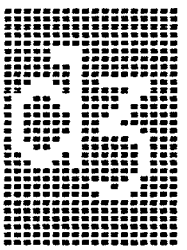
Screen dump: Revising session

Revising version 1505 of the font IPA

X 0
Y 0

Character # 68



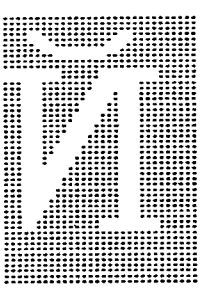
OPERATIONS

- Up
- Down
- Left
- Right
- Column operations
- Row operations
- Merge
- Import
- Clear
- Invert
- Change to ROM

Revising version 2701 of the font Cyrillic

X 0
Y 23

Character # 81



ROW OPERATIONS

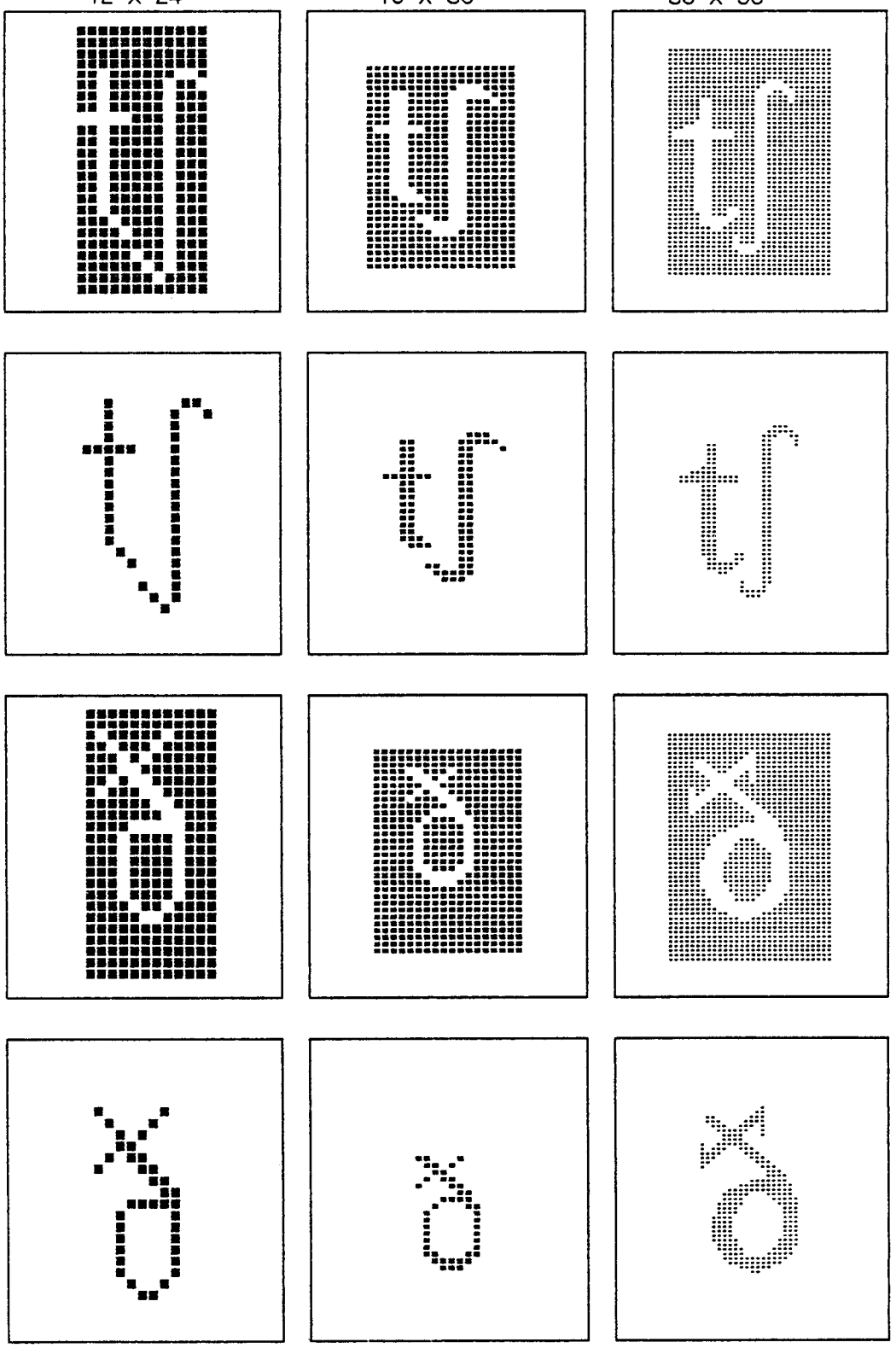
- Duplicate
- Left
- Right
- Clear
- Copy
- Insert
- Delete

15:19:23 ACNS

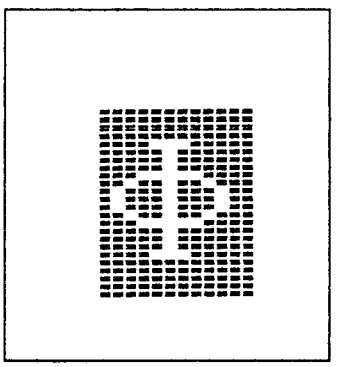
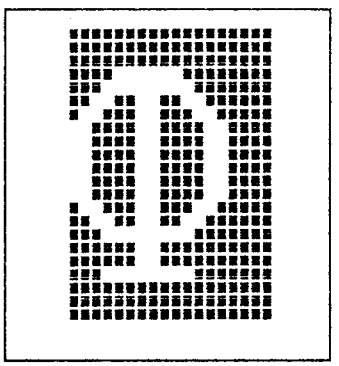
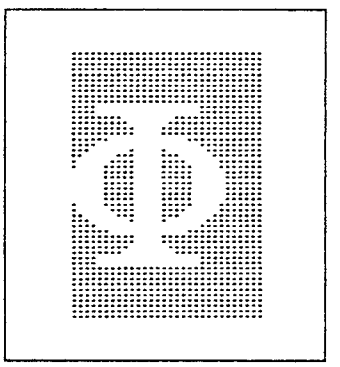
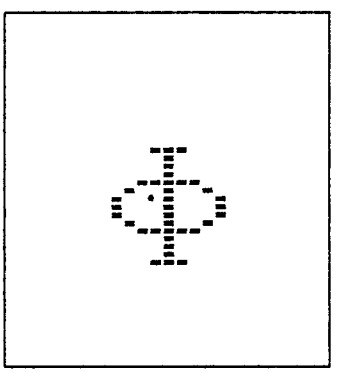
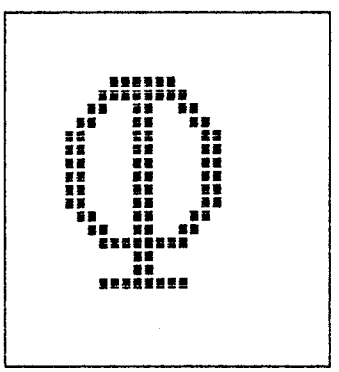
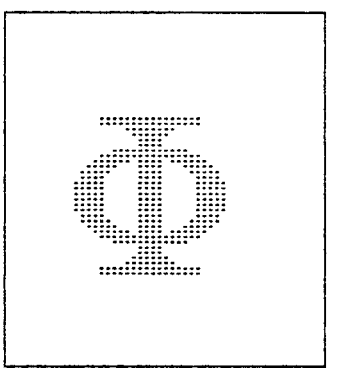
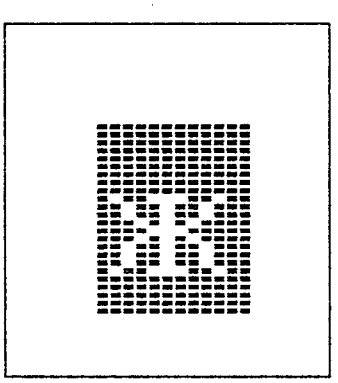
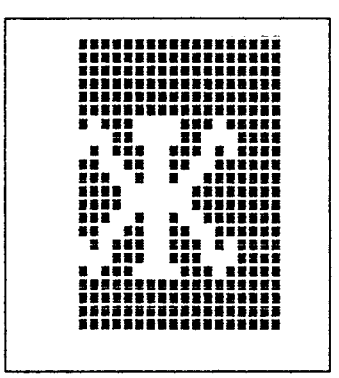
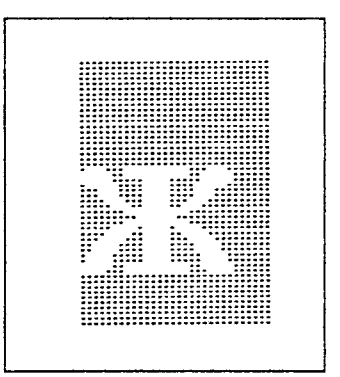
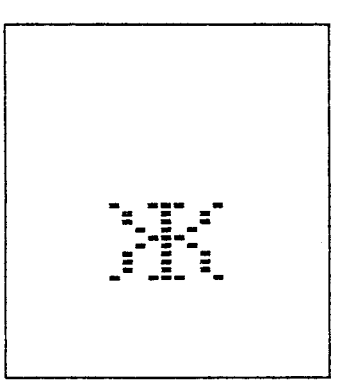
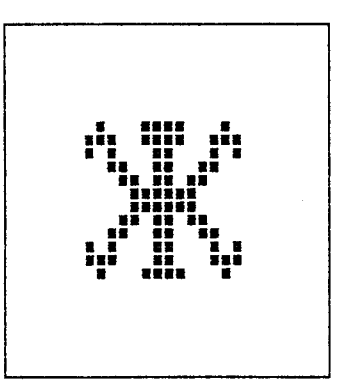
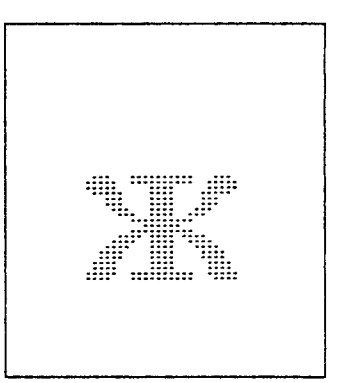
Some examples of the Revising fonts in different resolutions:

Characters /ʧ/ and /ð/ of the phonetic font:

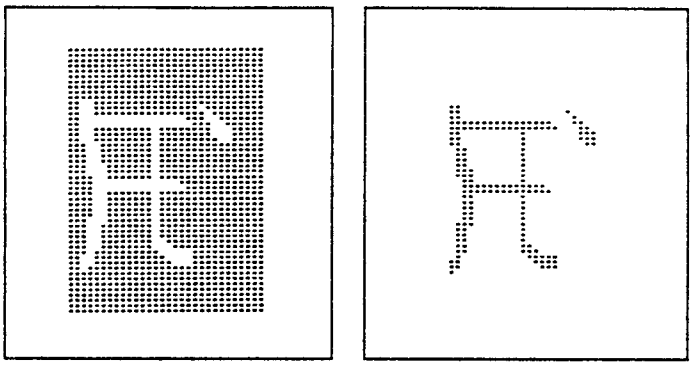
12 x 24 | 18 x 30 | 30 x 50



Characters /ф/ and /*/ of the Cyrillic font:

12 x 24	18 x 30	30 x 50
		
		
		
		

A self-defined Japanese Katakana character ("domo")[6]



The T^3 multifont capability allows the creation of foreign language and scientific documents[7]:

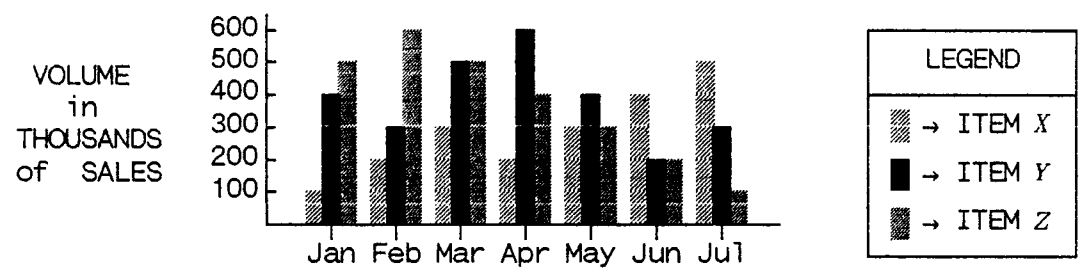
Если $\sigma[df]$ — ряд Фурье — Стилтьеса 2π — периодической с точностью линейности (т.е. $F(x + 2\pi) - F(x) \equiv \text{const}$) функции ограниченной вариации F, то сопряженный ряд $\sigma[dF]$ почти всюду суммируется методом Чезаро — Фейера или методом Абеля — Пуассона к функции

$$F^*(x) = \lim_{\epsilon \to +0} -\frac{1}{\pi}\,(L)\int_{\epsilon}^{\pi} \frac{F(x+t) - 2F(x) + F(x-t)}{4\sin^2\frac{t}{2}}\,dt$$

$$\left[= \lim_{\epsilon \to +0} -\frac{1}{\pi}\,(S)\left[\int_{-\pi}^{-\epsilon} + \int_{\epsilon}^{\pi}\right]\frac{dF(x+t)}{2\,\mathrm{tg}\,\frac{t}{2}}\,dt\right]$$

существующей почти всюду [2, с. 402].

The system even allows the inclusion of block diagrams :



---

4. Conclusion

With the help of the text-processing system and the multifunctional keyboard that have just been described, the writer of scientific and/or academic texts is now in a position to produce multilingual documents - and even integrate (self-defined) symbols - without great difficulty[8]. This is particularly advantageous for the translator, who can now quickly and easily complete work that has traditionally been intensely painstaking and slow; he is no longer forced to spend an immense amount of time piecing together entire textual passages for the final version[9]. In addition, the changing of character balls in typewriters is no longer necessary. With the hardware and software "doing all the dirty work," the researcher is free to conceptualize and to juxtapose material in ways that may lead to new ideas and insights. Thus it will no longer be difficult to produce handouts such as the following which incorporate phonetic symbols and/or foreign characters :

EXAMPLE 2 :

[Monolingual handout with symbols for phonetic transcription.]

The phonemic level of English phonology is deeper than the surface phonetic level, but it is not very deep. Linguists argue that we must recognize levels of 'morphophonemic' representation which are yet more abstract, further removed from the physical facts of pronunciation, than the phonemic level. Consider, for instance, the formation of noun-plurals in English. Regular plurals take one of three suffixes, phonemically speaking: /ɪz/ if the noun stem ends in a sibiliant /s z ʃ ʒ tʃ dʒ /, /s/ if the stem ends in a voiceless sound other than a sibiliant, and /z/ otherwise. Thus we have:

pɪtʃ	pɪtʃɪz	pitch	pitches
lɒs	lɒsɪz	loss	losses
kæt	kæts	cat	cats
mɪθ	mɪθs	myth	myths
fɒg	fɒgz	fog	fogs
həʊ	həʊz	hoe	hoes

Clearly there is considerable phonetic logic in the distribution of the three allomorphs of the plural morpheme; the variation between the three is not just a matter of arbitrary irregularity (like the use of the allomorph /ən/ after *ox* and the zero allomorph after *sheep*). A linguist would analyse this situation by saying that, 'underlyingly' (or 'morphophonemically'), there is just one regular plural suffix, and this has the form /z/. Thus the underlying forms of the words *pitches*, *cats*, *fogs* are |pɪtʃɪz kætz fɒgz|. ('Underlying' forms are standardly written between vertical bars.) The phonemic forms are derived by the application of two rules:

1 an epenthetic /ɪ/ is inserted between two sibiliants (thus |pɪtʃz| becomes /pɪtʃɪz/);

2 a voiced consonant is devoiced following a voiceless consonant (thus kætz becomes /kæts/).

These rules must apply in the order given; if rule 2 applied before rule 1, pɪtʃz would be changed by rule 2 to /pɪtʃs/ which by rule 1 would then become */pɪtʃɪs/, which is not the correct pronunciation of *pitches*.

(From: Geoffrey Sampson (1985), *Writing systems*, Stanford: Stanford University Press, p. 43 f.)

EXAMPLE 3:
[Multilingual handout with Roman and Hebrew characters.]

The system follows the pronunciation of Standard Yiddish and requires no special knowledge of the Yiddish spelling. The novice to Yiddish may wish to note only that Yiddish, like Hebrew, does not contain capital letters, so that an exact transcription from Yiddish should be without capitals. Nevertheless, certain conventions have developed in this respect: the beginning of a romanized sentence is usually capitalized, and so are proper names; in titles, sometimes only the first word is capitalized, thus: *Geshikhte fun der yidisher shprakh* (History of the Yiddish Language).

Transcription Key for Yiddish into Roman Letters

א	a	-	אַנדערש	andersh
א	o	-	גאָט	got

..
..
..

(From: Sol Steinmetz (1986), *Yiddish and English. A Century of Yiddish in America*. Alabama: The University of Alabama Press, p.108 f.)

Notes

1. *ASCII* is the acronym for *A*merican *S*tandard *C*ode for *I*nformation *I*nterchange.

2 In the workbook by Barry/Gutknecht (1974) all phonetic symbols were added manually.

3. "Thorn" represents the third letter in the contemporary name of the alphabet F-U-TH-O-R-C [ᚠᚢᚦᚩᚱᚳ], which from the end of the eighth until the eighteenth century was found in manuscripts as one of the representatives of the voiced and voiceless dental fricatives /ð/ and /θ/: for a fuller discussion see Scragg (1974: 1 f.)

4. All of these are graphics characters that denote a printed mark or a space, whereas control characters produce some particular effect.

5. The keyboard can optionally be loaded with all phonetic symbols and diacritics that are, for example, found in English pronunciation dictionaries (Jones 1977, Lewis 1972, Schröer 1922, Wynn 1986). Pullum/Ladusaw's recent publication (1986) is an extremely valuable reference work with more than three hundred symbols and diacritical marks used to represent the sounds of human speech.

6. Cf. Faulmann (1880: 59); the probably most comprehensive representation of foreign alphabets is to be found in Faulmann's book, which was published for the first time in 1880.

7. We wish to acknowledge our indebtedness to Igor Zelljadt (Smith College), who helped to revise the characters of the Cyrillic font.

8. This problem arises especially in bilingual countries, e.g. in Canadian advertising agencies. For a detailed discussion of the subject of translation in Canada see Gutknecht (1987)

9. Additional aids for the translator are discussed by Gutknecht/Gerlinger (1987) and by Schmitz (1987).

References

Barry, W.J., Gutknecht, C. 1974 (4th ed.). Practical English Phonetics. A Programmed Course in English Pronunciation. Hamburg: Buske.

Faulmann, C. 1880 (2nd ed.) Das Buch der Schrift enthaltend die Schriftzeichen und Alphabete aller Zeiten und aller Völker des Erdkreises. Wien: Druck und Verlag der Kaiserlich- Königlichen Hof- und Staatsdruckerei. (Reprint: 1985, Nördlingen: Franz Greno)

Gutknecht, C. "Kanada - ein 'klassisches' Land des Übersetzens? Anmerkungen zum Stand von Theorie und Praxis der Translation in einer bilingualen Nation." In: Bastein, F.H. (ed.) 1987. Kanada heute: Hamburger Beiträge zu Raum, Gesellschaft und Kultur, 225-261. Frankfurt, Bern, New York, Paris: Lang.

Gutknecht, C., Gerlinger, F. 1987. "Moderne Hilfsmittel für den Übersetzer". In: Köster, J. (ed.) 1987. Neue Tendenzen in der angewandten Phonetik II, 63-76. Hamburg: Buske.

Jones, D. 1977 (14th ed.). Everyman's English Pronouncing Dictionary. London: J.M.Dent & Sons Ltd.

Lewis, J.W. 1972. A Concise Pronouncing Dictionary of British and American English. London: Oxford University Press.

Pullum, G.K., Ladusaw, W.A. 1986. Phonetic Symbol Guide. Chicago: University of Chicago Press.

Raskin, V. "Linguistic Applications in the 1980s". In: Bjarkmann, P.C., Raskin, V. (eds.) 1986. The Real World Linguist: Linguistic Applications in the 1980s. Norwood, NJ: Ablex.

Sampson, G. 1985. Writing Systems. A Linguistic Introduction. Stanford: Stanford University Press.

Scragg, D.G. 1974. A History of English Spelling. Manchester: Manchester University Press.

Schmitz, K.-D. "Mensch-Maschine-Schnittstelle am Übersetzerarbeitsplatz". In: Wilss, W., Schmitz, K.D. (eds.) 1987. Maschinelle Übersetzung - Methoden und Werkzeuge. Tübingen: Niemeyer.

Schröer, M.M.A., 1922 (2nd ed.). Neuenglisches Aussprachewörterbuch mit besonderer Berücksichtigung der wichtigsten Eigennamen. Heidelberg: Carl Winters Universitätsbuchhandlung.

Steinmetz, S. 1986. Yiddish and English. A Century of Yiddish in America. Alabama: The University of Alabama Press.

Wynn, J.B. 1986. An English Pronunciation Dictionary. Douglas: Domino Books Ltd.

RamFont and Transliterated Greek: A Look Back at the Hercules Graphics Card Plus

John H. Laflin

Hercules Computer Technology makes an unbiased evaluation of their Graphics Card Plus somewhat difficult. The box carries a 2-inch silver sticker proclaiming their product as *PC Magazine's* "Best of 1986." For serious users, *PC Magazine's* evaluation is undoubtedly accurate; for casual users who want simple graphics enhancement, the Hercules Graphics Card Plus is probably more than they need.

The "General Introduction" to the Manual introduces the first potential problem: "It [the Hercules Graphics Card Plus] runs all text and graphics software that runs on the original Hercules Graphics Card." Although this category is growing, it is still rather small: that category now includes *Lotus 1-2-3 Release 2, Lotus Symphony, Microsoft Word,* and *Framework II.* Other programs may require some modification. For example, *Lotus 1-2-3 Release 1A* requires that the Hercules Card be placed in FULL configuration. Hercules has made this operation relatively painless by including a "software switch" which you can set in an "Autoexec.Bat" file or change from the DOS prompt. Other programs, including many public domain graphics packages, however, may defy operation.

The second problem concerns compatability. As the manual indicates, "the term 'compatible' means different things to different manufacturers." Although my AT&T 6300 is considered IBM compatible, the Hercules Card will not run in that machine. And because the Hercules Card is designed to work with the "industry standard" TTL monitor, if your computer is two or more years old, you may not have the new industry standard.

It's also possible that you already have a parallel printer port in your computer. If it occupies the addresses 03BC-03BE (designated as LPT1) you will need to disable the printer port on the Hercules Card by removing a chip. This process is not particularly difficult, and it is clearly illustrated in the manual, but it is not for the faint-hearted.

Aside from these problems, the card is easy to use. By creating a "Hercules Autoexec.Bat" file, you can run the Graphics Card in the background of your applications. A "Save" program turns off the monochrome screen display after five minutes of inactivity. The RamFont mode allows you to change the standard display font to Sanserif, Medieval, or even crudely transliterated Greek.

Perhaps the best feature of the Hercules Graphics Card Plus is the addition of RamFont. (Indeed, RamFont is the reason for the Plus designation.) RamFont allows you to display up to 3072 characters (i.e., 256 characters x 12 different character sets). RamFont comes with an impressive library of type faces built in, and with a little practice you can modify the appearance of any of the built-in fonts or design your own. The editing menu makes it fairly simple to design or modify fonts, but the size of the designing matrix is a serious limitation.

For example, in "greek.fnt" the upper case Delta resembles a house more than a true equilateral triangle. But with an upper case height of nine dots, a width of eight dots is insufficient to design a proper Delta. If the letter is being used as a symbol, you could shorten the height and make a perfect triangle. But if you want to reproduce words of Greek, you would have to redesign the entire alphabet, a rather large undertaking.

As an interesting sidelight to character designing, by following the instructions in the manual I was able to load and edit the Greek font. But "loading" the font to edit replaces the display font; therefore, the entire screen, including the edit menu, changes into Greek type.

In addition, the Greek font seems designed purely for show: some of the character transliterations are misleading, and others seem patently incorrect. For example, uppercase "C" is represented in Greek as a "blank" while lowercase "c" is shown as "terminal sigma"; uppercase "F" is represented by uppercase "Theta"; uppercase "V" by uppercase "Chi," etc. To actually use this font, you would either have to move characters to their more "normal" addresses or do a considerable amount of keyboard translating. Of course, you might legitimately wonder why anyone would want to reproduce a screen of Greek text.

The chief strength of RamFont lies with screen displays and graphics programs. For interactive tutorials or help screens, the various type styles can add a great deal of visual interest. Unfortunately my printer (Epson LX-80) would not print any of the screen displays in other than the Epson's default type style.

The manual itself is very good and fairly easy to use. For the most part the instructions are clear and easy to follow, but at times the manual seems uncertain as to its audience. The "Hardware Technical Reference" and part of the "Appendix" are clearly intended for advanced users. But the second chapter of "Software: Your Hercules Diskette" contains both elementary information (i.e., "Creating an AUTOEXEC File") and technical information (i.e., "How the Software Switch Works"). The manual seems intended for the average user, but when it goes beyond the average depth, the manual itself provides little help.

Certainly the displays generated by the Hercules Graphics Card Plus are impressive. The test screens indicate the possibilities of high-resolution graphics; the "chess game" demonstration is quite impressive. But if you are looking only to upgrade the graphics display of your computer system there are less sophisticated alternatives. Choosing the Hercules Graphics Card Plus for this task is like buying a BMW to drive two miles to work: there is a lot of potential that you will never use.

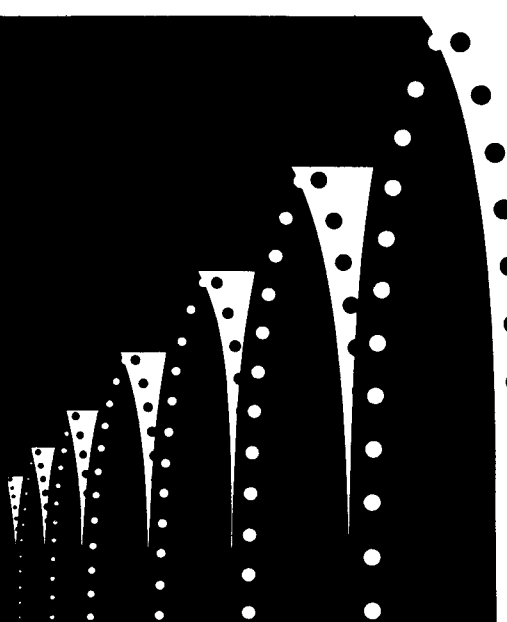
DEVICE NAME:	Hercules Graphics Card Plus
SUPPLIER:	Hercules Computer Technology
ADDRESS:	2550 9th Street, Berkely CA 94710
PHONE:	(415) 540-6000
LIST PRICE:	$299.00 (including shipping)
WILL RUN ON:	IBM PC (and XT) but NOT all compatibles
MEMORY REQUIRED:	64K (of 128K video buffer address space)
MANUAL QUALITY:	Very good

John H. Laflin teaches in the Division of Liberal Arts at Dakota State College in Madison, SD 57042-1799.

NOTES

Manuscript Submissions Welcome

The *Newsletter* welcomes article submissions that pertain to word-processing, text-analysis, and research applications in professional writing situations. Also, hardware and software reviews are encouraged, but please contact Dr. Jim Schwartz, Hardware/Software Review Editor, **before** submitting them (call Jim at 605-394-1246). Manuscripts may be submitted either as hard copy or on 5¼" diskettes using *XEROX Ventura Publisher, WordStar, WordPerfect*, DCA, or standard ASCII code. If submitting disks, please make sure they are formatted either in MS-DOS, PC-DOS, or a popular CP/M format (Kaypro, Zenith, etc.) The Editors reserve the right to edit manuscripts, if necessary. If you want your manuscript or diskette returned, please send enough postage to cover the return along with a self-addressed envelope. Address all correspondence to the Editors, *Research in Word Processing Newsletter*, South Dakota School of Mines and Technology, 501 E. St. Joseph, Rapid City, SD 57701-3995. Jim Schwartz may also be reached on *CompuServe* (70177,1154).



In Future Issues. . .

Textpack

Micro-OCP

Nevada Pilot

Survey of College WP Labs