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Fonts used in this file have been kept at a minimum to reduce the required reformatting. Fonts used are:

Times Roman 10 point

Times Roman 10 point Bold

Times Roman 14 Point Bold

Helvetica 10 point

Courier 10 CPI

I've even turned kerning off (shudder) for the same reason. The only symbols used not found in the ASCII symbol set are typographic quotation marks and the copyright symbol. Also please note that the header includes a "page x of y" type page number. You should either regenerate the reference (ALT-F5,G,G) or delete the header prior to printing this document. One final formatting note. The document (after this introductory page) is formatted in newspaper columns. If your printer does an imitation of cold molasses when printing columns (The DeskJet, for example), you might want to delete the [Col On] code.

Enjoy,
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A Short Course on WordPerfect and Soft Fonts

This note is written for the Hewlett Packard LaserJet II (and clones). Most of what follows will be equally true for the LaserJet Plus. The Plus does have a few more limitations, though. (Number of fonts per page is an example.) The LaserJet IIP can do a few extra things that the II can't (like rotate portrait fonts to landscape), but everything that follows should work for the IIP. I think everything here should work for the III, but I haven't had a chance to find out. If you would like to contribute a III, I'll be happy to test it out and let you know. Some of the information may be useful for the DeskJet or other types of printers, but be careful. Also be warned that I'm by no means an expert on this subject. Most of what follows comes from empirical evidence. That's a nice way of saying trial and error or I pusha da button and see what happens.

All fonts (soft, cartridge, and internal) are controlled by PCL. That's HP's Printer Control Language. It also is how you control everything else related to the LaserJet. You'll need to know a little about this language to understand how you get the LaserJet to print the character you want in the font you want. You'll also need to know some of WordPerfect Printer Definition Language (WPDL) to learn how to get WordPerfect (or PlanPerfect) to get PCL to do your bidding. That can wait. Right now, we are just talking about PCL.

To use a soft font, there are two steps:

- 1) Download the font from your hard disk to the printer's memory.
- 2) Tell the printer to select the soft font.

PCL has one command to download and gives you three ways to select the font.

It's almost time to get to the techie stuff, so let's get a few conventions straight right now.

[27] means ASCII character 27 and [123] means ASCII character 123, etc. Certain characters can not be entered directly from the keyboard, so that's how I'll represent them. [27] by the way is ESCAPE. You'll use that one a lot. # means a variable. It is usually a number, but not always. It is always one character in length. ## means a variable of variable length. I'll make the length clear in the text (he said). Most importantly: **Case counts. H means H. h means h. Watch out for l (el) and 1 (one) and 0 (zero) and O (oh). Ignore this at your own peril.**

Downloading

[27]*c##D ## is Font ID Number. It can be any number from 1 through 32,767. The soft font itself immediately follows. If you have previously downloaded a font with ID Number 666 (for example), you had better not download another soft font with ID Number 666. If you do the first one will be deleted from the printer's memory.

Making a Soft Font Permanent

[27]*c##F ## is the Font ID Number. Soft fonts are treated as Temporary until and unless you issue this command subsequent to downloading the soft font. Permanent really isn't permanent, by the way. (See, isn't this easy?) I suggest you always make any and all soft fonts permanent unless you have a special reason for doing otherwise. If you have such a reason, you understand this nonsense a lot better than I do, so WHY ARE YOU READING THIS?

Deleting a Soft Font

[27]*c##d2F ## is the ever popular Font ID Number.

Delete all Soft Fonts

[27]*cOF

Selecting the Font

Selecting by ID (primary font)

[27](##X Remember (hey, it's just a few lines up!), when a soft font is downloaded you assigned it an ID Number. The ## is simply that ID number.

Selecting by ID (secondary font)

[27])##X The only difference is “)” rather than “(”. Now that you know that, you can ignore secondary fonts. But watch out for a pop quiz. If you really want to play with primary and secondary fonts, once you've select a font as secondary you can tell the printer to use it by sending it the simple command: [14] and reselect the primary font with [15].

Selecting by Description

Each soft font contains a "header" which the LaserJet reads to determine certain information. These are, in priority order (high to low):

- Orientation
- Symbol Set
- Spacing
- Pitch
- Height
- Style
- Weight
- Typeface

If the printer finds more than one font which matches the description, it uses another priority list to make the selection. Again, from highest to lowest priority:

- Lowest Soft Font ID
- ...
- Highest Soft Font ID
- Left Cartridge
- Right Cartridge
- Internal

In theory, all you need to do is describe the font in sufficient detail to make it unique and the printer will pick the right font. Also, in theory, you only need to tell the printer the differences between the font you want and the currently selected font. For example, let's say the currently selected font is Portrait and its symbol set is ASCII. Only one currently downloaded font has a Roman8 symbol set. All you need to do is tell the printer that you want the Roman8 symbol set. The problem with this is that you not only need to know the current font's description, but also that for all other currently downloaded fonts and all cartridge fonts and all internal fonts. For this reason, it makes sense to always issue the full description. OK, its time to define all of those header items.

Orientation

Usually just two choices Portrait and Landscape. The III might also be able to handle Reverse Portrait and Reverse Landscape. I don't know. My offer still stands. Buy one for me and I'll be happy to provide you with all sorts of important information.

Symbol Set

This describes the characters contained in the font. ASCII is basically the characters you can get directly from your keyboard. PC-8 is the ASCII set plus the characters you can get by holding down the ALT key and entering numbers on the key pad. There are all sorts of symbol sets. There are at least 40 symbol sets defined by Hewlett Packard. But you are not limited to these. You can (and font makers have) freely add to this list. There are certain symbol sets which the Plus can not handle. It has trouble with characters located in "index positions" in a font. These are 0-32 and 128-159.

Spacing

Only two choices. Proportional and fixed. Proportionally spaced fonts assign different widths to different characters. The narrowest alphabetical character is usually "i" and the widest is frequently "M". A fixed space font have the same amount of space for each character and therefore sometimes called monospaced.

Pitch

This is used for fixed space fonts only. It is the number of characters per inch (CPI). So 10 pitch means exactly the same as 10 CPI. Since proportionally spaced fonts have, by definition, a different number of CPI depending on the characters printed, this part of the description is simply skipped for proportional fonts. OK, POP QUIZ TIME: What happens if you call for a font and assign it proportional spacing and a pitch? A) you feel dumb. B) a proportional font is chosen. C) a monospaced font is chosen D) your printer blows up. The answer is B (and maybe A). Why? Because of the priorities

Soft Fonts & WordPerfect page of assigned to each type of description. (See above & PAY ATTENTION) Spacing has a higher priority than Pitch. So once you ask for a proportional font, assigning a pitch has no effect (assuming you have at least one proportional font in the requested Symbol Set and Orientation. Got it? Good.

Height

The height of the font in points. There's about 72 points per inch. By the way, the printer will find the closest match for both Pitch and Height. Requesting a 14.2 point font when only a 14 and 15 point font is available will get you the 14 point one.

Style

As far as I know, there are only two choices here: Upright and Italic. Slanted and Oblique count as Italic, by the way.

Weight

The heavier the font the larger the number. Normal Weight is 0. I don't know what the absolute limits are, but the lightest I've seen is -7 and the heaviest is 7. That gives you 15 Weights to choose from, which should be enough.

Typeface

What the font looks like. Times Roman, Courier, Goudy Old Style, etc. Many people use the word "font" when they mean Typeface. As you can see, your printer considers this the least important part of the font description. To sound with it, say face rather than typeface.

Now, how do you tell the LaserJet about all those things. With PCL, of course. Details follow:

Orientation [27]&l#O

That's a small l not the number and a capital O, not the number. Portrait is 0 (the number) and Landscape is 1 (also the number). So Portrait is [27]&l0O and Landscape is [27]&l1O.

Symbol Set [27](##

This is the only part of the description which does not have a trailing character. OK, OK, You've found a mistake. If you use secondary fonts (for reasons best known to you) the command is [27]). If you take a look at the way you call primary and secondary fonts, you'll see this actually makes some sense. The symbol set is always two or three characters long; 1 or 2 numbers, followed by one letter. So of the more common symbol sets and their corresponding ID's are:

ASCII	0U
Math-8	0M
ECMA94	0N
Legal	1U
Roman8	8U
PC-8	10U

Spacing [27](s#P

0 (zero) is fixed 1 (one) is proportional I refuse to tell you how to do this for secondary fonts. If you can't figure it out, you should be follow by suggest and not using them. I'm going to ignore secondary fonts from now on. (thank heavens says the gentle reader). Think P for proportional.

Pitch [27](s##H

is an variable length number. An embedded decimal point is allowed. [27](s16.66H gets you a font with 16.66 characters per inch. That, by the way, is the pitch of one of the world's ugliest fonts, the LaserJets internal Line Printer font. Think H for horizontal size

Height [27](s##V

is an variable length number. An embedded decimal point is allowed. This number is simply the point size. So [27](s8V is 8 points and [27](s150.66V is big. Think V for vertical size. Have you noticed that the only difference between the character stream for Pitch and the one for Height is the trailing character. The same is true for all descriptive elements except Orientation and Symbol Set. Check Spacing above if you don't believe me.

Style [27](s#S

is 0 (zero) for upright or normal and 1 (one) for Italic. Therefor [27](s0S is normal and [27](s1S is Italic. Think S for Style (Sorry it was the best I could do.)

Weight [27](s#B

is a number from -7 to 7. [27](s3B is bold. Think B for bold.

Typeface [27](s##T

is a number from 0 to 255 (That's one byte for the bit-crunchers out there.) The IIP and the III can handle two byte numbers (0 to 32767) just in case you need more than 256 typefaces. Hewlett Packard has assigned certain numbers to certain typefaces, but be warned that many font suppliers (particularly public domain) ignore this fact. In case you are interested [27](s5T asks for Times Roman. Think T for Typeface.

Now here's a trick to reduce the number of ESCAPEs [27] you need to send. Remember I pointed out that from the Spacing on down all the descriptive elements ended in a capital letter. Change this to a minuscule (That means small, but as we are become font jockeys, we'll pretend we know typography also.) and you don't need to send the next [27](s. You need to end the command string with a Capital letter to let the printer know that you done and what follows is not part of the command.

Here we go: Portrait ASCII Proportional 12 point Upright Bold Times Roman

[27]&l00[27](0U[27](s1P[27](s12V[27](s0S[27](s3B [27](s5T or [27]&l00[27](0U[27](s1p12v0s3b5T
WOW! Wasn't that easy? Notice that the first [27](S is required. If you use a capital rather than a minuscule letter in the middle the printer will never know about the remainder of the descriptive elements. It will think you're just sending it normal characters. Now you and your printer speak flawless PCL but I don't think most of your correspondents will understand something like 0b5T. Be careful. PCL doesn't take kindly to errors.

Take a deep breath, relax (don't worry, be happy). Now that you speak PCL, we are going to make you trilingual by learning WPDL. That's WordPerfect Printer Definition Language in case you forgot. With this and a little knowledge of how to move around an ALL file inside PTR (WPCorp's program for changing or creating ALL files), we'll have you just dying to grab some soft fonts and install them in WP.

Utilities

Before we do that, however, a short detour. You have the lovely soft font and have memorized all the useless information I've shoved at you. There are three pieces of information that you need before you can proceed:

A listing of which character is in where in the soft font is the first. Each font has 256 possible slots (numbered 0 through 255). I'll refer to these as index numbers.

A listing of the information in the font header. That's all that descriptor junk you just read about.

A listing of the widths of each character in the font. Unless, of course, you are working with a monospaced font. But they are so ugly, why bother? I mean you spent a totally ridiculous amount of money and now you've read this boring document just to learn how to upload a font which looks like what comes out of an IBM Selectric?

Several utilities are available to assist you in obtaining this information. I recommend WIDSCR.ARC which can be found in LIB 14 on WPSGA on good old Compuserv for the spacing tables. Also on Compuserv, but over on the HP SIG (go HP-1) is a file named LISTFO.ARC which gives you both a nice printout of the characters and a listing of the font header information. There are other utilities which you might prefer. All that I ask is that if you download and use a shareware utility, you pay for it!

PTR

OK, here we go. You have the proportional spacing table; you have the font header information; you have a lovely printout showing what character is at what index number.

Time to load up WordPerfect's PTR program. The version of PTR which comes with 5.1 can only be used with 5.1-type ALL files; same for the version which came with WP 5.0. There are differences in the two programs, but except for Font Libraries we don't need to worry about these. If you are interested in learning more about the workings of this beast and WPD, WPCorp sells a nice PTR manual for \$20. Unfortunately, the 5.1 version isn't available at this time (April, 1990).

The best way to learn how to add your own font definitions is to take a look at one already defined. So find an ALL file which has some soft fonts included. In many cases, there are various ways to accomplish the same thing. So the information in your ALL file may not exactly match what I'm going to be demonstrating. You should have no trouble following though.

I assume you have PTR.EXE in the same directory that contains your ALL files (or have the directory which contains PTR.EXE on your DOS path. If so go to the directory which contains your ALL files.

Backup your ALL file.

Make sure you backup your ALL file

Type PTR myfile.all <return> Replace myfile.all with the name of the ALL file.

You'll see a listing of one or more printers. Cursor to the one you want and <return>. You'll see a menu of 13 items. The only one we are going deal with is Fonts.

Cursor to **Fonts** and <return>

If this is 5.1, you'll see a listing of Font Libraries.

Pick the Soft Font library to which you want to add the soft font description.

You'll now see a list of fonts.

Pick one (if this is 5.0, make sure you pick a soft font). <return> You'll see a 10 item menu. We don't need to worry about **Groups, Automatic Font Changes or Substitute Fonts**. For general information, you should know that if you mark even one AFC in the ALL, WP will not create any AFC's on its own. The same might be true for Substitute Fonts. I've never tried it or looked it up.

Typeface <return>

You'll see a menu of seven items. WP uses the information contained in these categories for three purposes. It uses this information to make Automatic Font Change (AFC) choices. Secondly, it uses the same information to decide what screen font to use in Print View (SHIFT-F7,V). Lastly, it uses one item (sometimes) to properly place diacriticals over Italic fonts. If you don't understand that last sentence, it means you don't need to worry about it.

There are two strategies you can use. The obvious one is to mark the most appropriate choices. The one I use is to make each typeface different enough to reduce the cross-typeface AFCs. WP goes out of its way to find AFCs for each Size and Attribute (e.g., Bold, Outline). I'd rather have no AFC than an AFC to a font with another typeface. It's your choice. I'll give a few hints on what to mark for some of the less obvious categories, but leave most of it to you. You can (and probably should) review and remark the AFCs WP makes, anyway. Also, WP's Print View is too primitive to really show difference between Goudy and Bodoni, for example, so I'd not worry too much about that either. The two most important categories are Attributes and Weight. Here we go. Oh, one (more) note: You can mark more than one item in each category and you can leave some categories unmarked

Note that to "mark" a category, you use the asterisk "*" and to unmark use <backspace>. As always, F7 backs you up one screen.

Appearance/Style

Casual

The most common face which fits into this category is Dom Casual

Connected Letters

Obvious

Decorative

Broadway is an example

Formal

The most frequent choice. Times Roman, Goudy, Garamond, Century

Futuristic

A font which looks like the display on your pocket calculator or the coding on your checks.

Old Style

Poor choice of name. Old English is an example of what WPCorp thinks belongs here.

Script or Calligraphic

Overlaps Connected Letters. Use this for "pretty" fonts.

Attributes

Note: These you should try to mark correctly

These are fairly obvious. Small Caps means that there are not minuscule letters in the font. Rather the small letters are simply smaller versions of the Capital letters.

Serifs Don't worry too much about these. If you are installing a sans serif face, just don't mark any. Some of my guesses of what belongs were follow.

Cupped

Garamond or Goudy. The serifs are curved, not made from straight lines.

Exaggerated

Usually found in Old Style, Decorative, or Script fonts.

Hairline

University or Bodoni. Very thin serifs.

Slab

Rockford or Courier. Rectangular, heavy serifs.

Slanted

University. Serifs look like triangles.

Transitional

Times Caslon. The serifs are attached to the body of the letter on an angle.

Triangular

University (I'm using this one a lot, aren't I?). Sharp angled connection on the serif to the body.

Ball

Century. Rounded serifs

Shape The general shape of the main body of the character.

Curved or Bowed

Dom Casual.

Nonconnecting Enclosures

Not very common. An example would be the middle

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arm of the capital B does not touch the vertical stem.

Round

Futura or Avant Garde. An example would be a minuscule a as you would print it (kinda like a “d” with the ascender missing).

Square: Metro.

Stress Variations in line weight
Angular

Garamond. The curved lines (like the “O” vary in thickness.

Exaggerated

Bodoni. Exaggerated differences in line weight.
Uniform: Helvetica, Dom Casual.

Weight Note: Try to get this one right to assist WP in making the correct Bold AFC choice. There are only five choices, while PCL provides 15.

Proportions Don't get hung up on these. (My definitions are not technically correct, but they will give you a good idea of what is expected.)

Capital Height

The height of a Capital A divided by (height of Capital A plus the distance from the bottom of the Capital A to the bottom of a minuscule p). 80% will be close for a normal typeface.

Descender Height

Subtract the Capital Height from 1. 20% is a normal guess.

Lowercase x Height

The height of a minuscule x divided by (height of Capital A plus the distance from the bottom of the Capital A to the bottom of a minuscule p). Times Roman would be about 60%

Lowercase t Height

The height of a minuscule t divided by (height of Capital A plus the distance from the bottom of the Capital A to the bottom of a minuscule p). 80% is a usual number.

Maximum Ascender Height

The height of a minuscule t divided by (height of Capital A plus the distance from the bottom of the Capital A to the bottom of a minuscule p)

Slant Adjustment

I gotta quote from the PTR Manual for this one: "The slant adjust is the tangent of the angle of the slant." Got it now? Leave this a 0%. If you enter a positive number, WP might pick this font as the Italic AFC for some other font. Think about changing this if, and only if, you will be using diacritical marks in combination with the letters in this font (like Character Set 2)

Orientation This one's easy. Any questions?

Character Map Hit <return> and you'll see a listing of all the Character Maps already defined. A lot of cute things can be done here. This includes using PCL graphic commands to make symbols and combining letters (sometimes from two different fonts). If you are trying to do something like that, enjoy. I'm not going to explain it here. A hint: take a look at the various sets of variables.

In normal use you simply map the font index number (remember that?) to the proper place in the WP Character Sets. For example, if you want to use the character in index number 244 as the large round bullet, enter [244] in the 4,0 slot.

If you are installing a normal font, you can usually use an already existing Character Map. If not, you can often use an existing Character Map as a starting point. To do this, cursor to the Map you want and hit 4. Enter a new name and make the changes. Much easier than starting from scratch. One more hint. You can tell WP to use font index 65 either by entering [65] or "A". A is normally index number 65. these follow Character Set 0.

If you need to create your own Character map or edit an existing one, you now see why you need the printout of the font showing the index number for each character. Also note that WP will quite happily accept a single character in multiple places in a Character Map. Characters 0,65 and 8,0 is an example of character you might want to "double map" this way. (Actually you might want to triple map this one by including 10,0, also.)

Size and Spacing Information

This screen is slightly different on 5.0 than on 5.1. Don't be overly concerned with this information. Well, some of it anyway.

For **proportionally spaced fonts**, the items are:

Point Size

The point size and is rather important.

Font Cell Height

The maximum height a character in the font may have. It is frequently somewhat smaller than the Point Size. Don't worry about this one.

Leading Adjust

The amount of extra leading you want WP to insert. Leading (pronounced ledding) is the white space between lines of type. WP 5.1 always adds 2 points between lines of proportional fonts. If you want only 1 point, you could enter -1 here, but usually this is a positive number or zero. The 5.0 screen asks for Default leading, not extra leading. Got the difference?

PS Table Width Adjust

Almost always 1. Don't even consider changing it.

Character Cell Adjust and Baseline Bias Factor

Can be safely ignored.

Horizontal Spacing Units and Vertical Spacing Units

Always 1/300 for LaserJets.

Resource Quantity Used

The size of the font file in kilobytes. Round up.

Proportional Spacing Table

The name of the table which contains the character widths.

The other information is just that, information, and can not be changed on this screen.

For **monospaced fonts**, there is no PS Table Width Scaling Factor and Proportional Spacing Table should be: None selected. There are two additional items:

Pitch

Characters per inch (just like the descriptive element in PCL)

Font Width

This is the reciprocal of Pitch expressed as a fraction of an inch with 300 as the denominator. $\text{Font Width's Numerator} = 300 / \text{Pitch}$. Why, you ask, is this needed? Well, if you are your fellow WP-ites always used monospaced fonts as they were designed to be used, it won't be. By making this number smaller, you can squeeze the characters of a monospaced font together; or spread them out by enlarging this number. If you do this with a font which contains line drawing characters, you'll get just what you deserve.

Cursor down to the **Proportional Spacing Table**. <return>

You'll see a list of the Proportional Spacing Table (surprised?). If you are playing with a proportional font, the cursor will be on the one selected for the font.

<return>

Aha, clever of WPCorp. You are now looking at the Proportional Spacing Table itself. Note that the listing is in WP Character Map order, not Index Number order. Remember that! Want to move around and have a look? OK. You can wander around with the Up and Down arrows. For faster movement, PgDn takes you to the beginning of the next Character Map. I'll let you guess what PgUp does. Control-Home is the GoTo Key. Hit it. You'll see a list of the various Character Maps. Hit 3 <return> and you'll be at Character 3,0. Control-Home again, hit 8,30 <return> and you'll be at Character 8,30. Kinda like CONTROL-V (Compose) in WP. Want a copy of the entire Proportional Spacing Table? No problem. Control-F5 is Text In/Text Out. Hit it. PTR suggests a name for the file. Accept it or choose your own. A nice neat WP document is created. It is also displayed on the screen. Hit F7 to exit this.

This is where you will enter the information from your font width printout. A couple of point, here. Your font width printout is in index number order. You need to translate this into Character Set order. Also, if you "double mapped" any characters as mentioned above under Character Map, you need to enter the spacing information for each WP character.

Choose **Load and Select string** <return>

Choose **Load Font**. Hit CONTROL-<return>
You'll see something like:

```
[27]"*c"ASCII(FNTNUM+2000)"D"  
DOWNLOAD("ch090rpn.usp")[27]"*c5F"
```

the "ch090rpn.usp" will vary as this is the font file name. A lot of the rest will look familiar if you remember the first part of this witty, but so informative, tutorial. Let's break it down.

[27]"*c" looks very much like the start of the PCL downloading string. WPCorp use square brackets for ascii characters, just like I've done (pretty clever, huh?). The neutral quotes surround characters which are to sent to the printer unchanged. ASCII (and all such all-capital words) is a predefined variable. ASCII sends the value of the argument which follows [that's techie-twaddle for the stuff between "(" and ")"].

FNTNUM is the number assigned to each font. It represents the position of the font in the PRS file (not the ALL file and the physical order, not the alphabetical order). The first font is 0. In my example, 2000 is added to the value of FNTNUM. Notice that this method assures that each font will have a unique ID number, which you will recall, makes sure that a newly downloaded soft font doesn't overwrite one that already exists in the printer's memory.
"D" is D.

So if this is the 667th font definition in the PRS file, to download it, WP sends the following command to the printer:

```
[27]*c666D Look familiar?
```

DOWNLOAD sends the file named in the argument to the printer. Note that path names are not allowed here, just the file name.

```
[27]*c5F" tells the printer that this is a permanent font.
```

Hit F7

Take a look at the **Unload Font string**. It will look something like:

```
[27]*c"ASCII(FNTNUM+2000)"d2F"
```

Just like the Delete font command, right?

Choose **Select Font**. Hit CONTROL-`<return>` Things get tricky here.

You might see something like:

```
[27]"("ASCII(FNTNUM+2000)"X"
```

 which selects the font by font number.

You might see something like:

```
[27]&I00[27](0U[27](s1p12v0s3b5T
```

 which selects the font by description.

Which method should you use? The select by number has the obvious advantage of simplicity. Despite that fact I recommend the descriptive method. There are several reasons for this, but I'll just give you one. Choosing soft fonts by description makes using BackLoader2 easier. If you use soft fonts to any great extent and don't use BackLoader2, you're nuts. It's published by Roxolid whose president, Peter Mierau (CIS #76340,1121) spends quite a bit of time on CompuServ. I own no Roxolid stock, nor am I an employee. Get it anyway.

Hit F7 until you are back at the menu which includes Load and Select Strings. If you see the list of fonts, you went too far. Hit `<return once>`.

Break time. How, you ask, are you supposed to remember all this? There are five ways to do this:

- 1) Take a memory course.
- 2) Buy the PTR manual from WPCorp.
- 3) Download from CompuServ the file called PTRHP.ZIP and unpack and print it. It should be over on WPSGA, LIBRARY 2 (unless the Forum Manager decided not to accept the upload or change the name). It is an extract of the PTR 5.1 Help File.
- 4) Help File? What Help File? Hit F3, you'll see a Function Key template. Hit F3 again and you might see some text. If the PTR item your cursor was rested on is indexed in PTR.HLP, it'll be there. If not, tough luck. Space bar returns you to the PTR from whence you came.
- 5) Do all the above.

OK, F7 until you are back at the menu containing Typeface and all those other choices. You're almost done.

Choose **Quality** `<return>`

Mark all three choices. That was easy. F7

Choose **Miscellaneous Questions** `<return>`

There are several here you might consider marking.

Use Font Only for Automatic Font Changes or Substitute Fonts

I mark this for the majority of the fonts I use. I even mark the LaserJet's internal Courier Bold and Line Draw this way. Why? I like a clean, simple Base Font list (Control-F8). So I mark all Bold, Bold-Italic, Italic, Outline, etc., fonts this way. That way they

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don't show up on the Base Font list. I just select the normal variety of the font and hit F6 for Bold (or whatever) and let WP's vaunted AFCs do the work. I also mark all special use fonts (Math symbols, Greek, etc.) this way. I access these symbol only through COMPOSE and again let WP's AFCs select the font. The downside of this is simply that you need to check to make sure WP made the proper AFC and Substitute Font selections.

Diacriticals Positioned (Vertically) for Uppercase Characters

If you won't be using diacriticals with the font you are installing, it's a moot point. If you are, worry. If the diacriticals are included in the characters in the font, don't worry. If they are not, worry. If the diacriticals are included in the font, but are at separate index numbers from the main characters: Mark if the diacriticals are set up to overprint properly for Uppercase characters, otherwise leave unmarked.

Diacriticals Are Not Already Adjusted (Horizontally) in Italic Fonts

Remember the Slant item in Typeface? Here's where it is used. If this is an italic font and if the diacriticals are in their own index numbers (or in a different font, if you are being tricky), and they are not correctly positioned to overstrike the main character, mark this. Otherwise, leave it alone.

Include in PRS file

Mark if you want to force this font to be included in the PRS file even it is not marked by the user at PRS creation time. Why would you do this?

- a) The user is dumb.
- b) The font contains COMPOSE characters and the user might not know he needs this font to access those characters.
- c) You are power mad.

If you do mark this, make sure the soft font exists and resides in the directory the user tells WP about at PRS creation time.

That's all you need to know to start popping in your own font definitions. Oh, you want to know how to save the altered ALL file? Hit F7 until you are back at the opening PTR screen (that's where you see the names of the printer(s). Hit F7 one more time. You are asked if you want to save. Hit Y. You are given the current name of the file as a default. Do NOT accept it unless you have a backup (preferably two) of the unscrewed up ALL file. Give it a new name. Then save it. Better yet, read the next paragraph for a better way.

Usually, you only need one of the printer definitions out of the several that are included in most ALL files. If you get rid of the others and delete other extra baggage, the ALL file will be considerably smaller. If you add a lot of soft font definitions to the ALL file, this can be important (folks have been known to have been unable to load an ALL file in PTR due to insufficient memory). Simply deleting the unused printer definitions does very little to reduce the size. But if you COPY it to a new file name, the unused typefaces, proportional sizing table, etc. are not transferred. This can greatly reduce the size of the ALL file. Just delete the unneeded printer names at the opening screen. I also delete unused sheet feeders and unused cartridge and/or soft font definitions (Font Libraries in 5.1, too). Then, at the opening PTR screen, I rename the printer (to prevent confusion when adding a new printer definition in WP), CONTROL-F4,name the sucker and <return>. The printer name you use can be anything that fits, it doesn't need to include the actual name of the printer.

I have ones named:

Glyphix3.1 and Math Symbols
Lynda's (my wife's name)
Correspondence
25-1 & Goudy/Bodoni (The 25-in-One Cartridge plus some soft fonts)

There is only a downside to this slash and burn Copy technique. (Ain't there always?) As mentioned previously, it is often easier to start off with an existing Typeface, Character Map, sometimes even a Proportional Spacing Table than it is to create one from scratch. Copying is likely to get rid of some useful templates.

Is there anything else to learn about PCL and WPD? Sure there is.

Some PCL items not covered:

Cursor Movement

Graphic Commands
Page Control
Macros

Job Control
Underlining

Some WPD and PTR items not covered:

Variables (several types)
Composite characters
Using different fonts in one Character Map
Kerning
Reducing a PTR or ALL file's size (there are other

ways)

Setting up Typeface/font information to improve WP
chosen AFCs

If there is sufficient interest, I'll be happy to put together a note similar to this one. Let me know what you think. Also, please let me know what errors you find in this beast. I would very much appreciate that. If you have information on fonts or some other subject (Macros, Styles, whatever) why not upload it on WPSGA? In fact, why not consider this file HelpWare? If it helps you, share you knowledge and help others. (Boy, could I use help!)

One last item:

Translating width information and character maps can be a real pain. I use a spreadsheet template to make it easier. It looks something like:

A	B	C	D
Char Set	Char	Width	Index

After entering the information, then sort on Column A (primary) and Column B (secondary). That way I have the information sorted in WP Character order which makes life much easier. You can do the same thing in WP Tables (and probably parallel columns), but we're talking slow. If there's interest, I'd be happy to upload it. I have it Lotus (all versions but 2.2), SuperCalc 5, Quattro Pro, and of course PlanPerfect 5.0. Complete with a macro to do the sort.

This note has ben rather informal. If you're offended by that, I'm sorry (but not very). If the humor seems to be on the fifth grade level, you are very perceptive. I have not taken the time to format it properly, for that (and all typos) and truly am sorry.

Enjoy,
 Paul Friedman
 National Benefit Resources
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