

# ***DynaSpell***

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Distributed by  
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**DynaSpell**  
**The Easy Way to Find and Correct Spelling Errors**

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## Chapter 1.

# PREFACE: IF YOU CAN'T WAIT

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### QUICK INSTALLATION

1. Copy the files Spell and Lk from the CMDS directory of the distribution disk from OWL-WARE. The file named Spell also contains a module named gotoxy that will automatically configure Spell to work in an OS-9 Level II 80 X 24 text window. *DynaSpell* will also work in an 80 X 24 graphics window but screen updates will be much slower.
2. Copy the dictionary files from the SPELL directory on the OWL-WARE distribution disk to a directory named SPELL on your default drive, /dd.

**OS9: makdir /DD/SPELL**

**OS9: copy #48K /d0/spell/dictionary.dat /dd/SPELL/dictionary.dat**

**OS9: copy #48K /d0/spell/bigdict.dat /dd/SPELL/bigdict.dat**

**OS9: copy #48K /d0/spell/bigdict.index /dd/SPELL/bigdict.index**

**OS9: copy #48K /d0/spell/mywords.dat /dd/SPELL/mywords.dat**

**OS9: copy #48K /d0/spell/common.dat /dd/SPELL/common.dat**

Note: If you are operating on a double sided floppy disk system you will not be able to use the 102,000 word dictionary which is stored in the file bigdict.dat on its own disk. You must have a hard disk based system to use this giant dictionary.

However, on a double sided floppy disk based system you will be able to use an 80,000+ word dictionary. It is also supplied as part of the *DynaSpell* package.

*DynaSpell* is set up to check your prose against its 22,000+ word dictionary. This dictionary is stored in the file dictionary.dat. This check only takes about 25 -- 35 seconds on a Color Computer III running OS-9 Level II.

After this initial check when you are reading through your file in context or checking the individual suspect words, you can look up any suspects by typing an "L" or "I". This look up will be made in the 80,000 or 102,000 word dictionary -- whichever one you have copied into the file /DD/spell/bigdict.dat. This will approach will save you much time. However, if you would like to check your prose by running *DynaSpell* as a background task while you doing something else with your CoCo, you can rename the file bigdict.dat. *DynaSpell* always does its initial check against a file named /dd/spell/dictionary.dat.

When you copy the dictionary files into your /dd/SPELL directory, you must make sure to copy the correct index file. Both *DynaSpell* and Lk use this index to find your words quickly. *DynaSpell* expects this file to be named bigdict.index. Therefore if you are using the 80,000 word dictionary your copy command line must look like this.

**OS9: copy #48K /d0/dict80K.dat /dd/spell/bigdict.dat**

**OS9: copy #48K /d0/dict80K.Index /dd/spell/bigdict.index**

If you plan to use only the large dictionary, you will need to do two things. First, you must name the large dictionary, dict.dat. You must also name the index file that matches it dict.index. Then, you will need to patch the Spell module to cause it to use the file dict.dat instead of bigdict.dat when it looks up a suspect word for you. These files names begin at an offset of \$3B into the Spell module. Presently at that location you will find the names /dd/spell/dictionary.dat, /dd/spell/bigdict.dat and /dd/spell/bigdict.index.

*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 we you would like to try, type:

**SPELL**

Then, answer the prompts and enjoy your new writing tool.

## Chapter 2.

# AN OVERVIEW

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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 **A**ccept the word as is, **A**ccept and **S**ave it for use in an optional dictionary, or **R**eplace 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 **R**eplace 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 **A**ccept or **R**eplace a word once. If you don't want to read your text, you may **C**heck 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.

## Chapter 3.

# WORDS ARE BUT TOKENS

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*DynaSpell* separates your text into a list of distinct tokens that contain every word unique to your document. *DynaSpell* defines a token as a sequence of letters between special characters known as delimiters. Spaces, commas, periods, and colons are common delimiters.

*DynaSpell* counts an apostrophe as a letter and its dictionary contains most of the common contractions such as "I'm", "you're", etc. It also recognizes numbers within a word when the word does not begin with a number. Otherwise numbers are counted as delimiters and are not checked for typing errors.

*DynaSpell* treats hyphens as delimiters because they often appear in compound words like "German-American" or "great-grandmother." Each half of a compound word is counted as a separate word and looked up in the dictionary.

*DynaSpell* changes each letter in a word to lowercase before it looks up the word in its dictionary. It remembers the original case however and each character appears the same on your screen as it did in the original file.

After *DynaSpell* creates a list of unique words, it consults a dictionary to determine if each word is spelled correctly. In fact, it uses three dictionaries.

### **1. THE THREE DICTIONARY CONCEPT**

We used this approach for several reasons. First, each entry in the unique word table takes up the same amount of memory because it must be large enough to hold the longest word in the dictionary. Because the amount of memory in a small computer is limited, it can only hold a relatively small number of words.

Since common words are short, they can be stored in a table with shorter records. *DynaSpell* takes advantage of this and filters your text with 1000 of the words used most in 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.

## **2. 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. 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.

## Chapter 4.

# DYNASPELL REQUIREMENTS

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*DynaSpell* needs just over 29,000 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.

### 1. MEMORY

*DynaSpell* needs a video terminal that displays at least 80 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.

### 2. TERMINAL SUPPORT

*DynaSpell* configures itself to fit the screen you are using. 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.

*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.

### 3. SOFTWARE

## Chapter 5.

# INSTALLING THE SYSTEM

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### 1. SPELL COMMAND

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.

### 2. DICTIONARY FILES

*DynaSpell* looks for its dictionaries in a directory named "SPELL". It expects to find that directory on a disk in device /dd. The three files, DICTIONARY.DAT, COMMON.DAT and MYWORDS.DAT must be in this directory. If *DynaSpell* doesn't find the directory /dd/SPELL, it will issue a prompt:

Could not find a directory named "SPELL" on device /dd. Type pathlist of device holding this directory: /h0This example shows how to answer the prompt. The answer, "/h0", assumed that the "SPELL" directory was located on a hard disk device named "/h0".

## Chapter 6.

# RUNNING DYNASPELL

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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?

### 1. EXAMPLE USAGE

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 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>** 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 if 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. For example:

**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.

## **2. 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 GoGoXY]**

### **2.1 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.

### **2.2 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.

**TABLE 1**

**Unique Words as a Function of Memory Usage**

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

### **2.3 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.

### **2.4 SPEED VS MEMORY SIZE**

Here is 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.

### **3. 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 clears the screen when it receives a <Ctr> 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 an <ENTER> and DynaSpell will print a series of blanks when it needs to erase to the end of a line.

#### **3.1 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.

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.

#### 4.1 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.

#### 4.2 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, *DynaSpell* returns you to the menu.

## 4. SELECTING A MODE

## Chapter 7.

# THE DYNASPELL MENU

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### 1. 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=Ist 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.

## **2. 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: /p1):**

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**

### **3. 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".

### **4. 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.

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.

## **5. CHECKING SUSPECT WORDS IN CONTEXT**

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 mistake <-----**

*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.

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.

## **6. USING ADDITIONAL DICTIONARIES**

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.

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.

## **7. BUILDING ADDITIONAL DICTIONARIES**

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.

## **8. 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.

## **9. 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.

## **10. 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.

## **11. 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*.

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

## **12. LISTING THE CURRENT WORKING DIRECTORY**

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:

## **13. USING THE OS-9 SHELL FROM DYNASPELL**

**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 also very dangerous. Be careful how you use it.

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

## **14. RETURNING TO OS-9**

## APPENDIX I.

# IMPROVEMENTS TO DYNASPELL

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I. The OS-9 Version of *DynaSpell* now uses an improved method of reading your text file and the dictionary. As a result operation is more than twice as fast. Dyna-Spell now requires only 30 seconds to compare your unique words to its entire 22,500 word dictionary.

### Caution

II. It is possible to slow down *DynaSpell* if you do not request enough memory. As a general rule, it is best to ask for as much memory as possible when you run *DynaSpell*. If your unique word table becomes more than 75 to 80 percent full, the hashing operation takes much longer.

Since *DynaSpell* is designed to operate on OS-9, a multi-tasking operating system, we bring it alive as a process with a unique word table which will hold only 213 words. This is enough to check several pages of text. It also leaves more memory in your system so that you can run other programs concurrently. The table below gives you an idea of the amount of unique word space available in the unique word table when various amounts of memory are requested from the command line. To give you a good idea of *DynaSpell*'s capacity, the entire users manual, which is more than 6,000 words long, was found to contain less than 700 unique words.

If you see the error message, "Unable to Insert!", you should run *DynaSpell* again and request more memory, otherwise you may miss a few words. You will also slow the dictionary compare process down by a factor of three or four.

Note: See Table 1. If you have more memory in your system, you may use it. A #32K data request would give you the ability to handle 924 unique words a capacity that could handle a very large file.

### III. Speed vs Data Area

When a 454 word text file was run through *DynaSpell*, it was found to contain 204 common words. After duplicate words were accounted for, there were only 175 words left in the unique word table. When no additional memory was requested, the table ran 82.5 per cent full. It took 39 seconds to do the dictionary compare. When the same file was run again with a request for #20K of memory, the resulting unique word table was only 47 percent full. It took 31 seconds to do the dictionary compare. Request for even more memory had little affect. The moral of the comparison, request enough memory so that your unique word table is no more than 75 to 80 per cent full.

### IV. Default Dictionary Device

*DynaSpell* assumes that your dictionary is on device /dd. If it does not find it there, the device is not ready, or it is unable to find a device by that name, etc., it now prompts you for the name of the device holding the directory, "spell".

### V. Cleaner Exit

*DynaSpell* now intercepts a keyboard abort, a break signal or any errors during operation and reconfigures the TMODE pause and linefeed parameters to their value before *DynaSpell* was run. It then exits to OS-9 smoothly.