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**************************
*                        *
*     Telewriter-64      *
*   Character Set Editor  *
*                        *
*    By Bob van der Poel  *
*                        *
*    REFERENCE  MANUAL    *
*                        *
*                        *
*    copyright (c) 1986   *
*                        *
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REQUIRES
32K RADIO SHACK COLOR COMPUTER
AND EXTENDED COLOR BASIC

* * I M P O R T A N T * *

Introduction

        Thank you for purchasing TELEWRITER-64 CHARACTER SET EDITOR
(TWCSED). We hope you will find it to be useful. Please show
this program to your friends. If they like it, ask them to buy
their own copy. Continued customer support will enable the
author to develop more programs for you. Continued sales also
help to feed the family. Please do your part to stop .software
piracy . . . it hurts everyone.
        Unlike much software you purchase today, this program is
not copy protected. In fact we encourage you to make as many
copies as you need for your own personal use. But please be fair
with us too. Don't give away the program to your friends --
after all, if it's good enough for you to spend your money on,
why shouldn't they do the same?

        This program is designed to allow you, the one who has to
look at the screen, to modify the character set used by
TELEWRITER-64 to suit your own preferences. Before we go on any
further, please note that modifying the characters as they
appear on the screen has no affect whatever on what is printed
by the printer. You can, by using TWCSED, make 'A's look like
'B's or '1's look like '*', but the "new" 'A' will still print
out as an 'A', not a 'B'!

There are several reasons you may wish to modify the character set. The first might be to simply make the existing character set a little nicer; or you might like to add true descenders to the characters; or you might have a need for special characters or a foreign language character set. All this, and much more, can be done quickly and easily with TWCSED.

Transfering to Disk

If you have a disk system and have purchased the cassette version of the program you will most likely want to transfer the program to disk. This is easily done using the following procedure:

1. CLOAD "TWCSED" and then SAVE it to disk.
2. CLOADM the programs STANDARD, DESCEND, NICE, and FRENCH and SAVEM them to disk.
   The addresses for all three programs are:

   START &H4200
   END   &H4AF4
   EXEC &HA027

(Example: To save the file NICE, load it then type SAVEM "NICE", &H4200, &H4AF4, &HA027 <ENTER>.)

These files contain images of character sets you may use to modify TELEWRITER-64. The first one is the standard set which comes with TELEWRITER-64, the second is one with true descenders for the lowercase letters, the third is a modified set which makes a number of the characters more pleasing, and the last one shows how foreign characters can be incorporated.

Making a Tape Backup Copy

To transfer the tape over to another tape, use the instructions given above to make a disk copy, only substitute CSAVEM for SAVEM and CSAVE for SAVE.

Getting Started

Before starting you should have the following items at hand.

1. Your original copies of TELEWRITER-64.
2. A couple of blank tapes (for cassette users).
3. A bit of imagination.

First load the main program from tape or disk with the (C)LOAD command. Once the program is loaded, just type RUN <ENTER>.

The sign-on screen should now appear and you will be presented with a short menu. The first option will be to EDIT only without loading a version of TELEWRITER-64 to modify. The second option will be to load TELEWRITER-64 from cassette. If a disk system is present you will also have the options to load TELEWRITER-64 in from disk or to load in a copy of TELEWRITER-64 which has been modified by TELEPATCH. (This option requires a 64K computer.) Press the number key corresponding with your choice.

If you have selected option <1> you must now load in an existing font to edit. If you used one of the other options you may now either proceed to edit the font loaded with TELEWRITER-64 or overlay an existing font. The prompts should be self-explanatory.

If you wish to load in a font, type in its name and press <ENTER>.

Modifying the Character Set

Once either a font or a version of TELEWRITER-64 has been loaded you can proceed to modify the character set.

You should now have a screen with the character set displayed across the top and a blinking cursor. Move the cursor with the arrow keys until it is flashing over the character you wish to modify. Now press <ENTER>.

The selected character will now be reproduced at the bottom of the screen in its normal size as well as in an eight times enlargement. You can now modify it. Simply move the cross hairs to the pixel you with to change. Use the <SPACE BAR> to toggle the pixel on or off.

When you are finished editing a character, just press <ENTER> to transfer it back to the character set at the top of screen; or press <BREAK> to cancel the changes made to the character.

When you are finished modifying the character set, press <Q> to advance to the routines which save fonts and modify TELEWRITER-64. You also have the option to load another existing character set at any time by pressing <L>. When you are editing a character set, you can also press <H> for a brief summary of the available options.

Saving Fonts

After you have modified a character set you can save it to disk or tape. This is actually a binary image of the graphics screen and could be loaded by a BASIC program if you wish. To save the font, just select option <1> from the menu.

The second option ends the program. Please make sure that all changes are saved before it is selected as a cold start is done.

The third option returns you to the editor.

The fourth option (modify and save TELEWRITER-64) is only available if a copy of TELEWRITER-64 was loaded at initial prompt. It will take a few minutes to make all the changes, then you'll be prompted to ready a tape or disk. Then the modified program will be saved.

If you are using a cassette system, you should have a copy of TELE64 on a tape already and the new program should be saved right after it. On a disk system you should be using a copy of a working disk. TWCSED will overwrite the program originally loaded -- so make sure you know what disk is being used. Backups will make your life much easier.

Hints on Creating Character Sets

TELEWRITER-64 uses a slightly modified ASCII character set, and not all of the ASCII characters can be generated from the keyboard. Notable are the ASCII values 94 and 95. The standard definitions for these are a caret and underscore. You will see that the author of TELEWRITER-64 has defined them as two Greek characters in his character set -- but all this is academic since the characters can not be generated from the keyboard when using TELEWRITER-64.

There are a few characters which you should never change: First of all is the <space> character which proceeds the '!'. Second, the cursor character which comes after the solid block marker for the end of file. Third, is the blank following the cursor -- this is the carriage return character.

If you load the font file DESCEND you will see how lowercase descenders can be incorporated into TELEWRITER-64. Normally TELEWRITER-64 uses a 4 by 8 block to display its characters. The eighth line is used for the cursor and lines 1 to 7 are used to display the character. All that has been done in this character set is to move all the characters up so that only lines 1 to 6 are used, except for those which have tails; the tails go into line 7.

In the file FRENCH you will see that the special characters 5 to 9 have been changed to French letters with accents. This is only half the job of incorporating foreign characters into your printouts. You will also have to define the characters 5 to 9 at the beginning of the file to print out as these characters. There are a number of ways to do this, depending on the type and brand of printer you are using.

You might define an 'e' with an accent as an 'e' 'backspace' 'accent'; or you could define it as a series of bit image graphics codes; or, if your printer has them, you could use it to select a foreign character from its internal character set. Because of the variety of printers, each of which uses its

own control codes, we are unable to present many examples. But
to get .you started, here are some suggestions which will work
with EPSON compatible printers.

For a accented 'e':

^D 101 8 96

or if a foreign language set is available

^D 27 82 1 123 27 82 0

Those of you with printers which can download character
sets might even wish to redefine the entire character set of
both the printer and TELEWRITER-64 to a Greek or Cyrillic
version -- the choices are endless.

Notes

When responding to a prompt, just press the key which macches
your choice. When typing in filenames, type the filename and
then press <ENTER>. If you make a mistake the left and right
arrow keys may be uses to position the cursor. The <BREAK> key
will delete the character at the cursor and the <CLEAR> key will
insert a character at the cursor.

If an error occurs the BASIC abreviation for it will be printed.
The program will then pause for to correct the device being used
and then loop back to the routine which caused the error to
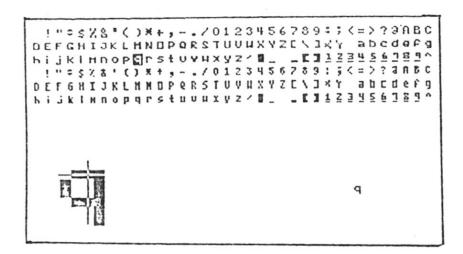occur.

If a disk system is attached, you may enter the filename 'DIR'
or 'DIR:' followed by a drive number (eg. DIR:1) to get a
directory of the specified drive listed to the screen. After the
directory is displayed, press <ENTER> and you will be prompted
for the filename again.

TELEPATCH is an enhancement package written by Bob van der Poel
for TELEWRITER-64 running on 64K disk systems. It is available
from CMD Micro Computer Services Ltd., 10447 - 124 St.,
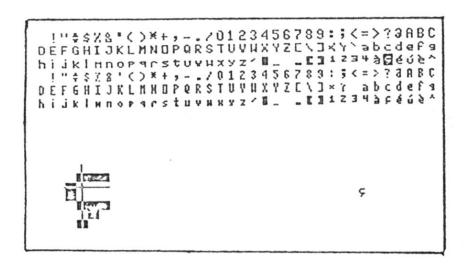Edmonton, Alberta, Canada, T5N 1R7, Ph. 403-488-7109.

TELEWRITER-64 is a trademark of COGNITEC.

TELEPATCH is a trademark of Bob van der Poel Software.

The program TELEWRITER-64 CHARACTER SET EDITOR or TWCSED, the
names TELEWRITER-64 CHARACTER SET EDITOR and TWCSED and this
documentation are protected by copyright. Duplication is
prohibited by law.

Modified character set with French characters

Telewriter-64
Character Set Editor

Customize the character set
to your own specifications!

F e a t u r e s

* Font with true decenders included.

* French font included.

* Enhanced, easy to read font included.

* Easy to use, friendly editor.

* Works with all versions of
  TELEWRITER-64.

* Special characters can be added.

* Character sets can be customized for
  special applications. Eg. phonetic,
  scientific, math, etc.

See package back for actual edit screens

*** NOTE - UNPLUG JOYSTICKS ***

Another fine product for the Color Computer
from Bob van der Poel Software.