

The URDUKEY Keyboard
Developed By Wayne R. Husted

INTRODUCTION

With the introduction of WordPerfect 5.1, users are finally able to access characters in the 13 character sets listed in Appendix P of the WordPerfect 5.1 manual and print them on any printer with graphics capability. However those like me who need to Romanize characters from the languages of Arabic, Persian, and Urdu (all in the Arabic script) still find it difficult if not impossible to print certain characters. For instance, following the Romanization rules for Urdu as outlined in the Library of Congress Cataloging Service Bulletin #94 (Sept. 1970), certain characters require a single dot or double dot beneath them.

These are not to be found in the WordPerfect 5.1 character sets. Thus I set about to create a specialty keyboard linking WordPerfect macros to certain keys in order to create these characters and have them print (hopefully) on any printer with graphics capability. I did this much in the same way as Read Gilgen and Bruno Browning did at the University of Wisconsin when they created the DEADKEY keyboard (DEADKEY.WPK). [The DEADKEY.WPK is included in this macro collection.] My approach in URDUKEY is much as the same as they used in DEADKEY so I will quote them here:

The idea behind the approach used here follows the pattern used by foreign language typewriters: the use of a "dead key" on the typewriter which gives the accent without moving the carriage, and then the character to be accented is typed, moving the carriage along. In WordPerfect, the "dead key" will initiate a macro that will evaluate the next keystroke and give the appropriate accented (or other) character.

Like Messrs. Gilgen and Browning, I will give the following warning: BEFORE USING THE KEYBOARD YOU SHOULD REFER TO THE WORDPERFECT MANUAL ON "KEYBOARD LAYOUT." I also have a few other cautions.

Due to the necessity of using WordPerfect's "Advance" feature to position the single and double dots as well as macrons below certain characters, **URDUKEY should ONLY be used with 10 cpi fonts with NO proportional spacing UNLESS you are planning on only creating characters with a macron above them** (see below).

You do not have to be concerned with turning off underlining before producing special characters with diacritics beneath which may be overstruck; URDUKEY does this for you and turns the underlining back on. Related to this is the problem of italicizing the special characters that URDUKEY produces. If your printer has an italicized 10cpi font and you are going to produce the document on that, well and good; URDUKEY's characters can be italicized. The HP LaserJet III is quite kind in printing italicized characters which have a macron above them. If you like the results, well and good.

HOWEVER, if, say, you decide to print on a HP LaserJet II using only the native fonts (the "built-in fonts"), WordPerfect 5.1 converts your italicized characters into underlined characters for that particular printer and the result is not pretty. I strongly recommend that if you wish to create a document which contains URDUKEY's special characters that can be printed on any printer other than your own, underline instead of italicize.

In the editing screen special characters may appear with diacritics missing or next to the character to which they are attached or even appear as a shaded box. Not to worry. If you wish to preview the document in which you have used the characters created by URDUKEY before printing, use the View Document (6) selection on the Print menu (Shift-F7) as outlined in the WordPerfect manual.

And of course I must caution that there are no explicit nor implicit guaranties, warranties, or promises connected with the URDUKEY package. It has worked well for me on both a Toshiba P321SL dot-matrix printer, an HP LaserJet II, and an HP LaserJet III in printing all the created characters.

ACTIVATING THE KEYBOARD

Copy URDUKEY.WPK to the WP51 subdirectory or the directory specified in the Setup menu for the location of Keyboard Layout (See Setup, Location in the manual). Then after entering WordPerfect select Setup (Shift-F1), then Keyboard Layout (5). Highlight URDUKEY, select Select (1) and then exit out of the menus. See the figure on the last page for the mapped keys in this keyboard.

USING THE KEYBOARD

Characters with macron (line above): Press the left bracket ([). You will be prompted to enter the character that wants a macron. Following the Library of Congress conventions for Romanization, only the following characters (both lower and upper case) will take a macron:

a, i, and u

Characters with a dot beneath: Press the right bracket (]). You will be prompted to enter the character that wants a dot beneath it. The following characters (both lower and upper case) will take a dot beneath them:

d, h, r, s, t, w, and z

Characters with a double dot beneath: Press the equals sign (=). You will be prompted to enter the character that wants a double dot beneath it. The following characters (both lower and upper case) will take a double dot beneath them:

s, t, and z

Characters with a macron beneath (underline): Press the plus (+) (the "shifted" equals sign). You will be prompted to enter the character that wants a macron beneath it. For example, pressing "g" will result in "Gh" with a macron beneath. Here is the list of characters that will be treated like this.

Press	To Get
g	Gh
k	kh
K	Kh
n	n

Press	To Get
N	N
s	S
S	S
z	z
Z	Z

Characters with an acute above: Press the circumflex key (^). You will be prompted to enter the character that wants an acute:

lower and upper case a and s are supported

Special Characters:

- For an Arabic ain, pressing the grave (`) will result in an inverted apostrophe accent above.
- For an Arabic hamzah, pressing the tilde (~) will result in an apostrophe accent above off center.

In all the above cases, pressing any letter other than those supported will yield nothing. Also if you desire the actual character on the key to which these macros are linked, merely press that key a second time.

DEACTIVATING THE KEYBOARD

To temporarily deactivate the keyboard, press (Ctrl-6), which will act as a toggle between the selected keyboard and the Original keyboard. Also, URDUKEY will deactivate itself in any screen other than the main editing screen or the footnote/endnote editing screen. What this means is that if, say, you need to edit macros, all the original keys will be available to you in the macro editing screen.

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Keyboard: Edit
Name: URDUKEY

Key      Action      Description
+        {KEY MACRO 5}    Macron beneath character
=        {KEY MACRO 2}    Double dot beneath character
[        {KEY MACRO 1}    Macron over character
]        {KEY MACRO 3}    Single dot beneath character
^        {KEY MACRO 9}    Acute over character
`        {KEY MACRO 4}    Arabic character "'ain"
~        {KEY MACRO 6}    Arabic character "hamza"

1 Action; 2 Dscrptn; 3 Original; 4 Create; 5 Move; Macro: 6 Save; 7 Retrieve: 1
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