

THE WRITE STUFF V2 FEATURING:

# BB Speller

## Fast Spell Checking

How fast depends on your system. Typical 1-3 page document: 3-9 seconds with 17XX RAM Expander; 12-30 seconds with 1581; 18-45 seconds with 1571; 25-75 seconds for 1541 with fastload cartridge/hardware; 80 seconds to 3.5 minutes with stock 1541.

## Fast Spell Correction

The time needed to check *AND* correct your document is the real bottom line, so *BB Speller* doesn't merely flag suspect words then force you to spent a lot of time flipping through the pages of your Webster's Second. Instead, *BB Speller* allows you to menu select the correct spelling from the *BB Dictionary* which is much faster and a whole lot more fun.

## 78,000 Word Dictionary

A small 17,000 word dictionary containing most common words allows for fast typo checking--just the thing for good spellers. Any words not found in the small dictionary can be checked by the large 61,000 word dictionary where poor spellers can menu select the correct spelling of their misspelled words. You can add 15,000+ words to (even delete words from) the dictionary.

## With BB Writer V2

New versions of *BB Writer* with *BB Speller* built-in supplement *BB Writer V1* with new and improved features such as support for up to five drives; improved Load Menu, input, and hunt routines; fast whole-disk copier; keyboard macros, form feed toggle, hard hyphens, and improved file conversion added to C-64 versions.



## GETTING STARTED

The following tutorial will step you through all of *BB Speller's* features. Rather than sticking the disk into the drive and trying to figure it all out by trial and error, you can save yourself some time and frustration by working through this tutorial section.

Note: The stand-alone version of *BB Speller* naturally lacks *The Write Stuff* word processor, so some features described in this manual do not apply. The following information, however, largely applies provided references to the word processor are ignored. Since users of the stand-alone version will not be able to type in text and instantly call up *BB Speller*, they cannot follow this tutorial section exactly. When asked to type in a line, call up the directory and load the file whose name is derived from the first few words of the phrase.

Insert your *BB Speller* disk into the drive upside down. *The Write Stuff V2* with *BB Speller* built-in is on the backside of the disk. The 128 version will autoboot on power up. Otherwise, type:

**LOAD"BB",8** <Press RETURN>

After loading, type:

**RUN** <Press RETURN>

C-64 users who have a 1541 and no fastload cartridge or other speed-up hardware should enter:

**LOAD"FAST BB",8** <RETURN>

**RUN** <RETURN>

When you see the cursor flashing under the main menu, type:

**This is a test.**

Now hold the SHIFT key down and briefly tap the UPARROW key next to the RESTORE key.

The prompt "Insert Dictionary Disk" appears, so remove the disk and turn it over. The dictionary is on the front side of your *BB Speller* disk.

Now press any key. There are two dictionaries on the disk: a small 17,000 word dictionary that contains the most commonly used words, and a large 61,000 word dictionary. The small dictionary, which is in seven files (ab, cd, eh, im, nq, rs, and tz), is checked first. One and two letter words are ignored, so in "This is a test" only "this" and "test" will be checked. Both are in the "tz" file (containing common words starting with t thru z), so only it is loaded. Since both words are in the small dictionary, and both are correctly spelled, *BB Speller* just returns you to normal edit mode after the two words have been checked.

Now, on a separate line, type:

**Yours truely,**

Yes folks, the word "truely" is truly misspelled, but please type the above exactly as shown. Press SHIFT-UPARROW again to call up *BB Speller*. This time the **Quick Check Menu** will appear with the word "truely" highlighted. In this case only one word is listed, but if there were other words not found in the small "tz" dictionary module, they too would be listed. The **Quick Check Menu** allows you to look over all the suspect words at once, rather than deal with them one after the other. Fair to good spellers can quickly spot and fix any typos. If the remaining words are all correct, they can be deselected all at once without having them checked by the large dictionary. This can save a lot of time.

Okay, press RETURN to fix the highlighted word. The **Correction Menu** appears. The suspect word is shown on the input line and in context. In the box are 15 words with the word alphabetically just beyond the misspelled word highlighted. In this case "truely" is highlighted, so press RETURN to select it. It replaces "truely" on the input line. If you wanted to capitalize the word or otherwise edit it you could do so now, but there is no need, so press RETURN again and you're finished. The message "Corrected" appears to indicate that a change was made during spell checking.

Move the cursor to "truely" and put the "e" back in by putting the cursor on the letter "l" and pressing INST (SHIFT-DEL), then typing "e". Do SHIFT-UPARROW again to call up *BB Speller* and press any key.

This time when the **Quick Check Menu** appears press SHIFT-RETURN instead of RETURN. Do SHIFT-RETURN if you know the correct spelling of a word and don't want to bother trying to find and menu select the correct spelling from the dictionary (it may not be in the small dictionary anyway). This is how you would fix most typos.

So, pressing SHIFT-RETURN from the **Quick Check Menu** puts the misspelled word on the input line for correction. Having done so, move the cursor over to the "l" and press DEL to delete the "e" and so change "truely" to "truly." Press RETURN and you're finished.

Put the "e" back in "truely" to create "truely" and call up *BB Speller* again. This time just press F1 when the **Quick Check Menu** appears. This will cause "truely" to be looked up in the LARGE dictionary. Since "truely" is not in the LARGE dictionary either, the **Quick Check Menu** appears again. If the correct spelling of a word isn't in the small dictionary and you don't know what the correct spelling is, you would want to press F1 to have it looked up in the LARGE dictionary.

Press RETURN to fix "truely." This time the correct spelling "truly" is at the bottom of the list as there are a number of words in the LARGE dictionary coming between "true" and "truly." Use the CRSR DOWN key to highlight the correct spelling. If "truly" was not shown you could scroll through the dictionary looking for it. Before making the correction, try pressing HOME one time, then CLR (SHIFT-HOME) one time. This moves the cursor to the top, then bottom of the box. If you press HOME twice, you will go to the first word in the module, or to the last if you press CLR twice. Pressing F7 and F8 allows you to flip through the dictionary 14 words at a time. If you

get the first three or four letters of a word right, finding the correct spelling should be easy--at least easier and faster than looking it up in a printed dictionary. If you can't find the correct spelling, press SHIFT-RETURN and fix the misspelled word.

Now below "Yours truly," enter:

**Jane Doe**

Call up *BB Speller*. This time the "cd" and "im" small dictionary modules will be loaded also. Since "Jane" isn't in the small dictionary, but you know it is correctly spelled, press the UPARROW key to skip it. Do likewise when "Doe" appears. By de-selecting words you know are correct, you avoid waisting time having them checked by the LARGE dictionary. If this was your name you would want to add it to the small dictionary, but do not add any words at this time.

Do SHIFT-UPARROW and call up *BB Speller* again. This time when the "Insert Dictionary Disk" message appears, hold the SHIFT key down and press any key. Keep holding the SHIFT key down and the Quick Check Menu will not appear while the small dictionary is being scanned. All words not found in the small dictionary will then be looked up in the LARGE dictionary. You would want to do this if you are a poor speller or if the file being checked is large with more words not in the small dictionary than you care to look at. Looking up all words in the LARGE dictionary takes longer, but minimizes the number of words you have to look at.

On another line type:

**responseability**

Is it correctly spelled? Want to find out without checking all the other words? Well, put the cursor anywhere on "responseability," hold the Commodore key (C=) down and press the UPARROW key. The appropriate module from the LARGE dictionary is loaded--in this case "re" which contains only words starting with "re."

It is also possible to check only the text from the cursor on to the end of text. Position the cursor on the "D" in "Doe" and press SHIFT-UPARROW. Press and hold the UPARROW key down (but not SHIFT) for a second or so until the "Checking small dictionary" message appears. Only the word "Doe" and beyond are checked. This is handy if you have already checked a document, then add a few more paragraphs--you can check only the added text.

Words can also be added in several ways, but before trying this feature out, make a backup copy of your *BB Speller* disk. If you have no whole-disk copier, one has been provided for you on the back of the disk.

**LOAD"FAST COPY",8,1**

This is a C-64 program for one 1541 drive. Be sure to copy both sides of the disk. You can file copy all files over to a 1571 or 1581 disk format if you have a file copier and 1571/1581 drive.

Before making your copy, you might want to load up a text file or type in some more text and play around a bit trying out the above

features. But! do plan on reading the following more detailed instructions so you will better understand *BB Speller's* features, and better understand why things work as they do. *BB Speller* was designed to accommodate the nearly opposite needs of both the very poor and the very good speller (even perfect spellers will need to check for typos). A poor speller trying to use *BB Speller* in a manner intended for good spellers may become frustrated and vice versa, so read on.

## Getting the Most Out of BB Speller

Once a dictionary module has been loaded into memory, very little time is spent looking up words. There are about 7,000 entry points into the dictionary modules, so to find "recommend" the search begins not with the first word in the module, but, in this example, with the first word beginning with "recomm," so on the average only about 10 words need to be looked at before finding a word or determining it is not in the dictionary. The limiting factor determining how fast *BB Speller* is, then, is not computer processing time (software), but how fast the modules can be loaded into memory. On a stock 1541, 80 seconds may be needed to check a short document. Of this time less than 2 seconds would be processing time. The other 78 seconds would be time used by the disk drive to load files. On very large files, a delay of 1-2 seconds may be noticed after each of the seven small dictionary modules are loaded, so processing time does increase with increasing file size, but is relatively brief compared to load time.

With a 17XX RAM Expander, a one page document can be checked in about three seconds, and single words can be check is less than one second--not counting the time, if any, needed to make corrections. Obviously if you want speed, the REU is the way to go. The main drawback is the three minutes or so needed to put the dictionary into the REU. If you do a lot of word processing, you can turn your monitor and drives off at the end of the day, and just leave your computer on if you plan to resume work the next day. The Busy Bee Bulletin Board uses a C-64/1764 which are left on for weeks on end, although the modem, drives, and monitor are only on in the evenings.

The second best alternative might be a 1581 drive. The document that took 3 seconds to check on a 17XX, would take maybe 12 seconds on a 1581--four times as long, but, hey, is 12 seconds really *too* long? C-64 users will not be able to tap the potential of the 1581 unless they get a cartridge that supports it (such as Super Snapshot), or a Burst ROM Chip (from Software Support International). Although slower than a REU, you won't have to wait for the dictionary to load--just pop in the disk.

The third and for many perhaps the best alternative is some sort of speed-up cartridge/hardware for your current drives, since these will make loading most other software a lot easier also. The dictionary consists of 43 PRG files that are LOADED into memory so as to take full advantage of any fastloader hardware you may have. Even faster than a speeding cartridge are products that replace existing ROM chips (such as JiffyDOS and PRODOS). For many users, especially C-64 users, some sort of drive speeder-upper is a must-have.

## USING BB SPELLER

### **Loading BB Writer V2 with BB Speller**

New versions of *BB Writer* with *BB Speller* built-in (along with other features detailed later) are on the backside of your *BB Speller Dictionary Disk*. These new versions supplement rather than replace V1, so you will still need V1 on occasion. For example, the file translation feature has been omitted from V2. File conversion is still supported (you can still load and save PRG, SEQ, and USR files containing PET ASCII, TRUE ASCII, or Screen Code), but if you need to convert files from other word processors and translate their embedded commands to *BB* format, you will need to use V1. Also both C-64 versions of *BB Writer V2* have less room for text, so some very large files created with V1 cannot be loaded into V2 (you will have to use V1 to split such files into two smaller files). Beyond a certain point new features can't be added without sacrificing some other feature. One solution is to have multiple versions, each with a different mix of features. This is better than omitting features entirely or cramming everything into one version that has everything except enough text area to write more than one or two pages.

The 128 version will autoboot, so insert your *BB Speller* disk upside down and power up or press the reset button. Both 40 and 80 column versions are on the disk. Which one loads depends on the position of the 40/80 DISPLAY key.

The C-64 versions, Version A and Version B, can be loaded in two ways:

**LOAD"BA",8 <RETURN> or LOAD"BB",8 <RETURN>**

**RUN <RETURN>**

See page 14 for information on the differences between the two versions.

If you don't have a fastload cartridge, a C-64/1541 software fastloader is on the disk. It quickly loads *BB Writer V2*, and is then disabled so as not to take away any memory from *BB Writer*.  
Type:

**LOAD"FAST BA",8 or LOAD"FAST BB",8 <RETURN>**

**RUN <RETURN>**

### **Loading Dictionary into 17XX RAM Expander**

If you have a 1764, 1750, or 1700 RAM Expander (REU), you can put the dictionary into it for 3-15 second spell checking. If you have the 1700 REU, only the small dictionary can be put into the REU. Even if you can put the LARGE dictionary into your REU, you may not want to.

It takes about 2-3 minutes to put the LARGE dictionary into the REU (2 for 128/1571 and 3 for 64/1541) and if you're a fair to good speller, the small dictionary may be all you need. The occasional odd word can still be checked using the LARGE dictionary as the small and LARGE dictionaries can be on separate drives. The small could be in the REU, device 9, and the LARGE in drive 10 or 8, for example. To change the default drive numbers you will need to call up *BB Customizer* (see "Using Multiple Drives" below).

The REU is used as if it were just another drive, so you can also use the leftover space to save your text files to. On a 1750 REU there will be over 1,400 blocks free for text storage.

128 users should power up before inserting the backside of their *BB Speller* disk, then DLOAD"RAM FC" and RUN it. Follow the prompts. If you will normally be putting the dictionary into the REU, DLOAD"AUTO-BOOT 128" and RUN it. You can then cause "RAM FC" to autoboot instead of "BB" by entering "RAM FC" as the file name and by indicating that it is a BASIC program. You could also file copy both the dictionaries and files on the backside of the disk to a 1571 formatted disk to avoid flipping the disk. Not all 128 users have a 1571, so your original disk is in two-sided 1541 format. If you just want to use your REU without putting the dictionary into it, DLOAD"RAM BB" and RUN it.

64 users with a REU will probably not be able to use it with any fastload cartridge they may have, so a software fastloader has been provided. LOAD"FAST RB",8 and RUN it. Follow the prompts. You can put only the small dictionary into the REU if you don't want to wait for the LARGE to load. If the software fastloader doesn't work on your system for some reason, or you have a hardware fastloader that does work with a REU, then LOAD"RAMBOOT",8 and RUN it.

## Using Multiple Drives

By default the *BB Speller Dictionary* is assumed to be in drive 8. If you are using a REU or have a drive 9-12, you can change the default dictionary drive number using *BB Customizer*. After loading *BB Writer*, tap CTRL, then "x" and select "Customizer" to call up *BB Customizer*. Select the "Drive" defaults menu and move the pointer down to point to the default for the small dictionary. Use "+" or "-" keys to change the value. No error checking is done, so enter only illegal values between 8 and 12. The LARGE dictionary can be in a drive or device other than the small dictionary. The "-U" file contains any words you may add and may be on yet a different drive. If you are using a REU, and the "-U" file is in the REU, you will have to remember to load the "-U" file (like any *BB* text file) and resave it to your dictionary disk before powering down. Alternatively you could have the small and LARGE dictionaries in the REU, yet have added words saved to disk. After changing the defaults, select "Save Defaults" if you want to make the changes permanent, or "Exit" to return to *BB Writer* without permanently changing the defaults. See page 13 for more about using multiple drives with *BB Writer*.



## Calling up BB Speller

There are several ways to call up *BB Speller*. Although one way would be simpler, most users will learn to appreciate the flexibility that having several options provides.

1. Press the SHIFT key, tap the UPARROW key, then let up on the SHIFT key. If the drive being used to load/save text files is the same as the dictionary drive, the message "Insert Dictionary Disk" appears. Otherwise the dictionary is assumed to already be in the designated dictionary drive and checking will begin immediately. The **Quick Check Menu** (see below) will appear to display any words not found in the small dictionary.

2. Hold the SHIFT key down, tap the UPARROW key, and continue to hold the SHIFT key down. As the seven files of the small dictionary are being loaded and checked, the **Quick Check Menu** will not appear. All words not found in the small dictionary will then be looked up in the LARGE dictionary. This minimizes the number of words you will have to look at. If you are a poor speller, or not in any great hurry, use this option and let *BB Speller* do most of the work.

3. Position the cursor where you want checking to begin, press SHIFT-UPARROW and continue to hold the UPARROW key down for about one second until the message "Checking small dictionary" appears. Use this option if you have already checked a file, but have added text to it and want to check only the added text. Since all text from the cursor on is checked, any text below the added text will also be checked. To avoid this you could add the text to the end, check it, then move it to where you like, or enter the new text in an alternate text area--in which case option 1 above could be used. Be sure to put the cursor at the beginning of a word. If the cursor was in the middle of the word "middle" then "dle" would be considered a word and flagged as suspect. If you continue to hold the SHIFT key down, then, as in option 2 above, the **Quick Check Menu** will not appear as the small dictionary is being scanned.

4. Press and hold the Commodore (C=) key down and tap the UPARROW key. The word under the cursor will then be checked. If you have already checked a file, then add a sentence or so and are unsure of one or two words, you could use this option to check only the word(s) you are unsure about.

## Quick Check Menu

The *BB Speller* dictionary consists of 43 files or modules--seven in the small and 36 in the LARGE dictionary. Unless you are holding the SHIFT key down while the small dictionary is being checked, the **Quick Check Menu** will appear after each module has been loaded to display any words that were *not* found in that module. Why? Speed. It is faster to look over a short list of suspect words rather than deal with them one after the other after the other after the other...

Let's say the following words not found in the small dictionary module "ab" (containing only *common* words beginning with "a" and "b")

are listed by the **Quick Check Menu**.

afterlife  
Arizonan  
artwork  
banjo  
Brazil

If you can read 300 words per minute, it should take you about a second or so to look over this list, and if you are a fair to good speller you will recognize that all are spelled correctly. Since all are correct, you could tap the F7 key once (or SHIFT-UPARROW), and precede to the next module without further ado. Not only is this obviously faster than dealing with each word one by one, but by indicating that all are correct, none will have to be looked up in the LARGE dictionary, and that can save you a lot of time--especially if you have just a 1541 drive with no fastloader. Of course, if you are using a RAM expander, all words not in the small dictionary can be checked by the LARGE dictionary faster than you can look at them, so you would want to skip the **Quick Check Menu** by holding the SHIFT key down while the small dictionary was being scanned.

If you are a poor speller, you may not know if any of the five words are correct or not, so you would press the F1 key to have all of them looked up in the LARGE dictionary. Actually, if you are really a poor speller, you would probably be better off holding the SHIFT key down while the small dictionary was being scanned and so not waste any time and effort puzzling over whether the words listed are correct or not--let *BB Speller* do the work. If you never want to see the **Quick Check Menu** and find holding the SHIFT key down too arduous, you can go to *BB Customizer* and at the bottom of the "Drives" menu, set a flag to prevent the **Quick Check Menu** from listing words not found in the small dictionary.

If you are a fair speller, you may know that some of the words at least are correct. If you knew that "afterlife" was correct you could press the UPARROW key to delete it from the list. This would be faster than having the LARGE dictionary look it up (unless you are using a REU). If you are in a hurry, you can help out *BB Speller* by indicating which words are correct. If you're in no hurry and feeling lazy, just hit F1.

Let's say that after the next module ("cd") loads, the following words appear.

could  
develope  
disputatious

The first word should be "could" and is clearly a typo, so you would press SHIFT-RETURN to edit out the extra "o". This would be faster and easier than trying to menu select the correct spelling from the dictionary. You may or may not know whether the second word is correct or not, but since it is a common word, yet not in the small dictionary, you might suspect it is incorrect. Assuming it probably is misspelled and that the correct spelling will be found in the small dictionary, you would press RETURN to call up the **Correction Menu**, then menu select the correct spelling (which is "develop"), and

so fix it now rather than later after the LARGE dictionary had checked it. The third word probably isn't in the small dictionary, so if you were unsure if "disputatious" was correctly spelled or not, you would press F1 and let the LARGE dictionary look it up. If it were misspelled, it is in the LARGE and not the small dictionary that you will probably find the correct spelling. If you are a good speller, you'll already know "disputatious" is spelled correctly and so can press F7 or UPARROW to skip it and save yourself some time. Such is your reward for being a good speller.

If, from the **Quick Check Menu**, you just want to view a word in context and return to the **Quick Check Menu**, then press SHIFT-RETURN, look at it, and press SHIFT-RETURN again.

## Correction Menu

The **Correction Menu** is called up when needed from the **Quick Check Menu** by highlighting the misspelled word and pressing RETURN or SHIFT-RETURN. Press SHIFT-RETURN to put the misspelled word on the input line for editing. If the word is a typo or you know the correct spelling, this is usually the best way to fix it.

Press RETURN if you don't know if the suspect word is correctly spelled or not. A list of words alphabetically close to the misspelled word will appear. If you spot the correct spelling among the words listed, use the CRSR UP and DOWN keys to highlight it, then press RETURN to select it. CRSR RIGHT is the same as CRSR UP and may be easier to use. If you "push" against the top or bottom of the box, additional words will scroll into view. You can also press the HOME key to move the cursor to the top of the box, or CLR (SHIFT-HOME) to move it to the bottom of the box. If the cursor is already at the top, pressing HOME will take you to the first word in the dictionary module. If the cursor is at the bottom, pressing CLR takes you to the last word in the module. Pressing F7 and F8 allows you to flip through the list 14 words at a time. If the first three or four letters are spelled correctly, you should not have to search far.

If you can't find the correct spelling in the LARGE dictionary, you'll have to look it up in a printed dictionary and press SHIFT-RETURN to edit the original word. If the word is correct but not in the dictionary, press F3 to return to the **Quick Check Menu** where you can either add the word or skip it.

## Adding New Words

There are four ways to add words. Why? Well, because you can either add one word or all the words listed by the **Quick Check Menu** in two different ways. Added words are APPENDED to either the appropriate dictionary module *and* to the "-U" file, or to the "-U" file only. The "-U" file is a BB text file on the dictionary disk. The added words are not compressed, so adding to both takes up more space on the disk, as well as more time. All added words are appended to the "-U" file, and, optionally, to the dictionary. Appending to the "-U" file only is faster and uses less disk space, but added words will not be recognized until you load and run a utility that will merge

the added words into the dictionary. Appending to both the "-U" file and the dictionary is slower and uses more disk space, but the added words will be recognized the next time you call up *BB Speller*.

When you first start using *BB Speller*, use it to spell check any text files you may already have. Initially you will be adding many words, so you should add them only to the "-U" file. As you check the files, look over the words not found in the small dictionary and add only those words that are likely to crop up in many of the documents you will be writing. Do this by highlighting the word and pressing the "+" key. This will append the word to the "-U" file only, so as you check various files, the words you added may keep cropping up. If you add the same word more than once, don't worry--duplicates will be eliminated when the added words are merged into the dictionary.

To add more than one word listed by the **Quick Check Menu**, it may be faster to delete the words you don't want to add using the UPARROW key, then press the "a" key (not capital "A") to add all the words listed to the "-U" file.

The small dictionary is suppose to be small. It is not suppose to contain every word you may know. Add your name, the names of those you write to often, words in your address, any favorite words you use a lot, and not much else. A few common words may have been overlooked when the small dictionary was compiled and you'll want to add them, but you should not add more than a hundred or so words even though you could add several thousand. The small dictionary's job is to: a) cut down the number of suspect words enough so typos can be spotted and, b) to reduce the number of words that need to be looked up in the LARGE dictionary. Small is beautiful, so keep it small. Remember, you can hold the SHIFT key down if you don't want to see the words not found in the small dictionary.

The large dictionary has about 61,000 words. This is quite enough--50,000 might be more optimal, though many seem to subscribe to a bigger is better view. Beyond a certain point bigger is just slower. The number of words that can be added is mainly limited by disk space. On a 1541 disk, you should be able to add 15,000 or so words. The modules average about 13 blocks and could be 8K or 32 blocks each except that due to a problem with RAMDOS which corrupts some RAM under ROM, the maximum size should be limited to about 28 blocks if a REU is used. On 1571/1581 disks, expanding to 100,000+ words is possible though hardly necessary considering that most people have a working vocabulary of about 15,000 words--the number of words Shakespeare used in writing his complete works.

## **Merging Added Words into Dictionary**

After you have added a bunch of words to the "-U" file, load it as you would any text file. You will note that all the added words are in lowercase and are preceded by either a capital "S" or "L". The "S" means the word will be added to the small dictionary, and the "L" causes the word to be added to the LARGE dictionary. Look over the words and make sure they are in fact spelled correctly! Delete any that you have inadvertently added or have added to the wrong dictionary. You can also add words, such as variants of words, at this time. If you have added "Wichitan" you may as well add "Wichitans" as well (no capitals, so in the "-U" file they would

appear as "Lwichitan" and "Lwichitans"). Because of the way the dictionary is compressed, adding "s", "ed", and "ing" variants of words will usually take up no extra space, so you may as well add them. The two words above would add only one byte to the "wa" file.

If you have or can obtain a specialized word list, such as a list of medical or legal terms, you could convert the list to the "-U" file format by doing a search and replace--search for BACKARROW and replace with BACKARROW-L to put an "L" in front of each word. Users who come up with a "-U" file of special terms could share it with other users by uploading it to bulletin boards or by sending it to Busy Bee Software--we'll send you a disk back with something of interest on it and make your word list available (as Public Domain) to users around the world.

When the "-U" file has been checked out, resave it, and power off. 128 users must power back up in 64 mode. Load the merge utility from the back of your *BB Speller* disk and RUN it.

**LOAD"MERGE USER->DICT",8 <RETURN>** (or **LOAD"MERGE\*",8** will do it)

**RUN <RETURN>**

This is a C-64 program, although when RUN on a 128 in 64 mode, FAST mode will be used. The program allows you to merge the words in the "-U" file into one or all of the dictionary modules. Doing all 43 modules may take up to an hour, but everything is automatic so just plan on taking a break. The small and LARGE dictionary can also be done separately. If no words are to be added to the small dictionary, then skip it. As the modules are processed (loaded, decompressed, new words added, words sorted, duplicates eliminated, words recompressed and saved) a running count of the number of words is kept. If you are doing both small and LARGE dictionaries, the count will go to 65535 then reset to zero. After all modules have been done the count might read: 12576. The true total would then be 65535+12576 or 78111 (the total of both small and LARGE).

If you elect to do one module, you will be asked for the two letter name of the module. Enter one of the following:

Small Dictionary: ab, cd, eh, im, nq, rs, tz

LARGE Dictionary: aa, an, ba, ca, co, cp, da, de, df, ea, fa, ga  
ha, ia, in, io, la, ma, na, oa, pa, po, qa, ra  
re, rf, sa, sh, sp, su, ta, tr, ua, va, wa, xa

The LARGE dictionary module names are taken from the first two letters of the first word in the file, so "aa" contains "aardvark" to "amylase." After the module has been loaded, decompressed, and new words added, you will be asked if you want to delete a word. If so, you enter the word or some part of it, and then use the cursor keys to scroll up and down through all the words. If you see a word you want to remove from the dictionary, press the "d" key. More than one word can be deleted, or you can press F1, return to the first question, and then reenter the word list at a different point. If you don't want to delete a word, the words are recompressed and the module saved.

If you have two drives, you can format a disk and have the new version of the dictionary saved to it. This eliminates the need to scratch the old modules before saving the new ones, which saves time.

Be sure to put the "-U" file on the new dictionary disk.

After merging your new words into the dictionary, load *BB Writer*, load the "-U" file, then rename it (to, for example, "-U 9/21" by adding the date to the first line which is the autosave feature), and save this file on another disk as a backup. This is important since if anything should happen to your dictionary disk, you could go back to the backup copy of *BB Speller* you made (right?) and make another copy, then merge all the words previously added back to reconstruct the dictionary disk that went bad. So one important function of the "-U" file is to allow you to save an archive copy of the words you add just in case...

After archiving your added words, delete the added words, change "n@0:-u 9/21" back to "n@0:-u", then resave the "-U" file to the dictionary disk so it is ready for more words to be appended to it. If this sounds too complicated, load the file "-U FILE RESET" and resave it.

Users of the stand-alone version who cannot load the "-U" file into their word processor should scratch the "-U" file after the added words have been merged into the dictionary, then file copy the original "-U" file from their backup copy over to the dictionary disk the new words have been added to.

## Limitations of Spell Checkers

Spell checkers do not check for proper word usage. If you write, "They don't no if ewe new there deer sun or knot, but weather you do or you didn't, i two wood like to fined out." All the words are spelled correctly, but most are misused. Spell checkers also do not, indeed cannot, check for correct capitalization. So, "Ft. worth is worth seeing" involves an error you'll have to fix.

*BB Speller* does not check one or two letter words. There are so many abbreviations and acronyms that any two letter combination is likely to mean something. Two letter typos are pretty obvious and should be easy to spot during proofreading.

Hyphenated words are considered separately, so "middle-aged" is checked as two words. An error like "Middle aged man" would not be flagged as it is an error in usage, not spelling.

Apostrophes are considered as if they were SPACE characters separating words, so "wouldn't" is checked as "wouldn" and "t" which is ignored because "t" is only one letter long. If you scroll through the small dictionary you'll find some pseudo words like "didn" and "shouldn." This takes care of the few contractions and eliminates the need to add many thousands of words like "dog's (bowl)" and "cat's (toy)" that would be needed if apostrophes were considered to be a letter in the alphabet. An error like "have't" for "haven't" won't be found.

Any "word" ending with a number (ie. "file5") will not be checked.

## USING BB WRITER

### Loading BB Writer V2 with BB Speller

New versions of *BB Writer* with *BB Speller* built-in are on the backside of your *BB Speller Dictionary Disk*, and instructions for loading them have been covered on page 5. Except for the added features discussed below, look to your main *TWS* reference manual for information on how to use the vast majority of *BB Writer's* features and especially to the tutorials on the V1 disk. Users of the stand-alone version of *BB Speller* may ignore the following.

### Added Features

#### Multiple Drives

New and improved support for multiple drives has been added to both the 64 and 128 versions of *BB Writer V2*. The use of multiple drives with *BB Speller* has already been detailed on page 6.

From within *BBW V2*, tap CTRL, then press SHIFT-D. You have the option of using drive/device A, B, C, D, or E. You could also change the device number of drive 8 to 9 if you needed to.

Up to five drives, A-E, are supported. Letters are used instead of numbers to refer to drives for greater flexibility. Drive/device A, for example, is Device 8/Drive 0 by default (as in LOAD"0:NAME",8), but it could be Device 12/Drive 1 (as in LOAD"1:NAME",12). Any combination of single 15XX drives, dual drives, or 17XX RAM Disk is thus supported.

Tap CTRL,Sh-D and you will notice that the cursor is on the "B" drive. If you select it, the message "Drive 9" appears at the bottom of the screen since, by default, "B" is Drive 9. Now tap CTRL,Sh-D again and you'll notice that the cursor is on the "a" drive. Press RETURN to select it. Drives A and B toggle back and forth this way to make it easier for you switch between two drives. In fact, since in V2 the keyboard macro feature is ON by default and has been added to the 64 versions, you can just press C= Z (hold Commodore key down, press "z" key) to toggle between drives A and B. Try it, but if you have no Device 9, be sure to end up on Drive 8 when you are finish playing around. By defining additional keyboard macros you can have one key access to up to five drives.

The defaults for Devices A-E can be changed using *BB Customizer*. From within *BBW V2*, tap CTRL, then press "x" and select "Customizer" or "Printer Customizer." Make sure you insert the V2 program disk (on backside of *BB Speller* disk). A new defaults menu has added called "Drives." Select it, point to the default value you want to change and press the "+" or "-" keys to change the value. From the menu at the top, select the BACKARROW to go back to the first menu, or "Exit" to return to *BBW V2* without saving the defaults--you can always tap CTRL,x later to save the defaults. If you change the *BBW* program disk from 8 to 9 (etc.), *BB Customizer* will still save defaults to 8 (the drive it loaded from), so "Exit" back to *BBW* and "Save Defaults" to 9 from there.

## **New Input Routine**

The input routine now supports CRSR RIGHT, CRSR LEFT, INST, and DEL for easier editing. When you are asked to type in a file name, or a Search & Replace phrase, correcting mistakes will be easier. You can still enter Reverse Video (RVS) characters by tapping the CTRL key to toggle in and out of RVS mode, but the cursor will not change to indicate whether you are in RVS mode or not. This should cause no problems in practice. If you don't know which mode you are in, you will when you type in the next character.

## **Improved Hunt**

Doing CTRL,SHIFT-H and entering a hunt phrase in lowercase followed by SHIFT-RETURN results, as in previous versions, in a caseless search. Enter "auto" then SHIFT-RETURN and "auto," "Auto," and "AUTO" will all be found (when you do CTRL,h). Now words containing soft hyphens will also be found. Enter "automatic" [SHIFT-RETURN] and "Automatic" and "auto-matic" will be found (where the "-" would be in reverse video as all soft hyphens are).

## **Improved Load Menu**

When the Load Menu is nearly full, you might consider starting a new data disk even if there is some space left on the old one. But if you must fill up the disk, the Load Menu will now, when it has filled, ask you if you want to see the remaining files on the disk. If you do, another page of file names will be displayed.

## **The New 128 Versions**

The 128 versions were jammed-packed with features to start with, so apart from the above (and integrated *BB Speller* of course), no new features have been added, though one feature was deleted. As explained on page 5, the file translator (but not file converter) feature had to go to make room for the spell checker. Actually, removal of the file translator wasn't quite enough, so in the 80-column version the buffer area has been reduced from 16K to 13K, and the alternate character set has been omitted from the 40-column version. All other features remain, including the same sized text area. Both 40 and 80-column versions are on the back of your *BB Speller* disk. Which one loads is determined by the position of the 40/80 DISPLAY key.

## **The New 64 Versions**

Many improvements have been made to the 64 versions of *BBW V2* in addition to those mentioned above. There are in fact two versions, each with a different mix of features. Version A "has it all" and so has a relatively small 15K text area--still larger than many other commercial word processors. Most users seem to write mainly letters and other small 1-2 page documents (5-20 blocks), so 15K (59 blocks) is quite enough for most users most of the time. Still, the features missing from Version B (mail merge, sort, Dvorak keyboard, alternate



screen font) are so infrequently used by many users that Version B with 19K of text might be the version of choice for most users, most of the time. Reducing the number of word macros can increase the available text area in both versions by about 1K.

As with the 128 versions, and as previously explained on page 5, the file translator (but not file converter) feature has been removed from *BBW 64 V2*. The file translator is a feature that takes up a lot of memory and would normally only be used by those making a switch from *Brand X* word processor to *TWS*, and then only initially during the time the switch was being made. If you need this feature, it is still available in V1.

## File Conversion

Although the file translator has been removed, file conversion has been improved. To load a non-BB text file, tap CTRL,l (letter el), enter a file name (delete hyphen if necessary), and press SHIFT-RETURN instead of RETURN. When text is displayed, select "Screen Code" if it looks normal, "PET ASCII" if lowercase letters are capitalized and letters that should be capitals are in reverse video, and select "True ASCII" if most of the text is in Commodore graphic characters.

To save a file in non-BB format, tap CTRL,s and enter a file name (normally without the hyphen), then press SHIFT-RETURN instead of RETURN and follow the prompts.

## Form Feeds

Tap CTRL,SHIFT-F to toggle form feeds on and off. Form feeds [CHR\$(12)] cause many printers to eject the page after printing. When form feed is ON, then *BB Writer* will send a CHR\$(12) at the end of each page instead of sending a given number of Carriage Returns to create the bottom margin and bring the paper up ready for the next page. This is useful if you will be changing the line spacing pitch within a page. Be sure to "Set Top of Form" manually or by sending control codes so your printer knows where the page is suppose to begin. The zero macro (as in 0=27,64) is best used for this purpose as it will automatically send the codes before printing begins.

## BB Customizer

*BB Customizer* can now be called up from within *BBW V2*. After changing various default settings, you can then return to *BBW* without affecting any text in memory. Tap CTRL,x and select "Customizer." Be sure to insert your *BB Speller* disk upside down before attempting to exit to *BB Customizer*.

## Hard Hyphens

When word-wrap occurs, compound words such as *quarter-hour* and *pre-existent* will be broken at the hyphen. This is what you would normally want to occur, but sometimes you would not want word-wrap to occur at the hyphen. You would not want A-Z or *SHIFT-A* to be broken at the hyphen. In such cases a hard hyphen can be used. Tap CTRL,l,SHIFT-\* to enter a hard hyphen. Word-wrap will not occur at a hard hyphen.

## Keyboard Macros

For users wanting to maximize their productivity, this is by far the best feature added to V2. Operations that formerly required 2-4 keystrokes, can now be reduced holding the Commodore key (C=) down and pressing one other key. This is not as easy as pressing one key, but not as time consuming as pressing two keys, so C= [key] is the equivalent of about one and a half keystrokes (like doing SHIFT [key] for capitals which some count as one keystroke). Saving one or two keystrokes here and there may not seemed like a big deal, but to experienced users who spend a lot of time tapping away, it is.

Keyboard macros allow you execute keyboard commands or enter embedded format commands in the fewest possible key strokes. By default, this feature is ON. Tap CTRL, Commodore-K to toggle this feature on and off. When off, you can enter all the Commodore graphic characters. When turned on, pressing the Commodore key and any of 60 keys (except for SHIFT, C=, RESTORE, CTRL) will execute a user-definable keyboard command.

Tap CTRL, hold the Commodore key down, and press "D" to define a new macro. You will be asked to press the key you want to define. The key may be any unshifted key such as the a/A key, the CLR/HOME key, or the F1/F2 key.

After pressing the key to be defined as a macro, you are asked to enter up to four characters you want the macro key to stand for. These are the keys you would press after entering command mode. Most commands require fewer than four key strokes to execute, so after entering one or two keys you will have to press CTRL to exit.

Main menu selections can also be accessed by entering an UPARROW as the first character in the macro. An UPARROW,1 (e1) would, therefore, call up the Load Menu.

### Example 1:

To get a word count you would normally tap CTRL, then the "=" key. Pressing Commodore,"=" is slightly easier, so tap CTRL,C= D and press "=" when asked to press the key to be defined, then "=" again when asked to enter up to 4 keys, and then CTRL to exit.

### Example 2:

To exit to BASIC you could tap CTRL,x and press "b" to exit to BASIC. Or you could create an Exit-to-BASIC command by defining C= x to do the same as CTRL,x,b. Do so by tapping CTRL,C= D then "x" and finally x,b,CTRL.

### Example 3:

To enter an RVS "u" to toggle underlining on or off you would normally have to tap CTRL,1,u. A C= u would be quicker, so tap CTRL,C= D then "u" and then 1,u,CTRL. Notice that C= u inserts an RVS "u" into your text. When evoking CTRL,1 keyboard macros, the characters are always inserted.

### Example 4:

To enter an RVS "dc" to toggle double-width and centering on or off you would normally have to tap CTRL,2,d,c,BACKARROW. A C= d would be much quicker, so tap CTRL,C= D then "d" and then 2,d,c,BACKARROW.

## Default Keyboard Macros

C= plus... Same as ...		C= plus... Same as ...
a	CTRL,a	4 ' CTRL,4
b	CTRL,1,b	5 CTRL,1,5
c	CTRL,1,c	6 CTRL,1,6
d	CTRL,1,d	7 CTRL,1,7
e	CTRL,1,e	8 CTRL,1,8
f	CTRL,2,f,RETURN	9 CTRL,1,9
g	CTRL,1,g	0
h	CTRL,h,RETURN	+ CTRL,SHIFT-+
i	CTRL,1,i	- CTRL,1,-
j	CTRL,1,j	\
k	CTRL,k	CLR/HOME CTRL,HOME
l	UPARROW,1	INST/DEL CTRL,DEL
m		@ CTRL,SHIFT-@
n	CTRL,1,n	* CTRL,1,SHIFT-*
o		UPARROW CTRL,C=,o
p	CTRL,SHIFT-P	RUN/STOP CTRL,SHIFT-INST
q	CTRL,q	:
r	CTRL,r	; CTRL,1,SHIFT-;
s	CTRL,SHIFT-S	= CTRL,=
t	CTRL,t	RETURN
u	CTRL,1,u	,
v		. CTRL,1,.
w	CTRL,w	/ CTRL,SHIFT-?,y
x	CTRL,x,e	CRSR UP CTRL,CRSR UP
y		CRSR RIGHT CTRL,CRSR RIGHT
z	CTRL,SHIFT-D,RETURN	SPACE BAR CTRL,SPACE BAR
BACKARROW		F1 CTRL,SHIFT-E,w
1	CTRL,1,1	F3 CTRL,SHIFT-E,s
2	CTRL,1,2	F5 CTRL,SHIFT-E,p
3	CTRL,3	F7 CTRL,e,RETURN

Note: Use of this feature is optional! Occasional users don't have to learn 60 new commands. Experienced users, however, will be delighted by the flexibility and increased productivity this feature provides.

By default this feature is ON, so if you don't plan to use it, tap CTRL,C= K to toggle it off, then "Save Defaults."

## Printer Setup Revisited

Printer setup is covered in the main reference manual, but some users may find the following discussion helpful.

128 users of V1, you can save printer defaults and load them into V2 without redefining toggles, etc. (see main manual p. 23).

With *BB Writer* you have complete and direct control over any features your printer or interface may have. Of course, if you don't have a clue as to how your printer and interface work, then that creates something of a problem. It is unreasonable to expect a word processing manual to duplicate the information found in every printer/interface manual ever written. But if that is what you expect (sort of), here goes.

There are only a limited number of variables you need to consider: 1) secondary address, 2) control codes, 3) dip switches.

If at all possible, do put your interface in transparent mode. On many interfaces a secondary address of 4 will put the interface in transparent mode, so go to the Print Menu and change the secondary address to whatever your interface manual says is for transparent mode. Otherwise look to see if a dip switch on your interface can be set to select transparent mode. In transparent mode your interface will not convert PET ASCII to the TRUE ASCII your non-Commodore printer wants to see, so from the Print Menu, again, turn TRUE ASCII ON. If your interface is not in transparent mode, expect strange things to crop up and blame them on the interface.

If your interface has built-in fonts AND you are using them, then look for a "transparent mode with fonts" secondary address. Realize that when the interface is printing the fonts, you can forget about any features listed in your printer manual. Your interface is putting your printer in graphics mode and generally running the show, so send only those control codes your interface understands.

Control codes are a language of numbers that printers (and some interfaces) understand. Every printer has its own set of special features, and therefore its own set of special numbers it understands. Control codes often begin with the number 27 followed by one or two other numbers. *BB Writer* provides printer toggles and macros which you can define to send whatever control codes you need to send. Use them to create custom printer commands for your printer. If your printer can print double height, triple width, boldfaced, italic, Courier characters in multiple colors, then you can create commands to access all of these features. Your printer manual will tell you what numbers to send.

Define the printer macros as needed from within your text, and use *BB Customizer* to define the toggles. Toggles are for turning features on and off--usually to enhance a single word or phrase such as by underlining it. Don't try to access every feature your printer has using the toggles! To just turn a feature on (like NLQ mode, change line pitch...) use a printer macro. The "Printer Macros" file contains many examples, and the "Printer Test" file shows macros being defined and used. Once defined, you can "Save Defaults" to make the definitions permanent.

Some printers have several different modes like "Standard" or "IBM" mode, and some features may be available only in one of the modes. Make sure you use the correct control codes for the mode you are in. Some printers (MPS1000) will not work in "IBM mode" unless the secondary address is zero.

## Summary of Added Features

### **BB Speller**

1. Press SHIFT-UPARROW to call up *BB Speller*.
2. Press SHIFT-UPARROW and hold the SHIFT key down to prevent the **Quick Check Menu** from appearing as the small dictionary is being scanned.
3. Press SHIFT-UPARROW and hold the UPARROW key down for about one second to have only the text from the cursor on checked--position cursor first.
4. With keyboard macros ON, hold the Commodore key down and press the UPARROW key to check the word under the cursor.
5. With keyboard macros OFF, tap CTRL,C= 0 (oh) to check one word.

### **Exiting to BB Customizer**

1. Tap CTRL,x then select "Customizer" to exit to *BB Customizer*.
2. After you are finished changing the printer setup, select "Exit" or "Save Defaults" to return to your document.

### **Keyboard Macros**

1. Tap CTRL, press the Commodore key, then "K" to toggle this feature ON/OFF.
2. If ON, pressing the Commodore key and another key will execute a pre-defined (if any) sequence of keyboard commands.
3. If OFF, the normal Commodore graphic characters can be entered.

### **Defining a Keyboard Macro**

1. Tap CTRL, press the Commodore key, then "D" to define or redefine a keyboard macro.
2. You will be asked to press the key you want to define, so....
3. Then enter up to four key strokes you want executed when the key being defined is pressed.
4. Tap CTRL to exit if fewer than four keys are to be entered.
5. When a keyboard macro is executed, command mode is entered and the 1-4 characters are placed in the keyboard buffer.

### **Hard Hyphens**

1. Tap CTRL, press "1" then SHIFT,\* to enter a hard hyphen.
2. Word wrap may occur at normal hyphens or soft hyphens, but not hard hyphens. Try C= - keyboard macro for easy entry.

### **Form Feed Toggle**

1. Tap CTRL, hold the SHIFT key down and press "F" to toggle on and off.
2. When ON, a CHR\$(12) will be sent to your printer at the bottom of each page of text.

### **Drive Setup**

1. Tap CTRL, hold the SHIFT key down and press "D" to access Drive A, B, C, D, E, or change device number 8 to 9.
2. To define Drives A-E, call up *BB Customizer* and go to drives default menu.

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**LASER PRINTER.**



## Summary of Added Features

Press SHIFT-UPARROW to call up BB Speller.

Hold SHIFT down to skip through small dictionary.

Hold UPARROW down one second to start checking from cursor.

Press C= UPARROW (or CTRL,C= O) to check a single word.

### Summary of Quick Check Menu Options:

Press UPARROW to de-select/skip the highlighted word.

Press F7 or Sh-UPARROW to skip all words listed.

Press + to add highlighted word to "-U" file only.

Press Sh- + to add highlighted word to both dictionary and "-U" file.

Press "a" to add all words shown to "-U" file.

Press "A" to add all words to both "-U" file and dictionary.

Press F1 to go to next module--remaining words will be looked up in large dictionary.

### To call up Correction Menu:

Press Sh-RETURN to view word in context and fix the word if you already know the correct spelling (as when fixing typos).

Press Sh-RETURN twice to view word in context and then return to Quick Check Menu.

Press RETURN to view word in context and select correct spelling, if present, from the dictionary using the following options.

### Summary of Correction Menu Options:

Press RETURN to select highlighted word.

Press Sh-RETURN to edit original word.

Press F3 to return to Quick Check Menu.

Press CRSR UP/DOWN to scroll by words.

Press CRSR RIGHT as an alternative to CRSR UP.

Press HOME to put cursor at top of box or start of list.

Press CLR to put cursor at bottom of box or end of list.

Press F7 to flip down through the word list

Press F8 to flip up through the word list.

### New C-64 Keyboard Options:

**C= K** Toggle keyboard macros ON/OFF.

**C= D** Define a keyboard macro.

**Sh-F** Form Feed toggle.

- Hard hyphen: Tap CTRL,1,Sh-\* or C= \*