Max Edit

Version 1.0

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MAX EDIT is a set of programs which allow you to modify existing or create new text fonts for use with CoCo MAX. These new fonts can be typed onto the screen utilizing all of CoCo MAX's text style combinations such as bold, italics, outline, and so forth. You can also "grab" images from a hi-res display and make your own stamps.

MAX EDIT requires the following minimum system configuration: 64K Color Computer, 1 Disk Drive, CoCo-MAX High Resolution Module, Mouse, Joystick, or Touch Pad (or other compatible device), Y-Cable or Multi-Pak Interface. Although a minimum of 1 drive is required, multiple drives are supported.

GETTING STARTED

To run MAX EDIT, insert the system disk in drive 0, and type: RUN "MAXEDIT"

While the program is loading and initializing, you will see the initial title screen. After a short delay, the following will be displayed on the screen:

Main Menu

Load Font File
Save Font File
Edit Current Font
Create New Font
Load Graphics File
Default Drive = 0
Quit

These seven selections make up the main menu of MAX EDIT. You will notice a black box on the screen; this is the menu selection box, which can be positioned to a menu item by positioning the mouse, joystick, or whatever else you have connected to the CoCo MAX High Resolution module. When the box surrounds the desired selection, just click the button, and that selection will be performed.

The following is a description of each of the menu selections:

LOAD FONT FILE

This will display a directory of each of the available font files on the default drive (initially drive 0). After each of the names (without the FNT extensions) are displayed, the menu selector box will appear. To select a particular font for loading, move the box to the desired font name, and click. The font will then be loaded into memory and checked for valid internal format. If there are no problems, the main menu will be re-displayed. If there are problems, MAX EDIT will display the error and then you can "click" to resume the program.

If you change your mind about loading, just position the menu selection box over a blank area on the screen and click; the load function will be aborted.

SAVE FONT FILE

This will cause the font information currently in memory to be saved to disk. The following screen will be displayed:

```
Save Font

[BREAK] to abort
[ENTER] to save as "xxxxxxxx"
File name:
```

The string of x's above will be replaced with the name of the most recently loaded font file. Pressing the [BREAK] key will abort the save operation, while pressing just [ENTER] or "clicking" will save the font in memory using the given name. Typing any other legal file name (without the extension or drive number) will save the font file on the default drive, with the extension of FNT.

EDIT FONT

This selection will cause the following menu to be displayed:

```
Edit Font

Font type =          xxxxxxx
Char. Height =         nnn
Max. Char. Width =     nnn
Descender Shift =      nnn
Inter-char. Space =    nnn
Inter-row Space =      nnn
Return to Main Menu

!"#$%&'()*+,-./0123456789:;<=>?
@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]
abcdefghijklmnopqrstuvwxyz
```

The upper portion of the screen contains information about the font which is currently in memory. These items have the following meanings:

Font Type

This can have one of three possible values; **FULL**, **LETTERS**, or **SYMBOLS**. A **FULL** type means that all 91 characters ([SPACEBAR] through "z") are included in the font. A type of **LETTERS** means that only the upper and lower case letters ([SPACEBAR], "A" through "z") are present. A type of **SYMBOLS** means that the numbers, symbols, miscellaneous punctuation, and upper case letters ([SPACEBAR] through "Z") are available. For example, the font "Fort Worth" which is supplied with CoCo MAX (called "Ft Worth Lg" in CoCo MAX II) is a **LETTERS** font, while the fonts "Paris" and "Topeka" are **FULL** fonts. For CoCo MAX II, the "Glyphic" font is a **SYMBOLS** font. Only those characters that can be created for the font will be displayed at the bottom of this screen.

Char. Height

This is the number of vertical pixels which are reserved for all characters in the font.

Max. Char. Width

This is the maximum number of pixels wide that a character in this font can have. Each character can be from 1 pixel through this amount in width.

Descender Shift

Any character in this font which is designated as a "lower" character, will be shifted down by this many pixels on the screen when it is typed in CoCo MAX.

Inter-char. Space

This is the number of blank pixels which is placed between successive characters in CoCo MAX.

Inter-row Space

This is the pixel spacing between the tops of successive rows of text, i.e., when [ENTER] is pressed in CoCo MAX. Note: This value must be greater than the value for Char. Height + Descender Shift or else the typed text would overlap for successive rows.

The last selection, Return to Main Menu, allows you to do just that!

To change the values displayed to the right of the "=", you will need to move the box around that particular item. However, you will notice that the box will not go any higher than the "Descender Shift" selection; the upper three items cannot be changed while editing a font. They may only be changed in the Create New Font section (to be discussed later).

To change an item's value, just click on that item, and the value is incremented. If either [SHIFT] key on the keyboard is held while the button is clicked, the item will be decremented instead.

If the mouse is moved towards the bottom of the screen, a box the size of a single character will appear. Clicking on a particular character will bring up the character editing screen.

The character being edited is shown enlarged on the left side of the screen, and in "true size" in the upper right corner of the screen, along with a text menu in the lower right corner. Moving the mouse will cause either a small blinking box cursor to appear over the large character pattern, or a menu selection box to appear over one of the text menu selections, depending on the mouse position.

With the blinking box cursor on the left side of the screen, pressing the button will cause the pixel block at the cursor position to change from white to black, or vice versa. Moving the mouse without releasing the button will allow additional blocks to be set/reset, in much the same manner as the pencil icon in CoCo MAX works. Also note that the small character in the upper right corner is updated simultaneously as drawing takes place.

The text menu selections at the right side of the screen are performed by positioning the box over the desired word and clicking the button.
These selections perform the following functions:

Undo

This performs an "Oops" function, allowing the character to be restored to its previous condition, prior to saving any changes. Repeated "clicking" will toggle between the "Oops" and the original character.

Cancel

This selection cancels the editing function without saving the changes which were made to this character. The Edit Font Menu will then be displayed.

Save

This selection saves the character shape on the screen into position of the font corresponding to the character after the word "Save". This operation overwrites the pattern which was originally stored for this character in memory. The Edit Font menu will then be displayed.

Clear

This erases all of the pixel blocks in the character editing area, allowing a character to be drawn on a "clean slate". It does not alter the font information in memory so, if you accidently do this, just "CANCEL" or "UNDO".

+Width

This selection adds a column of empty boxes to the right edge of the character shape, and increases its width. The width can only be increased up to the value of Max. Char. Width.

-Width

This selection removes a column from the current character shape, decreasing its width. The minimum width for a character is 1 block wide.

Up, Down, Left, Right

These selections cause the current character shape to be shifted around in the specified direction. Any blocks which are pushed off the edge of the grid cannot be retrieved.

Copy

This selection will display the character set on the bottom of the screen, to allow a pattern for a previously defined character to be copied onto the screen. This allows characters with similar shapes (e.g, R and P, or E and F) to be more easily created by drawing the first letter and then copying it and touching it up for the second letter. If you change your mind about this command, moving the cursor up will abort the function.

GRABBING AN IMAGE

Holding down either of the [SHIFT] keys and clicking on "COPY" will display the GRAPHICS FILE image (if you loaded one). A box can be moved around the screen by using the mouse. The dimension of the box will equal that of the current character being edited.

Move the box to the area you want to grab and then "click". The area clicked on will now be inside the edit box and will become that character if you SAVE it. If you change your mind, just click on an area and then, when the edit box appears, click on the "UNDO".

(See next section for LOADING GRAPHICS FILE)

Upper/Lower

This selection toggles the current character's descender mode from Upper to Lower, or vice versa. This mode determines whether the specified character will be shifted down on the screen by the Descender Shift amount when typed in CoCo MAX. This value is usually set to Lower only for the characters g, y, p, q, and sometimes j; this feature of CoCo MAX fonts allows them to be stored in less memory than would normally be required. Keeping the Descender Shift value in mind, you'll want to define these characters "higher" in the edit box so that the base of the character (not the "tail") will actually be at the same position on the line as the other characters. Look at some of the Full Fonts in CoCo Max to get an idea on how this is done.

LOAD GRAPHICS FILE

This selection will clear the screen and display the heading: LOAD GRAPHICS FILE. Below this heading will appear a listing of filenames that are on the "Default Drive". This feature is included so that you can take existing symbols or other characters that you've created with CoCo MAX or other graphic programs and turn them into a "font". Files must have the extension of MAX.

Move the cursor over the filename you want loaded and "click". Clicking on a blank entry will abort this selection. MAX EDIT will check to make sure the display will fit into memory (must be less than or equal to 6k) and will display an error message if it cannot be loaded.

The graphic will appear on the screen while loading and then you'll be returned to the Main Menu automatically.

DEFAULT DRIVE = x

This selection will cycle through the values 0, 1, 2, and 3. Any subsequent load or save operations will take place on the selected drive.

QUIT

This selection causes the MAX EDIT program to exit to BASIC. If you change your mind, you can return to MAX EDIT by typing RUN. Any editing which may have been done will be intact. Be sure to save any font you have been editing before finishing with the program!

Most BASIC commands can be executed (e.g. DIR, RENAME, FREE() etc.) however, you should not perform any DSKINI or BACKUP commands.

CREATE NEW FONT

When this selection is invoked, the following screen is displayed:

```
Create Font

Current Font will be cleared!
Are you sure?

No
Yes
```

Clicking on the "No" box will return you to the Main Menu. Clicking on the "Yes" font will display the following screen:

```
Create Font

Font type =        xxxxxxx
Char. Height =       nnn
Max. Char. Width =   nnn
Descender Shift =    nnn
Inter-char. Space =  nnn
Inter-row Space =    nnn
Return to Main Menu
```

This screen is very similar to the Edit Font screen, except for three things:

1) The title is different
2) The character set is not displayed at the bottom
3) All of the selections are accessable by the menu box.

The lower four selections can be altered in the same manner as for the Edit Font mode. The top three selections are highly interactive, in that every time one of them is altered, the program checks to see if the resulting font will fit within the available memory in CoCo MAX. If it will fit, the value is changed. If it will not, the value will stay as it is. A general set of rules to remember is that Full font sets take 50% more memory than Letter or Symbol fonts, and that the product of maximum character width times character height determines the amount of memory that will be used. Experiment with these selections to get a feel for the interaction.

For serious work, you may want to look at some commercial type styles and work out their design on graph paper. Letters like "W" and "M" usually require the most "width" and so you should base the width of the font on the design of these two.

NOTE: All characters should be examined in the "Edit Box" and "SAVED". Even if they are to be blank - especially the "Spacebar" character. If this is not done, you may find a large blank area between words when you use the font in Co Co MAX.

Also, you may find it to your advantage to periodically do a SAVE FONT while working on a new font. Doing this about every 15 minutes will mean that at the most, only 15 minutes worth of work may have to be done over if something catastrophic (power glitch) happens!

COCO MAX PATCHING PROGRAMS

Two programs have been provided, to allow you to enable CoCo MAX to utilize additional fonts. The programs are called PATCH1.BAS (for the original version of CoCo MAX) and PATCH2.BAS (for CoCo MAX II). These programs create an "overlay" file, which will selectively modify the Font menu in CoCo MAX to allow the new fonts (and their respective file names) to be recognized.

To use the patch program, first start out with a cleanly powered up computer (i.e., if you were running CoCo MAX or MAX EDIT, do a cold power-up.) Then, load either PATCH1 or PATCH2, whichever is appropriate, and list from line 1000 to the end of the program. These lines contain data statements which hold the Disk BASIC file names and text font names for each font.

For the original CoCo MAX, there will be 4 fonts; for CoCo MAX II, there will be 13. (The "Woodhaven" font is not included, as that font is always resident somewhere inside CoCo MAX.)

Now, decide which fonts you would like to have access to at a given time; that number will be 4 or 13, as discussed above. Then, edit (or re-type) the appropriate DATA statements, putting the file name (without extension) first, and the text you want to appear in the pull down menu second. Since there are certain memory limits in effect, you will be notified if you have used descriptions that are too long. Keep the text description to 1 or 2 words to avoid problems.

When you are done editing the program, first save it under a separate program name (for example, FONTS1.BAS) for safe-keeping. Then RUN it. After all of the entries have been processed, you will be prompted for a patch file name; enter a file name, (again, try FONTS1). A file with the extension .MAF (CoCo Max II) or .BIN (CoCo Max I) will then be created on your default drive.

To use these fonts from inside CoCo MAX, you will first need to copy the .MAF or .BIN file, as well as the FNT files which you specified, onto your CoCo MAX disk. Also copy the file ORIGINAL.MAF or ORIGINAL.BIN file supplied with Max Edit so you can restore the original font names after using your new ones. Then, boot up CoCo MAX as you normally do. The remaining procedure is different, depending whether you have CoCo MAX I or II:

CoCo MAX I

Select the QUIT selection under FILE, and type the following BASIC commands:

```
LOADM "FONTS1":RUN
```

Replace the actual name you supplied to the patch program in the place of FONTS1 above. Repeat this procedure using "ORIGINAL.BIN" (Supplied with Max Edit) to restore the original CoCo Max font names.

CoCo MAX II

Select the LOAD PAGE selection under FILE, and click on the FONTS1 (or appropriately named) box. Repeat this procedure and click on "ORIGINAL" to restore the original CoCo Max font names.

In either case, the next time you pull down the FONTS menu, the new file names will appear! Select and use your new fonts the same as any of the other ones.