C H A R A C T E R D E S I G N E R

The CHIP-8 language was designed primarily to enable simple game and graphics programming on the VIP with minimum memory requirements. That such a miniscule interpreter performs this task so well is a credit to its designers!

However, as programs increase in complexity, it becomes evident that an additional feature is sorely needed: the ability to easily display messages and instructions on the screen. Figuring out all those bit patterns for "YOU WIN", "PICK A CARD", etc., takes too much time and far too many pages of graph paper. Wouldn't it be nice to be able to enter a string (i.e., a series) of ASCII hex codes somewhere in memory and have CHIP-8 do all the work of deciphering the binary patterns to make up the letters? And for keyboard owners: Wouldn't a way to design character sets make life easier than having to calculate all those addresses? How about a full 128-character set for the VIP that can be stored in 500 bytes? Including punctuation, lower-case letters, and math symbols? A tall order, this; but possible!

In searching for a binary answer to these questions (having assumed the program would have to be written in machine language), it occurred to me to ask one more question: Can CHIP-8 be used for things other than games and graphics? Why not program the Character Designer in CHIP-8? Asking questions like these led to my Character Design Program, which uses the 2-Page Display Program described in the September, 1978 issue of the VIPER* - with the minor changes listed later in this chapter.

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* The VIPER is a newsletter dedicated solely to VIP owners. You can obtain a subscription to it by sending $15.00 to ARESCO (if you live outside the USA, send $25.00). Address is PO Box 1142, Columbia MD 21044.