

CHIP - 8 MESS A G E R

The CHIP-8 Messenger is a machine language routine that provides the capability of displaying text in programs without having to figure out bit patterns for letters, or calculate each X,Y coordinate for the displays. Sixteen characters may be displayed on a line with any X,Y starting position. Text is stored in memory in standard ASCII encoded form, with all character strings ending with a null (00) character.

The Messenger requires a character set - which will provide the bit patterns for each character - with the patterns packed in four bytes each; two rows of four bits for each character per byte. This is the form generated by the Character Designer program discussed earlier in the book. Any changes to be made to the character set, or the addition of graphics, are easy to make by using that program. All the capital letters and punctuation are available for your own programs, starting with a copy of the 2-page interpreter supplied with Character Designer. Enter the Messenger program, record three pages, beginning at 0000, and you're ready to begin.

After entering the code for Messenger, you need to enter:

1. At 025E - the page where the character set is located.
2. At 024D and 028B - the code for whichever CHIP-8 variables you choose to use for X and Y coordinates. To do this, set the values to FN, where N is the first of the variable pair. For example, to use V5 and V6 for X and Y, respectively, enter F5 into locations 024D and 028B. To use V0 and V1, enter F0 into these locations, and to use VA and VB, enter FA. The variables are always available for other uses in your program.