

Table Of Contents

GENERAL INFORMATION AND HELP	1
EXPLANATION OF SPECIAL CODES	2
PRINTER DEFINITIONS	5
Creating	5
Deleting	5
Renaming	6
Editing	6
Printer Initialization	6
Printer Type	6
Initialize Printer before Print Job	6
Reset Printer Before Print Job	6
Initialize Printer at Start of Page	6
Reset Printer at End of Page	7
Move Print Head to Center of Platen	7
Carriage Return/Backspace Control	7
Perform Carriage Return	7
Automatic Carriage Return with Line Feed?	7
Automatic Line Feed with Carriage Return?	7
Does Printer Have Backspace Capability?	7
Perform Backspace	7
Auto Underline on Second Pass	7
Number of Overstrikes for Bolding	8
Line Spacing and VMI	9
Set 6 Lines/Inch	9
Set 8 Lines/Inch	9
Perform Line Feed	9
Perform Reverse Line Feed	9
Perform 1/2 Line Feed	9
Perform Reverse 1/2 Line Feed	9
Advance Paper 1/24th Inch	9
VMI Unit	9
Set VMI	9
VMI Bias Factor	10
Maximum VMI Setting	10
Microspacing and HMI	11
HMI Unit	11
Microspace Unit	11
Set HMI	11
HMI or MS Bias Factor	11
Maximum HMI or MS Setting	12
Perform Microspace Movement	12
Advance 1,2,4,8,16 Microspace Units	12

Use Microspacing for Proportional Spacing Only?	12
Superscript/Underline	12
Subscript On/Off	12
Superscript On/Off	12
Auto Underline On/Off	12
Auto Double Underline On/Off	12
Bold/Italics	13
Auto Bold On/Off or Start/End Second Pass for Bold Text	13
Print Bold Text on a Second Pass?	13
Auto Italics On/Off	13
Special Text Markings	14
Double Underline Character Code	14
Move Down/Up for Double Underline Character	14
Strikeout Character Code	14
Strikeout Printing On/Off	14
Redline Character Code	14
Footnote Line Character Code	14
Omit Underline While Printing Footnote Line?	14
Pitch/Miscellaneous	15
Set 10, 12, 15 Pitch	15
Forward/Reverse Printing On	15
Auto Proportional Spacing On/Off	15
Shift Into Alternate/Back to Normal Character Set	15
Maximum/Minimum Width of Space Character	15
Changing Fonts	16
Shift Into Font	16
Shift Out of Font	16
Selecting Character Tables	17
Character Table for Font	17
Examine or Edit a Character Table	17
CHARACTER TABLES	18
Creating a Character Table	18
Deleting a Character Table	18
Renaming a Character Table	19
Editing a Character Table	19
String Sent to Printer	19
Character Width	19
Adjust Factor	19
Sheet Feeder Definitions	21
Creating a Sheet Feeder Definition	21
Deleting a Sheet Feeder Definition	21
Renaming a Sheet Feeder Definition	21
Editing Sheet Feeder Definitions	21
Eject Page	21
Select Bins and Insert Page	22

GENERAL INFORMATION AND HELP

This document has been included with your package to give you the option of examining, changing, or adding to WordPerfect's printer definitions and characters tables. **PRINTER.PRG** is technically oriented and is not recommended for novice users. Most users never need to use the PRINTER program because a large number of printers and character tables come predefined. To view the defined printers, follow the installation instructions to select printers.

This document has been organized in the same format as the program itself. If you want to change something specific in a printer definition, use the table of contents and/or index to find an explanation of the feature you wish to change. If you decide to define a new printer, you should read this document first to get a feel for the different options that are available.

PRINTER.PRG itself contains several help screens which serve as a reminder of some of the information contained in this booklet. These may be viewed by selecting that option on the main menu.

Syntax for entering strings inside PRINTER is very straightforward. Printable ASCII characters (decimal 33 to 126) can be entered by simply typing the character. Nonprintable ASCII characters (anything less than decimal 33 or greater than decimal 126) are entered as decimal numbers inside of angle brackets (i.e. '<' and '>', the less than and greater than signs). For example to enter a linefeed (LF) into the printer definition, the syntax would be <10>. A carriage return (CR) would be <13>. If you ever get lost, remember that you can exit most prompts by clicking on the **CANCEL** box. If changes have been made, clicking on the **QUIT** box will ask if you want to save the changes.

Many printer manuals will often show BASIC syntax. BASIC's CHR\$() is equivalent to this software's <>. BASIC's "xxxx" (string in double quotes) is equivalent to this software's xxxx (same string without the quotes).

For example, BASIC's CHR\$(27)+"p"+CHR\$(1) would be entered as <27>p<1> in the PRINTER program. (This would be written as ESCpSOH in ASCII).

One word of caution: WPCORP has tested many of these definitions inhouse to provide you with the best printer

definitions possible. Often we have been forced to strike a balance between speed and flexibility, or to avoid a printer feature because it does not function consistently. Sometimes we have encountered printer hardware or documentation bugs which we have tried to work around. Before changing a printer definition, remember that there is probably a very good reason why it was put together the way it was. Good Luck!

EXPLANATION OF SPECIAL CODES

Letters in angle brackets <> represent codes which have special meanings inside the printer program. They provide a means of getting around printer inconsistencies and limitations. They also provide access to features available only from inside this software.

<A> is a method of abbreviating the strings used to shift both in and out of an alternate character set. It is used primarily in the character table.

<A>c means *Shift Into Alternate Character Set*, print the c character, and then *Shift Back to Normal Character Set*.

 is used to restore the line spacing after changing it.

Superscripting can be performed by changing line spacing to 20 lines per inch, doing a reverse line feed, and then printing the character. After moving back to the original line, the superscript off string must include a to restore the original line spacing value.

<C> restores the pitch after changing it and similar to .

<D> performs a carriage return and then spaces back to the current print position.

To print a Ç using two characters (C and ,) you would normally place C<8>, in the character table. However, if your printer cannot backspace, use C<D>, instead.

<E> is not used.

<F> beeps and forces printing to wait for a "Go."

<G> represents an HMI value in binary form.

An HMI value of 12 is sent as <12> if <G> is used in the set *HMI* string.

<H> represents an HMI value in ASCII form.

An HMI value of 12 is sent as 12 if <H> is used in the Set *HMI* value in ASCII form.

<I> changes bolding from triple overstrike to double overstrike on

HMI controlled printers.

If bolding appears too dark, you can include <I> in the *Initialize Printer Before Print Job* string. This may lighten the text of it may cause "shadow" printing.
<J>identifies Tandy DWP IIB type printers.

<K>represents a VMI value in binary form.

A VMI value of 12 is sent as <12> if <K> is used in the *set VMI* string.

<L>represents a VMI value in ASCII form.

A VMI value of 12 is sent as 12 if <L> is used in the *set VMI* string.

<M>turns on proportional spacing.

Place <M> in the *Shift Into Font* string if you want to define a font which can only be used in proportional spacing mode.

<N>turns off proportional spacing.

Place <N> in the *Shift into Font* string if you want to define a font which can only be used in nonproportional spacing mode.

<O>saves the current font number and switches to a new font. It must be followed by a binary code equal to the font number.

Sometimes the best way to bold is by selecting a bold font. Laser printers and typesetters often fall into this category. Make font 8 the bold font. Place <O><8> in the *Auto Bold On* string to select font 8 whenever bold text is printed. Warning! Place <P> in the *Auto Bold Off* string to restore the original font after the bold text is printed.

<P>switches back to the last unrestored for which was saved by a <O> code.

In a character table, <P> causes the *Shift Out of Font* but no swapping of character tables is performed.

<Q>defines character width for a font on a printer which uses microspacing. Must be followed by a binary code equal to ten

times the pitch value.

The HP LaserJetB printer definition uses microspacing to perform right justification. In order to right justify the nonproportional Courier font at variable pitches, the software must know the width of those characters. Since this is a 10 pitch font, <Q><100> has been entered in the *Shift Into Font* string. (Note: This will only work properly if the character width works out to be an integral number of microspacing units.)

<R>removes extra error checking during printing.

<S>represents a Microspace value in binary form.

A microspace value of 12 is sent as <12> if <S> is used in the *Perform Microspace* command string.

<T>represents a Microspace value in ASCII form.

A microspace value of 12 is sent as 12 if <T> is used in the *Perform Microspace* command string.

<U>is used inside a character table to replace a character with the string assigned to it in another font. Must be followed by two binary codes. The first identifies the new character table to use, and the second is the code to be replaced.

Suppose that the character table assigned to font 8 contains a complex string which prints a new symbol. Suppose also that this string is assigned to the character code <255>. This complex string is sent to the printer whenever the sequence <U><8><255> is encountered in any of the character tables used by the other seven fonts in that printer definition.

Note that <U> causes the *Shift Into Font* and *Shift Out of Font* strings to be sent to the printer.

<V>may be used inside a character table to replace a character with the string assigned to it in the same font. Must be followed by the code of the character to replace.

<W>may be used inside a character table to represent the string assigned to the current character in another font. Must be followed by a binary code equal to the font number.

<X>is used for down loading files to the printer from within a printer definition. The filename to be down loaded would be enclosed within <X>'s. Example: <X>Laserwrt.ps<X>. This code is

most useful in the *initialize printer before print job* string, but may be used in font change strings of any other string in the printer definition.

PRINTER DEFINITIONS

A printer definition is a table of codes which WPCORP software uses to rightjustify, underline, superscript, and perform other word processing functions on a particular printer. Each printer definition also contains codes to make the printer shift into different fonts and the names of the character tables to use with those fonts.

Printer definitions are necessary because each printer speaks its own language and each has its own limitations. In some cases, a printer may even need to be defined several different ways to handle all of its capabilities. For example, the HP LaserJet may be configured with several different font cartridges. The LaserJetA printer definition has been set up for use with font cartridge A, and the LaserJetB has been set up for font cartridge B (proportional spacing).

Printer definitions also give the user some additional control over the appearance of the printed page and the behavior of the printer. For example, the *Maximum Width of Space Character* question allows you to decide how right justified text should look, and the *Print Bold Text On Second Pass?* question may be used to change the speed of printing and the appearance of bold text.

Printer definitions may be created, deleted, renamed, or edited by selecting option 3 from the main menu.

Creating a Printer Definition

Select a printer as a pattern for your new printer definition by highlighting it with the cursor (if the new printer definition is unlike any other, choose the Standard Printer definition as a pattern).

Next choose the **(C)reate** option from the menu to the left of the list of printers. You will be asked for the name of the new printer. Type up to 30 characters and press Enter.

The next menu to appear lists all eleven categories of printer information. Type any number or letter shown and the questions for that category will appear, followed by the current codes and answers for those questions. In defining a printer, you will need to examine every question to make sure that the correct codes have been entered. A detailed explanation of each

question in each category is found under "Editing a Printer Definition."

In practice, any printer worth defining will take a few attempts to get it right. Sometimes control codes don't do exactly what they sound like they should do. In addition, most printers have features that function so differently from other printers that WPCORP software can't use them. Remember too that even though a printer doesn't support one feature, it may support a second which can be used to imitate the first. A good example of this is superscripting. If your printer won't do this automatically, it can still be accomplished by advancing the paper up and then down.

Deleting a Printer Definition

With the cursor, highlight the printer definition to delete. Then select the option to **(D)delete** from the list of options found to the left of the printer list.

Next you will be asked to verify your choice to delete the printer definition. If this is the printer definition you want to delete, enter a Y or click on the **Yes** box.

Renaming a Printer Definition

With the cursor, highlight the printer definition to rename. Then select the option to **(R)ename** from the list of options found to the left of the printer list.

Next, a bar will appear at the bottom of the screen with the current printer name. Type in the new name and press Enter.

Editing a Printer Definition

With the cursor, highlight the printer definition to edit. Select the option to **(E)dit** from the list of options found to the left of the printer list.

Next, a menu of all eleven options will appear. Type any number or letter shown, and the questions for that category will appear, followed by the current codes and answers for those question.

If you want to change a printer definition, the following steps are recommended since they allow you to make mistakes without destroying a working definition:

1. **Create** a new printer definition using the old one as a pattern this is your duplicate of the original;
2. **Edit** the original printer definition.
3. After the modified definition has been thoroughly tested, **Delete** the duplicate printer definition only if you are sure you will never need it.

Printer Initialization

Printer Type

Enter **1** if you have a Tandy DWP IIB type printer. This printer requires that an extra code be sent with each printed character to control hammer intensity, ribbon motion, etc.

Enter **2** if you have a dot matrix printer which has trouble using WPCORP software's underlining and bolding (excessive print head motion). **WARNING!** Underline characters may not overlap and bolding is performed on a second pass.

Enter **3** if the definition is for the Apple LaserWriter printer.

Enter **0** for any other kind of printer.

Initialize Printer before Print Job

This string is sent to the printer at the beginning of every print job. Use this to reset the pitch, line spacing, etc., before printing each document.

Reset Printer Before Print Job

This string is used to reset the printer at the end of every print job. Use this to reset the pitch, line spacing, etc., before printing each document.

Initialize Printer at Start of Page

This string is sent to the printer at the beginning of every page.

Reset Printer at End of Page

If defined, the software sends this string to the printer at the end of every page instead of trying to advance to the top of the next page. Always include a form feed in this string if you use it in a printer definition.

Move Print Head to Center of Platen

If you have a sheet feeder on your printer, this string will be sent before each page is inserted. This keeps the paper against the platen, preventing the print head from tearing the paper.

Carriage Return/Backspace Control

Perform Carriage Return

Almost every printer requires a <13> here. Some printers require that CR's and LF's be sent together. If this is the case, enter <13><10> here and answer "yes" to *Automatic Line Feed with Carriage Return?* Place a <0> here if you never want to send a CR to the printer.

Automatic Carriage Return with Line Feed?

Some printers will automatically perform a CR when they receive a Lf code. Answer "yes" if your printer does this.

Automatic Line Feed with Carriage Return?

Some printers automatically perform a LF when they receive a CR code. Answer "yes" if your printer does this. If you answer "yes" to this question and you do not have a backspace, you may not be able to bold, underline, or overstrike. (See also *Perform Carriage Return*).

Does Printer Have Backspace Capability?

Some printers cannot backspace. If you can answer "yes" and enter the backspace command under *Perform Backspace*. If your printer does not have a backspace or a reverse linefeed, it may

not be able to consistently overstrike, underline, or superscript.

Perform Backspace

This string sends a backspace to the printer. If the string is blank, it is assumed to consist of the standard backspace character <8>.

Auto Underline on Second Pass

This flag is only used if the printer has its own automatic underlining strings. It determines whether the underlining is done on the first pass as the text is being printed, or if the underlining is done on a separate pass by itself.

Some printers will not underline microspacing (used to right justify the line). If these microspaces do not underline properly, the underlining will be broken. Setting this flag to **Y** will cause the software to do its underlining on a separate pass after the text has been printed so that the underline characters will print continuously.

A sideeffect of using this method is that the underlining may end a little before the correct position when printing in proportional spacing.

Number of Overstrikes for Bolding

When a printer does not have automatic bolding, the software will print bolded text by striking the bolded text more than once. The value of this variable will determine how many strikes are made.

Line Spacing and VMI

Set 6 Lines/Inch

Insert the command here that sets your printer to 6 lines per inch (not required if your printer supports VMI).

Set 8 Lines/Inch

Insert the command here that sets your printer to 8 lines per inch (not required if your printer supports VMI).

Perform Line Feed

This is used to advance down the page one line. Almost every printer requires a <10> here. Some printers require that CR's and LF's be sent together. If this is the case, enter <13><10> here and answer "yes" to *Automatic Carriage Return with Line Feed?*

Perform Reverse Line Feed

This is used to advance up the page one line. If your printer has this capability, enter the code for it here.

Perform 1/2 Line Feed

Enter code here to perform 1/2 line feed unless your printer supports VMI.

Perform Reverse 1/2 Line Feed

Enter code here to perform reverse 1/2 line feed unless your printer supports VMI.

Advance Paper 1/24th Inch

WPCORP software uses this command to get to the top of the next page if 6 and 8 lines per inch were used on the same page.

VMI Unit

VMI (Vertical Motion Index) defines the vertical distance the platen moves when the printer receives a line feed or reverse line feed. Enter the units in which VMI is defined on your printer. Most printers which support VMI accept settings in 1/48th inch increments.

Set VMI

If a printer supports VMI, this string is sent to the printer whenever the software needs to adjust the width of a line feed or reverse line feed. Insert <K> or <L> in place of the variable in the VMI string. For example, Diablo printers accept VMI settings in binary form: <27><30><K>.

VMI Bias Factor

The VMI Bias factor is added to the VMI value before it replaces <K> or <L>. For example, Diablo printers have a bias factor of 1 because the difference between the code sent to the printer and the actual VMI setting is 1, e.g., VMI set to 1/48th inch = <27><30><2>, VMI set to 2/24th inch = <27><30><3>.

Maximum VMI Setting

Enter the maximum VMI setting supported by your printer.

Microspacing and HMI

HMI Unit

HMI (Horizontal Motion Index) defines the horizontal distance the print head moves when the next character is printed. Enter the units in which HMI is defined on your printer. Most printers which support HMI accept settings in 1/120th of an inch increments.

HMI is the preferred method of controlling the print head because the software then controls character widths, making right justification easier. However, some printers do not have HMI, and some printers which have HMI have fonts that cannot be controlled with HMI. In either of these cases, you must use microspacing instead of HMI if you want to print right justified text without space fill. "Space fill" means that full-sized spaces are added between the words to fill out the line. When this is done, the printed line may look uneven because the words have varying numbers of spaces between them. Printers which cannot microspace and do not support HMI must space fill to print right justified text.

Microspace Unit

Microspacing may be used as an alternate method for right justification (use HMI instead of microspacing if your printer supports it). If your print head can move a relative number of units to the right (any amount or in units of 1, 2, 4, 8, and 16) then your printer can microspace. In order to microspace, you must enter the units of motion, define strings to perform Microspace Movement, or strings to advance 1, 2, 4, 8, and 16 units, and answer the question about proportional spacing.

The critical difference between HMI and microspacing is that HMI allows characters to compress and expand while microspacing allows only the expansion of characters on a line. For example, a 10 pitch font could be printed at 15 pitch if HMI is used, but if microspacing is used the words would probably run together. The same 10 pitch font could be printed at 8 pitch using either method.

Strings may be defined for both HMI and microspacing. In this case, the software assumes that HMI affects only the width of the space character when proportional spacing is in effect.

HMI will be used to print nonproportional fonts, and proportionally spaced fonts are printed using HMI settings and spaces to advance between words or letters. This is the case with the HP LaserJet, as well as many NECs, Diablos and Qumes.

Set HMI

If your printer supports HMI, enter the code. This string is sent to the printer whenever the HMI setting needs to be adjusted. Insert <G> or <H> where the variable needs to be inserted in the HMI string. For example, Diablo printers accept HMI settings in binary form: <27><31><G>.

HMI or MS Bias Factor

The HMI or MS Bias factor is added to the HMI or microspace value before it replaces <G>, <H>, <S>, or <T>. For example, Diablo printers have a bias factor of 1 because the difference between the code sent to the printer and the actual HMI setting is 1, e.g., HMI set to 1/120th inch = <27><31><2>, HMI set to 2/120ths inch = <27><31><3>.

Maximum HMI or MS Setting

Enter the maximum HMI or microspace setting supported by your printer.

Perform Microspace Movement

This string is sent to the printer whenever one or more units needs to be advanced in order to accomplish justification when a printer does not have HMI (see *HMI units* and *Set HMI*). Insert <S> or <T> where the variable needs to be inserted. For example, the Hp LaserJet uses a setting of: <27>&a+<T>H. (See *Microspace units* and *Use Microspacing for Proportional Spacing Only?*)

Advance 1,2,4,8,16 Microspace Units

If there is not a Perform Microspace Movement string, these strings are used instead to print rightjustified text. These strings should only be used when the microspace commands are too complex to use the Perform Microspace Movement string (the Epson FX printer is one that fits into this category).

Use Microspacing for Proportional Spacing Only?

This question determines when Microspacing is used. If you answer "no", microspacing is used anytime you print right justified text. If you answer "yes", microspacing is used only to right justify proportionally spaced text. HMI is used to right justify nonproportionally spaced text if it is supported, otherwise space fill is used.

Superscript/Underline

Subscript On/Off

Enter the codes that turn automatic superscripting on and off. If your printer does not support this feature, try inserting commands which move the carriage up and then down.

Superscript On/Off

Enter the codes that turn automatic superscripting on and off. If your printer does not support this feature, try inserting commands which move the carriage up and then down.

Auto Underline On/Off

Enter the codes that turn the automatic superscripting on and off. If this is left blank, WPCORP software is usually able to underline anyway. The software's underlining is performed by doing a CR, spacing over, and using the underscore character. This is generally slower but is more reliable and may look better or worse depending on your printer.

Auto Double Underline On/Off

Enter the codes that turn automatic double underlining on and off. If this is left blank, double underlining is performed by using the *Move Down* and *Move Up* strings and the *Double Underline Character* defined in the Special Text Markings menu.

Bold/Italics

Auto Bold On/Off or Start/End Second Pass for Bold Text

Enter the codes that turn bold printing on and off. If these are left blank, bolding can usually be accomplished by WPCORP software. On HMI controlled printers, this is usually done by triple striking the characters. On Printers which are not controlled by HMI but which have backspace capability, this is done by backing up and overstriking each character to be bolded.

If bolding is too slow, you may want to bold on a second pass. Do this by answering "yes" to *Print Bold Text on a Second Pass?* then enter the codes to be sent to the printer at the beginning and end of the bold pass. For example, answering "yes" and leaving the codes blank would cause the characters to be double struck. You could also shadow print by telling the print head to move over before performing the bold pass.

Print Bold Text on a Second Pass?

This answer determines the method of bolding as described in *Auto Bold On/Off or Start/End Second Pass for Bold Text*.

Auto Italics On/Off

Enter the code that turns italics on and off here. Some WPCORP printer definitions change into an italics font at this point. If you have an italic font defined you can change to that font by entering <O><8> (assuming font 8 is italics), then turn italics off by entering <P> in the *Auto Italics off*.

Special Text Markings

Double Underline Character Code

This is usually the equal sign. Enter a zero if your printer performs automatic double underlining.

Move Down/Up for Double Underline Character

You must enter codes to move the carriage down or up if your printer does not do its own double underlining. You may also need to shift in and out of an alternate character set to use the character code entered for the double underline character.

Strikeout Character Code

This is usually a dash. Enter zero if the *Strikeout Printing On/Off* strings cause the printer to perform its own strikeout.

Strikeout Printing On/Off

If your printer does automatic strikeout printing, enter the codes for it here and enter zero for the *Strikeout Character Code*. If you select a strikeout character, strikeout will occur on a second pass. Depending on the chosen character, you may need to enter codes here to move the print head up and down. You may also need to shift in and out of an alternate character set to use the character code you selected. Alternatively, you could select a colored ribbon or print in a different font.

Redline Character Code

Enter zero if your printer does its own redlining or if you want to print a vertical bar in the left margin. If you select a nonzero character, it is printed in the left margin or it is used to redline on a second pass, depending on the strings entered for *Redline On/Off*.

Footnote Line Character Code

This is usually the space character. This character is printed when footnote lines are created. The character is underlined when it is printed unless you answer "yes" to *Omit Underline While Printing Footnote Line?*

Omit Underline While Printing Footnote Line?

The answer is usually "no". You may want to answer "yes" if you select a *Footnote Line Character Code* Other than 32.

Pitch/Miscellaneous

Set 10, 12, 15 Pitch

Leave these blank if your printer supports HMI or microspacing. If your printer does not support HMI or microspacing, enter codes here to select specific pitch settings.

Forward/Reverse Printing On

If your printer does automatic bidirectional printing, leave these strings blank. Some printers are able to do bidirectional printing only if they are told when to print forward and when to print backward. Enter the proper codes here if your printer fits this description.

Auto Proportional Spacing On/Off

These strings are sent to the printer whenever you answer "yes" to use proportional spacing (in the FormatPitch/Font menu) or whenever <M> or <N> is encountered in a *Shift In/Out of Font* string.

Shift Into Alternate/Back to Normal Character Set

These strings define the function of the special code <A>. Whenever <A> is encountered in a character table string, the software performs a *Shift Into Alternate Character Set*, prints the next character, and then performs a *Shift Back to Normal Character Set*.

Maximum/Minimum Width of Space Character

Right Justification is almost always performed by expanding text on the line. On HMI and microspace printers this is done by adding small amounts of space between words until the interword spacing equals the *Maximum Width of Space Character*. Any remaining space is then added between the letters of each word. If text on a line must be compressed (HMI printers only), small amounts of space are removed from between the words until the interword spacing equals the *Minimum Width of Space Character*. The letters in each word are then squeezed together to finish off

right justification.

Changing Fonts

Shift Into Font

These strings are used to select your printer's fonts. Generally, you should place <D> at the beginning of each of these strings this helps realign the print head after a pitch change. Include <F> if the font change requires the change of a print wheel or font cartridge. You may also want to include <M> or <N> if a font must be printed with proportional spacing on or off. If your printer uses microspacing to right justify nonproportionally spaced text, you may need to use <Q> to define the width of the character in this font.

Shift Out of Font

These can usually be left blank if you defined your *Shift Into Fonts* correctly. However, some printer features such as expanded or compressed printing may still need to be turned off in these strings.

Selecting Character Tables

Character Table for Font

Use this to select the character table which corresponds to the font you have selected. These character tables define character widths for proportional spacing. They also translate characters from the screen into characters or strings to be sent to the printer.

Examine or Edit a Character Table

This option allows you to examine the character tables. Selecting this option will allow you to create, delete, rename, or edit character tables just as if you had selected that option from the main menu.

CHARACTER TABLES

Character tables perform two important functions. First, they contain character widths and relative positioning information for proportional spacing. Second, they translate characters from the screen into character or strings to be sent to the printer. Each font defined in a printer definition must be associated with a character table.

Character tables may be used to create your own characters on many printers. For an example of this, refer to the explanation for the *String Sent to Printer* under "Editing Character Tables." There are two kinds of character tables:

1.HMI with Adjust Factors. These character tables are for use with HMIcontrolled printers. Each table contains character widths in units which are assumed to be the same as the *HMI Unit* entered in the printer definitions which use it (usually 1/120ths of an inch). In addition, these tables contain adjust factors.

2.Microspace. These tables are for use with Microspacecontrolled printers. Each table contains only character widths, but the units are specified when the table is created and may be different from the *Microspace Unit* entered in the printer definitions which use it.

Character tables may be created, deleted, renamed, or edited by selecting option 4 from the main menu.

Creating a Character Table

With the cursor or mouse, Select a character table to use as a pattern (ASCII/Backspace and Standard ASCII are good patterns for Microspace and HMI respectively).

Next, select the **(C)reate** option from the menu to the left of the list of character tables. A bar will appear below the list of character tables for you to enter the name of the new character table. Enter the new name and press ENTER. A copy will be made of the character table you select, and this will become the starting point in defining the new one.

The table may now be edited:

1.Remove any characters which are not in your printer's character set. Select option **A** (String Sent to Printer), Press

CTRLDEL to clear all the codes, and enter a space; then enter the width of a space character under *Character Width* and enter 0 for the Adjust Factor (if any).

2. Make sure that the code sent to the printer matches the code recognized by your printer for each printable character. If your printer will print characters which your monitor cannot display, try to assign them to display character which look similar. This helps improve readability of documents which use those characters.

3. If your printer has an alternate character set (see Shift Into Alternate Character Set), don't forget that you must use the <A> code to get at these characters.

The different categories of information which need to be entered are explained under "Editing a Character Table."

Deleting a Character Table

With the mouse or cursor, select the character table to delete. Next select the option to **(D)delete** a character table (in many cases it may be necessary to delete all printer definitions which use that character table first, then delete the character table).

Renaming a Character Table

With the mouse or cursor, select the character table to rename. Next select the option to **(R)ename** a character table. A bar will appear below the list of character tables for you to enter the new name. You may type up to 14 characters and press ENTER.

Editing a Character Table

With the mouse or cursor, select the character table to edit. Next select the option to **(E)dit** a character table.

If the table is for use with Microspace printers, the widths of the characters will be displayed and the units will appear at the bottom of the screen. Tables for use with HMI printers will show character widths and adjust factors. The HMI table widths are assumed to be the same as the HMI unit entered in the printer

definitions which use it (usually 1/120ths).

String Sent to Printer

The code(s) entered here will be sent to the printer every time the indicated printer is printed. This string should contain a space if the character is nonprintable. It may also be used to create characters which are not ordinarily supported in a printer's character set. For example, the Ç character could be created by printing a C, a Backspace, and then a comma. The ASCII Backspace character table contains a large number of such "compound characters." Characters created this way are assumed to be exactly one column wide.

Character Width

Enter the width of each character from your printer manual here. If the widths are not in your printer manual, check with the printer manufacturer. These widths are only used when printing proportionally spaced text. For HMI character tables, the units in which widths are specified are assumed to be the same as the HMI UNIT entered in the printer definitions which use the character table (usually 1/120ths of an inch). The units are fixed for Microspace character tables and are displayed at the bottom of the screen. Valid character widths range from 0 to 15 (for HMI tables) or from 0 to 255 (for Microspace tables).

Adjust Factor

This option appears only when editing HMI character tables. Adjust factors are used to position characters relative to each other when printing proportionally spaced text. Valid adjust factors range from 8 to +7. The units of adjust factors are the same as those for the character widths.

To determine the adjust factor, print page 2 of the PS.TST file (on the Learning disk in WP). Before printing make sure the adjust factor for capital N is zero and you have assigned your new character table to one of the fonts on your printer. Font 3 is preferable since the document will print in font 3, 13 pitch, proportionally spaced, unless you change it.

Make sure that the capital N's have just enough space between them to look good. If you need to or want to change the way the N's are printed, change only the width, not the adjust

factor.

Look at the entire character set. Change the adjust factor of each character so that its left edge is close to the N before it. A positive number will move the character right and a negative number will move the character left. The gap between each character and the N to its left should be about the same as the gap between consecutive N's.

Print page 2 once more. Change the width of each character so that its right edge is close to the N after it. The gap between each character and the N to its right should be about the same as the gap between each character and the N to its right should be about the same as the gap between consecutive N's.

Print page 1 on the PS.TST as a test of the finished product.

Sheet Feeder Definitions

Sheet feeder definitions allow control of automatic sheet feeders to be separate from printers. This is helpful since some sheet feeders may be attached to a number of different printers. You can create, delete, rename, and edit sheet feeder definitions by selecting option 5 from the main menu.

Creating a Sheet Feeder Definition

With the mouse or cursor, highlight a Sheet Feeder to use as a pattern. Next choose option **(C)reate** from the options to the left of the list of Sheet Feeders.

Deleting a Sheet Feeder Definition

With the mouse or cursor, highlight the Sheet Feeder to delete. Next choose option **(D)elete** from the options to the left of the list of Sheet Feeders.

Renaming a Sheet Feeder Definition

With the mouse or cursor, highlight the Sheet Feeder to rename. Next choose option **(R)ename** from the options to the left of the list of Sheet Feeders. A box will appear at the bottom of the screen to enter the new name. Enter the name of the Sheet Feeder (up to 14 Characters) and press Enter.

Editing Sheet Feeder Definitions

With the mouse or cursor, highlight the Sheet Feeder to edit. Next choose option **(E)dit** from the options to the left of the list of Sheet Feeders.

When you are editing a Sheet Feeder definition you will see strings for ejecting a sheet from the sheet feeder and for inserting a sheet from up to seven bins.

The strings entered in the sheet feeder definition are only sent to the printer if you indicate a sheet feeder is attached to your printer. This is done by using the **Select Printers** option in the WordPerfect program.

Eject Page

This string is sent to the printer at the end of every printed

page before the next page is inserted.

Select Bins and Insert Page

An Insert bin string will be sent to the printer before each page is printed. The bin number selected is determined by the current Sheet Feeder Bin Number selected.

Index

Adjust Factor 18
Advance 1,2,4,8,16 Microspace Units 12
Advance Paper 1/24th Inch 9
Alternate Character Set 15
Special code for 2
Use in character table 18
Auto Bold On/Off 13
Auto Double Underline On/Off 12
Auto Proportional Spacing On/Off 15
Auto Underline On/Off 12
Automatic Carriage Return with Line Feed 7
Automatic Line Feed with Carriage Return 7
Backspace
Alternate method 2
Beep
For font changes 2
Bi-directional printing
Defining 15
Bias factor, definition of 10
Bold
Getting darker bold text 8
Special code for changing method 2
Bold/Italics 13
Cancel, use of 1
Carriage Return/Backspace Control, questions explained 7
Changing Fonts 16
Character Table for Font 17
Character tables
ASCII/Backspace 18
Chaining tables together 3
Conserving space 4
Creating 18
Definition of 18
Deleting 18
Editing 19
Examine or edit while editing a printer definition 17
Pre-defined 1
Renaming 19
Character tables for Fonts, questions explained 17
Character Width 19
Characters
Creating your own 18
Defining in terms of other characters 3
Charater tables
Standard ASCII 18

Compound characters, creating 2, 3, 19
Diablo printers
Proportional spacing 11
VMI settings for 10
Does Printer Have Backspace Capability 7Does Printer Have
Backspace Capability? 7
Dot matrix printers, special printer type 6
Double Underline Character Code 14
Down loading files to a printer 4
Eject Page 21
Examine or Edit a Character Table 17
Font change 4
Footnote Line Character Code 14
Forward/Reverse Printing On 15
Help 1
HMI 2, 11
character table type 11
definition of 11
Microspacing and HMI 11
special code for 2
when to use 11
HMI or MS Bias Factor 11
HMI Unit 11
Initialize Printer at Start of Page 6
Initialize Printer before Print Job 6
laser printers, bold fonts 3
LaserJet Printer
Microspacing and non-PS fonts 3
Proportional Spacing 12
Reason for multiple definitions 5
Line Spacing and VMI 9
Line Spacing, changing and restoring 2
Maximum HMI or MS Setting 12
Maximum VMI Setting 10
Maximum/Minimum Width of Space Character 15
Microspace Unit 11
Microspacing
Character table type 18
Combined with HMI 11
Compared with HMI 11
Sendin a Microspace Value to the Printer 3
Special code for character width 3
When to use 11
Microspacing and HMI, questions explained 11
Move Down/Up for Double Underline Character 14
Move Print Head to Center of Platen 7
NEC Printers, proportional spacing 11

Omit Underline While Printing Footnote Line 14
Overstrike, printer inability 7
Perform 1/2 Line Feed 9
Perform Carriage Return 7
Perform Line Feed 9
Perform Reverse 1/2 Line Feed 9
Perform Reverse Line Feed 9
Pitch, changing and restoring 6
Pitch/Miscellaneous, questions explained 15
Print Bold Text on a Second Pass 13
Print wheels, changing of 16
Printer definition
Changing 1
Deleting 5
Printer definitions
Creating 5
Editing 6
pre-defined 1
Purpose of 5
Recommended steps for changing 6
Renaming 6
Printer Errors
Code for removing extra error checking during printing 3
Printer Initialization, questions explained 6
Printer problems
Bold text prints slowly 5, 13
Bold won't print 7
Bolding appears too dark 8
Broken underlines 8
Double underline uses wrong character 14
Excessive print head motion 6
Footnote line is missing or unattractive 14
Justified text looks funny 5
Microspace printer won't right justify text 3
No spaces between words 15
Overstriking won't print 7
Print head rips paper 7
Printer requires CR's to be matched with LF's 7
Shadow printing 2
Space fill between words is uneven 11
Top of form changes if 6/8 lpi is mixed 9
Unable to print with hand-fed forms 3
Underline text won't print 7
WP won't print 3
Printer Type 6
Proportional spacing, special code for 2
Qume printers, proportional spacing 11
Redline Character Code 14

Redline On/Off 14
Reset Printer at End of Page 7
Right justification
Controlling the appearance of 5
How it is done 3
Role of HMI and microspacing in 11
Select Bins and Insert Page 22
Selecting Fonts 16
Set 10, 12, 15 Pitch 15
Set 6 Lines/Inch 9
Set 8 Lines/Inch 9
Set HMI 11
Set VMI 9
Shadow Printing, possible method for 2
Sheet Feeder Definition
Creating 21
Deleting 21
Sheet Feeder Definitions
Editing 21
Purpose of 21
Renaming 21
Shift Into Alternate/Back to Normal Character Set 15
Shift Into Font 16
Shift Out of Font 16
Space Fill, definition of 11
Space width, control of 18
SPECIAL CODES
Explanation of 2
How to enter 2
Special Text Markings 14
Start/End Second Pass for Bold Text 13
Strikeout Character Code 14
Strikeout Printing On/Off 14
String Sent to Printer 19
Subscript On/Off 12
Superscript On/Off 12
Superscript, printer inability 7
Superscript/Underline 12
Tandy DWP IIB, special code for 2
Tandy DWP IIB, special printer type 6
Typesetters, bold fonts 3
Underline, printer inability 7
Use Microspacing for Proportional Spacing only 11
VMI
Definition of 9
Special code for 9
VMI Bias Factor 10
VMI Unit 9

Wait for "Go", special code for 2