

## Easily View Character Sets and Insert Characters

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If you are using WordPerfect 5.1 for DOS, you are aware that it is not completely WYSIWYG (what you see is what you get) when it comes to character sets.

First, WordPerfect does not have a character set selection menu. You have to look in the book or the CHARACTR.DOC file and type in key numbers with the (Ctrl-V) command ("4,19", for example, gets you the cent sign). Even then, not all characters display on the screen; many turn up as solid rectangles. WordPerfect recommends that you use the view option on the print menu (Shift-F7, 6) to check how the characters display before printing to make sure that you got the right ones in the right places.

All well and fine, but what if, while you are typing, you have a lot of special (foreign and mathematical) characters and just can't remember all those number combinations? You have to look into the CHARACTR.DOC document page by page until you find it, write it down, and go back to your document and enter the character key.

One solution is to create a macro that displays a character document in the View Document window and lets you choose the character right then and there for entry into your document.

In the process of creating this macro, I thought I would also create a "quick list" of characters, without the verbal descriptions that the CHARACTR.DOC document provides, so that viewers could see more characters at a time and select by sight. First I began by typing out all the number combinations in a 4 parallel columns with 10 key number combinations per column. After each, I placed a tab, then inserted the character itself with the (Ctrl-V) command. Then it occurred to me to create a macro to create the "quick character set" document.

There are actually two macros involved in the process of viewing character sets: (1) the macro GENCHARS.WPM that generates the character set document; this macro needs to be used only once; and (2) the macro CHARSETS.WPM that displays the quick character sets while you are working in WordPerfect. While the macros have comments written into them, you might want to check the fine points in the notes after them.

*Note: The GENCHARS.WPM macro takes several minutes to generate the character set document.*

GENCHARS.WPM (generates the character set document)

1. Your version of WordPerfect may well have more than 12 character sets, and more characters per set than mine. To find out, you can run a simplified version of this section of the macro that expands the range that it covers. This is how I discovered that my version has 12 sets, the highest number of characters being 254. In the following code I have increased "num1", the character set number, from 12 to 20, and "num2", the key number, from 260 to 300):

*Test Macro*

```
{FOR}num1~0~20~1~  
  Character Set {VARIABLE}num1~{Enter}{Enter}  
  {FOR}num2~0~300~1~  
    {VARIABLE}num1~, {VARIABLE}num2~{Tab}{^V}
```

```
{VARIABLE}num1~,{VARIABLE}num2~{Enter}{Enter}
{END FOR}
{Enter}{Enter}
{END FOR}
```

You will notice that this part of the macro inserts {Tab}{Enter} rather than simply {Enter} at the end of header lines and empty (space) lines. This is because the routine that follows reads every line of the text, stopping at the first Tab and recording the number of characters up to that point. This means that each and every line (even blank ones) must have at least one Tab.

2. You will notice that this routine uses the {SYSTEM}right~ function to identify the first Tab of a line. If the character is a Tab, {SYSTEM}right~ returns the numeric value 49410. You will also notice that I have had the macro put an {Indent} code at the end of the file. This is so that the loop stops when {SYSTEM}right~ reads it and returns the numeric value 49664. This little trick of using characters as "markers" was one that I came up with to get around certain limitations of a very simplified macro macro. For reasons of syntax, characters that return numeric values are preferable to values that return string values ([Hrt], for example, returns itself, [Hrt]).

3. Routine 3 is labeled "cleanup1" because I was thinking of a second cleanup that would remove ASCII keys "0,0" through "0,33", which do not exist because WordPerfect assigns them to other WordPerfect character sets. But then I thought people might wonder why they weren't there, so I left the keys to prove that they actually have no characters associated with them. For the same reason, I have left character set 12 in the character set document, even though it will not display characters in the view window unless you have defined them (these are User Defined characters).

4. You'll notice the {BREAK} in the {FOR} routine when {VARIABLE}num1~ is 12. This is because there is no "Character Set" head to be found after the last character set. Inserting the Column Off there has to be done outside of the {FOR} loop.

5. If you ran this macro with {DISPLAY ON}, you would see that even after the columns have been defined, each character set is still just one long column. Hence this routine seeks out the keys 11, 21, 31, 41, etc., goes to the beginning of the line and inserts a Hard Page Break to create a new column (all columns have 10 keys, except the first, which has 11 because keys begin with 0).

If you do not put {VARIABLE}last~ in the ending number slot of the {FOR}num2~ statement, you will find that the routine keeps searching past the end of the 0 character set into the 10 character set (which also has a 0). I spent a fruitless hour trying to figure out other ways around this until using {VARIABLE}last~ in the {FOR} statement occurred to me.

6. This is a fairly obvious routine. You want character sets to fall on a new page so that you can eventually view them one at a time in the view window.

7. The comment in the macro says it all.

8. The macro shows the following screen before exiting:

Save this file as CHARSETS.WPD In your WP51 macro directory.

Remember that you will have to change the path name of this file in the CHARSETS.WPM macro to the path name of the directory in which your WordPerfect macro files reside.

After copying the CHARSETS.WPM macro to your macro directory, you can access the macro for editing by pressing (Ctrl-F10, 2). Once inside the macro editor, cursor to the C:\WP51\CHARSETS.WPD and C:\WP51\CHARACTR.DOC lines of code and change to path names to yours. Press (Enter) to continue.

CHARSETS.WPM macro (displays character sets and inserts a character into the document)

The macro can be accessed two ways: (1) by (Alt-F10) plus the name CHARSETS, or (2) by (Alt-C) (a keyboard macro) if you copy it to the filename ALTC.WPM in your macro directory.

The macro can be assigned to the keyboard (Alt + Key). I chose the C key for "character." Use the DOS prompt command: copy c:\wp51\macros\charsets.wpm altc.wpm.