Apple II
Technical Notes

Apple IIc
#4:   Dvorak Keyboard Layout

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This Technical Note discusses the Dvorak keyboard layout on the Apple IIc.

The old, red version of the *Apple IIc Reference Manual* incorrectly illustrated the Dvorak keyboard layout, however, the current *Apple IIc Technical Reference Manual, Second Edition* contains a corrected diagram on page 370.

The diagram in the current manual shows the Dvorak Simplified Keyboard (DSK) as it appears and functions on the Apple IIc today. This layout is the ANSI standard for the Dvorak keyboard layout, which was not available when the original IIc keyboard ROM was created. Previous IIc computers had a DSK layout as follows:
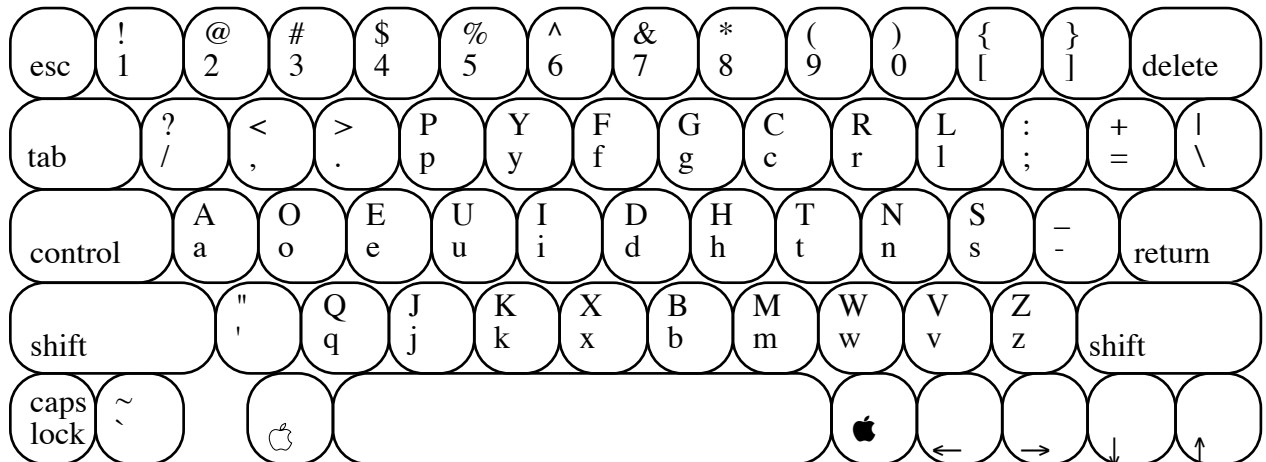

Figure 1–Dvorak DSK Layout on Early IIc Computers

Due to service part changes and other manufacturing considerations, it is not possible to identify which IIc units have which keyboard ROM by looking at identification bytes. If a program **requires** knowledge of this information (i.e., a typing program which draws the Dvorak keyboard), it must ask the user for input.

One possible way to accomplish this would be for a program to draw a blank keyboard layout (except for shift, tab, control, and other keys which do not move between Dvorak and Sholes layouts) and ask the user to press the key to the right of the left shift key, while the drawing on

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screen highlights the correct key to press. If the key is a Z, the layout is a standard Sholes layout. If the key is an apostrophe or quotation mark, the layout is the DSK layout shown above. If the key is a semicolon or colon, the layout is the ANSI DSK layout on new IIc models. Since such a program must already ask the user if the keyboard switch is depressed (indicating a Dvorak layout), making this type of inquiry instead will do the trick.

The IIc manual has another DSK diagram in the front, on page 7. This diagram correctly shades those symbols which are in different places in the two DSK layouts.

Further Reference

- *Apple IIc Technical Reference Manual, Second Edition*