

# The

C-64 Version

# Write Stuff

## Reference

## Manual

### BB Writer

- \*100% ML (25K). 22K text, 9K buffer
- \*USERWARE. Not copy protected
- \*Menu or command driven:  
(Help, Edit, Print, Load Menus)
- \*86K of on-disk documentation:  
60 Help files (view any time)  
3 Help screens in RAM-view instantly  
26 Tutorials and sample files
- \*True 80-column hi-res preview  
shows underlining/special features
- \*Delete, transfer, copy text
- \*1 Pass double column output  
(All or part of text)
- \*Unique on-line macro feature: define  
100's of macros--reduce typing 25%
- \*Dual text area--have two documents  
in memory at the same time.
- \*Supports 1764 RAM Expander
- \*Customize to support other software:  
TurboSave, PrintRite, Super Graphix
- \*Hunt/Search & Replace
- \*Mail merge for form letters, etc.
- \*Sort on 1-10 columns (A-Z, Z-A)
- \*Capitals, Autocaps & Insert modes
- \*Dvorak-->QWERTY keyboard toggle
- \*File encryption/decryption
- \*21 Function calculator--insert answer
- \*Tabs (0-132). Decimal tabs
- \*Word/Paragraph count. Clock-timer
- \*Bytes used & bytes free
- \*All colors user-definable
- \*Key beep, wide screen, edge toggle
- \*User-definable screen font
- \*All DOS commands supported
- \*Disk directory. Word-wrap toggle
- \*Load/Verify/Save to disk or tape
- \*Merge & Append files

- \*Supports double and dual drives
- \*Change drive device # (8 to 9)
- \*Auto scratch & SAVE feature
- \*Linked file capacity
- \*Built-in file converter:  
Read/Write SEQ/PRG/USR files  
ASCII<->Screen Code<->True ASCII
- \*Built-in file translation for:  
Speedscript, EasyScript, PaperClip  
and 11 other word processors.
- \*Fastload/MACH5/Final C. compatible
- \*Special autoboot option:  
Autoboos custom format file, or  
user's current "ROUGH DRAFT" file.
- \*Supports dot matrix & LQ printers
- \*Screen dump (print help screens)
- \*Justification & Right alignment
- \*Multi-line headers and footers
- \*Odd/even-page header/footer/offset
- \*Auto-page numbering
- \*Alternate left/right pagination
- \*Auto-centering (even double-width)
- \*Multi-copy printing--print labels
- \*Print a given page--Skip to page X
- \*Margin release & auto-indent.
- \*Relative margins & offset printing
- \*Soft hyphens. Active secondary addr
- \*Auto-linefeed, true ASCII options
- \*Forced page & wait options
- \*20 User-definable printer macros:  
1 character = 1-8 character codes.
- \*Single character support for:  

<u>Underlining</u>	<i>Italics</i>
<b>Boldface print</b>	Condensed print
Reverse field	Double-width
Subscript <sub>s</sub>	Superscript <sup>s</sup>
Emphasized	LQ/DQ toggle
- Plus 6 user-definable toggles

### BB Talker

The Talking Word Processor

- \*Supports all of S.A.M.'s features
- \*Say characters, words, entire text
- \*Say menu selections, help screens
- \*Nine user-definable voices
- \*Use Speech Menu or embedded commands
- \*English-->phonetic text translator

### BB File Reader

\*Load, view, print BB text files

### BB Menu Maker

\*Create custom disk menus

### BB Manual Maker

\*Prints all 60 help files

### BB Customizer

\*Printer customizing program

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## Table of Contents

Overview.....	1	Wide screen toggle.....	26
Using BB Writer.....	9	Word count/Free memory.....	26
Edit Mode Options.....	9	Word-Wrap toggle.....	26
Help Screens.....	9	Text Format Options.....	27
Keyboard.....	9	CTRL,1 RVS Formats.....	27
F Keys.....	10	Alternate pagination.....	27
Menu Options.....	11	Boldface toggle.....	28
Help Menu.....	11	Centering toggle.....	28
Edit Menu.....	12	Double-width.....	28
Print Menu.....	12	Emphasized print.....	28
Save.....	15	Forced page.....	28
Load Menu.....	15	Italics toggle.....	28
Command Mode Options.....	16	Justification toggle.....	28
ASCII toggle.....	16	Linked file.....	28
Autoboot.....	16	Margin release.....	29
Autocaps toggle.....	17	Non-printing note.....	29
Background color.....	17	Right alignment.....	29
Background menu color.....	17	Reverse field toggle.....	29
Border color.....	17	Subscripts.....	29
Calculator.....	17	Superscripts.....	29
Capitals mode.....	17	Underlining toggle.....	29
Change case.....	17	Wait...pause printing.....	29
Clear text.....	18	External file.....	29
Clock color.....	18	Page # printed.....	29
Decimal tabs.....	18	Condensed print toggle.....	30
Delete a line.....	18	Soft hyphen.....	30
Disk commands.....	18	Escape code.....	30
Disk directory.....	19	CTRL,1 RVS Formats.....	30
Drives: 1, 2, or dual?.....	19	Auto-indent.....	30
Eat spaces.....	19	Blank Lines.....	30
Eat text.....	19	Bottom Margin.....	30
Eat more text.....	19	Column Margin.....	30
Edge effect toggle.....	19	Footers.....	31
Encrypt/decrypt text.....	20	Forced page (conditional).....	31
Exit to BASIC.....	20	Headers.....	31
Extra text area.....	20	Header/footer Left margin.....	31
Font toggle.....	20	Header/footer Right marg.....	32
F Key toggle.....	20	Left Margin.....	32
Hunt text.....	21	Line Spacing.....	32
Hunt phrase defined.....	21	Margin Release.....	32
Insert a line.....	21	Offset printing.....	32
Insert mode toggle.....	21	Page Length.....	32
Key beep toggle.....	21	Page Number defined.....	33
Keyboard? Dvorak/QWERTY.....	21	Print a given page.....	33
Letter color.....	22	Page Width.....	33
Letter color of menu.....	22	Right Margin.....	33
Load/Merge/Append text.....	22	Secondary Address.....	33
Macrotyping.....	22	Top Margin.....	33
Macro (temporary).....	22	Fill-marker (mail merge).....	33
Position color.....	22	Special Features.....	34
Print.....	23	Double Column printing.....	34
Preview text.....	23	Macrotyping.....	34
Replace a word/phrase.....	23	File Translation.....	35
Replace phrase defined.....	23	Mail Merge.....	36
Restore text.....	23	Using BB Talker.....	37
Restore & sort text.....	23	Speech Menu.....	37
RVS Commands (single).....	24	Embedded Speech Controls.....	38
RVS Commands (Multiple).....	24	Using BB File Reader.....	40
Save text.....	24	Using BB Menu Maker.....	41
Save defaults.....	25	Customizing.....	43
Screen dump.....	25	Printer Setup.....	44
Search & Replace.....	25	Appendices.....	46
Tabs.....	25	Glossary.....	48
Tabs cleared.....	25	Notes.....	49
Verify a SAVE.....	26	Index.....	56

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Copyright © 1987, Busy Bee Software

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Written by R. Eric Lee

Busy Bee Software  
P.O. Box 2959  
Lompoc, CA 93438

P.O. Box 206  
ST. DAVID, AZ  
85630

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**LASER PRINTER.**

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## Overview

The **Write Stuff** is a collection of word processing software. The main program, **BB Writer**, is a high productivity, full-featured word processor for the Commodore 64. Although designed to meet the needs of advanced users, **BB Writer**, when used in "menu mode," is equally suitable for use by children and occasional users. **BB Writer** allows all essential edit-print-load-save features to be selected from menus. No special keyboard or embedded commands need to be learned. However, as the user gains experience, over 100 advanced features can be selected using keyboard and embedded commands.

**BB Talker** is the talking version of **BB Writer** that works with **S.A.M.**, the *Software Automatic Mouth*. If you have the double-sided version, **S.A.M.** and **BB Talker** are both on the backside of the disk. **BB Talker** is on the single-sided version, but you must have a copy of **S.A.M.** to use it.

### What's on the disk

There are five programs on **The Write Stuff** diskette that can be **LOADed** from **BASIC**:

#### **1. LOAD"BB",8**

The boot program, **BB**, is the first program on the disk, and is written in **BASIC** to allow users to customize it (see page 43). Just **LOAD** and **RUN** it. When the title screen/menu appears, use the cursor keys to point to one of the four choices and press **RETURN**.

One of the choices is **BB Customizer**, a printer customizing program. Before trying out any special printer features, such as underlining or boldface print, select **BB Customizer** from the title screen/menu to see if the default control codes used for turning features on and off are the same as those used by your printer (see page 44).

If you want to load **BB Writer** directly and by-pass the title screen, hold the **SHIFT** key down (just after loading and running **BB**) until the screen turns color.

#### **2. LOAD"BB FILE READER",8**

**BB File Reader** may be included along with your text files on a disk and anyone receiving that disk--even non-**BB Writer** users--will be able to view or print your files. You can use it to document the programs on a disk, or to create an electronic newsletter.

#### **3. LOAD"BB MENU MAKER",8**

**BB Menu Maker** allows you to create your own custom disk menus. Only main programs or loader programs are displayed. Program names may be edited or extended beyond the usual 16 characters, and comments may be added. When you finish creating the menu, the menu program will try to save itself as the first program on the disk. Even without knowing the load syntax of a program, (**BASIC**, **ML**, or **Autoboot**), you can cursor select and load it.

If **BB File Reader** is listed on the menu, you can view or print text files describing the other programs. From **BB File Reader**, you can also exit directly back to the menu program. Together, the two

programs make all files--program and text--easily accessible to all users.

#### 4. LOAD "BB MANUAL MAKER", 8

BB Manual Maker prints a hard copy of all 60 help files to create the poor man's manual.

#### 5. LOAD "TS RELOCATOR", 8, 1 (SYS 830)

The TS Relocator program relocates the TurboSave program (*Compute!'s Gazette*, April 1987) so that it can be used with BB Writer (it is not compatible with BB Talker). Since text files are PRG files, they can be fast-loaded (with cartridge or fastboot software) and TurboSaved 3-5 times faster than normal.

### **BB BASICS: A Summary of BB Writer features**

There are over two dozen tutorials and sample files on the program disk. From within BB Writer, select "Load" from the main menu and a list of tutorial files, beginning with "Getting Started," will appear. Please plan on spending some time reading through the tutorials. This is only a reference manual--the tutorial section is on the disk. However, for those with some word processing experience, the following summary of basic operations is provided with references to other parts of this manual.

#### **Help (p. 9, 11)**

1. Press SHIFT and Commodore keys at the same time and the first of three help screens will appear.
2. Press either SHIFT or C= to move from one screen to the next.
3. Press UPARROW and select "Help," then select and call up one of the help menus. Point to one of the help files listed and press RETURN.
4. Use BB Manual Maker to print all 60 help files if you want to read through all of them.
5. Do not use the help files for primary information. Beginners should select "Load," not "Help," from the main menu and read the tutorials first.

#### **Entering text (p. 9)**

1. As soon a BB Writer loads, a flashing cursor will appear and you may begin typing. Press RETURN only at the end of paragraphs or to create a blank line.
2. If you make a mistake, use the INST or DEL keys, which work normally, to make minor corrections.

#### **Cursor movement (p. 9)**

1. The cursor keys work normally only within paragraphs. Use the F keys to move the cursor by word, sentence, paragraph, or screen.
2. Press the HOME key to move the cursor to the upper left corner of the screen. If the cursor is already in the "home position," pressing HOME will move the cursor to the beginning of your text.
3. Press CLR (SHIFT-HOME key) to move the cursor to the bottom of the screen (or end of text if visible). Press CLR again to go clear to the end of your text.
4. You may also move the cursor using a joystick in port 2.

### **Inserting (p. 21)**

1. Press INST (SHIFT,DEL key) to insert spaces.
2. Tap CTRL,INST to insert a line of spaces.
3. Press SHIFT,RUN/STOP key to insert six blank lines.
4. Tap CTRL,i to toggle insert mode on and off. In insert mode, a space will be inserted automatically so that text will not be overtyped.

### **Deleting text (p. 18)**

1. Press DEL key to delete the character to the left of the cursor.
2. Tap CTRL,DEL to delete a line of text.
3. To delete extra spaces: Tap CTRL, press the SPACE BAR, and all spaces to the right of the cursor will be removed.
4. Press the BACKARROW key to rub out text to the left of the cursor.

### **Eating text (p. 12, 19)**

1. Press UPARROW and select "Edit" then "Eat Text" (or tap CTRL,e).
2. Select "Paragraph" or press "p" to eat the paragraph the cursor is on. Likewise for sentence, and word. Press "c" to eat characters.
3. Tap CTRL,SHIFT-E to eat text and add it to any text previously eaten.

### **Restoring text (p. 12, 23)**

1. Press UPARROW and select "Edit" then "Restore Text" (or tap CTRL,r) to restore any text previously eaten.
2. Move the cursor and repeat step 1 to make a copy of any text previously eaten.

### **How to delete/transfer/copy text (p. 12)**

1. Eat text and forget about it to delete sections of text.
2. Eat text, move the cursor, and restore text to transfer it elsewhere.
3. Eat text, restore it, move the cursor, and restore again to copy text.
4. Eat text, load a file, and "Restore Text" to transfer text between files.

### **Erasing text (p. 12, 18)**

1. Press UPARROW and select "Edit" then "Clear Text" (or tap CTRL,CLR/HOME).
2. Select "Above" or "Below" to erase all text above or below the cursor. The text can *not* be restored.
3. To erase all text: Move the cursor to the beginning of your text and clear text below the cursor.

### **Saving text (p. 15, 24)**

1. Press the UPARROW key, select "Save," and enter a file name. The Write Stuff disk is FULL and should not be used to store text files.
2. In command mode: Tab CTRL, then "s" and enter a file name.

### **Saving text as a SEQ or USR file (p. 24)**

Add a ",s" or ",u" to the file name; e.g. "-filename,s" saves text as a sequential file.

### **Autosave feature (p. 24)**

If the file name is contained in a non-printing note at the very beginning of your text it will be used automatically when you elect to save text. Format: RVS "n" + "@0:-" + file name.

### **Loading text files (p. 15, 22)**

1. Press UPARROW and select "Load" for the Load Menu. Point to a file name and press RETURN to load it, "s" to scratch it, or "r" to rename it. Press BACKARROW to escape.
2. If the cursor at the beginning of your text, you can also tap CTRL, then "l" (letter l, not 1) and enter a file name.
3. Note: Any text in memory will be erased before a file is loaded.

### **Merging text files (p. 22)**

Position the cursor where you want the text to merge and tap CTRL,l.

### **Appending text files (p. 22)**

Just move the cursor to the end of your text and tap CTRL,l.

### **File Translation (p. 35)**

1. To load a file created by another word processor: Tap CTRL,l and enter the file name, then press SHIFT RETURN instead of RETURN.
2. Select the appropriate word processor from the menu, or press "s" to load a sequential file containing ASCII text.

### **Text Conversion (p. 16)**

1. Tap CTRL, then "a" to convert the text in memory to Commodore (PET) ASCII.
2. Tap CTRL, then press and hold the "a" key down to convert text to true or standard ASCII.
3. Repeat step 1 or 2 to convert back to Screen Code.
4. To load a SEQ file containing true ASCII, tap CTRL,a to enter ASCII mode, then CTRL,l and enter the file name (be sure to add ",s" as in "-filename,s"). After it loads, tap CTRL, then press and hold the "a" key down to convert to screen code.

### **Autoboot feature (p. 16)**

1. Tap CTRL,SHIFT-A to turn this feature on, then CTRL,x and Save Defaults.
2. The next time you use BB Writer, the file "bb format" will automatically be loaded. You can customize this file to include any format commands you wish.
3. Hold the SHIFT key down before BB Writer finishes loading and the file "-rough draft" will load instead of "bb format."

### **Disk Directory (p. 19)**

1. Tap CTRL,4 or CTRL,\$ for a disk directory
2. Press SHIFT to pause, or BACKARROW to abort.

### **Using two drives (p. 19)**

1. Tap CTRL,SHIFT-D to change the default from one drive to double or dual drives.
2. Tap CTRL,4 for a directory of drive 9 or 1, and CTRL,\$ (SHIFT-4) for a directory of drive 8 or 0.



### **1764 RAM Expander (p. 50)**

1. Use as a RAM disk having a device number of 9 (see page 19).
2. Tap CTRL,SHIFT-D and select "Devices 8, 9."

### **Disk (DOS) commands (p. 18)**

1. Tap CTRL,UPARROW then RETURN to read the error channel (if drive light is flashing red).
2. Tap CTRL,UPARROW, then enter any disk command such as "i" to initialize, or "s0:filename" to scratch a file (do not enter the quote marks).

### **Previewing your text (p. 12, 23)**

1. Press UPARROW and select "Print" from the main menu (or just press "p"). In command mode, tap CTRL,SHIFT-P.
2. Print to Screen to see an 80-column preview.
3. Hold the SHIFT key down to pause printing or BACKARROW to abort.
4. While pausing, press "b," "£," or Commodore "b" to change the default colors.

### **Printing your text (p. 12, 23)**

1. Press UPARROW and select "Print" from the main menu or tap CTRL,p.
2. Select "Printer" and text will be sent to the printer.
3. If strange things happen, see page 44 for help with setting up your printer.
4. Hold the SHIFT key down to pause printing or BACKARROW to abort.

### **Screen dump (p. 25)**

1. Tap CTRL,C= P to print the screen.
2. When viewing a help file, just press "p" to print the screen.

### **Formatting your text (p. 27)**

1. Press UPARROW and select "Print" to call up the Print Menu. Use CRSR UP and CRSR DOWN keys to point to and change any of the defaults. (See page 12.)
2. Format commands or directives may also be embedded in your text. (See page 24, 27-33 and the tutorial file "Format Commands" on disk, as well as the "Printer Test" and "Printer Macros" sample files.)

### **Double column printing (p. 34)**

1. Call up the Print Menu (press UPARROW and select "Print"), point to the Column Margin line, and press "+" to set the column margin to a value greater than zero.
2. Preview your text and it will print in double columns. (If there is not enough text to fill the second column, it will be blank.)

### **Autocaps feature (p. 17)**

1. Tap CTRL, then press SHIFT-UPARROW to toggle autocaps on.
2. Type any letter a-z and if it is preceded by a RETURN MARK or by two spaces, it will be capitalized. The convention is to separate sentences with double spaces, so this feature automatically capitalizes the first letter of sentences for you.

## Screen colors and format

You can easily change the appearance of the screen. Tap CTRL and press:

- w to toggle word-wrap on and off.
- f to toggle between character sets.
- b to change background color.
- £ to change letter color.
- \* to toggle the "edge effect."
- SHIFT \* for the special wide screen.
- SHIFT B to change the menu color.
- SHIFT £ to change the menu letter color.
- C= £ to change position color.
- C= c to change the clock color.
- C= b to change border color.

While viewing the Print Menu, press b to change the box color. When viewing the help screens, press b and £ to change border and letter colors. The colors of the 80-column preview screen can also be similarly changed. To save the changes you make, tap CTRL,x and select "SAVE Defaults."

### Word/phrase macros (p. 34)

1. Tap CTRL, then "m" to toggle the macrotyping feature on.
2. Press SPACE or RETURN, then any of the one or two character abbreviations shown on page 47.
3. Press SPACE and the word or phrase the abbreviation has been defined to equal will appear.

### Temporary word macros (p. 35)

1. Tap CTRL, then SHIFT-M and enter one or two characters, an equal sign ("="), then the word or phrase you want the abbreviation to stand for.
2. Press RETURN, or enter a BACKARROW and define another temporary macro.

### Customizing the macro file (p. 35)

1. Clear all text and tap CTRL,l to load the macro file.
2. Delete the hyphen and enter "bb macros" as the file name (no quotes, press RETURN)
3. When the file loads, the way the macros have been defined will be obvious.
4. You may add new macros, edit existing ones, or delete any you won't be using to create more memory for text.
5. There are three RETURN MARKS at the end of the file; *do not* delete them.
6. To SAVE: Tap CTRL,s and delete the hyphen. Enter "bb macros" as the file name and press RETURN.
7. To use the new macros you must power down and reboot BB Writer.

### Capitals mode (p. 17)

1. Tap CTRL,c to toggle capitals mode on (or off if it's on).
2. As you type, the letters a-z will be changed to A-Z without the need to hold the SHIFT key down.

### **Changing case (p. 17)**

1. Tap CTRL, then SHIFT-C and the letter under the cursor, if it is in lower case (a-z), will be capitalized. If it is in upper case (A-Z), it will be changed to lower case.
2. Hold SHIFT-C down to change the case of a range of text.
3. Press RETURN or BACKARROW when finished.

### **Key click (p. 21)**

1. Tap CTRL,k to toggle the key click feature on and off.
2. Begin typing and a clicking sound will be made at each key press.

### **Dvorak keyboard (p. 21)**

1. Tap CTRL, then SHIFT-K to turn on the Dvorak keyboard option. The layout of the Dvorak keyboard (see page 46) is more efficient than the usual QWERTY keyboard.
2. Tap CTRL, then SHIFT-V (Dvorak K) to restore the QWERTY keyboard.

### **Tabs (p. 25)**

1. To set a tab: Position the cursor on a column within the current text width (the position indicator will read "C:" plus a number which indicates the current column number the cursor is on) and tap CTRL,t.
2. To clear all tabs: Tap CTRL, then hold the SHIFT key down and press "T."
3. To clear one tab: Position the cursor on a set tab (the position indicator will read "T:" or "D:" instead of "C:" for column number or "P:" for paragraph number) and tap CTRL,t.
4. Tab key: Press the RUN/STOP key to tab the cursor to the next tab stop (if there is one).

### **Decimal tabs (p. 18)**

1. Tap CTRL,d to toggle decimal tabs on.
2. Tab to a tab stop and type a number. The cursor will remain in the same position until a decimal (period or other non-numeric character) is typed. This feature allows columns of numbers to be entered with the decimals lined up vertically.

### **Encryption of text (p. 20)**

1. Tap CTRL, then "?" and indicate that "Yes" you do want to encrypt your text (make it so no one can read it).
2. Enter a secret code word or phrase and press RETURN. Your entire text is made unreadable. You may now save the file and no one will ever know what you wrote.
3. Repeat steps 1 and 2 using the exact same code word or phrase to decrypt (make readable) a previously encrypted file.

### **Word count & memory usage (p. 26)**

1. Tap CTRL,= for a word count. The number of bytes (characters) used and bytes free will also be shown.

### **Calculator (p. 17)**

1. Tap CTRL,3 to enter the calculator.
2. Enter any calculation that BASIC could do in immediate mode. Examples: 2+2, 3\*8, 8-(5/2), 2\*SIN(.89).
3. Press RETURN and the answer will appear.
4. Press RETURN to exit from the calculator, UPARROW to do another

calculation, or "@" to insert the answer into your text.

### **Sorting lists (p. 23)**

1. You must first eat a list or data table using the Eat Text feature.
2. To restore and sort the list, tap CTRL, then SHIFT-R.
3. Choose between an ascending (A-Z) or descending (Z-A) sort.
4. Menu select the column (1-10) you want to sort on.
5. The list will then be sorted (alphabetized) and restored at the same time.

### **Search & Replace (p. 25)**

1. To search for and automatically replace all occurrences of a word or phrase with another word or phrase, tap CTRL, then SHIFT-S. The search begins at the current cursor location, so to search your entire text, move the cursor to the start of your text first.
2. Enter the word/phrase you want to search for. Tap CTRL to toggle reverse video characters on/off. For a caseless search, enter the phrase in lower case and press SHIFT-RETURN instead of RETURN.
3. Enter the word/phrase you want the search word/phrase to be replaced with. Entering nothing (just pressing RETURN) will cause the word/phrase being searched for to be deleted.
4. Press BACKARROW during the search to abort.

### **Hunt & Replace (p. 21)**

1. To manually search for and, optionally, replace all occurrences of a word or phrase with another word or phrase, tap CTRL, then SHIFT-H. The hunt begins at the current cursor location, so to search your entire text, move the cursor to the start of your text first.
2. Enter the word/phrase you want to hunt for. Tap CTRL to toggle reverse video characters on/off. For a caseless search, enter the phrase in lower case and press SHIFT-RETURN instead of RETURN.
3. Optionally, press SHIFT-@ in command mode to define the replace word/phrase.
4. In command mode, press "h" to hunt for the next occurrence of the hunt word/phrase.
5. When the word/phrase is found, you may press "h" again, press RETURN to return to edit mode, or you may press "@" to replace the hunt word/phrase with whatever replace word/phrase, if any, has been defined.

### **Extra text area (p. 20)**

1. To divide text memory into two areas, tap CTRL, then SHIFT-PLUS.
2. To toggle between the two areas, tap CTRL,q.
3. You can easily eat text from one area, switch to the other, and restore the text there.
4. You can print or save a part of your text by simply moving it to the second text area (assuming it's empty) and then print or save it.
5. See "Extra Text Area" file on disk for information on changing the size of the extra text area.

### **Exiting to BASIC and Saving Defaults (p. 20, 25)**

1. Tap CTRL,x to exit to BASIC or SAVE current defaults.
2. If you accidentally reset your computer, POKE 787,234 and SYS 2130 to re-enter without loss of text.

## Using BB Writer

When the cursor is flashing on the screen you are in edit mode and **BB Writer** is waiting for you to press a key. Most keys work normally, but a few keys serve some special function. One is the up-arrow key. Pressing "↑" allows you to select from five main menu options ("Help Edit Print Save Load").

Another special key is the control key. The CTRL key toggles you in and out of command mode where over 100 options are available for doing advanced word processing. Beginners should not be alarmed by the large number of keyboard and embedded command options; basic word processing can be done using only the menus and the following edit mode options.

### Edit Mode Options

#### Help Screens

In edit mode, three help screens can be called up instantly at any time by pressing SHIFT and the Commodore logo (C=) key at the same time. To flip from one page to the next, press either SHIFT or C= key alone. The first screen covers edit mode and menu options; the second page summarizes most command mode options; the third page gives examples of most reverse video (RVS) embedded format commands.

#### The Keyboard

With only two exceptions, pressing any letter, number, punctuation, or Commodore graphic key will cause that character to appear on the screen, and later be sent to the printer. One exception is the up-arrow key; to print an "↑" character, hold down the Commodore logo key and press the up-arrow key. The other exception is the BACKARROW, which is used to represent a RETURN mark. Since **BB Writer** can send any control code (0-255) to a printer, printing a BACKARROW is a matter of defining a special print key to send a 95--the CBM character code for a BACKARROW--to the printer. (See page 33.)

The following six non-printing keys serve special functions.

##### 1. CRSR keys.

The cursor keys behave normally within a paragraph, moving up, down, right, and left. The cursor cannot move to areas of the screen outside a paragraph. If you move the cursor down and push against the bottom of the screen, the screen will scroll up by one sentence. Pushing against the top of the screen will scroll the screen down by one sentence.

## 2. BACKARROW key.

In edit mode the BACKARROW key is used as a backspace key. The backspace works like the space bar only in reverse. It turns the character to the left of the cursor into a space.

## 3. HOME key.

Pressing the HOME key moves the cursor to the top left corner of the screen--which is exactly what it normally does. If you press the HOME key again, however, the cursor will move to the beginning of your text (if it was not already there).

## 4. CLR key.

Pressing the CLR key will not clear the screen. Instead it moves the cursor CLear to the bottom of the screen (or end of text if visible). Pressing it again will move the cursor CLear to the end of your text (if it was not already there).

## 5. STOP key.

Tab key. If the cursor is near the beginning of a paragraph, pressing STOP will cause the cursor to RUN to and STOP at the next tab stop. If the position indicator displays the paragraph number the cursor is on, pressing STOP will have no effect. The Final Cartridge may exit you to BASIC when tabbing unless disabled.

## 6. RUN key.

If you press SHIFT and the RUN/STOP key, six blank lines will be inserted at the current cursor position. This feature is useful for creating a space to add a sentence or two to a paragraph.

## Function Keys

The special function keys (F1-F8) may be used to move the cursor quickly about your text. F1 moves the cursor to the next word (any text preceded by a space). F2 (SHIFT-F1) moves the cursor to the previous word. F3 and F4 moves the cursor foward or back by sentence (any text ending in a period, exclamation, or question mark). F5 and F6 moves the cursor forward or back by paragraph (any text ending in a RETURN MARK). Pressing F7 displays the next screen--very useful in proofreading your document. F8 displays the previous screen (actually the previous 760 characters). Use F7 and F8 to move rapidly through your text.

## Menu Options

### Help Menu

Pressing the UPARROW key and selecting "Help" calls up another bar menu from the program disk that displays the names of three help menus (four in **BB Talker**). Each help menu, in turn, displays a list of help files. Just use the cursor keys to point to the help file name you want and press RETURN.

The help files summarize the on-disk tutorials, so you should read the tutorials first and use the help files (or this manual) for ready reference.

The help menu system was designed for future expansion or user customizing. Instead of providing help on the use of **BB Writer**, selecting "Help" could provide help with grammar, punctuation, or usage. Volume 2 of **The Write Stuff** will provide just such help, but users, especially educators, might want to develop their own help menus to better meet their own or their students' needs. A student trying to decide whether or not to use a semicolon at a certain point could select "Help," then "Punctuation," and finally "Semicolon" for help on the uses of a semicolon.

To create your own custom help menu system, start with a blank formatted disk. Load the file "help.w" (or "help.t" for **BB Talker**) from the **BB** program disk. The file name does not start with a hyphen, so tap CTRL, then "l" and delete the hyphen. Now enter "help.w" as the file name. Use this file as a model; it contains the initial menu choices. Note that the first and last character must be a SHIFTED SPACE. A SHIFTED SPACE may also be used to link words together. The number of menu options is limited only by the number you can fit on a 40 character line. After you have created your own help options file, save it under both the file names "help.w" and "help.t" on your work disk.

Now load the first help menu, the file "help0," from the program disk. Note the "j,p" <RETURN MARK> at the beginning of the file. The screen code value for "j" is 10, which tells **BB Writer** that the first help file name starts on line 10 (counting 0,1,2...). The screen code value for "p" is 16, which is the last line plus one. Note that all help file names must end with a SHIFTED space, and that the actual file name begins with the menu number (0,1,2...). If the second help menu ("help1") lists "Semicolon," the actual file name would be "1Semicolon." After you have finished the first help menu, save it as "help0," and do the next. Study the existing help system until you're clear about how it all works.

The last step is to write all the help files whose names are listed by the menus. Load some of the existing help files and use them as models. Turn off word-wrap when writing the files and end each line with a RETURN MARK if necessary. Even though the **BB Writer** help files are less than one screen in length, files may be longer--after the screen is filled, the user will have to press a key to read the rest of the file.

## Edit Menu

The INST and DEL keys can be used for changing a few characters, but selecting "Edit" from the main menu allows you to make changes in a big way. The Edit Menu allows you to "Eat Text," "Restore Text," and "Clear Text." The first two options allow you to delete, copy, or transfer text by word, sentence, or paragraph. In short, you can gobble up text and forget about it (delete it); spit it back out wherever you want (transfer it); or you can eat it and immediately regurgitate it, then move the cursor and up-chuck it again somewhere else (copy it). The imagery is crude, but it was chosen because it is easy for children (and others) to understand. It is always easier to understand something in terms of what you already know. Technical jargon like "buffer" and "block transfer" are therefore avoided.

Children can be told to think of the cursor as a little mouth (or a square straw) that can suck up words, sentences, and paragraphs. When you eat something it doesn't just disappear, does it? No, it goes into your stomach. Well, the computer has a stomach too, and when you eat text it goes into this stomach. If the computer has just eaten a bunch of text, you can make it barf it back up. Just select "Restore Text" and the computer will (at this point stick out your tongue, insert finger, and make a retching noise) and all the text it ate will come out the little mouth.

A note of warning: The stomach (9K buffer) is used by the preview routine. PREVIEWING A DOCUMENT WILL RESULT IN THE LOSS OF ANY TEXT STORED IN THE BUFFER. On the other hand, the contents of the stomach are preserved during a load or save. One way to transfer text between documents is to eat text from one, load the other file, and restore text.

Select "Clear Text" and you will be asked if you want to erase all text above or below the cursor. When text is erased in this way, it cannot be restored.

## Print Menu

Selecting "Print" calls up the "Print Menu." Do you want to print to an 80 column screen to preview your document, or output your text to a printer? Use CRSR right/left to choose, then press RETURN. If you choose "Printer" but have no printer, or have a Commodore printer that's not turned on, then output will go to the screen instead. If you have a non-Commodore printer that's not turned on, the message "Printing" may appear but nothing will happen. Press the BACKARROW key to return to edit mode.

Before printing to a printer, make sure the print head is just below the perforated line if you are using continuous paper. To pause printing, press the SHIFT key. To abort, press the BACKARROW or RUN/STOP key.

You can also **print** (send) your text **to disk**. Few users would ever want to, so this is not one of the menu choices; however if you press "d" you will be asked for a file name and all output will go to that file.

From the Print Menu you can press CRSR up/down to point to any of the following 17 defaults and then press the "+" or "-" keys to change the default.



## **1. Right Margin.**

In **BB Writer** the right margin is the number of characters between the right edge of the text and the right edge of the paper. A right margin of 10 equals about an inch of white space. (Note: some word processors would require you to set a so-called right margin of 70 to produce a true right margin of 10, assuming a text width of 80.)

## **2. Left Margin.**

For a one-inch left margin, set the left margin to 10 (assuming 10 characters per inch), or 15 for a one and a half inch margin.

## **3. Top Margin.**

If the top margin is set to zero, printing will begin at the very top of the page. A top margin of 10 will cause 10 blank lines to be printed before any text (except a header) is printed (on the 11th line).

## **4. Bottom Margin.**

The bottom margin is the number of blank lines to be printed at the bottom of a page.

## **5. Column Margin.**

To print text in double columns, just set a column margin greater than zero. A column margin of four leaves a space of four characters between columns. When printing columns, the right margin setting is ignored, since the second column is a mirror image of the first. If there is not enough text to fill the second column, it will, naturally, be blank. To columnize short documents, shorten the page length.

## **6. Line Spacing.**

Single spacing? Double spacing? Triple spacing? Take your pick.

## **7. Device Number.**

A printer device number can be set at any number between two and seven. Most printers use a device number of four.

## **8. Secondary Address.**

A secondary address of seven causes text to print in upper/lower case on Commodore printers. A secondary address of zero causes lower case text to print in upper case, and upper case text to print as graphic characters. Some interfaces recognize other secondary addresses (0-255 can be used).

## **9. Page Length.**

Most printers print 66 lines on an 11 inch page. Set the page length to 84 if you're using legal size (14 inch) paper.

## **10. Page Width.**

Most printers print 80 characters on an eight and one half inch page. If you are printing elite characters (96 per page) set the page width to 96. The width is measured in characters, so for condensed print the page width would be set to 132. The maximum page width is 254 characters.

### **11. Auto Linefeed.**

Most printers feed the paper up one line when a carriage return [CHR\$(13)] is received; others don't. If your printer doesn't, then all text will be printed on the same line. To avoid this, turn auto linefeed on.

### **12. True ASCII.**

Text is normally sent to the printer as Commodore (PET) ASCII in which the letters a-z are represented by the numbers 65-90. If you have a non-Commodore printer and your interface doesn't handle the conversion (or is in transparent mode), then turn true ASCII on, and **BB Writer** will do the converting. If lower case text prints in capitals, then you need to turn on true ASCII.

### **13. LQ Printer?**

If you are using a daisy-wheel printer, you need to indicate that fact. The reason is that daisy-wheel printers do underlining and boldface printing (if they do it at all) differently than a dot matrix printer. Underlining is done by the backspace method, and boldface by backspacing and printing the character again, almost but not quite at the same place.

### **14. Wait between pages?**

If you are using single sheet paper, you will want **BB Writer** to pause between pages so that you can insert another piece of paper. During preview, printing to the screen will also pause; you must press a key to continue.

### **15. Number of Copies?**

Just select the number of copies (1-254) you want. But please note that printing stops when the end of the text is reached. The last page is not ejected (which is sometimes desired), so the second copy would not print at the beginning of the next page. To avoid this you can either have **BB Writer** wait between pages and manually advance the last page, or you can define a footer or use a forced page command at the end of your document.

### **16. Justification.**

Justification makes both right and left margins vertically straight. Normally the right margin is ragged, but with justification on, spaces are added between words so that the right margin is even.

### **17. Start at Page Number?**

Printing normally starts at page one, but let's say you just printed out a 16-page document and noticed that on page 12 there was a gross misspelling. You'll need to print page 12 again. To do so, enter a 12 to start printing at page 12. Press the BACKARROW key to abort printing after page 12 has printed. You may want to "Wait between Pages," especially if your interface has a large buffer.

## Save

Select "Save" and you will be asked to enter a file name. **BB** text file names should begin with a hyphen, so one is provided automatically; you can always delete the hyphen if you want. Press RETURN without entering a name to abort and return to edit mode. To save your document as a sequential file (**BB** files are normally program files), add a ",s" to the end of the file name (also see page 24).

## Load Menu

Select "Load" and a menu of **BB** files (any files beginning with a hyphen) will be displayed. Use the cursor keys or a joystick in port 2 to point to the file you want to load and press RETURN or the fire button. You can also point to a file name and press "s" to SCRATCH the file, or "r" to RENAME the file. Command mode provides other load options (see page 22). See page 35 for information on how to load files from other word processors.

## Command Mode Options

Keyboard commands allow you to bypass the menus and usually save a few key strokes. They also allow you to access dozens of features not available from the menus.

To send a keyboard command, you must first be in command mode. To enter command mode, tap the CTRL key once--DO NOT hold the CTRL key down. To exit back to edit mode, tap CTRL again, or press the BACKARROW or RETURN key.

When you enter command mode, the cursor stops flashing and appears as a reverse video character. Although you cannot enter any new text, the cursor can still be moved using the cursor keys. CRSR right and left keys move the cursor by word; CRSR up and down move the cursor by sentence.

**BB Writer** recognizes over 50 keyboard commands, each of which is explained below. Instructions assume the user is in edit mode, so if you are in command mode already, don't tap the CTRL key.

### **ASCII Toggle CTRL,a**

**BB** files are normally program (PRG) files containing screen code characters. Commodore ASCII and screen code are just two different ways of coding characters. For example, in CBM (PET) ASCII the letters a-z are represented by the numbers 65-90, whereas in screen code, a-z are assigned the numbers 1-26. The ASCII toggle allows you to convert from one code to the other.

ASCII sequential files are frequently required when sending text files over a modem. To make the conversion from screen code, tap CTRL, then "a", and the text in memory will be converted to CBM ASCII. You could then save the file as a SEQ file by adding an ",s" to the file name (e.g. "text file,s").

To load a file consisting of ASCII characters, first tap CTRL,a to enter ASCII mode, then load the file. Load the file by tapping CTRL,l and entering the file name; delete the hyphen if necessary and add a ",s" to the file name if it is a SEQ file. Finally tap CTRL,a again to convert the text to screen code.

True (standard) ASCII is yet another way to code characters and differs from CBM ASCII. For true ASCII<-->screen code conversions, press and hold the "a" key down during the conversion process. Unless you need to send or receive data from a non-Commodore computer (or the AMIGA), you probably won't need true ASCII.

### **Autoboot CTRL,SHIFT-A**

This command toggles the autoboot feature on and off. If you turn on the autoboot feature and "SAVE Defaults" (tap CTRL,x), then the next time you boot up **BB Writer**, the file "bb format" will be automatically loaded for you. The "bb format" file can contain all the embedded RVS format commands and default values that you care to use, including printer macro definitions. If you mainly write letters, you could even include your name, address, and salutation. So, before using the autoboot feature, load the "bb format" file, customize it to your own preferences, and then resave it. Since you can make as many copies of **BB Writer** as you personally feel a need for, you could make one copy with a format file for letters and another for reports. If you have more than one printer, create more

than one custom copy.

If you don't finish a document, you will not want to autoboot the format file, but the rough draft you had already started. Well, if you called the file "-rough draft," you're in luck. You merely have to hold down the SHIFT key (or use the SHIFT LOCK) just before **BB Writer** finishes loading, and the file "-rough draft" will be loaded instead of "bb format." So, until you finish a document, call it "-rough draft." Then, if you don't finish it in one sitting, it can be autobooted the next time. When the document is finished, give it an appropriate name and SAVE it on a data disk for safekeeping. In this way the **BB** program disk will only have to accommodate your current rough draft file.

### **Autocaps Toggle CTRL,SHIFT-↑**

This productivity feature automatically capitalizes the first letter of a sentence for you as you type (you must double space between sentences). Tap CTRL and SHIFT-↑ to toggle autocaps on and off.

### **Background Color CTRL,b**

Tap CTRL, then "b" to cycle through all possible background colors.

### **Background Menu Color CTRL,SHIFT-B**

Tap CTRL, then SHIFT-B to cycle through all menu line background colors.

### **Border Color CTRL,C= B**

Tap CTRL, hold the Commodore key down, and press "b" to cycle through all possible border colors.

### **Calculator CTRL,3**

Tap CTRL and press the number "3" key to do a calculation. This feature taps into the BASIC PRINT routine. You can enter any numeric expression the BASIC language can interpret. This allows you to compute any expression from a simple arithmetic one (19+6) to an inverse hyperbolic cosine [ $\log(1.4+\text{sqr}(1.4^2-1))$ ].

Possible expressions: 2+2, 8+6/8, (8+6)/8, 7\*3, 7\*(67-38), ASC("&"), PEEK(53280)AND15.

Enter an expression and press RETURN; the answer will be displayed. You can then press RETURN to return to edit mode, press "^" to do another calculation, or press "@" to insert the answer into your text at the current cursor location.

### **Capitals Mode CTRL,c**

Tap CTRL, then "c," to toggle capitals mode on and off. With capitals on, the letters a-z will be converted to A-Z. All other keys are unaffected (which would not be the case if you had just pressed the SHIFT-LOCK key).

### **Change Case CTRL,SHIFT-C**

Tap CTRL, hold the SHIFT key down, press "C" and the character under the cursor will change case. If it was a capital, it will be changed to lower case; lower case letters become capitals. The cursor will also advance one character, so if you hold the "C" key down, you can change the case of entire words, sentences, or para-

graphs. This feature is used to change the case of text you have already typed in.

### **Clear Text** CTRL,HOME

Instead of selecting "Clear Text" from the Edit Menu, you can tap CTRL and press the CLR/HOME key. You may then choose to erase all text above or below the cursor. Text erased in this manner cannot be restored.

### **Clock Color** CTRL,C=C

Tap CTRL, hold the Commodore logo (C=) key down, press "C" and the timer's character color will change.

### **Decimal Tabs** CTRL,d

Tap CTRL and press "d" to toggle decimal tabs on and off. When the cursor is on a decimal tab the position indicator will read "D:" plus the column number. Decimal tabs are used to enter numbers in columns with the decimal points lined up. If the cursor is on a decimal tab and you type a number, the cursor will remain on the tab and the number you are entering will move over to the left. If you enter a period or space, the character will appear and the cursor will move to the right as usual. The following illustrates what happens after each character of the number "426.78" is entered:

```
      4
     42
    426
   426.
  426.7
 426.78
  ↑
Decimal tab
```

### **Delete a Line** CTRL,DEL

The remainder of a line can be deleted by tapping CTRL and pressing the DEL key. More than one line can be deleted by repeatedly pressing DEL. Text deleted in this way cannot be restored, whereas text that is eaten can be. However, it is sometimes more convenient to delete text by line.

### **Disk Commands** CTRL,↑

Tap CTRL, then "↑" to prepare to send a DOS command to your drive. If you just tap CTRL, press "↑" and then RETURN, the error channel will be read. Otherwise you may enter any of the following DOS commands.

i0	Initialize drive 0
v0	Validate disk in drive 0
s0:name	Scratch "name"
n0:diskname,id	Format a blank diskette
n0:diskname	Clear disk directory
r0:new=0:old	Rename a file
c0:new=0:old	Copy a file

The "0" may be omitted if you are not using dual drives (e.g. r:new=old). Be sure the first character is a lower case character.

## **Disk Directory CTRL,4**

A disk directory can be viewed at any time without affecting your current text by tapping CTRL, then pressing the number "4" key. Hold the SHIFT key down to pause; press the BACKARROW key to abort.

## **Drive Type? CTRL,SHIFT-D**

Tap CTRL, then SHIFT-D if you are using two 1541s or dual drives (drives 0 and 1). If you select "Devices 8,9" you will be given an opportunity to change the device number of one drive from 8 to 9. Leave the BB program disk in drive 8 or 0; drive 9 or 1 will become your work drive. Help files will load from drive 8 or 0, while load, save, directory, and disk commands will default to drive 9 or 1. (For a directory of drive 8 or 0, tap CTRL,\$ instead of CTRL,4.) Dual drive users must specify drive number when naming files or executing disk commands (e.g. "s1:scratch file").

## **Eat Spaces CTRL,SPACE BAR**

This is a very useful command. After inserting a bunch of blank lines by pressing SHIFT-RUN/STOP and adding some new text, tap CTRL and then the SPACE BAR to eat up the remaining spaces. This technique of adding text is faster than using insert mode.

## **Eat Text CTRL,e**

As an alternative to pressing "↑" and selecting "Edit," then "Eat Text," you can tap CTRL and press "e" instead. You may then eat text by word, sentence, or paragraph in one of two ways: by selecting from the menu, or by pressing "w" or F1 for word, "s" or F3 for sentence, or "p" or F5 for paragraph. Try out the various alternatives to find the one that best suits you. You may find that pressing ↑, RETURN, RETURN (the defaults are "Edit" and "Eat Text"), then one of the function keys will prove the fastest method.

Although not a menu choice, you can press "c" to eat characters. This feature can be used as a forward delete.

The order in which text is eaten is important. Eat text first by paragraph, then by sentence, and finally by word. If you were to eat a few words from the middle of a paragraph, then ate the paragraph, and finally you restored the text, it would no longer be in the order you wrote it. The words from the middle of the paragraph would appear first, followed by the rest of the paragraph.

## **Eat More Text CTRL,SHIFT-E**

If you tap CTRL, "e" to eat text, the message "Stomach Emptied" appears at the bottom of the screen. To preserve the contents of the stomach and add more text to it, tap CTRL and press SHIFT-E instead of "e". In this way you can gather text from different parts of your document into one block before restoring it.

## **Edge Effect CTRL,\***

Tap CTRL and press "\*" to toggle the "edge effect" on and off. When word-wrap occurs or when you enter a RETURN MARK, the remainder of the screen line is filled with SHIFTed spaces. With the edge effect on, the SHIFTed spaces appear as reverse video spaces having the same color as the current border color. This allows you to see the number of true spaces that will actually print at the end of each line.

### **Encryption CTRL,?**

This is a fun feature that some will find indispensable. Tap CTRL, hold the SHIFT key down, press "?" and you will be asked if you want to encrypt or decrypt the text currently in memory. If you do, select "Yes" and input your secret code word or phrase. When you press RETURN, your entire text will be turned to unreadable garbage. If you now save the text, no one (including yourself) will ever be able to decode it unless they know the secret code word or phrase. Decrypting a file follows exactly the same procedure as encrypting it, so just enter your secret code a second time. For safety's sake, you might record your secret code somewhere--just in case.

### **Exit to BASIC CTRL,x**

Tap CTRL, then "x" to exit to BASIC. If you want to re-enter **BB Writer**, just RUN the program and your text will still be intact. If you do a reset of your computer and change your mind, POKE787,234 and then SYS 2130 to re-enter without loss of text.

### **Extra Text Area CTRL,Sh +**

Tap CTRL, then SHIFT-PLUS to toggle this feature on and the normal text area will be divided into two parts. Tap CTRL,q to quickly toggle between the two areas. This feature allows you to have two documents in memory at the same time. You can easily transfer text between the documents by eating text from one, switching to the other area, and restoring the text.

If, from text area 1, you tap CTRL,SH-PLUS again, the extra text area will be removed and any text in area 2 will be ERASED IRRETRIEVABLY.

An RVS R can be defined (R=168) to equal the start of text for text area 2 (equals high-byte). Larger values (169-200) result in a smaller extra text area.

The Kernal LOAD routine is used to allow for fast-loading of files. A disadvantage is that no error checking is done to avoid loading a file that is too large. Error checking is done during APPEND, so when in doubt, append to a single character. Loading a file that is too large will result in loss of text.

Do not "Exit to BASIC" or "SAVE Defaults" from area 2. If you do exit, SYS 2140 to re-enter without loss of text.

### **Font Toggle CTRL,f**

Tap CTRL, then "f" to toggle between the standard CBM character set and a user-definable one. With "Ultrafont" (*Compute!'s Gazette*, September 1986), you can load "bb font" and change the shape of the characters to suit yourself. If your printer has a foreign language character set, you could change the screen character set to match your printer's character set.

### **F Key Toggle CTRL,SHIFT-F**

This feature only applies to **BB Talker**. In **BB Talker** the F keys are used for speech processing in edit mode and for moving the cursor (as in **BB Writer**) in command mode. If you are doing mostly word processing, you might want to switch the F keys so that you can use them to move the cursor about in edit mode the same as you can in **BB Writer**.



### **Hunt Text CTRL,h**

To hunt through your text for a word or phrase, you must first define the phrase to be hunted down (CTRL,SHIFT-H; see next command). The hunt begins at the current cursor location, so if you want to hunt through your entire text, just home the cursor to the start of your text first. When you press "h" (from command mode) **BB Writer** scans forward from the current cursor location looking for the word or phrase you have defined. If the phrase is found, the non-blinking cursor will stop on the first letter of the phrase; otherwise a "That's All" message will appear at the bottom of the screen. Hunt can be used simply to find a text string, or, together with the replace option, to hunt for and replace text. You could hunt for "disk" and replace it with "diskette" for example. Also see "Search and Replace," page 25.

### **Hunt Phrase Defined CTRL,SHIFT-H**

Tap CTRL, then SHIFT-H and the prompt "Hunt for:" will appear. Type in the word (or part of the word) or phrase you want to find. Including a space at the beginning or end of the phrase may help to narrow the search. For example, "the" will find "the, then, them, either" and so on, but " the " will find only the word "the." You may also use a wild card character ("?") as part of the hunt phrase. For example, "de?r" will find all occurrences of "deer" and "dear" in your text.

Reverse video (RVS) characters can be included in the hunt phrase. The input line normally displays a flashing backarrow. Tap the CTRL key and the cursor changes to a flashing "R". All characters you enter will now appear in reverse video. Tap CTRL again to toggle reverse video off.

Sometimes you may want to hunt for all occurrences of a word--both upper and lower case (hunt, Hunt, HUNT). For a caseless search, press SHIFT RETURN instead of RETURN after entering the hunt phrase in lower case.

### **Insert a Line CTRL,INST**

You can insert a line of blank spaces by tapping CTRL and pressing the INST key. Hold the INST key down to insert as many lines as you need.

### **Insert Mode Toggle CTRL,i**

Tapping CTRL, then "i" toggles insert mode on and off. When insert mode is on, a space is inserted before each new character is printed to the screen; in this way text is not overtyped. Insert mode is a feature found on most word processors, and some users would be frustrated without it. However, **BB Writer** provides an easier and faster way of adding new text: press SHIFT-RUN/STOP and six blank lines will be inserted; add the new text, then tap CTRL and hit the SPACE BAR to eat up any extra spaces.

### **Key Click Toggle CTRL,k**

If you want to hear a clicking sound each time you press a key, tap CTRL, then "k". Tap CTRL,k again to turn it off.

### **Keyboard Type CTRL,SHIFT-K**

Tap CTRL, then SHIFT-K to toggle on the Dvorak keyboard. Since the keyboard layout will be changed, you will need to tap CTRL, then

QWERTY SHIFT-V (Dvorak "K") to restore the QWERTY keyboard. See appendix B, page 46.

### **Letter Color** CTRL,£

Tap CTRL and press "£" to change the text letter color. Keep pressing "£" to cycle through all 16 possible colors.

### **Letter Color of Menu** CTRL,SHIFT-£

Tap CTRL and press SHIFT-£ to change the menu line letter color.

### **Load/Merge/Append** CTRL,l

To load a file from command mode, move the cursor to the beginning of your text and tap CTRL, then the letter "l". Enter a file name and press RETURN. BB text file names should begin with a hyphen and so one is provided automatically. If the hyphen is deleted, that file will not appear in the Load Menu. You can also "load" (actually READ) PRG, SEQ, or USR files by adding a ",p" ",s" or ",u" to the end of the file name. Since most sequential (SEQ) files contain Commodore ASCII characters, you should toggle ASCII on (CTRL,a) before loading a SEQ file, then toggle back to screen code.

READING a PRG file is not the same as LOADING one. When a file is READ, the two byte header or load address is included. This means you could use BB Writer as a copy program to READ a machine language program into the editor, then WRITE it to another disk. While the program is in the editor you could even modify the program by overtyping any text data before WRITEing it back to disk.

You can merge text files into the body of your text by moving the cursor to the point you want the text to load, and tapping CTRL,l.

Appending a file is simply a matter of moving the cursor to the very end of your text before tapping CTRL,l. The file will be READ in, so the danger of loading a file that is larger than the remaining text memory is avoided. This is the safe way to append, but it is slow. To fast-append (using the kernal LOAD routine), add a "+" to the end of the file name you want to append. The "+" will not be considered part of the file name, so "-roug\*+" would be an acceptable file name. To be totally safe, SAVE your current text before appending.

Put a "t:" in front of the file name to load from tape (e.g. t:-filename).

### **Macrotyping** CTRL,m

Tapping CTRL, then "m", toggles the macro feature on and off. See page 34 for details.

### **Macro (temporary)** CTRL,SHIFT-M

Tap CTRL and press SHIFT-M to define a temporary macro (see page 35).

### **Position Color** CTRL,C=£

Tap CTRL, hold down the Commodore logo key and press "£" to change the color of the position indicator. This color will also be used for the messages that appear at the bottom of the screen.

### **Print CTRL,p**

You may by-pass the Print Menu by tapping CTRL, then "p" to output text directly to printer. Position the print head just below the paper's perforation. Press SHIFT to pause printing. Press STOP or the BACKARROW key to abort printing. If you have no printer, or a Commodore printer that's off, output will go to the screen instead--in effect the same as previewing. Printing to a non-Commodore printer that's off may cause the "Printing" message to appear, but that's all. Not to worry; just press the BACKARROW key to abort. To always preview, set the device number to 3 (good idea when children are at play).

### **Preview CTRL,SHIFT-P**

Tap CTRL and SHIFT-P to print your text to an 80-column screen. Press SHIFT to pause printing or BACKARROW to abort. When the last character is printed, the preview screen will remain until you press a key. The colors of the preview screen can be changed. Print some text to the screen and press SHIFT LOCK to pause printing. Now press "b" to change the background color, C= B to change the border color, and "£" to change the letter color.

### **Replace CTRL,@**

This command works in conjunction with Hunt. After a word or phrase has been found using the hunt command, it can be replaced with another word or phrase that has been previously defined (see below).

### **Replace Defined CTRL,SHIFT-@**

Before using the Hunt & Replace feature, tap CTRL and press SHIFT-@ to define the replace word or phrase. If you just press RETURN without entering a word or phrase, a null replace phrase will be defined and will have the effect of causing the word found by the hunt command to be deleted if you press the "@" key.

If you are using the macrotyping feature, then the current replace phrase will be redefined every time a macro is used, so always define, or redefine, the replace phrase just before using the replace feature.

### **Restore Text CTRL,r**

As an alternative to selecting "Restore Text" from the Edit Menu, tap CTRL then press "r" and the contents of the stomach, if any, will be regurgitated at the current cursor location.

### **Restore & Sort CTRL,SHIFT-R**

You can alphabetically sort, in ascending (A-Z) or descending (Z-A) order, a list or data table by first eating the data and then tapping CTRL and SHIFT-R (instead of "r") to restore and sort the data. A menu will appear. Select "A-Z" to sort in ascending order or "Z-A" to sort in descending order. Then select the column (1-10) you want to sort on, and the sorted list will be spit out at the current cursor location. Lists up to 9K may be sorted. See the tutorial "Sorting Columns" for an example.

### **RVS Commands (single) CTRL,1**

To enter a single reverse video format command, tap CTRL, then the number "1" key. The prompt "Press format key" will appear at the bottom of the screen. Pressing any character key will cause that character to appear on the screen as a reverse video (RVS) character. RVS characters are used to send format or printer commands to **BB Writer's** print routine. A reverse video "u" for example will toggle underlining on or off. After entering an RVS character, you will automatically be returned to edit mode.

### **RVS Commands (multiple) CTRL,2**

You can enter a single RVS format command (see above) by tapping CTRL, then "1," but some reverse video commands are more than one character long, and you may want to put more than one command on a line. To enter multiple or double character commands, tap CTRL, then the number "2" key. The only difference between CTRL,1 and CTRL,2 is that CTRL,2 allows you to type in as many RVS characters as needed, and CTRL,1 automatically returns you to edit mode after pressing a single key. CTRL,2 also automatically turns insert mode on so that text is never overtyped. After you have entered as many RVS characters as needed, press the RETURN, BACKARROW, or SEMICOLON key. NOTE: All double character format commands must be on a separate line, or at the beginning of a line. If text is to follow on the same line, press the SEMICOLON key to exit RVS mode and resume typing in edit mode.

### **Save CTRL,s**

Tap CTRL, then "s" to SAVE your current text. The prompt "Save:" will appear; enter a file name, or press RETURN to abort and return to edit mode. **BB** text files should start with a hyphen and one is provided, but it may be deleted. If a file with the name you select already exists, you will be asked if you want to replace it. If "Yes," then the old file will be scratched and the current text SAVED. A file name such as "@0:-bb file" (entered without quotation marks) would result in the old "-bb file" being scratched and the current text SAVED. The DOS save and replace routine is never used, even though the syntax is.

If an error occurs during a SAVE, the screen will briefly turn red and an error message will appear at the bottom of the screen.

To save to tape (Datassette) put a "t:" in front of the file name (e.g. "t:file name").

You can WRITE sequential (SEQ) files by adding a ",s" to the end of a file name ("-filename,s"). Add a ",p" to the file name to WRITE a program (PRG) file, or ",u" for a user (USR) file. Since you can convert **BB Writer's** normal screen code to either CBM ASCII or true ASCII and can save text in any of three file types, you can create files that can be read by almost any other software.

If you include a non-printing note (RVS "n") at the very start of your text followed by a "@0:-" and then the file name, you can save the current version of your text by simply tapping CTRL then "s." This is the auto-save feature. See the **BB** file "Printer Test" for an example.

### **Save Defaults CTRL,x**

When you tap CTRL, then "x", you can either exit to BASIC or save current defaults. If you elect to save defaults, be sure the BB program disk is in the drive, and make the appropriate menu choice. Saving defaults means that all user definable variables--colors, menu defaults such as margin settings, special features such as autoboot and autocaps, printer macro definitions, etc.--will be saved. The next time you load BB Writer, everything will be as you left it.

### **Screen Dump CTRL,C= P**

Tap CTRL, hold down the Commodore logo key, and press "p" to print the current screen. The menu and message lines will not be printed. When viewing one of the three help screens or 60 help files, just press "p" for a screen dump.

### **Search & Replace CTRL,SHIFT-S**

This feature will search your text, beginning at the current cursor location, looking for a word or phrase, and replacing it with a different word or phrase. Tap CTRL and SHIFT-S; the prompt "Search:" appears. Enter the word or phrase (up to 32 characters) you wish to search for. A "?" may be use as a wild card in the name. For example "de?r" will match with "dear" and "deer."

Reverse video characters can also be searched for. Tap CTRL to toggle RVS ON and OFF (when RVS is ON, the cursor will appear as a flashing "R").

If you enter your search phrase in lower case and press SHIFT RETURN, BB Writer will perform a caseless search ("turbosave" would match with "TurboSave" and "TurboSAVE").

To search for an exact match, enter the search phrase and press RETURN; the prompt "Replace:" will appear. Enter the replacement word or phrase. Press RETURN and search & replace will begin. Press the BACKARROW key to abort. Search and replace automatically goes through the file, whereas hunt & replace performs one hunt and one replace at a time at your direction (see page 21).

### **Tabs CTRL,t**

You can set or clear a tab by positioning the cursor on the appropriate column and tapping CTRL, then "t." If there was no tab to begin with, then a tab will be set. If there was already one, it will be cleared. If a tab is set, the position indicator should read "T:" and some number. If decimal tabs are active (see page 18), then the position indicator will read "D:" plus some number. Tabs may be set anywhere within the current text width (up to 132 characters). Use the STOP key in edit mode to move the cursor to the next tab stop.

### **Tabs Cleared CTRL,SHIFT-T**

Tap CTRL, hold the SHIFT key down, and press "T" to clear all tabs.

**Verify CTRL,v**

Tap CTRL, then "v" to verify a save. Unless you are saving to tape or using TurboSave (which doesn't automatically verify) you need not verify your saves. When verifying a save to tape, be sure to put a "t:" at the start of the file name.

**Wide Screen CTRL,SHIFT-\***

Tap CTRL and press SHIFT-\* to toggle the wide screen feature on and off. This feature serves no useful purpose, but some users may prefer the novel screen format.

**Word Count CTRL,=**

Tap CTRL and press "=" for an approximate word count. The number of bytes (or characters) used and bytes free is also given. TOTAL-Text=Bytes Free, so "T-3298=19202 Bytes Free" means that there are 3298 characters in your text and that there is room for 19202 (or over 19K) more. Divide the number of bytes used by 254 and round up to the next whole number for the size of your text in blocks (3298/254= 12.98 or 13 blocks). If there were only 12 blocks free on a disk, knowing the size of your text in blocks could be useful.

**Word-Wrap CTRL,w**

Tap CTRL, then "w" to toggle word-wrap on and off. When the cursor reaches the right edge of the screen it always wraps around to the beginning of the next line. With word-wrap on, the word you are typing at the time will also wrap around with the cursor. Sometimes turning word-wrap off helps when entering data in a table.

## Text Format Options

Like all high productivity C-64 word processors, **BB Writer** is a "post-formatting" word processor. This means you don't have to format your documents as you type them in--creating margins and page breaks, centering lines, and so forth. All of that is done during printing. This approach lets you quickly format and reformat your documents without changing the way they are stored in memory or displayed on the screen.

Basic text formatting (setting margins, line spacing, justification, page length and width) can be done from the Print Menu. Although some users may be happy using only the menu options, most users sooner or later will want to get fancy and try out some of the embedded format options. Format commands appear as reverse video (RVS) characters on the screen to distinguish them from normal text. Unlike normal text, RVS characters are not sent to the printer, but are interpreted by **BB Writer** as special commands or directives. These special RVS format commands tell **BB Writer** to do things like center a line, change a margin setting, define a header, print the current page number, or turn underlining on or off. Learning to use at least a few of the many format options available to you will be well worth your while.

There are two types of RVS commands: CTRL,1 formats and CTRL,2 formats. CTRL,1 formats are single character commands. Many are toggles--they turn features like centering, boldface print, and underlining on or off. Others will force a page break, cause a line to be right justified, or load a linked file. CTRL,1 formats are entered by tapping CTRL, then the number "1" key, and then the appropriate alphanumeric key.

CTRL,2 formats are two characters long and are always followed by a number. CTRL,2 formats allow you to define margins, headers and footers, set line spacing, and so on. Since the values are embedded in your text, they over-ride the Print Menu settings. When you include all formatting commands as part of a document, then the next time it is printed, the format will be the same. CTRL,2 formats are entered by tapping CTRL, then pressing the number "2" key, and entering the appropriate command (two characters plus number). **IMPORTANT:** CTRL,2 formats must always be placed on a separate line, or placed at the beginning of a line of text. See page 24 for more information on entering CTRL,1 and CTRL,2 format commands.

### **CTRL,1 RVS Formats**

#### **a Alternate Pagnation.**

Use this command if you will be printing on both sides of your paper, and you want the header or footer (usually containing a page number command) to be right-justified (aligned with the right margin) on odd-numbered pages and left-justified on even-numbered pages. This is the same way pages are numbered in most books. For example, the following line defines a header to right-justify the page number on alternate (odd-numbered) pages only.

he4;a#

**b Boldface toggle.**

A reverse video "b" turns boldface or double-strike printing on; the next RVS "b" turns it off.

**c Centering toggle.**

A line of text, such as a title, can be automatically centered by putting an RVS "c" at the beginning of the line. Normally a toggle like centering must be turned off, but as a convenience feature, centering is automatically turned off when word-wrap occurs during printing. If a command such as margin release or right alignment follows a centered line, centering must be turned off by a second RVS "c" or the other commands will not work properly. **BB Writer** will correctly center a double-width line *if the double-width command is turned on first* (use dc not cd).

**d Double-width text toggle.**

Most dot matrix printers will print double-width text. An RVS "d" toggles double-width on and off. When printing to the 80 column screen or daisy-wheel printer, a space will be printed between each letter. If you wish to center a double-width line, be sure to turn double-width on first.

**e Emphasized print.**

If your printer supports emphasized printing, use an RVS "e" to toggle this feature on and off.

**f Forced page.**

An RVS "f" immediately forces the next page to be printed. The current page will be ejected (a footer, if any, will be printed), and the text after the RVS "f" becomes the start of the next page. Unlike most CTRL,1 format commands, the forced page directive must be on a separate line. There is also a conditional forced page command (see page 31).

**i Italics toggle.**

Some printers have an *italic* character set; an RVS "i" toggles italics on and off.

**j Justification toggle.**

Although justification can be turned on from the Print Menu, an RVS "j" allows you to justify all or only part of your text.

**l Linked file.**

The linked file command allows you to print a document that is too large to fit into memory. Any number of files can be linked together. Just add an RVS "l" followed by the name of the next file to the end of the current text. Example:

**l0:nextfile**

To print a series of linked files, load the first file in the series and print to screen or printer. You will be warned that the text in memory will be erased if the linked file is printed, and given the choice of printing or not printing the linked file.

Do not use linked files when printing in double columns.



**M Margin Release.**

An RVS "m" at the beginning of a line causes the line to be printed with no left margin. A margin can also be released a given number of spaces (see page 32) using the "mr" command.

**N Non-printing note.**

Comments may be included within your text as non-printing notes. Text preceded by a reverse video "n" will not be printed. Notes may be up to 250 characters long.

**R Right alignment.**

A line, such as a header or footer, can be made to print so that the end of the line is even with the right margin by placing an RVS "r" at the beginning of the line. Right alignment is automatically turned off after the line is printed.

**R Reverse field toggle.**

Text can be printed in reverse video on some printers by enclosing the text with RVS capital R's.

**S Subscripts.**

Characters preceded by an RVS "s" will be subscripted (on some printers). A second RVS "s" turns subscripting off

**S Superscripts.**

Characters preceded by an RVS "S" will be superscripted (on some printers). A second RVS "s" turns superscripting off

**U Underlining toggle.**

An RVS "u" toggles underlining on and off (on some printers). On dot matrix printers, underlining is done by sending control codes to turn underlining on and off. On daisy-wheel printers underlining is done by backspacing and printing an underline character.

*NEED TO TURN NLQ OFF, FIRST. SHIFT "S" CONDENSED ON, THEN SUPER ON, THEN TOGGLE ALL 3 AGAIN AGAIN*

**W Wait...pause printing.**

An RVS "w" will cause printing to pause until a key is pressed. If the Print Menu's auto linefeed option is ON, a carriage return [CHR\$(13)] will also be sent. This would allow you to change ribbons or daisy-wheels in mid-sentence to print a word in a different color, or italicize a phrase. Before turning auto linefeed ON at the Print Menu, configure your printer or interface so that they are not sending any linefeeds.

**X External file.**

This command works only with the mail merge feature (see page 36). An RVS "x" followed by a file name will cause the external file to be opened and data to be read in and then inserted at appropriate fill-form markers. This command should be placed near the beginning of a document.

**# Print page #.**

Put an RVS "#" in a header or footer and each page will be automatically numbered for you. The first page printed is normally number "1," but can start with any number using the "pn" command (see page 33).

- **Condensed print toggle.**

A reverse video "." turns condensed print on; another RVS period turns it off.

- **Soft hyphen.**

An RVS hyphen may be placed between the syllables of long words to enable automatic hyphenation. If the word breaks at the right margin, it will be hyphenated for you; otherwise the RVS hyphen will be ignored. This feature is especially useful when justifying double column text to avoid an excessive number of spaces between words.

**E Escape code.**

An escape code [CHR\$(27)] can be entered by tapping CTRL, then the number "1" key and pressing SHIFT-backarrow (or capital "E").

## **CTRL,2 RVS Formats**

**ai Auto-indent paragraphs.**

You can indent a paragraph by pressing SHIFT-RETURN, but if you have a document in which no paragraphs have been indented, the auto-indent feature may be used. In **BB Writer**, a "paragraph" is any text ending in a RETURN MARK. This includes titles, for example, so some care is required in using this feature. An "ai5" after any titles auto-indent the remaining paragraphs five spaces; an "ai0" turns the feature off. Paragraphs may also be outdented: an "ai-5" outdents paragraphs five spaces.

**bl Blank Lines.**

A RETURN MARK creates one blank line if you are single spacing, but two when double spacing. The blank line command prints a given number of blank lines regardless of the line spacing used. A "bl15" prints 15 blank lines. This command does not work when printing in double columns; use RETURN MARKS instead.

**bm Bottom Margin.**

To create a one inch margin at the bottom of each page, enter "bm6" (assuming 6 lines per inch). The value after the "bm" is the number of blank lines to be printed at the bottom of a page.

**cm Column Margin.**

The column margin is the number of spaces between columns. To print your text in double columns, set the column margin value greater than zero. The entire document will be printed in columns except for headers or footers. To print a section of text (usually a list) in columns, use the following embedded format command:

```
cm6,4  
BB Writer  
BB Talker  
BB Customizer  
BB File Reader
```

The first number is the column margin, the second is the number of items in the list. The number of items must be even--if not, add a

### **fo** Footers.

One or more lines of text totaling up to 160 characters can be printed at the bottom of each page. The value following the "fo" is the footer margin--the number of spaces from the bottom of the page the footer will start printing. Be sure the footer margin is less than the bottom margin. Press the semicolon key before entering the text of the footer. Other format commands, like centering and right alignment can be included. If you wanted the page number to be centered and printed 5 lines from the bottom of each page you would enter: fo5;c#

For a multi-lined footer, an RVS backarrow is used to separate each line.

To define two footers (one to print on odd-numbered pages and one to print on even-numbered pages): enter the odd-page footer followed by an RVS colon, then enter the even-page footer. Example: fo5;odd footer:even footer

If you create a footer to print only a space, the last page will always be ejected.

### **fp** Forced Page (conditional).

An RVS "f" always forces the printer to move to the next page (see page 28). An RVS "fp" causes a new page to be started only if there are fewer than a given number of lines remaining before the bottom margin reached. This command is used to prevent a given number of lines from being divided when a new page is created. It could be used before a subheading, for example, to prevent it from being printed by itself at the bottom of the page.

### **he** Headers.

An RVS "he" followed by a margin value defines one or more lines of text that will be printed at the top of each page. The header margin is the number of blank lines between the header and the top of the paper and must be less than the top margin. If a header is to be printed on the first page, it must be defined before any text is printed. By defining the header after some text has printed, even a carriage return, it will not be printed until the next page. After defining the header margin, press the SEMICOLON key before entering the text of the header. Other format commands, such as centering, right alignment, and page numbering, can be included. If you want a header to be centered and printed 5 lines from the top of each page you enter: he5;cThis is a header.

For multi-lined headers, separate each line with an RVS BACKARROW. Headers may be up to 200 characters long.

Alternate odd/even-page headers can also be defined by separating each with an RVS colon. For example:

he4;This line prints on odd pages only:This is an even-page header

### **hl** Header/footer Left margin.

If no header/footer left margin is set (hl0), then the current left margin is used. Otherwise a different header/footer left margin may be specified.

**hr Header/footer Right margin.**

If no header/footer right margin is defined (hr0), then the current right margin is used. Otherwise a different header/footer right margin may be specified. This would allow page numbers, for example, to be printed outside the current right margin.

**lm Left Margin.**

The left margin is the number of blank spaces between your text and the left edge of the paper. If there are 10 characters per inch, then "lm10" would create a one inch left margin. An "lm15" would give you a one and a half inch left margin. A "relative left margin" is also possible. Let's say you have a long quote and you want it to be always indented three spaces relative to the current left margin. An "lm+3" placed just before the quote would add three to the current left margin setting. At the end of the quote, an "lm+0" restores the original left margin. By using relative margins, only the true left margin as defined at the beginning of your text need be changed to reformat the entire document. A given value can also be subtracted from the left margin. An "lm-4" would reduce the current left margin by four.

**ls Line Spacing.**

Line spacing refers to the number of blank lines, if any, between lines of text--not the number of lines per inch. For single line spacing use "ls0" or no blank lines. An "ls1" creates double spaced text (one blank line), and "ls2" creates triple spaced text. Use printer macros for total control of linefeed spacing.

**mr Margin Release.**

An RVS "m" causes no left margin to be printed. An "mr4" placed before a line of text subtracts four from the current left margin before the line is printed. In effect the line is outdented by four. This feature allows you to number paragraphs with the numbers appearing outside the left margin.

**of Offset.**

An "of40" causes all text to be offset 40 spaces to the right when printed. You could use the offset command to center the printout without moving the paper. It could also be used to print columns by printing the first column, adding an offset, and feeding the paper through a second time to print the next column.

An odd/even-page offset can also be defined by entering "of" instead of "of". An "of10" offsets the text to the right by 10 on odd-numbered pages only. This feature is used when you are printing on both sides of a page and want to create a larger margin on odd pages to allow for binding.

**pl Page Length.**

This command defines the number of lines per page or page length as measured in lines per inch. Most printers normally print six lines per inch. So, if your paper is 11 inches long, there will be 66 lines per page. Some printers can print a variable number of lines per inch. If your printer is printing eight lines per inch, then you must change the page length to 88 ("pl88").

**pn Page Number.**

Page numbering normally begins at "1," but you can change this to any value you want. If you wanted auto-page numbering to begin at page 342, then "pn342" would set the page number counter to 342.

**pp Print Page X.**

You've just printed pages 1-14 and noticed a serious spelling error on page 12. The page will have to be reprinted, but instead of printing pages 1-11 first, just set "pp12" to print page 12. After page 12 prints, press STOP or BACKARROW to abort printing (set wait-between-pages if necessary). This command is the same as selecting "Start at page number" from the Print Menu except that by using this command the page number specified may be greater than 254.

**pw Page Width.**

Most printers print 80 characters per page, so the default page width is 80 ("pw80"). If you are using an elite character set which prints 96 characters per page, redefine the page width to "pw96."

**rm Right Margin.**

An "rm10" creates a right margin of one inch (assuming 10 characters per inch). Some word processors use the term "right margin" to refer to the column number. In **BB Writer**, the value after the "rm" refers to the distance between the text and the edge of the paper as measured in characters. As with the left margin, relative right margins are possible. An "rm+5" adds five spaces to the current right margin setting; an "rm-5" subtracts five spaces.

**sa Secondary Address.**

The usual secondary address, seven, should be defined at the Print Menu. The "sa" command allows you to change the secondary address during printing. An "sa0" causes lower case letters to print in upper case, and capital letters to print as graphic characters (on most printers). Thus, over 30 graphic characters, which could not otherwise be printed, are made available. Most interfaces recognize a variety of secondary addresses.

**tm Top Margin.**

If your printer prints six lines per inch, then a "tm6" creates a top margin of one inch and a "tm9" a margin of one and a half inches.

**<1> Fill-marker.**

Entering an RVS "<3>" by first tapping CTRL,2 causes the mail merge feature (see page 36) to insert the third item of each record at the fill-marker location.

**y,z & A-Z User-defined print keys.**

An RVS y, z (entered by tapping CTRL,1) and RVS capitals A-Z (except S and R) can be defined to equal any character code (0-255). An RVS capital "E" has been predefined to equal 27, for example. Enter "z=95" in reverse video near the beginning of your text, and an RVS "z" placed anywhere in your text will print a backarrow [CHR\$(95)], or, on some printers, an underline character. Printer macros work the same way, but allow a single character to send up to eight control codes to the printer instead of only one.

## Special Features

### Double Column Printing

Printing your text in double columns is as easy as setting a column margin greater than zero. The column margin may be set either from the Print Menu, or by using an embedded "cm" format command. The entire document will print in double columns except for the header or footer. Both columns are printed at the same time in one pass, so double column printing can be done on any printer.

A section of text (usually a list) can also be printed in columns by using the following embedded format command:

```
cm6,4
BB Writer
BB Talker
BB Customizer
BB File Reader
```

The first number is the column margin, the second is the number

of items in the list. The number of items must be even--if not, a RETURN MARK should be added to the end of the list.

When printing in columns, the forced page and blank line directives will be ignored. The last line to print must be known before the first can be printed, so the linked file feature cannot be used. The only other limitation of double column printing involves the use of special printer features such as underlining. If you had underlined a phrase, and the phrase was broken because it will not all print on one line, then underlining has not been turned off and the adjacent line in the next column will be inadvertently underlined. The solution is to note where the break occurs and turn underlining off there, then back on at the next word. Likewise for boldface, italics, etc.

### Macrotyping

The macrotyping feature allows you to designate any one or two characters to stand for any word or phrase up to 250 characters long--that's over six screen lines of text. For example, you could designate one character to equal your entire name and address. Hundreds of macros can be defined and used as you type. Just enter the abbreviation, press the SPACE BAR, and out pops the predefined word or phrase. The number of macros you can define is virtually unlimited--the more macros you define, the less memory is left for text.

The ability to use macros on the fly is a unique and powerful feature of **BB Writer**. The term "macrotyping" has been coined to refer to the ability to call up macros during normal typing without pressing any special keys that would interrupt the flow of typing. Some 70 to 100 words make up 50% of all the text you type. So, if you could reduce the number of key strokes needed to type those words by half or more, you could increase your productivity by 25% or more. The word "the" makes up about 7% of normal text; by learning a single key abbreviation, you gain a 4% advantage. Less than a dozen words make up 25% of normal text, so learning only a few macros is well

worth while.

Macro definitions are contained in the file "bb macros." This file can be loaded (CTRL,l and delete the hyphen) and new macros added, or old ones deleted or redefined. The format will be obvious when you load the file: x=xxxxx or xx=xxxxx. There should be three RETURN marks at the end of the file--don't remove them. Definitions may include RVS format commands. A macro may be made more than one line long (such as an address) by putting an RVS backarrow (CTRL,l,backarrow key) at the end of all but the last line; the file contains an example. The macro file is one of the modules loaded as **BB Writer** boots up, so after saving the new "bb macros," you must reboot to use the newly defined macros.

Macros need not be in alphabetical order, but when printed, the list is easier to read. The file "Macro Printer" will print all macro definitions in double columns.

There are approximately 100 predefined macros. These macro definitions were based on a careful study of English word frequency--they were not arbitrarily arrived at. If any user can come up with a demonstrably more logical or efficient set of definitions, please contact the author.

If you were writing a review of **BB Writer**, for example, you might want to create a macro (say "bw=BB Writer"), without including it as part of the macro definition file. For such occasions a temporary macro can be defined by tapping CTRL and pressing SHIFT-M. Type in the definition, press RETURN, and you're ready to use the macro (assuming the macro feature is turned on). More than one temporary macro can be defined by separating each with a backarrow (e.g. bw=BB Writer<bt=BB Talker<S=S.A.M.)

## File Translation

A special file translator option has been included (in **BB Writer only**) to make it easy for users of the following word processors to upgrade to **BB Writer**.

SpeedScript	Bank Street Writer
EasyScript	Omniwriter
PaperClip	Font Master II
Word Pro 3 Plus	Write Now!
Fleet System II	Pocket Writer
Word Pro 64	RUN Script
Creative Writer	Word Writer

To translate a file, just tap CTRL,l (letter "l" for "load"), delete the hyphen, type in the file name and press SHIFT-RETURN instead of RETURN. A menu will appear. Make the appropriate choice and the file will be loaded. All embedded format commands, insofar as possible, will then be converted to **BB** format.

Any sequential file (SEQ) containing Commodore ASCII characters can also be easily loaded, and automatically converted to screen code, by selecting or pressing "s." Also see page 16 (ASCII Toggle) for more tips on file conversion.

## **Mail Merge**

This feature allows you to place fill-markers (up to 255) anywhere within your text, and have data (name, address, etc.) read in from an external file to take the place of the fill-markers. If the external file contained a list of names and addresses for 125 people, you could then print a personalized letter to each person on the list.

### **x0:addresses**

The above line placed at the start of a file opens the external file "addresses" and reads in the first line of data. The file in memory is then scanned for "<1>" fill-markers. Any found are replaced by data from the x file. A second line is then read in and inserted at all "<2>" markers, and so on. At the end of the record, the text is printed, the fill data deleted, and the next record read in. Each record may have up to 255 items or lines of data, and each line may be up to 250 characters in length. Each item can be inserted anywhere in the text and used as often as you like. Each line must end in a RETURN mark and each record must be separated by an additional RETURN mark. The data file may be either in PRG/screen code (a BB file) or in SEQ/ASCII format (add ",s" to file name). A database program, such as Superbase, could be used to create the data file.

If you had a file containing 100 addresses and you wanted to start at number 58, set the Print Menu's "Start at page number" feature to 58. Instead of page number, the 58 will be understood to mean record number. For an example, see the "Mail Merge" tutorial.



## Using BB Talker

**BB Talker** differs from **BB Writer** in the way the function keys work and in the amount of memory available for text. Files over 38 blocks (25 if using **BB Talker** with your copy of S.A.M.), which may have been created using **BB Writer**, should *not* be loaded into **BB Talker**. Text memory can be increased by about 1K by reducing the number of macros in the file "bb macros." To provide as much room for text as possible, the file translator, mail merge, Dvorak keyboard, extra text area, font toggle, and sort options have been removed from **BB Talker**. Otherwise **BB Talker** is identical to **BB Writer**.

If you do not have the integrated **BB Talker/S.A.M.** version, you must have a copy of S.A.M., the *Software Automatic Mouth* (no longer being produced).

The function keys, F1, F3, and F5, allow you to have RECITER (S.A.M.'s translator) say whatever word, sentence, or paragraph the cursor is on. Press F7 and RECITER will start talking (beginning with the sentence the cursor is on), and keep on reading text until there isn't any more to read. To stop RECITER, hold a key down until RECITER "takes a breath," then release the key.

Press the F2 key and RECITER will say the character under the cursor. Hold the F2 key down and RECITER will spell text for you. Press the F4 key to find out what column or paragraph the cursor is on and where the tabs are set. Press F6 and RECITER will read the screen.

## Speech Menu

Pressing F8 calls up the Speech Menu, which provides the following options:

### **Voice**

Press F1 and RECITER will say "Voice 1" or whatever the current voice number happens to be. Press the plus or minus keys to change the current voice and press F1 or F3 to hear what that voice sounds like. There are nine user-definable voices which can be turned on and off from within your text using embedded speech commands. This allows you to write a story with dialogue and give each character a different voice.

Each voice is defined by four variables: speed, pitch, mouth, and throat.

### **Speed**

Point to this variable and press the "+" or "-" keys to change the value. The smaller the number, the faster the voice.

### **Pitch**

Increase the pitch and the voice will become higher, like that of a little old lady. Decrease the pitch and the voice becomes deeper like that of a giant.

## **Mouth**

If S.A.M. had a mouth, this variable would increase or decrease the size of it. Try different values.

## **Throat**

Changing the size of the throat, as with the mouth, changes the character of the voice. Try different values.

## **RECITER**

RECITER reads normal English text and translates it into the phonetic script that S.A.M. understands. If you turn RECITER off, any text that you want to be read will have to be in the phonetic script, or an ERROR will result. RECITER is easy to use, but tends to make errors in pronunciation. Correct pronunciation and inflection can be gained only by turning RECITER off and letting S.A.M. read from phonetic script.

## **Lights**

Turning the "lights" off will help S.A.M. speak more clearly, but the screen goes blank when S.A.M. speaks. With Lights ON, you can read along with S.A.M. (the screen will scroll up automatically).

## **Say Characters**

Press F5 to toggle the "Say Characters" option on and off. If the option is on, then S.A.M. will say each character as you type it in. This is a great aid for learning touch typing. If you have young children you can amuse them no end by turning this feature on and letting them punch away on the keyboard--a fun way to learn the alphabet.

## **Say Comments**

Turn on the Say Comments feature to have comments and bar menu selections read to you. When using the Help, Print, Load, or Speech menu, press F1 to have the line the arrow is pointing to read aloud. Help files can also be read to you by pressing F1.

## **Translator**

Turn the Translator feature on, and as RECITER reads English text and translates it into phonetic script, a copy of the phonetic version will be stored in the stomach. To retrieve the phonetic transcript, just tap CTRL,r or select "Restore Text" from the Edit Menu. Once you have the phonetic version, you can correct it for pronunciation and inflection so that S.A.M. can read it perfectly with RECITER turned off.

## **Key Beep Option**

The key click feature may also be turned on or off from the Speech Menu.

## Embedded Speech Commands

All of S.A.M.'s features can be accessed either by way of the Speech Menu, or by using embedded RVS speech commands. These are all double character reverse video commands that are entered (see page 18) just like CTRL,2 format commands. Be sure to load the BB file "Nursery Rhymes" for a demonstration of how to use the following speech commands:

### **VO** Voice Number.

An RVS "vo4" selects voice four as the current voice number. A "vo0" randomly select one of the nine voices for use. Use this command to give each character in a story a different voice. The "vo" can also be shorten to just "v" ("v7" is the same as "vo7").

### **sp** Speed.

An RVS "sp100" would create a slow voice, while an "sp40" would create a fast talker. The values may range from 0-255, but extremes are impractical.

### **pi** Pitch.

Enter an RVS "pi" followed by a value (0-255) to alter the pitch of the voice.

### **mo** Mouth.

An RVS "mo128" resets the mouth to the default setting. Experiment with different settings.

### **th** Throat.

An RVS "th128" resets the throat to the default setting. Try different settings.

### **re** Reciter ON/OFF.

An RVS "re1" turns RECITER ON; an RVS "re0" turns RECITER OFF.

### **li** Lights ON/OFF.

An RVS "li1" turns the lights (or screen) ON; an RVS "li0" turns the lights OFF (enables screen blanking).

## Using BB File Reader

**BB File Reader** was designed to facilitate communication between Commodore users. Put **BB File Reader** and up to 44 **BB** text files on a disk, and anyone receiving the disk will be able to view or print the text files easily. Now you can write letters or send notes to "The Unknown User" knowing that he will be able to read them. User groups can use **BB File Reader** to create an electronic newsletter and to document the programs on library disks.

Let's say you're giving some programs to a friend or donating a disk to the club library. Since you're a very considerate person, you'll want to provide would-be users with some instructions on how to use the programs. Use **BB Writer** to dash off your comments--creating one comment file for each program. Now **LOAD** and **RUN BB File Reader**. You will see a menu of text files, but they're not the ones you want--you'll need to create a new menu. Insert the disk with your **BB** files on it, press the backarrow key (top left corner) to enter "View" mode (no text has been loaded, so the screen will be blank), then hold the **SHIFT** key down and press **F2**. A new menu will now be created, and a customized version of **BB File Reader** containing the new menu will be saved (You might want to change the defaults, colors, etc. before creating a new version.)

**BB File Reader** is menu-driven and contains a help screen. The **Load Menu**, once created, becomes a permanent part of **BB File Reader**. Users can call up the **Load Menu** instantly upon demand.

Having created a custom version of **BB File Reader**, you could now use **BB Menu Maker** to create a disk menu of all the programs on the disk (including **BB File Reader**, but not the text files). Users would then be able to easily access the programs on the disk, or load **BB File Reader** and read whatever files are on the disk.

The text files can be of any type: articles, reviews, editorials, hints & tips. With **BB Writer's** built-in file converter, newsletter editors can quickly assemble an electronic newsletter incorporating text files from almost any source. Since most user groups put out a "Disk of the Month," why not put text files on the disk also? Users need information as much as they need programs.

**BB File Reader** has the same print menu as **BB Writer**. However, unlike **BB Writer**, **BB File Reader** will ignore most embedded format commands during printing. To create text files that the greatest number of users will be able to print, one must assume the user has a featureless (1525) printer. So, if you are creating a file for use with **BB File Reader**, avoid all embedded format commands except for these: headers/footers, centering, double-width, right alignment, print page number, and non-printing note.

## Using BB Menu Maker

Trying to access programs on a diskette using only a disk directory listing can be frustrating for even the most experienced user; for many beginners, the task can seem hopeless (for example, trying to load ML programs).

The answer to the problem of the unfriendly disk is to write a program that will display only main programs or loader programs, and allow the user to menu-select the program he wants. The ideal disk menu should display only meaningful program names (not necessarily the directory file name), with each one followed by a brief comment or description. The menu should be cursor-driven so that young children and non-typists will not have to hunt and peck. And, of course, the menu program should not require you to know the proper LOAD syntax for each program.

**BB Menu Maker** allows you to create just such a disk menu. With **BB Menu Maker**, even total non-programmers can add user-friendly menus to their disks.

### Making a Menu

Before using **BB Menu Maker**, you should familiarize yourself with the programs on a disk so that you can describe or comment on each. When you RUN **BB Menu Maker**, there will be a few seconds delay while some machine language is POKed into the cassette buffer. Insert the disk you want to create a menu for into the disk drive and press the SHIFT key. **BB Menu Maker** will then read all PROGram file names from the directory except for those beginning with a hyphen. The load address for each program will then be determined. Press SHIFT again and a list of programs on the disk will appear.

In the comment field following each program name, the program type (BASIC, autoboot, or ML) and length (in BLockS) will be displayed. This information will help you decide which programs to select. For example, you would want to select autoboot or other loader programs for the menu, but not the the files they load.

Use the cursor keys to select the program name you want to appear first on your menu. After pressing RETURN, you will be given a chance to edit the file name. For example, if the file name was "BOOT SM", you might want to change the name to something more descriptive like "SCREEN MAGIC." If the name is OK, simply press RETURN.

Next, you will be asked to describe or comment on the program. If the program is "SCREEN MAGIC," you might want to add that it's "A SUPER SPRITE EDITOR." The dotted line under the input line tells you how long your comment can be.

Continue to select programs in the order you want them to appear on your menu. If you make a mistake, simply reselect and edit the name or comment. When you are finished, select "EXIT" and you will be asked to give your menu an appropriate name or header such as "PROGRAMMING UTILITIES" or "MATH ED."

**BB Menu Maker** will now check to see if there is enough free space on the disk to copy the first program elsewhere and SAVE"MENU",8 as the first program on the disk. If so, the name, comment and other data will be appended as DATA statements; the code used to create the

menu will be deleted, and your menu SAVED as the first file on the disk. Otherwise your menu will either be SAVED anywhere to disk under the file name "MENU" or be LISTed to let you know that there is not enough free disk space to save the program. If there is already a file called "MENU" on the disk, you will be asked if you want to replace it.

At this point you should be looking at your finished menu. Move the cursor to the program you want and press RETURN. It's that simple. If you run the cursor to the bottom of the page, it will either go back to the top or display the next page. If the cursor is at the top of a page and you want to go to the next page, the easy way is to press CRSR up (or right) to move the cursor to the bottom of the page, then CRSR down to go to the next page.

## **Changing the Finished Menu**

If you add a new program to the disk or delete one, you'll probably not want to create an entirely new menu. All you have to do is LOAD and LIST the menu, then delete from or add to the existing DATA statements. When you're done, just type RUN 55555 (five fives), and the old menu program will be replaced with the modified one.

## **Program Notes**

If you're a C-128 user, you'll have to use **BB Menu Maker** in 64 mode. The menu created, however, will work in either 64 or 128 mode.

With **BB Menu Maker** and **BB File Reader**, user groups can publish an electronic newsletter/disk of the month with minimal effort. From **BB File Reader** users can exit directly to the menu program.

Some cartridges (MACH 5) must be physically removed from the cartridge slot or **BB Menu Maker** will hang up when the data statements are being added. The Final Cartridge fails to save the completed menu and should be killed. The completed menu program, however, does not have any problems working with fastload cartridges.

## Customizing

Every effort has been made to allow **BB Writer** and **BB Talker** to be customized by users to meet their own needs and preferences. All colors, help screens, macros, the character set, and all printer, disk, keyboard, and speech defaults can be user-defined and **SAVEd** to disk. The next time you boot up, all parameters will be as you left them.

First, make a backup copy--any copy program can be used. To **SAVE** your current defaults, tap **CTRL**, then "x." Select "**SAVE Defaults**" and press **RETURN**.

The boot file "**BB**" is in **BASIC**, so you can customize it to load other programs or by-pass the title screen. Load and list it.

If you have a copy of **Ultrafont**, you can load "**bb font**" and change the character set to suit yourself.

Use **BB Customizer** to change the defaults that control any of the special print features your printer may have.

See page 11 for instructions on creating your own help menu system.

The following applies only to **BB Writer**.

If you don't use a fast load cartridge, one of the many fastboot programs can be used. For example, if you have the **Fast Hack'em "fastboot v2.0"** program, file copy it to the backup disk and add the following line to the boot program:

```
60 A=51200:POKE700,199:LOAD"FASTB*",8,1
```

The **POKE700,199** lowers the end of text pointer from **\$CFFF** to **\$C7FF**.

**TurboSave** (*Compute!'s Gazette*, April 1987) can also be used, but if you lowered text memory to **\$9FFF**, you would lose 12K of memory. A **TurboSave** relocater program is provided, however. **LOAD"TS RELOCATOR",8,1** and then load **TurboSave**; now **SYS 830** and save the modified copy. The copy will now use **\$CA00** to **\$CFFF**, so **POKE 700,201** (line 45) to lower text memory by 1.5K. To relocate **TurboSave** elsewhere, **POKE 829** with the high byte of address you want **TurboSave** to occupy before doing the **SYS 830**.

Except for the three help screens which occupy the RAM under ROM from **\$D000** to **\$D800**, **BB Writer** occupies a single block of memory from **\$0801** to **\$7C00** (if you have changed the size of the "**bb macros**" file, the end of program will vary). This means that if you boot up **BB Writer** and used an **ML** monitor to save memory from **\$0801** to **\$7C00** (.s "**bb**",08,0801,7c00 is a common way to do it) you would end up with a single file that will load and run like a **BASIC** program. One advantage is that most fast loaders will load such a single-file version in about 25 seconds. The author finds that placing a single-file version on each text data disk (as the first file) makes life easier. The disadvantages are that once created, you can no longer **SAVE Defaults**, and the help screens are no longer available. But experienced users, having customized everything the way they want it, and no longer needing the help screens, may prefer the single-file version.

## Printer Setup

**BB Writer** will work with almost any printer, even a very demanding laser printer. If you have a Commodore 1525 or MPS 801 printer, then read no further--**BB Writer** will work as is. If you have an interface that emulates a 1525 printer, then, except for non-1525 features like underlining, your printer should work perfectly. To find out if your printer/interface will work with **BB Writer's** default settings, load the **BB** file "Printer Test" from the Load Menu and try printing it. If it doesn't work, don't panic--all default values are user-definable.

Basic printer defaults can be altered from the Print Menu. Select "Print" and move the pointer down to change defaults for printer device number and secondary address if necessary. Try printing a paragraph of straight text. If all text prints on the same line over and over again, turn on the auto linefeed option. If lower case characters are printed in upper case, turn on the true ASCII feature. If you are using a daisy-wheel printer, indicate that "Yes" you are using a "LQ Printer."

If you still cannot print straight text, check all printer and interface connections. Try putting your interface in "transparent mode" if it has one (in transparent mode, true ASCII will have to be turned on).

Many printers have a host of special features that can be activated by sending a series of control codes to the printer. Using your printer's special features is a matter of making sure that **BB Writer** is sending the correct control codes to your printer. The adage that "computers never do what you want them to, but only what you tell them" is equally true for all software. **BB Writer** offers three ways to send control codes to your printer: an escape code plus a character, single character RVS toggles, and single character printer macros.

An escape code tells the printer to interpret the next character(s) as a command. To send an escape code [CHR\$(27)], tap CTRL, then the number "1" key, and then SHIFT-backarrow. An RVS capital "E" will appear. The next character will be interpreted as a control code. For example an RVS "E" followed by a "g" will send the values 27 & 71 [ASC("g")=71] to the printer (on many printers this turns double-strike printing on). This is the crudest way to send control codes.

**BB Writer** offers single character support for the most commonly used features (namely: boldface, double-width, emphasized, italics, NLQ, reverse field, subscript, superscript, underlining, condensed print, and six user-definable toggles). For example, a reverse video "u" turns underlining on and a second RVS "u" turns it off. To turn a feature on and off, certain control codes (numbers between 0 and 255) are sent to the printer. These codes differ between printers, and so the default values used by **BB Writer** may not work with your printer. Before trying out these special features, load "BB Customizer" from the title screen/menu and compare the values listed with those in your printer manual. Just overtype the default values to enter whatever values are correct for your printer. If you tell **BB Writer** to send the correct control codes for your printer but strange things still occur, the problem is most likely your interface. Put your interface in transparent mode and turn on True



## **Decoding Printer Manuals**

Unfortunately, many printer manuals are not very clear about what decimal values (0-255) are being sent to the printer to control its special features. Often the control codes are given as a mix of symbols, ASCII characters, and decimal values (sometimes the values are even hexadecimal). For example, if an "<ESC> 4" turns italics on, then it is assumed the user understands that "<ESC>" stands for the decimal value 27, and "4" stands for the ASCII value of the character "4" which is 52. So 27,52 turns italics on (in BASIC you would "PRINT#4,CHR\$(27);CHR\$(52)"). If "<ESC> p 1" turns proportional print on, then the actual values would be 27, 80 [ASC("p")=80], and 1 (in this case the "1" is not the ASCII value of the character "1" but the decimal value one!). See Appendix A, page 46, for a list of ASCII values.

Unfortunately, not all values (0-255) have ASCII equivalents, so abbreviations are resorted to. If an <ESC> <LF> reverses the paper one line, then you have to look up what the value "<LF>" is supposed to represent. Once you figure out what decimal values need to be sent to control your printer's special features, then you're all set. **BB Writer** makes sending control codes to your printer as easy as possible.

## **Fun with Printer Macros**

**BB Writer's** 16 printer toggles and 20 printer macros give you 36 U-define printer commands. This is more than enough to provide you with complete control of all your printer's special features. If you want to create a command to turn condensed, italic subscripts on, then a single macro will do the trick.

The 20 user-definable single character RVS format commands (or printer macros for short) can be predefined (or defined from within your document) to send up to 8 control codes to the printer. Load the **BB** file "Printer Macros" and "Printer Test" for examples. Also see the tutorial "Format Commands," and the note on page 54

Printer macros are extremely powerful and flexible user-definable commands. **BB Writer**, for example, does not have specific, predefined commands for setting pitch and linefeed spacing because both can be defined and set using a single character printer macro. For all practical purposes, **BB Writer** supports an unlimited number of printer commands.

## **Still having problems?**

If your printer fails to respond correctly to the control codes you told **BB Writer** to send, you should suspect: 1) The interface. If your interface is *not* in transparent mode, it may be converting the control codes before they reach the printer. Try adding 128 to values between 65 and 90, and subtracting 32 from those between 97 and 122 to compensate. 2) **BB Writer** has mistakenly been told to send the wrong control codes. The macros and toggles do work!

## Appendices

### A- ASCII to Decimal Conversion

The following table gives the decimal values for commonly used ASCII characters.

+ 43	1 49	7 55	= 61	c 67	i 73	o 79	u 85
, 44	2 50	8 56	> 62	d 68	j 74	p 80	v 86
- 45	3 51	9 57	? 63	e 69	k 75	q 81	w 87
. 46	4 52	: 58	@ 64	f 70	l 76	r 82	x 88
/ 47	5 53	; 59	a 65	g 71	m 77	s 83	y 89
0 48	6 54	< 60	b 66	h 72	n 78	t 84	z 90

The number 27 is used as an escape code (ESC) to tell the printer that the next character is a command. If your printer manual says that an <ESC> w 1 turns double-width print on, then the actual numbers that must be sent to the printer to turn this feature on are 27, 87, and 1. These are the *decimal* numbers you would enter when using **BB Customizer** to set up your printer.

### B- Dvorak Keyboard

The Dvorak keyboard is a more efficient arrangement of the keys than the standard QWERTY keyboard. The keys are arranged as follows:

```
  ' , . p y f g c r l / *  
  a ' o e u i d h t n s -  
  ; q j k x b m w v z
```

### C- BASIC Program Conversion

You can include BASIC program listings and disk directories in your text files by LISTing the BASIC program or directory to a disk file. First LOAD the program (LOAD"FILENAME",8) or directory (LOAD"\$",8) and then type the following line in direct mode (no line numbers) followed by RETURN to execute the commands.

```
OPEN2,8,2,"FILENAME,S,W":CMD2:LIST
```

What would normally LIST to the screen will now go to a disk file called "FILENAME." When the cursor resumes flashing, type the following to CLOSE the file:

```
CLOSE2
```

From within **BB Writer**, tap CTRL,1 to load, merge, or append. Delete the hyphen, enter the file name and press SHIFT RETURN. A menu will appear, press "s" to select "SEQ ASCII File" and **BB Writer** will make the conversion.

## D - Default Macro Definitions

Macro definitions are contained in the file "bb macros." Load from within **BB Writer** by tapping CTRL, then "1" (as in Load); delete the hyphen, enter "bb macros" (no quotation marks), and press RETURN. You can then edit the file (delete, redefine, or define new macros); then resave the file. Load "Macro Printer" from the Load Menu to print all current macro definitions.

ab=about	h=have	S=Sincerely yours,
af=after	hb=have been	t=that
ag=against	hh=have had	th=this
.=and	hn=haven't	ti=time
.:and the	/=has	ts=that's
.t=and that	/b=has been	:=the
b=but	/h=has had	:i=their
ba=be able	/n=hasn't	:e=there
bc=because	i=I	:n=then
bf=before	ia=I am	:m=them
bi=being	im=I'm	:r=they're
bn=been	iv=I've	:s=these
bt=between	iw=I will	:y=they
bu=business	il=I'll	u=under
c=could	,=it	v=very
ca=came	,s=it's	w=with
cb=could be	j=just	wn=wouldn't
ch=could've	k=know	wh=which
cn=couldn't	kn=known	wi=will
co=come	ks=knows	wo=would
d=don't	l=like	wr=we're
dn=doesn't	m=many	@=was
di=didn't	mi=might	@n=wasn't
e=every	n=not	y=you
eb=everybody	ne=necessary	yl=you'll
ei=either	nu=number	yo=your
en=enough	o=other	yr=you're
eo=everyone	;=of the	
et=everything	p=people	
ew=everywhere	q=question	
f=for	r=are	
f:=for the	rn=aren't	
fi=first	s=some	
fr=from	sh=should	B=Busy Bee Software
g=good	sb=somebody	P.O. Box 2959
gr=great	st=something	Lompoc, CA 93438

## Glossary

**Buffer:** An area of memory set aside for temporary text storage.

**Byte:** A unit of memory; one character of text takes up one byte of memory. 22000 bytes equals 22K (kilobytes) of memory. There are 254 bytes in each block on a disk.

**Command mode:** Allows keys to stand for commands instead of characters. Entered by tapping the control (CTRL) key.

**Control code:** A number (0-255) that a printer interprets as a command instead of a character to be printed. Often preceded by an escape code [CHR\$(27)].

**CBM ASCII:** Also called Pet ASCII; Commodore coding for characters in which upper and lower case letters are reversed as compared to true ASCII.

**Directive:** A format command that tells **BB Writer** how text is to be printed.

**DOS:** Disk Operating System.

**Edit mode:** The normal mode; allows text to be entered and changed.

**Escape Code:** The number 27 which tells printers that the next character is not to be printed, but interpreted as a command.

**Font:** A character set--defines the shape of characters.

**Format:** The way text appears when printed. Defined by reverse video format commands.

**Freeware:** Copyrighted software that can be given away but not sold.

**Justification:** Making both right and left margins vertically straight.

**Line spacing:** The number of blank lines printed between each line of text. Not to be confused with line spacing pitch--the number of lines per inch.

**Macrotyping:** A system of speed typing based on **BB Writer's** on-line macro capability.

**Macro:** One or two characters that stand for or call up a longer string of characters.

**Margin:** The distance, measured in lines or characters, from the edge of the paper to the edge of the text.

**RVS commands:** Reverse video characters that tell **BB Writer** how to print your text.

**Screen code:** The code **BB Writer** uses to store text.

**Syntax:** The exact way a command must be typed if the computer is to understand it.

**Toggle:** A command that turns a feature on and off.

**True ASCII:** American Standard Code for Information Interchange. Not the same as Commodore ASCII.

**Userware:** User promoted and distributed software.

**Word-wrap:** Moves a word to the next line if it won't fit on the current line.

## A Note to Xetec Super Graphix Users

The following program (a copy is included on the front side of the double-sided version of TWS) will load two fonts of your choice into your interface, then boot "BB" to load **The Write Stuff**. Make a copy of **The Write Stuff** and scratch enough text files to accommodate "DWN.ML" and the fonts you want to use. File copy "DWN.ML," the fonts, and the following program to the disk. Using **BB Customizer**, define three toggles to turn the NLQ, and two user fonts on and off (see page 17 of Xetec Manual).

```
0 ml=15872:m2=ml+134:rem if you don't have
  xetec version 1.3, try ml=49152:m2=ml+129
1 poke53280,1:poke53281,1:on lf goto4,9
2 printchr$(147)chr$(5):c$=chr$(13):q$=chr$(34)
3 lf=1:f$=chr$(160)+chr$(160)+"dwn.ml":load f$,8,1
4 open 15,4,15:print#15,chr$(76):close15
5 f$="n.bold":f=1:goto7:rem pick file names
6 f$="s.italic1":f=2:rem user font 2
7 dz=0:ifleft$(f$,1)="s"thendz=1
8 poke251,127:poke175,127:lf=2:load f$,8,1
9 poke174,192:poke175,134
10 poke252,dz:if dz=1 thenpoke174,128:poke175,141
11 poke254,f:pokem2,f+2:sys(ml):iff=1then6
12 printchr$(147)"load"q$"bb"q$",8"c$c$c$c$c$run"
13 poke631,19:forj=632to634:pokej,13:next:poke198,4
```

## A Note to Superbase 64 Users

**BB Writer** can interface with Superbase, the most powerful database available for the 64. To output data from Superbase, use the following Superbase command (see page R-50, R-51):

**output all fill to "datafile" [field1][field2]...[fieldx]**

or

**output from "hlist" fill to "datafile" [field1][field2]...[fieldx]**

Output only the fields you want from each record in the order you want them. From within **BB Writer** you may then tap CTRL,l, enter "datafile," and press SHIFT RETURN, then "s" to load "datafile" (a SEQ ASCII file). You will then see that the data is in the correct format required by the mail merge feature.

To import data from a **BB** mail merge file back into Superbase, convert the file to ASCII (tap CTRL,a) and save as a sequential file (tap CTRL,s, delete hyphen, enter "filename,s"). If there are 8 fields per record, you will need to create (format) a database file with 9 fields--the 9th to trap the RETURN MARK that separates each record, then use the IMPORT feature to import the data.

## Notes on 1764 RAM Expander

The following program (a copy is included on the front side of the double-sided version of TWS) loads **RAMDOS**, then **BB** (main boot program) or **FC** (file copier, see below). Assuming you have a backup copy of your original disk, scratch **BB** and several or all tutorial files. Type in and save the following **RAMDOS** boot program as the first program on the disk. Use a file copier to copy "RAMDOS111286.BIN" and "FILECOPY.BIN" over to your custom **BB** disk. LOAD"BB",8 from your original disk. Change the POKE787,0 in line 10 to POKE787,1, and the POKE700,207 in line 35 to POKE700,206. Then SAVE"BB",8 to create a custom RAM disk version.

```
10 u=9:p=207:d$=chr$(13):poke646,peek(53281):printchr$(147)
20 if a=0then a=1:load"0:ramdos111286.bin",8,1
30 sys65418:poke780,u:poke781,p:sys25350
40 printchr$(147):"load"chr$(34)"bb"chr$(34)",8":rem or "fc"
50 printd$d$d$d$"run":poke631,19:poke632,13:poke633,13:poke198,3
```

The next program, **FC** (a copy is included on the front side of the double-sided version of TWS), will copy any files listed in the data statements from drive 8 to device 9 (RAM disk), then boot **BB**. Change line 40 in the above program so it will load this program if you want to have certain files loaded into the RAM disk before loading **BB Writer**.

```
10 n=1:su=8:du=9:d$=chr$(13):if a=0 then a=1:load"filecopy.bin",8,1
20 dim n$(200):q$=chr$(34):ba=49152:poke53281,0:poke646,13
30 printchr$(147)chr$(14):open14,su,15:open15,du,15:gosub60:gosub80
40 printchr$(147)"load"q$"bb"q$,"su:printd$d$d$d$"run"
50 poke631,19:poke632,13:poke633,13:poke198,3:end
60 readn$(n):ifn$(n)="*"then return
70 n=n+1:goto60
80 fori=1ton-1:print"copying "q$n$(i)q$
90 open9,du,1,n$(i)+",p,w":u=15:gosub140:if ds then110
100 open8,su,0,n$(i)+",p,r":u=14:gosub140
110 if ds then printchr$(18)"copy failed: ";a$,b$,c;d:goto130
120 sys ba
130 close8:close9:next:return
140 input#u,ds,b$,c,d:return
150 data "bb format","-rough draft","-Label Printer","addresses"
999 data *
1000 rem n$="0:fc":open1,8,15,"s"+n$:close1:saven$,8
```

The current version of **RAMDOS** appears to have several bugs. When a file is **SAVEd**, an extraneous byte is added to the file, so when **LOADed** back, there is an extra character at the end of the file. An RVS "n" may be placed at the end of a file to trap this error, or you'll just have to delete any extra characters before printing a file.

## A Note to 1525, MPS-801, MPS-803 Users

The printer wedge "PrintRite 64" (RUN, May 1987), which provides descenders and underlining for Commodore 1525/801/803 printers, is compatible with The Write Stuff. All you need to do is lower the end of text pointer by changing the POKE700,207 to POKE700,203 in line 35 of the boot program "BB" and resave it. Load and run PrintRite, then BB.

Better yet, make a copy of The Write Stuff, scratch the tutorial files, then load and run PrintRite 64. Use a ML monitor to save memory from hexadecimal \$CC48 to \$CEAB (.S "PR",08,CC48,CEAB) onto your custom BB disk using "PR" as the file name. Add the following line to the boot program to boot up the wedge along with BB Writer (won't work with BB Talker).

```
60 A=52296:POKE700,203:LOAD"PR",8,1
```

Use BB Customizer to define RVS "u" to send a 17 to both turn underlining on and off. See the article for information about limitations. Be sure to change the page length from 65 to 49 (MPS-803 users try 56).

## Notes on Desktop Publishing

The aim of the desktop publisher is to create a single, camera-ready copy of a document, such as a newsletter, which can then be taken to a print shop to be off-set printed or xeroxed (the newer Xerox machines produce excellent copies). So, what's the best way to go about creating the camera-ready proofs? Well, since some effort will be involved and more than a few copies made, you'll probably want your publication to *look good*. This means you'll want to have some large titles, use a variety of different type styles and sizes, and perhaps sprinkle a few graphics here and there. There are several programs on the market that will allow you to mix graphics with different type styles. **BUT**, as many users discover the hard way, the end result does *not look good*. Which raises the question, "Why bother?"

This is what text written using *geowrite* and other graphics-based word processors looks like. Each character in this paragraph is at most 8 dots x 8 dots (or squares) in size. This compares to 9 x 9 for most printers (9 x 18 in near-letter quality mode). This sample was printed using a 24-pin dot matrix printer which could print 24 x 34 dots per character--over 12 times or 1200% better than the text in this paragraph.

**OK, so you have a greater choice, more *styles*, and *fonts*** to play with. The problem is that, with the exception of the larger fonts viewed at a distance or smoothed over after printing, the print quality lacks **definition**. It's like those toy microscopes that offer 1200X zoom optics, but lack any useful resolution. These programs are also **painfully** slow.

Fortunately there is an alternative to such near-draft quality text. Using **BB Writer**, a pair of scissors, and some rubber cement, you can do a wiz-bang job in less time and with less effort than you could trying to get a camera-ready page printed in one pass using any of the graphics-based page processors. And of far greater importance, the time spent will *actually be worth the effort*.

The technique is quite simple. Just print your document (in double columns?) and leave blank spaces where you want oversized titles and graphics to appear. You can then use almost any graphics program to create the titles and graphics. **OR**, since there is no law saying you must use only computer generated art work, you can cut and paste *any* type of graphic (photographs, your own drawings, clip-art from books, etc.). Oversized titles can be created using commercial peel-off lettering, or you can use a graphics program to print the titles and smooth off the rough edges using a fine-point pen. If you want a box around some text, use a ruler and draw one. If a graphic, or whatever, isn't quite the right size, your local print shop may have one of the newer Xerox machines that can reduce or enlarge to any size from 65% to 150%.

On the opposite page is an example of a family newsletter sent to us by Frank Pullano of Geneva, New York. This was Frank's first effort at creating a newsletter using **BB Writer**. You too can print text in double columns, enter RETURN MARKS to create blank spaces, and add a few graphics as a final touch. For the ultimate in quality, you could even have your **BB** text files *laser* printed (see page 58) for a near-typeset look.





# PULLANO FAMILY GAZETTE



A LITTLE NEWS  
AND A LOT OF NONSENSE

## RUSSELL OPENS OFFICE IN HONOLULU!

by Frank Pullano

Congratulations to Russell and Susan on their new venture. This is a big step for both of them and the entire family wishes them well. With Russell's background in both sales and installation, and Susan's good business sense, I predict that they'll do super!

Russell is building a real sharp display for the Honolulu Home Show. It takes place on October 23 thru the 26th. It will feature AlSCO's new Oceanside siding and a new custom made awning window that Russell has discovered for Hawaii. Good luck Russell!



## EXTRA! EXTRA! SUPER SHOPPER GOES TO HAWAII

Reported by Russell Pullano

A reliable source has indicated to me that Rita (I'd rather shop than eat) Walsh is heading for Hawaii! This same source told me that all the major department and jewelry stores will have representatives on hand to greet her when she arrives at Honolulu International Airport. While here Rita intends to enter the competition for the Pacific Best Shoppers Award. She already holds first place on the mainland. It is not known at this time whether her partner and business manager Marion Gilbert will be with her. This reporter does not know who her competition will be for this great honor but smart money will be on Rita!

## Doody Doings

by Kathleen Doody

The frost is finally on the pumpkins at the Doody farm. Ed and I are really going to be into cattle raising during the coming year. We're making arrangements through Ed's dad to take on about 60 head of beef cattle. No doubt this will really keep us busy. The kids are growing up fast. Reed has started Junior Kindergarten, and already thinks he knows everything. He says he knows more than grandpa. When asked how much more, he says "higher than mountains and even the sky". Mary Margaret still looks like a Precious Moments Doll and is finally starting to talk. When you all get home for Xmas she will probably talk your ears off.

That's all for now from the Doody's, see you all down on the farm for the Christmas holidays.



"I need a bigger piece of paper. I can't fit the whole sky on this one."

## DAVID DOES IT!

by Bear Old Dad

After a year and a half at Cort Furniture Company, in Boston, David is leaving and starting a new job in Advertising and Public Relations. He starts on November 1st. He had just received a raise at his old job too. Mom and I know he'll do fantastic with this new opportunity. Boston is a great town for people under 40. Even so Mom and I like going there a few times a year and always look forward to spending some time with "the kid from Boston".

## U - define Printer Macros

1= _____	!= _____
2= _____	"= _____
3= _____	\$= _____
4= _____	%= _____
5= _____	&= _____
6= _____	'= _____
7= _____	(= _____
8= _____	)= _____
9= _____	[= _____
*0= _____	= _____

\*The zero macro initializes printer; use to set preferred pitch, linefeed spacing, and font style. Set 0=127 to send no code. Can be defined from within a document; if changed, preview first to redefine this macro.

## U - define Printer Toggles\*

g= _____	o= _____
h= _____	p= _____
k= _____	t= _____

\*Use **BB Customizer** to define the above printer toggles.

## A Note to Non-English Language Users

If you would like a non-English version of **The Write Stuff**, write and we will put you on a mailing list. (What language?) If you would like to help create a non-English version, please contact Busy Bee Software.

Notes

Algebra page 17  
Geometry page 18  
Trigonometry page 19  
Calculus page 20  
Statistics page 21  
Probability page 22  
Discrete Math page 23  
Number Theory page 24  
Combinatorics page 25  
Graph Theory page 26  
Topology page 27  
Set Theory page 28  
Logic page 29  
Formal Logic page 30  
Automata Theory page 31  
Computational Complexity page 32  
Algorithms page 33  
Data Structures page 34  
Operating Systems page 35  
Computer Architecture page 36  
Networking page 37  
Security page 38  
Artificial Intelligence page 39  
Machine Learning page 40  
Natural Language Processing page 41  
Computer Vision page 42  
Robotics page 43  
Human-Computer Interaction page 44  
Bioinformatics page 45  
Bioinformatics page 46  
Bioinformatics page 47  
Bioinformatics page 48  
Bioinformatics page 49  
Bioinformatics page 50  
Bioinformatics page 51  
Bioinformatics page 52  
Bioinformatics page 53  
Bioinformatics page 54  
Bioinformatics page 55  
Bioinformatics page 56  
Bioinformatics page 57  
Bioinformatics page 58  
Bioinformatics page 59  
Bioinformatics page 60  
Bioinformatics page 61  
Bioinformatics page 62  
Bioinformatics page 63  
Bioinformatics page 64  
Bioinformatics page 65  
Bioinformatics page 66  
Bioinformatics page 67  
Bioinformatics page 68  
Bioinformatics page 69  
Bioinformatics page 70  
Bioinformatics page 71  
Bioinformatics page 72  
Bioinformatics page 73  
Bioinformatics page 74  
Bioinformatics page 75  
Bioinformatics page 76  
Bioinformatics page 77  
Bioinformatics page 78  
Bioinformatics page 79  
Bioinformatics page 80  
Bioinformatics page 81  
Bioinformatics page 82  
Bioinformatics page 83  
Bioinformatics page 84  
Bioinformatics page 85  
Bioinformatics page 86  
Bioinformatics page 87  
Bioinformatics page 88  
Bioinformatics page 89  
Bioinformatics page 90  
Bioinformatics page 91  
Bioinformatics page 92  
Bioinformatics page 93  
Bioinformatics page 94  
Bioinformatics page 95  
Bioinformatics page 96  
Bioinformatics page 97  
Bioinformatics page 98  
Bioinformatics page 99  
Bioinformatics page 100

## Index

- Alternate pagination, 27
- Appending files, 22
- Auto linefeed, 14
- Autoboot feature, 16
- Autocaps toggle, 17
- Auto-indent paragraphs, 30
- ASCII toggle, 16
- Backarrow/backspacing key, 10
- Background menu color, 17
- Background color, 17
- BASIC program conversion, 46
- BB Customizer, 1, 43
- BB File Reader, 1, 40
- BB Macros, 34
- BB Manual Maker, 2
- BB Menu Maker, 1, 41
- BB Talker, 1, 37
- BB Writer, 1, 9
- Blank lines, 30
- Boldface toggle, 28
- Boot program "BB", 1, 43
- Border color, 17
- Bottom margin, 13, 30
- Bytes used & bytes free, 26
- By-passing title screen, 1
- Calculator, 17
- Capitals mode, 17
- Caseless search, 21, 25
- Centering toggle, 28
- Changing case, 17
- Clear text, 10, 18
- Clearing a disk directory, 18
- Clock color, 18
- Column margin, 13, 30
- Columns, 34
- Colors (changing), 6
- Command mode options, 16-26
- Condensed print toggle, 30
- Control codes, 33, 44
- Control (CTRL) key, 9
- Copying text, 12
- Cursor (CRSR) keys, 9
- Custom help menus, 11
- Customizing, 43
- Decimal tabs, 18
- Deleting text, 12, 18
- Desktop publishing, 52
- Device number (printer), 13
- Disk directory, 19
- Disk (DOS) commands, 18
- Double column printing, 34
- Double-width text toggle, 28
- Drive type, one, two, dual, 19
- Dvorak keyboard, 21
- Eat text (add to stomach), 19
- Eat text, 12, 19
- Eat spaces command, 19
- Edge effect, 19
- Edit mode options, 9
- Edit menu, 12
- Emphasized print toggle, 28
- Encryption of text, 20
- Erasing text, 12
- Escape code, 30
- Exiting to BASIC, 20
- Extra (dual) text area, 8, 20
- External files, 29
- F key toggle, 20
- File translation, 35
- Fill-markers, 33
- Font toggle, 20
- Footers, 31
- Forced page commands, 28, 31
- Format options, 27-33
- Formatting a blank disk, 18
- Function keys, 10
- Headers, 31
- Header/footer margins, 31, 32
- Help screens, 9
- Help menus, 11
- Hunt phrase defined, 21
- Hunt command, 21
- Hunting for RVS characters, 21
- Initialize drive, 18
- Insert mode, 21
- Inserting blank lines, 10, 21
- Italics toggle, 28
- Justification, 14, 28
- Key beep toggle, 21, 38
- Keyboard type, 21
- Keyboard, special keys, 9-10
- Laser printing service, 58
- Left margin, 13, 32
- Letter (text) colors, 22
- Lights (speech), 38, 39
- Line spacing, 13, 32
- Linked files, 28
- Load command, 22
- Load menu, 15
- Loading from tape, 22
- Loading SEQ, USR files, 22
- LQ (daisy-wheel) printers, 14
- Macro (temporary), 22, 35
- Macrotyping toggle, 22, 34
- Mail merge, 36
- Margin release, 29, 32

Menu options, 11-15  
 Merging files, 22  
 Mouth (speech), 38, 39  
 Multiple copies, 14  
 Multiple headers/footers, 31  
 Non-printing notes, 29  
 Number of copies, 14  
 Odd/even headers/footers, 31  
 Odd/even-page offset, 32  
 Offset printing, 32  
 Outdenting paragraphs, 31  
 Page length, 13, 32  
 Page numbering (auto), 29  
 Page number defined, 33  
 Page width, 13, 33  
 Pitch of voice, 37, 39  
 Position color, 22  
 Preview screen colors, 23  
 Preview command, 23  
 Previewing in 80 columns, 12  
 Print command, 23  
 Print menu, 12-14, 44  
 Print a given page, 33  
 Printer toggles, 45  
 Printer macros, 45  
 Printer setup, 44  
 Printing to disk file, 12  
 PrintRite 64, 51  
 RAM Expander (1764), 50  
 RECITER, 38, 39  
 Re-entering BB Writer, 20  
 Renaming files, 15, 18  
 Replace phrase defined, 23  
 Replace command, 23  
 Reset, recovery after, 20  
 Restore & sort command, 23  
 Restore text, 12, 23  
 Reverse field toggle, 29  
 Right margin, 13, 33  
 Right alignment, 29  
 RVS Commands, entering, 24  
 S.A.M., 37  
 Save command, 24  
 Save text, 15  
 Saving to tape, 24  
 Saving defaults, 25, 43  
 Saving sequential files, 15  
 Say characters, 38  
 Say comments, 38  
 Scratching files, 15, 18  
 Screen dump command, 25  
 Screen scrolling, 9, 10  
 Search & Replace, 25  
 Secondary address, 13, 33  
 Sequential files, 16  
 Soft hyphens, 30  
 Sorting columns, 23  
 Speech menu options, 37-39  
 Speech commands, 39  
 Speed of speech, 37, 39  
 Start printing at page X, 14  
 Stomach (buffer), 12  
 STOP key, 10  
 Subscripts, 29  
 Superbase 64 (database), 49  
 Superscripts, 29  
 Tab key, 10, 25  
 Tabs set or cleared, 25  
 Throat (speech), 38, 39  
 Top margin, 13, 33  
 Transferring text, 12  
 Translator, (speech), 38  
 True ASCII, 14, 16  
 TS Relocator, 2  
 TurboSave, 2, 43  
 Ultrafont, 20, 43  
 Underlining toggle, 29  
 Up-arrow key, 9  
 Validate a disk, 18  
 Verify command, 26  
 Voices, changing, 37, 39  
 Wait between pages, 14  
 Wait...pause printing, 29  
 Wide screen toggle, 26  
 Wild card, use of, 21  
 Word count, 26  
 Word-wrap toggle, 26  
 Xetec Super Graphix, 49



## How to Order

### What you do:

Prepare your document for laser printing following instructions in our free how-to booklet and send it to us on disk or upload it to either BBS listed below. If you don't have a disk mailer, place disk between two squares of cardboard, put in 9 X 6" envelope, and mail it (for 56¢). You should receive your copies in 5-9 days. BBS users should establish an account, although MC/VISA and C.O.D. orders accepted. Don't forget to provide instructions.

### What we do:

We read and follow your instructions! If any page does not look absolutely perfect, we will adjust your formatting and reprint the page. All reject pages will be returned to you. You will be billed 50¢ for each reject. *If for any reason you feel we were too picky and reprinted pages unnecessarily, don't pay for them.* Otherwise, remit payment with your next order or in 90 days. Our first priority is to provide you with a good looking document.

### Rates:

\$1.50 setup fee per document plus 50¢ per page.

A document may be in more than one file and need not be linked. We will look for errors before printing, but some reprints (50¢ each) are to be expected.

### Return Shipping:

<u>AMOUNT</u>	<u>SERVICE</u>
\$0.00	Provide your own SASE
0.25	1-4 pages, pages folded, 1st Class Mail
0.50	5-9 pages, pages folded, 1st Class Mail
0.75	10-15 pages, folded, 1st Class Mail
1.00	16-20 pages, folded, 1st Class Mail
2.75	Deluxe UPS, unfolded, between cardboard
4.50	UPS 2d-day air, unfolded.
9.00	1-30 pages, UPS Next-day Letter
14.00	UPS Next day packet or \$12 Express Mail

### Ship to:

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Laser Printing Dept.  
P.O. Box 2959  
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(805) 736-7047 24 hours

---

We accept cash, checks, money orders, MC/VISA, (C.O.D. add \$2)

---

## Embedded (RVS) Commands

### CTRL 1 formats

a Alternate pagination  
b Boldface toggle  
c Centering toggle  
d Double-width  
e Emphasized print  
f Forced page  
i Italics toggle  
j Justification toggle  
l Linked file  
m Margin release  
n Non-printing note  
q LQ/Draft toggle  
r Right alignment  
R Reverse field toggle  
s Subscript 1 character  
S Superscript 1 letter  
u Underlining toggle  
w Wait...pause printing  
x External file  
# Print page #  
. Condensed print toggle  
- Soft hyphen  
E Escape code CHR\$(27)

### CTRL 2 formats

ai5 Auto-indent  
ai-5 Outdent paragraphs  
bl4 Blank Lines  
bm10 Bottom Margin  
cm0 Column Margin  
fo5; Footer  
fp5 Forced Page  
he5; Header  
hl8 Header/Footer lm  
hr8 Header/Footer rm  
lm10 Left Margin  
lm+5 Left Margin+5  
ls1 Line Spacing  
mr4 Margin Release lm-4  
of20 Offset all text  
oF10 Offset odd # pages  
pl66 Paper Length  
pn1 Page Number  
pp4 Print Page 4  
pw80 Paper Width  
rm10 Right Margin  
rm+5 Right Margin+5  
sa7 Secondary Address  
tm10 Top Margin  
<1> Form-fill marker  
vo1 Voice (0-9)  
sp72 Speed  
pi64 Pitch  
th128 Throat  
mo128 Mouth  
li0 Lights 0=off 1=on  
re1 Reciter 1=on 0=off

## Keyboard Commands

To enter Command mode:  
Tap CTRL key

a ASCII toggle  
Sh-A Autoboot on/off  
b Background color  
Sh-B Menu line color  
C= B Border color  
c Capitals mode on/off  
Sh-C Change case  
C= C Clock color  
d Decimal tabs on/off  
Sh-D Drives: 1, 2, dual?  
e Eat text (c,w,s,p)  
Sh-E Eat more text  
f Font toggle  
Sh-F F Key toggle  
h Hunt text for phrase  
Sh-H Define Hunt phrase  
i Insert mode toggle  
k Key click toggle  
Sh-K Keyboard--Dvorak?  
l Load/Merge/Append  
m Macros on/off  
Sh-M Define temp macro  
p Print (preview)  
Sh-P Preview  
C= P Screen dump  
r Restore text  
Sh-R Restore & sort text  
s Save  
Sh-S Search & Replace  
t Set or clear a tab  
Sh-T Clear all tabs  
v Verify a SAVE  
w Word-wrap toggle  
x Exit/SAVE Defaults  
Sh-+ Create 2 text areas  
q Toggle between areas  
? Encrypt/Decrypt text  
= Word count  
< Escape key  
↑ Send disk command  
Sh-↑ Autocaps toggle  
1 Enter 1 RVS format  
2 Enter format(s)  
3 Calculator  
4 Disk directory  
@ Replace word/phrase  
Sh-@ Define replace word  
f Letter color  
Sh-f Menu letter color  
C= f Position color  
\* Edge effect toggle  
Sh-\* Wide screen toggle  
DEL Delete a line  
INST Insert a line  
HOME Clear/Erase text  
SPACE Eat spaces  
CTRL/RET/← Exit/Escape