSpell without reading this manual. If you would like to try -- type "SPELL <ENTER>". Then, answer the prompts and enjoy your new writing tool.

2/WHAT IS DYNASPELL

2.0.0 AN OVERVIEW

Misspelled words are deadly. In college journalism courses, they cost you grades. In business, they cost you sales. In publishing, they bring rejection slips.

DynaSpell finds your spelling errors fast and lets you check your text several ways. It shows you what it's doing along the way and beeps when it needs your help.

DynaSpell lets you check suspect words in context. When it spots a word that's not in its dictionary, it stops and points to the word.

DynaSpell then asks you what to do. You may Accept the word as is, Accept and Save it for use in an optional dictionary, or Replace it. If you can't make up your mind at the time, you may go to the next word by typing the letter "U" for "undecided." You may also type "L" for "Lookup" if you want to look for similar words in DynaSpell's dictionary. If you get tired of checking, just type "Q" and DynaSpell will return you to the menu.

To Replace a word, you simply type it correctly. DynaSpell saves the correction in a table and uses it when you write a new corrected file to your disk.

You only need to Accept or Replace a word once. If you don't want to read your text, you may Check suspect words one at a time. Misspelled words stick out like a sore thumb when they're surrounded by a blank screen.

DynaSpell lets you list the suspect words in your document on a terminal or printer. And, if you desire, you may even list the valid words that appear in your work. When you ask to see a list of valid words, DynaSpell lists the words from your document that were in the dictionary. This helps you by calling attention to words that you may have been trying to avoid.

DynaSpell lets you write a corrected file after you've replaced the misspelled words. The corrected file will have the same name as your original file.

DynaSpell reports the total word count and the number of common words in your file.

DynaSpell is fast and only takes 30 to 35 seconds to check a typical document. We used a two-megahertz 6809 system with eight-inch disks during testing. DynaSpell is even faster on a hard disk system. The dictionary compare takes about one minute on a Radio Shack Color Computer running OS-9.

Many months were spent assembling and verifying DynaSpell's dictionary. Each word was checked several times to insure accuracy. Unlike many spelling checkers on the market today, DynaSpell does not make up words by adding prefixes and suffixes to a list of common root words.

.SS

set Single Space mode

3/T

3.0

This command resets any previous Multiple Space command and returns printing to single space mode. It is equivalent to ".MS 1". Single spacing is the default mode of DynaForm.

.SP n

SPace n lines

This command causes the insertion of n blank lines, provided that there is room for n lines on the current page. If n is greater than the number of lines left on the current page, only enough blank lines to space to the bottom of the current page will be issued (as if a Begin Page command had been used instead). If n is omitted, one blank line is inserted.

.OP n

OverPrint n lines

This command causes the next n lines of text to be printed on top of each other, and can be used to cause certain special effects achievable by simple overprinting. For purposes of pagination, the overprinted lines are considered to count as one line. The default value for n is 2.

.. any text

Comment line

3.1

Any line beginning with two periods is ignored by DynaForm, and is neither printed nor acted on in any other way. This permits insertion of comments in a document file. Any unrecognized command is also treated as a comment.

.IG

IGnore to next "dot" command

This command permits the insertion of multi-line comments in a document. All subsequent lines, up to but not including the next line beginning with a period, are ignored.

English writing. When it finds one of these common words, it considers it correct and does not place the word in the unique word table.

The 1000 common words we used make up more than 50 percent of the words written today. This means that less than half the words in a typical document need to be stored in a unique word table. In fact, an average 1,000 word document contains more than 600 common words and leaves less than 150 unique words to be compared to the dictionary.

3.2.0 THE MYWORDS DICTIONARY

DynaSpell also lets you keep a list of words unique to your writing in a dictionary named, MYWORDS.DAT. It uses this dictionary each time you check a document and adds words to it automatically when you select the "Build" function from the menu.

3.3.0 THE CHECKING PROCESS

Once the unique word table is in place, the real work begins. DynaSpell then compares every unique word in your document to the 22,000+ words in its dictionary. Each word that is found in the dictionary is marked.

Words that remain unmarked are suspect and DynaSpell lets you decide their fate. An average 1000 word document usually leaves 20 to 30 suspects. Of these, 15 are often surnames.

4/DYNASPELL REQUIREMENTS

4.0.0 MEMORY

DynaSpell needs just over 29,000 bytes of memory in addition to that used by the OS-9 operating system. The Color Computer version requires just under 28,000 bytes. Double sided, double density disk drives are best. The single sided, double density disks on the Color Computer work fine however.

4.1.0 TERMINAL SUPPORT

DynaSpell needs a video terminal that displays at least 64 characters per line and runs at 9600 baud. At minimum, the terminal must be able to return the cursor to the upper left-hand corner of the screen and scroll the screen upward if a line feed is sent while the cursor is on the bottom line. An erase-to-end-of-line function, while not needed, allows faster screen displays.

The Color Computer version of DynaSpell uses shorter prompts and works with the standard Radio Shack 32 column display or with the various HiRes screens available from FHL. DynaSpell configures itself to fit the HiRes screen you are using if you have loaded the proper GoToXY routine. When checking long documents you should use the standard Radio Shack 32 column screen because it give you an additional 9,000 bytes for DynaSpell's unique word tables.

When you forget to load a GoToXY module into memory, DynaSpell will configure itself to your terminal. For this to work however, OS-9's terminal descriptor must contain the exact number of lines available on the screen.

4.2.0 SOFTWARE

DynaSpell uses the OS-9 operating system and several of its utilities. A GoToXY module should be present in memory and the printer device descriptor, "/P," must be available if you need hard copy.

5/INSTALLING THE SYSTEM

5.0.0 The Spell Command

First, copy the file named "spell" into your execution directory. Then, make sure that a copy of the OS-9 "dir" utility has been loaded into memory or is available in your execution directory. Any other OS-9 module you plan to call from the Shell menu option must also be in memory or in this directory.

DynaSpell checks documents saved in your current data directory.

5.1.0 DICTIONARY FILES

DynaSpell looks for its dictionaries in a directory named "SPELL". It expects to find that directory on a disk in device /d0. The three files, DICTIONARY.DAT, COMMON.DAT and MYWORDS.DAT must be in this directory.

If DynaSpell doesn't find the directory /d0/SPELL, it will issue a prompt:

Could not find a directory named "SPELL" on device /d0. Type pathlist of device holding this directory: /h0

This example shows how to answer the prompt. The answer, "/h0", assumed that the "SPELL" directory was located on a hard disk device named "/h0".

6/RUNNING DynaSpell

6.0.0 An Example

Suppose you have written a story and saved it in a file named MYSTORY in your current data directory. How would you check it for spelling errors?

Follow the example below. It should give you a good feel for how DynaSpell works.

First, type:

SPELL <ENTER>

DynaSpell will print a banner, load a few files from the disk and then ask:

Which Mode: [N]ormal, Auto (P)rint, or Auto (S)pool? Pick one: [N] <ENTER>, (P), OR (S)?

Now, hit the <ENTER> key and DynaSpell will respond by asking:

Which file would you like to check?

Answer by typing:

MYSTORY <ENTER>

If you forgot the name of the file you wanted to check, just hit the <ENTER> or <RETURN> key and DynaSpell will list your current working directory.

If you do this and still can't find your file because it is stored in another directory, type:

c <ENTER>

DynaSpell will then ask you to type the name of the desired directory. After you type the directory name, DynaSpell will change it for you and ask again for the name of the file you would like to check.

DynaSpell then proceeds:

DynaSpell is reading your text!

DynaSpell has found 126 words, including:

76 common words, and

28 unique words in your text.

DynaSpell is looking for your words in its dictionary. 15100 dictionary entries have been checked.

When DynaSpell finishes the dictionary compare it will print a menu and you may pick any one of 12 actions.

6.1.0 COMMAND LINE OPTIONS

Now, we'll show you a few options you can use when running DynaSpell. You run DynaSpell by typing an OS-9 command of the form:

```
Spell [ #memsize ] [ alternate GoToXY ]
```

6.1.1 REQUESTING MORE MEMORY

The first parameter is the standard OS-9 memory request. If it is left out of the command line, DynaSpell automatically reserves 19,000 bytes of memory for its COMMON and UNIQUE word tables.

When you don't request additional memory, DynaSpell uses 4,700 bytes of memory to hold the unique word table. This lets you check a text file containing up to 175 unique words and is more than enough for a typical letter or short story. Each additional page of memory you request makes room for 11 more words. Each additional "K" of memory gives you room for 45 more words. Here are two examples:

```
Spell #112 <ENTER>  
Spell, #28K <ENTER>
```

Both of these lines produce identical results. The first requests a data memory area containing 112, 256-byte pages or 28,672 bytes. The second requests 28K. One "K" is equal to four 256 byte pages so 28K equals 28,672 bytes also.

Typing either line above increases the capacity of the unique word table and lets you check a text file containing more than 800 unique words. To get an idea about the size of a document that contains 800 unique words, scan this Users Manual. Although it is more than 6,000 words long, it contains only 724 unique words. Remember, all common words are filtered out with the table COMMON.DAT.

If you have more memory, don't be afraid to use it. A #41K data request will let you use 1322 unique words. That's a lot of typing.

6.1.2 WHY REQUEST MEMORY?

DynaSpell slows down if you don't give it enough memory. This happens because the hashing operation takes much longer when the unique word table is more than 80 percent full. For this reason you should request as much memory as possible when running DynaSpell.

Since DynaSpell is designed to operate on OS-9, a multi-tasking, multi-user operating system, we bring it alive as a process with a unique word table which holds only 213 words. This is enough to check several pages of text, yet it leaves plenty of free memory so that you may run other programs concurrently. The chart below shows DynaSpell's capacity with a few typical memory requests.

CHART 1

Command Line	Spell	Spell #20K	Spell #24K	Spell #28K
Data Area (bytes)	17130	20480	24576	28672
Less Overhead	12440	12440	12440	12440
Unique Table Size	4690	8040	12136	16232
Unique Words	213	365	551	737

6.1.3 WHEN YOU DON'T ASK FOR ENOUGH MEMORY

If you don't ask for enough memory, you may see this error message:

Too Many Suspects! Please Request More Memory

If you see this message, run DynaSpell again and request more memory. Otherwise you may miss a few words and slow down the dictionary compare process by a factor of three or four.

6.1.4 SPEED VS MEMORY SIZE

Here's a comparison. We checked a 454 word file and found that it held 175 unique words. The first time we checked this file, we didn't request additional memory. The table ran 82.5 per cent full and DynaSpell took 39 seconds for the dictionary compare.

Then, we ran the same file again and requested #20K of memory. This time, the unique word table ran 47 percent full and it only took 31 seconds to do the compare. Requests for more memory had little affect.

The moral of the story, request enough memory to ensure that your unique word table runs no more than 75 to 80 percent full.

DynaSpell is re-entrant and the same module can be shared by several users on a multi-user system when enough data memory is available. On a 56K system, two users may run DynaSpell at the same time if neither one of them requests additional memory.

CAUTION. You must be sure that each user in a multi-user environment has his own working data directory.

6.2.0 ABOUT GOTOXY MODULES

The second parameter on the command line is also optional. It lets people with a multi user system use more than one type of terminal at the same time.

Consider the OS-9 command line:

Spell <ENTER>

When you type this command, OS-9 loads the module SPELL into memory and executes it. SPELL then attempts to link to another module named GoToXY. Since GoToXY must be in memory when you are using DynaStar or DynaSpell, it's a good idea to include an instruction that loads it for you in your OS-9 STARTUP file.

If SPELL does not find the module GoToXY and you have not requested an alternate GoToXY module in the command line, you will be asked to type the character string that homes the cursor on your terminal.

Operator initialization required. Please type the control sequence for home cursor then a CR.

If your terminal homes the cursor when it receives a Control R character, hold down the Control key on your keyboard and strike the "R" key at the same time. Then, hit the <ENTER> key.

Once you've done this, you'll be asked to type the character string that erases your screen from the current cursor position to the end-of-line.

Now type the clear-to-end-of-line sequence followed by a CR.

If your terminal doesn't have this function, answer with a <ENTER> and DynaSpell will print a series of blanks when it needs to erase to the end of a line.

6.2.1 USING ALTERNATE GOTOXY MODULES

To use an alternate GoToXY module, you must type a command line of the form:

Spell Go <ENTER>

or

Spell Go #28K <ENTER>

The first command line causes DynaSpell to link to a GoToXY module named GO rather than GoToXY.

The second command line also tells DynaSpell to use a GoToXY module named GO. It also requests an optional data memory size of 28K bytes. The GO module must be loaded into memory before either command is entered.

The format of the GoToXY modules used by DynaSpell is identical to those used by the DynaStar editor and is listed elsewhere in this manual.

If you type the wrong GoToXY module name in the command line and want to change it, just hit the standard OS-9 abort key. Most systems use Control E. When DynaSpell intercepts this key, it exits to OS-9.

6.2.0 SELECTING A MODE

Suppose you need to check the spelling of a long story before you mail it to your editor--but you're late for your coffee break. You may solve your dilemma by picking one of two automatic modes when you answer DynaSpell's first prompt:

Which Mode: [N]ormal, Auto (P)rint, or Auto (S)pool? Pick one: [N] <ENTER>, (P) or (S)?

Answering this prompt with an "N", "n" or <ENTER> lets you check the spelling of words in your text file interactively.

6.2.1 USING THE AUTO PRINT MODE

Typing a "P", or "p" selects the Auto Print mode. This causes DynaSpell to list the text file on your printer with ten back-arrows pointing to each word it couldn't find in the dictionary.

After printing the back-arrows, DynaSpell prints a carriage return, and three line feeds. The extra white space forces your eye to go directly to each possible mistake without searching all over the page.

When you come back from your coffee break you can read through the listing, checking possible mistakes at your leisure. If you're lucky, all suspected errors will be proper names and you can print a smooth copy of the story and mail it.

When exiting the Auto mode DynaSpell returns to the main menu so that you may make necessary corrections and write a new file immediately.

6.2.2 USING THE AUTO SPOOL MODE

When you answer the mode prompt by typing an "S" or "s", DynaSpell enters the Auto Spool mode. Auto Spool works just like Auto Print except it sends the output to a disk file so that you may list it to a terminal or printer later.

The file will have the same name as the text file you're checking with ".OUT" appended to it. After writing the file, Auto Spool returns you to DynaSpell's main menu.

If an ".OUT" file with the same name already exists, DynaSpell will ask you if it may delete that file before going ahead with the spool operation. Answer the prompt line with a "Y" or "y" if you approve. If you type any other character, DynaSpel returns you to the menu.

7/TEE DYNASPELL MENU

7.0.0 USING THE MENU

Would you like to see a list of words that DynaSpell could not find in its dictionary? Would you like to check those words one-by-one? Or, would you rather see them in context? You can take your choice using the DynaSpell menu.

After correcting any spelling errors in your document you'll probably want to write a new file. Or, you may want to save a supplementary dictionary made up of words you have checked and approved. You can do both with DynaSpell.

From the DynaSpell menu, a dozen actions are a keystroke away. Here's a preview of the screen.

What would you like to do now?
12 words were not in the dictionary and may be misspelled.

DynaSpell at your Service!

P=Print suspect words	C=Check words individually
R=Read a DynaStar file	F=Formatted read of Stylo file
U=Use additional dictionary	B=Build alternate dictionary
W=Write corrected file	N=check spelling in New file
A=pick Alternate directory	D=list current Directory
S=call OS-9's Shell	O=return to Operating System

You make your selection by typing a single letter. The valid choices are: P, C, R, F, U, B, W, N, A, D, S or O. If you type an illegal character, your terminal will beep and you'll be prompted again. You may type either uppercase or lowercase letters. A detailed description of each option follows.

7.1.0 PRINTING A LIST OF SUSPECT WORDS

The DynaSpell PRINT option lets you display a list of suspect or valid words on your terminal or printer. You tell DynaSpell where to send the list by answering the following question:

Do you want to list your words on the:
[T]erminal or (P)rinter?

Type a "T", "t" or <ENTER> to send the list to the terminal. A "P", or "p" selects the printer.

Anytime DynaSpell surrounds the first letter of a selection with brackets, you may select that option by simply hitting the <ENTER> key.

DynaSpell next asks if you want your list to contain suspect words or valid words.

Would you like a list of words that are:
[M]isspelled or (V)alid?

To see the suspect words, type "M", "m" or <ENTER>. To print the valid words, type "V" or "v".

The list of valid words contains only those words from your document that were placed in the unique word table. It can come in handy if you're monitoring word use in your documents as it may list the very word you've been trying to remove from your vocabulary.

Occasionally someone else may be using your primary printer. Or, you may want to send the list to another video display or a file. To make this possible, DynaSpell lets you select the printer device.

Hit <ENTER> for standard printer path [/p] or, type pathlist of alternate device -- (example: /pl):

If you want to send the list to your standard OS-9 printer, device /p, just hit <ENTER>. If you would like to send it to another device, type the device's name, then <ENTER>. If you really feel creative you may even send the list of words to a file by typing its pathlist.

Please note however, that this feature was added to make it easier for you to send the list to a device -- not a file. If you plan to send the list to a file be warned that the file that you name in the pathlist will be written over.

A file you write in this manner will be a mirror image of the same list sent to a printer. That means that it will contain line feeds and other characters normally not found

in a file. To list a file created by DynaSpell's Print function you will want to use the copy or merge command:

OS9: Copy listofsuspects /term

7.2.0 CHECKING SUSPECT WORDS INDIVIDUALLY

This routine lets you look at each suspect word one at a time. Only the word in question and a prompt line appears on the screen. A misspelled word sticks out like a sore thumb. The prompt line reads:

[A]ccept, [L]ookup, [R]eplace, [S]ave <SPACE>, [U]ndecided, or [Q]uit?

To Accept a word type: an "A", "a" or <ENTER>.

To Accept and Save a word type: an "S", "s" or hit the SPACEBAR. This tells DynaSpell to Accept the word and mark it for inclusion in an alternate dictionary. We'll tell you how to actually save these words in a file when we describe the Build option.

If you would like to see a list of similar words in the dictionary, type "L" or "l". DynaSpell will print any word that matches the first three characters and the last two pairs of characters in the suspect word. The algorithm used almost always finds the root of the suspect word when it is in the dictionary.

When you want to delay a decision on a word you may type "U" or "u" for undecided. When you do this DynaSpell will leave the word unmarked and go on to the next suspect. Please note that if you leave a word unmarked while using the Read function, you will be asked for the decision again if the word appears in the text again.

You may quit and return to the menu at any time during the checking process by typing "Q" or "q".

7.3.0 REPLACING MISSPELLED WORDS

The Replace function is one of DynaSpell's most important features because it allows you to correct a misspelled word without returning to an editor or word processor.

When you ask to Replace a word, you'll see this prompt:

Please type the correct spelling here:

When you see this message, type the word with the correct spelling, then hit the <ENTER> key. Be sure to use the proper case (upper or lower). DynaSpell uses the case you type when it writes your corrected file.

If you make a mistake before you hit <ENTER>, hit the line delete key and start over. You may also use the backspace key to back up and correct a character.

Make sure you type the word correctly when you replace a suspect. The word you type is the one that will appear in your corrected file.

7.4.0 CHECKING SUSPECT WORDS IN CONTEXT

You can check the style and content of your writing while DynaSpell looks for spelling errors with the Read function. You get to the Read function by typing an "R" or "r" from the main menu.

The Read option lists your prose on the screen until it comes to a suspect word. Then, it stops and points to the suspect.

This word is a misteak<-----

DynaSpell prints an arrow pointing to the suspect word, followed by three blank lines and the now familiar prompt.

[A]ccept, [L]ookup, [R]eplace, [S]ave <SPACE>, [U]ndecided, or [Q]uit?

Answer this question just like you did when you used the Check option. This time magic takes place in front of your eyes.

If you Accept or Save the suspect word, DynaSpell erases the prompt, moves the cursor to the start of the word and continues to list your text. If you Replace the suspect word, DynaSpell prints the correct word in place of the suspect word and continues.

Files edited with DynaStar and other text processors that store carriage returns at the

end of each line are output exactly as they appear on the file.

DynaSpell also lets you check files created by Stylograph and other text processors that don't store carriage returns. To check a Stylograph file type "F" or "f" for the Formatted read option. While listing a Stylograph file, DynaSpell automatically sends out a carriage return and linefeed when it finds a space near the end of a line.

7.5.0 USING ADDITIONAL DICTIONARIES

The DynaSpell Use feature lets you check the words in your document against additional dictionaries. When you select this option, you will be asked to type the name of the dictionary you wish to Use.

You will be returned to the menu after the dictionary has been checked. At this time you may then use the Check or Read options.

DynaSpell looks for additional dictionaries in your working data directory. If you have stored them elsewhere, you will need to type the complete OS-9 pathlist.

7.6.0 BUILDING ADDITIONAL DICTIONARIES

The Build function saves work in the future by adding words you have already approved to your personal dictionary. All words marked while Checking or Reading a file are saved here.

You may save these words in the dictionary file, MYWORDS.DAT or in a file unique to the subject matter of your document. DynaSpell gives you the choice with this question.

Shall we save the words you accepted in MYWORDS.DAT: [Y]es, [N]o?

To save your words in MYWORDS.DAT just type "Y", "y" or hit <ENTER>. If you hit any other key you will be asked for a file name?

What filename shall we use?

DynaSpell updates the file you select by adding the words you have marked to the end of the list. If the file you selected does not exist, DynaSpell will create one for you. It

expects to find the file, MYWORDS.DAT in the directory, /d0/SPELL.

7.7.0 WRITING A CORRECTED FILE

The DynaSpell Write option lets you send a corrected file to your disk after you have Accepted or Replaced the words in your text using the Check or Read options. Your corrected document will have the same name as the original.

7.8.0 REVIEWING YOUR CHOICES

When you make a mistake and approve a word accidentally during the checking process, DynaSpell gives you a second chance. To enter the review function type "V" or "v" from the menu. DynaSpell then shows you each of your actions and lets you change them when needed.

7.9.0 CHECKING ADDITIONAL TEXT FILES

DynaSpell lets you check as many text files as you desire from the menu. After you have corrected the spelling errors in your first selection and written a corrected version to the disk you may check the spelling in other documents by selecting the New option. Type "N" or "n" to do this.

After you have done this, DynaSpell clears the screen and asks:

Which file would you like to check?

Answer with the name of a text file in your working data directory or type a complete OS-9 pathlist. DynaSpell will check the spelling of words in the file and return you to the menu.

7.10.0 SELECTING AN ALTERNATE DATA DIRECTORY

You may change the working data directory by using this menu option. To do this, type an "A" or "a". DynaSpell will prompt:

Which data directory would you like to use?

Type an OS-9 pathlist naming the desired data

directory. If you have already started to check a file and intend to write a corrected file to your disk, do not change directories until you have written the new file.

CAUTION: Do not use the Shell option to change the working data directory because the OS-9 "Chd" utility will not return you to DynaSpell.

7.11.0 LISTING THE CURRENT WORKING DIRECTORY

Select this option by typing a "D" or "d" from the Menu. It displays the names of all files in your working data directory.

7.12.0 USING THE OS-9 SHELL FROM DYNASPELL

You may send a command to the OS-9 Shell by selecting this option. To do so, type an "S" or "s" from the menu. DynaSpell then prompts:

Type Shell command line here:

DynaSpell then calls the Shell with the line you typed. After the Shell executes your command, it returns control to the DynaSpell menu.

You may execute the Shell command as a concurrent process by ending the command line with an ampersand, "&".

You may temporarily exit from DynaSpell and enter an interactive session with the Shell by answering the prompt with the <ENTER> key.

After you do this you'll see the standard OS-9 prompt and may use any utility command you like if you have enough free memory. When you're ready to return to DynaSpell, answer the OS-9 prompt with the <ESCAPE> key. <ESCAPE> serves as an end-of-file marker for the Shell.

Here's a good use for the Shell option. Use it to let DynaForm print a file you have just checked, while you check another.

The Shell command option is very powerful and very dangerous. Be careful how you use it.

7.13.0 RETURNING TO OS-9

This option lets you return to OS-9 disk operating system. Just type an "O" or "o" from the Menu.

8/MISCELLANEOUS INFORMATION

8.0.0 FILES SUPPLIED WITH DYNASPELL

The disk you receive has two directories, "CMDS" and "SPELL". If you've ordered the source code, you'll also have a third directory named "SPELL.SOURCE."

The CMDS directory includes:

```
spell  
compress  
lk
```

The SPELL directory includes:

```
dictionary.dat  
common.dat  
mywords.dat  
dict.index
```

The directory SPELL.SOURCE includes:

```
spell  
spell.write  
spell.use  
spell.readfile  
spell.load  
spell.print  
spell.build  
spell.check  
spell.read  
spell.prompt  
spell.subroutines  
spell.strings  
spell.hash.dictionary  
spell.review  
spell.look  
compress  
makecom  
common  
dpequates
```

The file, "Spell" in the "CMDS" directory contains the actual program module. "Compress" is the program we used to compress the main dictionary. In the Color Computer version the program "LK" will only be present in the cmds directory if you have purchased the Look Up program.

In the "SPELL" directory, "dictionary.dat" is

the main dictionary. Common.dat is a mirror image of that table in memory. Mywords.Dat, as shipped, is a list of two words. Dict.index is an index for the directories.

All of the files in the "SPELL.SOURCE" directory except, compress, makecom and common are needed to assemble the program. Compress is the source file for the compress utility. Makecom is the source code of the utility that builds the common word table. Common contains the list of words in the file, common.dat.

8.1.0 DICTIONARY FORMATS

DynaSpell uses a compressed dictionary. However it can also read dictionaries made up of straight ASCII text.

In a non-compressed dictionary each word in the file is surrounded by a carriage return. A typical file looks like this:

```
an <CR>
and <CR>
andy <CR>
another <CR>
```

In the compressed dictionary the same words are stored in the following form:

```
an ($FF)
2d ($FF)
3y ($FF)
2oth ($6E)
```

In order to compress a dictionary in this manner, the words must be sorted into alphabetical order.

In addition to the compression at the front of a word, DynaSpell also uses a table of common suffixes to save additional space. In many cases, a word 13 characters long is stored in two bytes.

The file COMMON.DAT contains a mirror image of the common word table in memory. Each entry in the table is the same length and begins with a byte that tells the length of the word. If a word does not fill the record, the entry is padded with ASCII nulls.

8.2.0 ADDING WORDS TO DYNASPELL'S VOCABULARY

The best way to add words to DynaSpell's vocabulary is to save them into MYWORDS.DAT in the directory, SPEL1. From this menu you may use the Build option to automatically add new words to the dictionary each time you run DynaSpell.

If you need a dictionary made up of words specific to your working data directory, you can save a special dictionary in the directory. This dictionary can be called from the USE option. One of the methods of collecting new words is to use the BUILD option each time you run DynaSpell.

8.3.0 THE GOTOXY MODULE

DynaSpell uses a GoToXY module identical to the one used by DynaStar. This module is loaded into memory so that DynaSpell can link to it.

Here is a listing of the entry points for the 6809 subroutine module:

8.4.0

entry	bra gtxy
entry+2	fcb lines-per-page
entry+3	fcb chars-per-line
entry+4	fcb scroll ("1" if terminal scrolls)
entry+5	fcb length of clear-to-EOL sequence
entry+6	clear-to-EOL sequence
entry+6+n	fcb length of init. sequence
entry+7+n+m	terminal initialization
gtxy	equ *

When the subroutine is called, the X-register should contain the desired column position and the B-register should contain the desired row. The upper left corner of the screen is (1,1).

The byte at entry+4 is a flag that indicates if the terminal scrolls when a line is issued on the bottom line.

The string at entry+6 is used to clear the screen from the cursor position to the end of the line. The use of this function speeds up the use of the Read option. If your terminal does not have this function you must set entry+5 at "0" so that the program

8.5.0 COMMAND SUMMARY

1.0

2.0

3.0

3.1

3.2

3.3

4.0

4.1

4.2

5.0

5.1

6.0

6.1

6.1

6.1

6.1

6.1

6.1

6.2

6.2

6.2

6.2

7.0

7.1

7.2

7.3

7.4

7.5

7.6

7.1

7.7

7.8

7.9

7.1

7.1

7.1

8.0

8.1

8.2

8.3

8.4

8.5

8.6

8.7

Spell <ENTER>

This is the most common way to call Dyna.
It attempts to link to the module GoTo>
asks OS-9 for enough memory to build a
word table approximately 200 words long.

Spell Go <ENTER>

If this command line is used SPELL after
link to a GoToXY module named GO instead
of GoToXY. It uses the same memory defa
the first example.

Spell Go #28K <ENTER>

This command line tries to link Spell
to a GoToXY module named GO and requests a
data memory area of 28,000 bytes from
OS-9. This allows a unique word table which
is approximately 850 words.