## ${ }^{\triangle} R_{\mathrm{S}} E$ - a short font report

(The telegraphic alphabet - by Udo Heyl, January ${ }^{\text {st }}$, 1998)

Error Reports in case of UNCHANGED versions to
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## 1 What is $M_{G} R_{\mathrm{S} E}$ ?

It is a $\mathrm{ET}_{\mathrm{E}} \mathrm{X} 2 \mathrm{e}$ - package for printing Morse code signs.

## 2 How to use the $\operatorname{Mg} R_{\mathrm{S}} E$ package?

First and foremost you've got to copy the following files

- MORSE10.mF, MORSE.DEF, MORSE.alf and morse.num into your Metafontdirectory (\emtex\mfinput\morse)
- morse.sty into your Style-directory (\emtex\texinput\morse) and
- morse10.tfm into your Tfm-directory (\emtex\tfm\morse).

Note, however, that the paths may be different in your $\mathrm{ET}_{\mathrm{E}} \mathrm{X} 2 \mathrm{e}$ implementation (EmTEX for MS-DOS, web2c for UNIX etc.). ETEX2e is absolutely required, if you want to use $\mathrm{M}_{\mathrm{b}} R_{\mathrm{S}} E$, which doesn't run with the ancient $\mathrm{A}_{\mathrm{E}} \mathrm{EX} 209$.

The example shows you the usage of this font:

```
\documentclass[10pt]{article}
\usepackage{morse} %%% to include morse.sty
\begin{document} ...
%...........
{\morse ..... }
%..........
\end{document}
```

Telegraphic code will appear now in the current size and won't change the current shape. Of course you can input \{\Huge\morse MorseText \} to manage greater Morse code signs. After the command \morse numbers, stops and letters (upper and lower case) are converted into Morse code, exceptions are given in Table 1.

Table 1：The Alphabet of the Telegraphy

| Input | Output | Value | Input | Output | Value | Input | Output | Value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| a | －－ | a | n | －• | n | 3 | －•・ー | 3 |
| \aAcute | －ーー・ー | á | $\bigcirc$ | ーーー | o | 4 | $\cdots$ | 4 |
| $\backslash \mathrm{ae}$ | －ー・ー | ä | \oe | －－• | O＇ | 5 | $\ldots$ | 5 |
| b | －${ }^{\cdots}$ | b | p | －ーー・ | p | 6 | －${ }^{\text {－}}$ | 6 |
| C | －•－• | c | q | －－・ー | q | 7 | －－＊ | 7 |
| d | －＊ | d | r | －－ | r | 8 | ーーー・• | 8 |
| $\backslash \mathrm{ch}$ | ーーー | ch | S | ．．． | S | 9 | ーーーー・ | 9 |
| e | － | e | t | － | t | 0 | ーーーーー | 0 |
| \eAcute | －－${ }^{\text {－}}$ | é | u | －－ | u | ； | －・ー・ー・ | ； |
| f | －－ | f | \ue | －ーー | ű | ， | －ー・ー・ー | ， |
| g | －－• | g | v | $\cdots$－ | v | ： | －ーー・•• | ： |
| h | －．．． | h | W | －ーー | W | ？ | －－－${ }^{\text {－}}$ | ？ |
| i | －• | i | x | －${ }^{-}$ | X | ！ | ーーツーー | ！ |
| j | ーー | j | y | －・ーー | y | $\backslash d q$ | －${ }^{\cdots}$ | ＂ |
| k | －＊ | k | z | －－＊ | Z | $\backslash$ ，${ }^{\text {q }}$ | －ーーーー・ | ， |
| 1 | －－•• | 1 | 1 | － | 1 | ／ | ーー | ／ |
| m | －－ | m | 2 | －・ーーー | 2 | ． | ＊．．．． | ． |

In the year 1832 the American painter and direc－ tor of the Plastic Arts Academy Samuel Morse had the idea to use electromagnetism in order to set up a telegraphic connection．After some dif－ ferent unsuccessful experiments he could propose a model of his＂Recording electric telegraph＂to the New York University in 1835．In Washington he took out a patent for his invention in 1837．At the same time Charles Wheatstone in Eng－ land and Karl August Steinheil in Bavaria had made up telegraphs．The one by the last mentioned was the same on principle as Morse＇s telegraph，but wasn＇t as useful in drawing longer lines because its fine and complex mecha－
nism．That is why Steinheil himself recom－ mended the installation of Morse＇s telegraph， which was the better one in later experiments too because of its plainness and easy usage up to now．MORSE＇s system consists of an armature with a pin，which is attracted by a powerized electric magnet．The pin prints dots or dashes onto a passing tape of paper，in proportion as the power circuit is complete for shorter or longer periods．The foregoing alphabet is composed out of this dots and dashes．The character á is an in－ novation for the Hungarian language；a̋，ő and ű for the German vocabulary；and in Polish words the characters ą，ȩ and ó are described by a̋，é and ő．

