

SPELL-7 Spelling Checker

User Guide



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I. INTRODUCTION

SPELL-7 is a complete system to scan documents and other text files for spelling and typographical errors. The program comes with a dictionary containing approximately 30,000 of the most commonly used English words. Additional words may easily be added while scanning documents to accommodate any special vocabularies.

A. Program Operation

SPELL-7 may be operated as a standalone program or as an integral part of the WORD-7 Word Processing system (a separate product of Micro Research & Development, Inc.).

The program will scan any normal p-System™ text file to verify the spelling of all words against the builtin dictionary. Valid words that are not contained in the dictionary may be added as a document is being scanned, or just accepted for the duration of the particular document.

The screen display is simple and natural, requiring a minimum of learning time. The words of text are displayed as the document is scanned, and options to replace a misspelled word or add a new word to the dictionary are displayed when a word is not found in the dictionary.

It is highly recommended that the distribution diskette be copied onto a working diskette or hard disk and the original stored for backup purposes prior to using SPELL-7.

B. The Dictionary File

SPELL-7 works with two dictionary files: the "Master Dictionary" which contains approximately 30,000 of the most common English words, and the User Dictionary which contains words added during use of the program. Both files store complete words including plurals and all endings for spelling

accuracy.

There are actually two "compartments" in the User Dictionary for words. There is room for about 700 "User Words" which are quick to update. When this User Word limit is encountered, a separate utility must be executed to extend the dictionary size and free up space for another 700 "User Words". (see section entitled "Dictionary Utility Program").

In this manner the stored dictionary may grow practically forever to accomodate any special vocabulary. Storage of two separate types of dictionaries ensures maximum compression of the words stored on disk while maintaining very fast program execution time.

A separate Dictionary Utility program is provided to write all User Words or Extended Dictionary Words to a normal text file for analysis or processing by any other program. This utility may also be used to "preload" the dictionary with any desired vocabulary or to remove all user words. (see section below entitled "Dictionary Utility Program")

II. Running SPELL-7 as a Standalone Program

A. Starting the Program

SPELL-7 is executed in standalone mode by entering the letter X (for execute) in response to the standard system command prompt:

Command: E(dit, R(un, F(ile, C(omp, L(ink, X(ecute, A(ssem, D(ebug?

The system responds with the following question:

Execute what file? _

The file name and name of the disk containing SPELL-7 should be entered followed by RETURN (refer to the operating system manual for more details on program execution). Note that the dash (-) as in SPELL-7 is not included as part of the file name. In the following example the SPELL7 program resides on the disk named **SPELL:**

SPELL7 p=spell

B. Specifying an Input File

After the program is executing, the SPELL-7 screen display below prompts for the name of a text file to be scanned. This file may have any valid system filename, but must have a file type of "Textfile" as shown in the p-System™ Filer Directory Listing.

Input file name _____

The input file name is typed over the underlined positions with the left and right arrow keys used for positioning and correcting mistakes. Pressing the RETURN key sends the name to the program.

The input file name may be shortened if the name ends with the suffix ".TEXT" or the WORD-7 suffix "@D" by just entering the name up to the suffix. For instance, the file "LETTER1.TEXT" could be specified by just typing "LETTER1".

Pressing RETURN with a blank name will end the SPELL-7 program.

C. Where is the Dictionary?

SPELL-7 maintains two separate types of dictionaries as described above. The Master Dictionary file is named "SPELL7.FILE" and must reside on a mounted disk when the program is run. The system searches the current PREFIX first and if the dictionary is not found there, the BOOT disk is searched.

If the Main Dictionary is not found on either the PREFIX or BOOT disk, the system will search all mounted disk devices to find it. If the dictionary file isn't found on any mounted disk, the program ends.

The SPELL-7 User Dictionary is usually named "SPELL7.USER" and the search proceeds in a similar manner. However, if the file is not found on any disk, the program prompts for the dictionary file name. This feature allows the use of multiple User Dictionaries of different names if desired, but does require that the dictionary name be entered when the program is run.

D. The Screen Display

Lines of the file are displayed continuously as words are checked against the dictionary until a word is encountered that is not found in the current dictionary. At that point the display stops and the following option line is displayed:

```
XXXXXX - A-cept R-pace U-pdate Q-uit _
```

The encountered word is represented here by XXXXXX and any option is selected by typing the first letter. There is no need to press the RETURN key. Details of each option are described in the following section.

E. Options for Words not found in the Dictionary

The following options are available when a word is encountered which is not found in either the Master Dictionary or the User Dictionary. An option is selected by typing the FIRST letter of the option. The RETURN key by itself accepts the word as correctly spelled only for this one instance in the file.

1. Accepting a Word (A)

The "A - Accept" option accepts the displayed word as correctly spelled for this and all following occurrences in the document. This option is especially useful for the case of a person's name which is used throughout the file. It may not be desired to add the name to the dictionary, but the name should be remembered as correct throughout the file.

2. Replacing a Misspelled Word (R)

A word that is truly misspelled may be corrected by selecting the "R-eplace" option. Another line appears below the option line with the cursor placed on the first letter of the

misspelled word. The word can be overtyped with the correct spelling or even replaced with two or more words. In any case, the program will re-check any or all typed words to ensure that they are correctly spelled before proceeding.

3. Updating the User Dictionary (U)

If the word is spelled correctly and is fairly common in usage, the "U-pdate" option can be used to add it to the "User Words" portion of the dictionary. Be sure that the word is correctly spelled though, since the dictionary will gladly accept and store misspellings.

4. Quitting the Spelling Checker (Q)

The "Q-uit" option allows you to terminate the SPELL-7 program without scanning the remainder of the file. Note that this is an exceptional condition and is an especially useful "out" if a word is accidentally added to the dictionary when it should not be. The program will prompt for whether to actually perform updates to the dictionary. Any replaced words in the file will be discarded and the file will be left in its original state.

F. The Dictionary and Text File Updates

Once the entire input file is scanned, two different updates occur. Any words added to the dictionary via the "Update" option above will be physically added to the dictionary file at this time. A displayed message indicates the percentage use of the user words in the dictionary (i.e. The dictionary is 30% full). The Dictionary Utility should be used to reorganize the dictionary when the percentage of use approached 90%.

If any changes were made to the input file via the "Replace" option above, an option is presented to either update the entire file or not. Updating the file makes all replacements permanent and replaces the entire file on disk.

III. Using SPELL-7 with the WORD-7 Word Processor

SPELL-7 may be used directly with Version [3.1 d] and later versions of WORD-7. Earlier versions of the word processor may be upgraded at nominal cost by contacting Micro Research & Development, Inc.

A. The Spelling Checker Unit

The SPELL-7 program is contained in a program unit called SPELL7UNIT. This unit must be available to WORD-7 at execution time in one of three places:

1. Within the WORD7.CODE file
2. Within the SYSTEM.LIBRARY file
3. In another code file whose name appears in the current USERLIB.TEXT file

The SPELL-7 upgrade is generally shipped with an upgraded WORD-7 code file which contains the spell unit. Refer to the p-System Users' Guide for more information on using options 2 and 3 above.

B. Placement of the Dictionary File on Disk

The dictionary is located in the manner described above in "Where's the Dictionary?", starting with the disk that was defined as the PREFIX disk when WORD-7 was invoked. Once the dictionary is located, its location is remembered for the duration of a WORD-7 session.

C. Invoking SPELL-7 from the WORD-7 Main Menu

SPELL-7 may be invoked directly from the WORD-7 Main Menu by positioning the cursor in front of the SPELLING checker option and pressing RETURN. The program prompts for the document file to be checked and proceeds with the screen display described above for standalone operation.

D. Invoking SPELL-7 from the WORD-7 Filing Menu

The most convenient way to use the spelling checker is from the WORD-7 Filing Menu. In this case, a document is selected by positioning in front of the desired name, typing the letter "S" and pressing RETURN. The Filing Menu will be displayed again after the document is completely checked.

IV. Use of SPELL-7 in a Multi-User Environment

The Master Dictionary (named SPELL7.FILE) is a "read-only" file and may conveniently be placed on a shared, read-only disk for use in multi-user environments.

The User Dictionary (generally named SPELL7.USER) is initially empty and grows as documents are scanned and the dictionary updated with new words. It is both written and read and is generally not suitable for shared use in a multi-user environment.

V. The Dictionary Utility Program

A separate program named ^{UTIL}SPELL7~~USER~~.CODE is furnished to perform several maintenance and utility functions on the User Dictionary. This program does not affect the Main Dictionary (SPELL7.FILE).

New words may be added to the dictionary, existing words extracted from the dictionary, the dictionary space extended, or the dictionary completely cleared of all words.

The User Dictionary actually stores words in two different ways. As words are added, they accumulate in a buffer area which holds approximately 700 words. Words in this area are called "Internal User Words". The dictionary space may be increased by a reorganization process known as "extending" the dictionary and internal words that have been moved to extend the dictionary are known as "Extended User Words". These terms and the reorganization process are referenced below.

The utility program displays the following menu of options, all of which are described in the following sections.

SPELL-7 Dictionary Utility Program

Option _

- A - Add words to dictionary from words in WORD.USER.~~TEXT~~ D
- C - Clear internal words in user dictionary
- E - Extract only Internal user words to WORD.USER.~~TEXT~~ D
- F - Extract Internal and Extended words to WORD.USER.~~TEXT~~ D
- M - Move Internal user words to extend the dictionary size
- R - Remove all user words from the user dictionary
- Q - Quit

A. Adding words to Dictionary

This option is useful for initializing the user dictionary with words contained in an ordinary "Textfile" created by the System Editor, the WORD-7 Word Processor, or any other text editor program. It is important to ensure that words to be added are correctly spelled as the program will accept and store any words.

The text file named WORD.USER.TEXT on the current PREFIX disk should contain one word per line. Words need not be in any particular order and duplicates will be eliminated automatically.

B. Clearing the User Words

Option "C" eliminates all Internal User Words from the dictionary without affecting the Extended Words. A prompt is displayed for verification that this is the desired action to be taken.

One possible use of this option is to remove misspelled words that have been added inadvertently. Option "E" would be run first to move all words to a text file for editing. Internal words would be cleared with option "C" and then all correctly spelled words added again using option "A".

C. Writing User Words to a Text File

It is sometimes useful to create a file of all words that have accumulated in the dictionary and there are two separate options to do this. Option "E" will create a text file named WORD.USER.TEXT on the PREFIX volume which contains all Internal User Words, sorted alphabetically and written one word per line in the file. The resultant file may be edited by the normal System Editor or used as input to any other program.

Option "F" is similar but will write out all Internal and Extended words. Note that this can be a tremendous number of words and may require a large amount of disk space. This file

may be too large for some text editor programs, but may be used as input to any other program.

D. Reorganizing the Dictionary

There is only space for about 700 Internal words, while there is practically unlimited space for Extended words. Option "M" moves all Internal words to the Extended space and frees space for more internal words to be added. This option must be run periodically as words are added to the dictionary to extend the dictionary space for more additions.

E. Removing all Words from the Dictionary

This dangerous option completely empties the User Dictionary (both Internal and Extended words) and should be used with care. A prompt is displayed to protect against accidentally running this option.

This option is useful for eliminating misspelled words that have been added in similar manner to the "C" option above.

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**WORD7 Word Processing Program
User Manual Addendum**

1. The functions of left justifying, centering and right justifying lines (function keys F2, F3, and F4) while editing a document have been improved to be more flexible. Function key 2 now enters "Adjust Mode" where the current line may be shifted left or right by pressing the left or right cursor keys repeatedly. The line shifts one column each time a key is pressed. Once a line is "adjusted" to the proper column, Adjust Mode is ended by pressing the Accept key (F1), the adjust mode key (F2) again, or pressing ESC twice.

Adjusting several lines is very easy. The first line is adjusted to the desired column as explained above and then the down cursor key used to automatically adjust each succeeding line.

Another option within "adjust mode" is to type one of the letters "L, C, or R" to left justify, center or right justify lines respectively.

2. Another new editing function is called "Kolumn Mode" and is similar to Adjust Mode, but works only on the portion of the line from the cursor position to the right. Kolumn Mode can be used to shift part of a line to the right (which inserts spaces at the cursor position) or to the left (characters are removed at the cursor position). This mode is particularly useful for editing documents which contain columns of numbers where it is desired to shift the whole column to the left or right.

Kolumn Mode is started by positioning the cursor to the desired column and pressing the F3 key. The right and left cursor keys will shift the right part of the line to the right or left just as they do in Adjust Mode above. the up and down arrows may be used to move up and down and shift several lines. The Accept key (F1), the Kolumn Mode key (F3), or the ESC key may be used to end Kolumn Mode.

3. Along with the two new modes for the F2 and F3 keys, the "split line" command has been reassigned to the F4 key to be much more convenient. The "join lines" command is reassigned to the shifted F4 key on keyboards that can used function keys in conjunction with the shift key.
4. A new option on the Print Options screen allows you to be prompted at each page of a document and to either print the page or skip it.
5. The Document Selection Screen now gives the time that a file was last updated as well as the date.