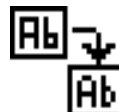




Collette Utilities

A collection of GEOS programs and desk accessories that function in 40 and 80 column modes under GEOS 64 and GEOS 128.

by Jim Collette



Collette Utilities documentation

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Font Editor 2.5



Font Editor 2.5 by Jim Collette

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ListBox file selection module and 3 drive support adapted from source code by William Coleman. Font Monster font editor is a product of Joseph Buckley/Storm Systems. Circe and Cluster Wars are GEOS strategy games by Francis G. Kostella.

Introduction

Please read this manual carefully to learn all the features of the Font Editor 2.5. If you already have an earlier version, then you can probably skim through this to catch the new features.

Credits

Here I wish to express my thanks to a few people:

Francis G. Kostella - author of "Circe" and "Cluster Wars", as well as a font editor of his own. It was his font editor that got me started on this project, and without him it wouldn't be here today.

Bruce R. Gilson - the author of all the fonts, developer of the scaling algorithm, and who suggested most of the features in the edit mode.

Joe Buckley - who helped with geoProgrammer and much more! Joe is also the author of Font Monster, a font editor that grabs fonts directly from geoPaint files.

William Coleman - author of the ListBox and 3 drive support routines

Peter & Paul Hughes - for their tremendous help and support on Q-Link!

Roger Ledbetter & Susan Lamb - Once publisher and editor (respectively) of GEOWORLD magazine, the definitive magazine about GEOS

And to everyone else who has helped out, THANKS!

Getting Started

To execute the Font Editor, double-click on the Font Editor icon from the deskTop. Once the program has loaded, you will see the title screen and a dialog box with 3 options: Create new font, Open existing font, and Quit to deskTop. Select one.

Create New Font

Click on the "Create" icon. The first thing you will have to input is a filename. The DB (Dialog Box) that appears will be waiting for your input after the "Filename:" prompt, and you may also click on the Disk & Drive icons. If the filename already exists, don't worry about it - you can change it later. The Disk icon will allow you to change disks in the current drive. Drive will rotate through the drives in order - A,B,C (if you have 3 drives). If you try to open a drive that is not present, you will see an error message, then it will try the next available drive. (3 drives with GEOS 2.0 only.)

After entering a filename, you will be asked for the point size. Enter it as a 2-digit decimal number, in the range 2-48. Next is the baseline. The baseline is the line the characters "sit" on - descenders go below it. Now comes default width - this is the width that the characters will be initialized to when creating the font. If you're making a wide font, enter a big number! Last is the Font ID. This is how GEOS tells fonts apart - never give 2 fonts the same ID, or GEOS will get confused. It must be in the range 1-1023.

After you enter the ID, there will be a brief pause and then the edit screen will appear. You're ready to start creating!

Open Existing Font

After you click on the Open icon, the disk will run for a few seconds and a DB will pop up with the first 75 fonts on the current disk. The standard Disk and Drive icons are there, as well as TOP, BOT, PG Up, and PG Down arrows - these allow for fast scrolling through the filenames. Click on the font you want, and then select Open. If you get a disk error, you will be sent back to this DB. (This is Bill Coleman's ListBox DB.)

Now a DB will appear listing the point sizes in the font. Click on the appropriate number (or click OK for the smallest), and it will be loaded! Cancel lets you select another file.

You have just loaded a font, and the editing screen should now be displayed.

Quit

Not much to say about this one! Exits the program and returns you to the deskTop.

Editing a font

Now comes the fun part - editing. The character you edit is the blown-up one in the right portion of the screen. Next to the big character is a small one, just as it would look from geoWrite. This is for display only. To edit the big character, just point and click! Holding the mouse button down will keep drawing or erasing wherever you go. If you're using a mouse and can't easily make accurate movements, you may also use the cursor keys. They will move the mouse pointer from pixel to pixel, with wrap-around if you go off one side. Hitting RETURN will toggle the pixels.

Selecting a character

To select a character to edit, either type it directly on the keyboard, or use the + and - icons in the Char/Undo box to move one by one. Commodore + and left arrow will also trigger the + and - icons. The char. will be shown in the char. box, right under the menus. After the word Char: there will be two numbers, the ASCII code of the char. in hex and decimal. On the right side, the character is displayed in the system font for reference.

Edit Icons

There are many icons in the edit mode. First is Undo, which will restore the character to its original state when you selected it. Width is a display icon - it shows the current width. To change it by decimal, click the width box and enter a new width. To change it slowly, click on the + and - icons next to the width box.

Above the width box is the main set of icons - a 3 X 3 matrix. The top row contains the Stash, Scroll Up, and Retrieve icons. The middle row has the Scroll Left, Clear, and Scroll Right icons. The bottom row has the Mirror X, Scroll Down, and Mirror Y icons. The scrolling icons are arrows, Stash and Retrieve are S and R, and the mirror icons are double arrows. Note that scrolling will NOT wrap-around - whatever goes off the screen is gone.

At the bottom of the screen is the status box. It contains indicators for Filename, Point Size, Baseline, ID, and Font Size. The first four are icons - to change the baseline, just click on the indicator and enter the new value.

About size: it is important that you watch this value. If the font gets too large, certain GEOS applications will reject it. Different programs have different size font buffers, but generally you should keep it under 5000-6000 bytes (geoPublish's limit is 4096, though). The Font Editor's buffer is about 8000 bytes, so you have plenty of extra room in case you need it. If the font's size gets to be over 6000 bytes, the value will be set in bold as a warning. If the font is too big for a program, it will usually substitute BSW 9 in its place.

Insert/Delete Columns

You can insert or delete columns within characters. To do this, place the mouse pointer within the character at the desired column. (The vertical position doesn't matter so long as it's in the character.) Then hit Commodore I or D to insert or delete. Inserting will increase the width by one and open up a blank column. Delete will suck in everything to the right and decrease the width.

Border Adjustments

This is for use primarily with the "paste all" photo scrap option. It will allow you to change the width of characters WITHOUT scrolling them. If you increase

the width of a character this way, instead of creating a blank column on the right, it will come from the next character. (The next character's width will decrease in the process.) It sort of "slides" characters around into other ones. If you only use border adjustments, the size will never change, and a preview will look the same also. To move the border one pixel to the right, hit Commodore + CRSR RIGHT. To move it to the left, use Commodore + CRSR LEFT. Since the width of the next character will change also, when the next character becomes either 1 or 48, the process will stop. To change the width by decimal, use Commodore + SHIFT + W. This will work just like Commodore W but will not scroll. This option will help greatly with "paste all", since it will let you move the characters into their cells easily.

Menu Descriptions

geos

Font Editor info: displays a DB displaying the credits.

Font Editor help: calls the help screen (128 users can also hit HELP). It is two screens and displays the Commodore key shortcuts and some other info.

desk accessory: selecting this will put up a DB. Select the desk accessory and click Open. When it finishes, you will be returned to the editor.

file

close: closes the current file and returns you to the title screen. NOTE: this editor does not automatically update your font when you close it! You must save it manually. If your font has not been saved, you will be reminded and be able to continue (OK), Save it first (Save), or back out (Cancel).

save: saves the font - see "Saving" in this manual

scale: scales the entire font - see "Scaling"

preview: see "Preview"

grabber: see "Font Grabber"

delete ps: (delete point size) pick a font on the disk. Then click on the point size to delete. You will be asked YES or NO to confirm it. YES will delete the size.

ID editor: pick a font on the disk. You will see the old ID and a prompt for the new ID. Enter it (0-1023) and hit return. Again, you will be asked to confirm it.

quit: like close, but goes to deskTop. You will be given the chance to back out or Save if the file hasn't been saved.

options

stash char: copies the current character into the stash buffer, to be recalled later with retrieve. Can also be selected from the S icon.

retrieve char: copies the current character from the stash buffer into the current character. Very useful for letters with similar structures. Also can select R icon. Note: a transparent retrieve is available, and will overlay the stashed char onto the current one. Select this with Commodore + SHIFT + R.

steal char: will let you grab the current character from any other font on disk. The first time this is selected, you will see a DB listing the fonts. Pick one, then the point size. The character will be copied from that font. Subsequent selections of this option will automatically use the font selected. To steal characters from a different font, hit Commodore + SHIFT + G. This will let you select a different font and size.

left justify: this will scroll the character so it touches the left edge, then adjust the width so there is 1 blank column on the right. To do this on the entire font at once, hit Commodore + SHIFT + L. The mouse will freeze while it works.

reverse char: toggles all pixels, making the character in reverse video. Like "invert" in geoPaint. This is reversible, and undoable.

mirror X: also known as a horizontal flip, turns the character into it's mirror image. It is reversible. Or, click the double horizontal arrows.

mirror Y: also known as a vertical flip, again this does a mirror image. Yes, it's reversible. Or, click the double vertical arrows.

change point size: same as clicking on the Point Size indicator. It doesn't scale it, just changes it. Be careful, it's destructive if you lower it!!!

change baseline: again, same as clicking on Baseline indicator. The baseline must be less than the point size.

scale this char: scales an individual character - see "Scaling".

edit

cut: create a Photo Scrap of the current character, then clear it.

copy: create a Photo Scrap of the current character, but doesn't clear it.

paste: pastes a Photo Scrap into the current character. If the Photo Scrap was created by the Font Editor, the width will be changed as well. If not, the

width will remain the same - it will be pasted into the space available. This is because Photo Scrap widths are measured in 8-pixel increments, not accurate enough for pixel use.

paste all: pastes a Photo Scrap into the font, starting with the current character. When selected, you will see a small window with the scrap - move the mouse around so the portion you want is in the upper-left corner (if it doesn't all fit in the window, don't worry - it's still there), then click the mouse button. (The message will go away to let you know it's working.) Then it will keep pasting the scrap into consecutive characters until either the end of the font or the end of the scrap is reached. It may take a minute with a large scrap or font. Then use the border adjust to align the characters in their cells.

Switch 40/80 (GEOS128 only)

Instead of a switch 40/80 option in the "geos" menu, I chose a different method - hold down the Commodore key and hit ALT. That's it! And since the 64 doesn't have an ALT key, it ensures that the 64 won't try to swap modes!

Disk Errors

In normal use, you should never see any error messages except for some of the ones listed below. If a disk error does occur, it will be displayed in a dialog box as I:(disk error #). You will be brought back a few levels in whatever operation you were performing.

Here are some of the errors you might encounter:

INSUFFICIENT_SPACE= 3 disk full; not enough space

FULL_DIRECTORY= 4 too many files on disk - 144 is max.

INVALID_RECORD= 8 this error sometimes appears when a W/P tab is on - should be 26

BUFFER_OVERFLOW= 11 font to be loaded is too big

DEVICE_NOT_FOUND= 13 drive turned off? wrong device number?

WR_PR_ON= 26 write-protect tab on disk

All other problems may be fatal. These are the only errors you should ever encounter.

Note: error #s over 20 are the same as those given by the drive - see your disk drive user's manual for a description of them.

Scaling

This is one of the areas where this program really shines. This routine will scale a font from one point size to another, re-sizing the font. This will benefit anyone who is (1) trying to make a font in many point sizes, or (2) trying to mix different fonts of different point sizes. This is especially useful with the Font Pack Plus, as many of the fonts on that disk come in some exotic point sizes, and don't work all that well with other fonts.

The font scaler was developed by Bruce Gilson. (Thanks Bruce!)

Scaling the entire font

This routine is available from the file menu. First you will be given a warning and a chance to back out. If you select NO, no scaling will occur.

If you choose YES, first you will be asked for the new point size, 2-48. Then you will be asked for the threshold. This value determines the darkness of the resulting characters. The lower the number, the darker or thicker they will be. I don't recommend using values over 50 unless you really want a thin character. 33 should be OK in most cases, but if the input character is really light you may want to lower the threshold a bit. (1-99 for threshold value.) Last is the width factor - this is a percentage that the width of every character will be multiplied by after being changed proportionally with the height change - to make a font that is the same height but twice as wide, use 200 (and use the current point size). For a font double height but the widths being the same as they are currently, use 50 for the width factor. (Width doubled then halved gives the same width.)

Now it starts scaling. The small character is erased and is replaced by a BSW 9 point character telling you which character it is scaling. The times can vary greatly, but in my tests, going from 12 to 24 point - values in that ballpark - generally take about 4 seconds per character. At 96 characters, that works out to about 4-6 minutes for the entire font. (80 column mode is twice as fast!) The values overall can go from about 1 second to almost 20, depending on how big the font is. Just get up, get a bite to eat, feed your dog, whatever, when you get back it should be nearing completion. 5 minutes may sound like a long time, but if you work it down to 3.125 seconds per character, that's not too bad.

This routine isn't perfect, however (this isn't a super-computer!), and when scaling up, you may need to add a few pixels here and there to smooth things out.

Note: it is not recommended that you scale all the way up to 48, or near there. The font will get VERY big. If it gets bigger than 8000, the screen will go haywire!

Scaling a single character

Scaling the entire font will automatically scale the widths using the same factor used for height. However, there may be some occasions where you want to scale the width of a character separately.

Click on scale this char in the options menu. First you will be asked for the new width (1-48). Then you will be prompted for the threshold (see above). Finally it will scale. After about 2-20 seconds, you will be returned to the edit mode. If you don't like the character, just click Undo and you can get the old one back.

Saving

To save a file, select save from the file menu. First you will be asked how you want to save the file. If you have used one of my Font Editors before you will feel right at home here. If you haven't, there are 2 ways to save a font.

- 1)As a new file (all by itself)
- 2)Save it inside an existing file, with other point sizes.

How you save depends on what you're doing - if you're creating a blank font, you'd probably want to save it as a new file. If you're touching up an old font, you'd probably want to save it under an existing file.

Open (& save under an existing font)

This is what you'll probably be doing most often. First you will be asked for the point size to be saved as. This is a cosmetic point size, the one you will see when loading fonts from this program, and when you pull down a font menu from geoWrite. Generally you will want it the same as the true point size, so just hit return. The main reason you would change it is to combine multiple fonts. By changing the cosmetic point size you can combine up to 7 fonts of the same point size into

one file. The actual point size is determined by a byte in the font, so no matter what you pick for a cosmetic point size, the true point size won't be affected. See the example near the end of this manual for a description of how to do it. With this feature you can combine up to 7 different individual fonts into one file, with each point size being a totally different font, yielding up to 49 fonts. When used correctly, this can be a powerful feature and may end your constant swapping of fonts around on the deskTop.

After you input the cosmetic point size, you will see another one of those file selection DBs. This time you are picking the file to save under. You should know how to do it by now! It will then check the font to see if a font of the point size you're trying to save as already exists. If it does, you'll be asked if you want to replace it or not. If you choose YES, it will start to save the file. The first thing it checks for is the number of point sizes in that font. There is a maximum of 7. This is ironic because GEOS actually supports up to 15, but the menu structures in geoWrite are only made to handle 7, and if there are more than 7, it crashes quite nicely. If there is room, it will save the file.

Create (and save as a new font file)

This option saves the font as a new file. First you will be asked for the cosmetic point size, the same as above. (Note the "Mega" icon. This will save the font as a Mega Font. See the Mega section for more info.) Then you input the filename, the same way as when you create a blank font. Then the program will check for room on the disk, and if there isn't, you will get a disk error #3. Next you will be asked for the class and version number, these you see under "Class:" when you get info on a file from the deskTop.

Finally the font will be saved, and you will be brought back to the edit mode.

Font Grabber

This module will convert your non-GEOS fonts into GEOS format. It will grab Commodore (VIC-II format), BASIC 8, FontMaster II, and SuperGraphix Fonts.

First you will see a DB with all the non-GEOS files on the disk. (Sorry, GEOS has no way of indentifying non-GEOS fonts from other non-GEOS files.) Select the file you want and click Open. Another DB will now

appear verifying the font type. If it isn't what you wanted, click Cancel. If the font is a FontMaster II Normal or Super font or SuperGraphix font, it will convert and return you to the editor. Otherwise, it will ask you for the output point size - this will create a blank font of the specified size and overlay the grabbed character set onto it. If you select 10, each character will have at least 2 blank pixels on the right and bottom sides. Next comes the character set prompt. There are 4 values, 0-3. 0 is the most common, and if it's a small font, it will be the only one available. Technically, 0 = Uppercase/Graphics, 1 = Reverse Uppercase/Graphics, 2 = Lowercase/Uppercase, and 3 = Reverse Lowercase/Uppercase. If it doesn't turn out right, try another value. Finally, the font will be converted.

Previewing

This will print a copy of the font to either the screen or printer. Because it lets you see the whole font at once, it can let you see characters that are out of place, or just to view the font without loading geoWrite!

You can preview to either the screen or the printer. Select this in the first dialog box. Next is the style DB - turn on all styles you want, and click OK. If you are previewing to the printer, the font will now be printed. If you are previewing to the screen, it will display the font. Click to return to the editor. (Note: if the font is too big for one screen, then the first mouse click will display the rest of the font. Then click to exit.) When using italics (printer only), the characters will NOT be split between the halves of the printout as with non-italic - there will be a small gap in the middle of each line. Don't worry, this is normal operation, and happens only with italics.

Mega Fonts (for use with geoPublish)

The Font Editor 2.5 has a separate "Mega Mode" that works a bit differently from normal mode. When you open a Mega Font, it will automatically sense that the font is a Mega Font and will skip the point size selection box. While editing a Mega Font, the word "Mega" will appear to the right of the size, in the attributes box. In Mega Font mode, the "delete ps" menu option has been disabled (as a safeguard against deleting Mega point sizes), and the "Name" and "ID" icons have also been disabled. This is because unlike normal fonts, which are totally memory-resident, Mega Fonts are loaded in a section at a time - when you hit

different characters on the keyboard, you may notice the disk drive run as it loads in that section of the font. (The size may also change.) It actually is a different font! When all the sections are put together, they comprise the whole alphabet. Since it must always have access to the font, changing the name would be drastic!

Most other functions will perform the same, i.e. the scaler, preview, etc. If the font is on a RAM disk, the speed difference will be barely noticeable. The main difference is in the "save" option; in Mega Font mode, "save" becomes an "update" function. Although the font will be updated when you quit, and when it swaps font modules, you may click "save" anytime if you want to update it. **WARNING:** Unlike normal fonts, Mega Fonts are constantly updated on disk!!! Once you change a font, it's permanent! Make backups!

Creating Mega Fonts

This can be done only in normal mode. To save a normal font as a Mega Font, load it into the editor and select save. Select the create new font option. When the fake PS DB comes up, click the "Mega" icon. Then the rest will continue like normal. The font will be saved as a Mega Font. This can take a few minutes if the font is large.

Saving Tutorial

Here we will demonstrate the cosmetic point size feature. What we will do is to take 3 fonts, let's say Roma, Mykonos, and Brennens, and combine them. We want point size 24 from the first 2, and we will scale Brennens to 24 point. Start by loading in the editor.

Steps:1)When the screen appears, select the "Open" icon.

2)Select the font Roma, 24 point.

3)When the edit screen appears, select save from the file menu

4)Click on the "Create" icon

5)Enter 24 for the cosmetic point size

6)Enter "Combination" as the filename

7)For class, enter "Demo". For version #, enter 2.0

8)After it finishes saving, select close from the file menu

9)Repeat steps 1-3 but load the font Mykonos instead of Roma.

10)Click on the "Open" icon

11)Enter 25 as cosmetic point size

12)When the list of files appear, open file Combination

13)After it finishes saving, select close from the file menu

14)Repeat steps 1-3 but load Brennens. Do NOT select save yet.

15)Select scale from the file menu

16)Click YES to confirm, enter 24 as the new point size

17)Enter 33 for threshold, 100 for width factor (just hit RETURN)

18)After it finishes scaling (touch it up first if you like), select save

19)Click on "Open" icon

20)Enter 26 as cosmetic point size

21)Open file Combination

22)After it finishes saving, select quit from the file menu

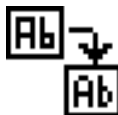
23)Once in deskTop, put the new font on a disk with geoWrite

24)Create a new geoWrite file, and try out the font file!

Point size 24 = Roma 24 point.

Point size 25 = Mykonos 24 point.

Point size 26 = Brennens 24 point.



Font Changer



Font Changer

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This is a short program that will scan through your geoWrite files and replace all occurrences of a selected font with any other font. This is useful when you have many fonts in a file and you only wish to change 1 particular font or point size. This runs in 40 or 80 columns and supports all current versions of geoWrite files. (through v2.1)

To run the Font Changer, double-click on its icon from the deskTop. You will then see the title screen. Click on the Open icon to begin, or Quit to Quit to deskTop.

Once you click Open, you will see a dialog box listing all the geoWrite files on disk. Use the Disk/Drive icons to switch drives. Once you have selected a file, click Open.

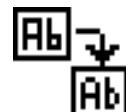
Now it will begin cross-referencing all the fonts it finds in the geoWrite file with the fonts it found on disk.

Note: it will only list fonts that it can find on disk. If you have no fonts on the disk with the geoWrite file, it will display a dialog box saying "No recognizable fonts were found." Therefore, you should always have copies of the fonts that were used in the file on disk.

When this is done, you will see a dialog box listing the fonts it found in the file. Select one and click OK. Now, you will be asked for the point size. If you click on a number, it will replace only the selected point size. If you click the All icon, it will replace all sizes.

Now you'll see a listing of the fonts on disk. Pick the new font and click Open. If you are only replacing one point size, you will be asked for the new point size. Click on the number to select it. If you selected All, then it will retain the original point sizes. (Therefore, the new font should have the same point sizes as the old font.)

Finally, the fonts will be changed, and the geoWrite file will be written back to disk!





geoWizard



GGEOWIZARD

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Notes and Acknowledgements

First, thank you for purchasing the GEOWIZARD disk. This is a remarkable program and should make your GEOS computing much more enjoyable.

Before using the programs on this disk, please take a few moments to read the documentation. GEOWIZARD is not compatible with everything, and you may wind up in a jam if you don't read the instructions.

Because of the very nature of geoWizard, I cannot guarantee that it will be compatible with everything. I have tried to note the programs which I have found cause conflicts, but there are bound to be others. I must stress that before using geoWizard with any new program where important data is involved, just try it out first when you're not working on anything. When you're working on a 3000 word term paper in the RAM disk that hasn't been backed up, this isn't the time for a compatibility test.

THANKS immensely to the following people who have made GEOWIZARD a reality:

My loyal beta-testers: Tim Bereman, Bobby Dacunta, Raymond Day, Rich Guinn, John Howard, Paul Hughes, Peter Hughes, Will Jaeger, Marshall Kragen, Susan Lamb, Roger Ledbetter, Steve Main, and Randy Padawer.

Special thanks to Paul Hughes & Peter Hughes for their time and help in making beta copies of geoWizard available to the beta testers.

And finally, thanks to everyone who has supported Comm-Plex Software over the past few years, you really are a loyal bunch of GEOS users and also good friends. Thanks also to Berkeley Softworks for creating GEOS, and to the supportive Q-Linkers who have waited so long for this.

Installing GEOWIZARD

GEOWIZARD can be started by double-clicking its icon from deskTop. It will then install itself and display a dialog box (DB) telling you what RAM bank it is installed in, and how to activate it. GeoWizard defaults to the mouse setup; if you need to use a different input device, please refer to "GEOWIZARD Setup".

If GEOWIZARD installed OK you can just click OK to return to the deskTop. If there was an error (disk error, or couldn't find room in the RAM expander) an error message DB will be displayed, and geoWizard will NOT be installed.

Important: GEOWIZARD requires a free bank of RAM expansion memory. RAMLink and RAMDrive users may have to increase their DACC partition on these devices by 256 blocks.

Auto-Exec support: GEOWIZARD is an auto-exec file and will install automatically if placed on your boot disk, AFTER (very important) Configure. Do NOT place geoWizard before Configure under any circumstances. If GEOWIZARD installs OK while GEOS boots, it will skip the "GeoWizard installed" DB and just continue booting GEOS; so it's fully automatic. If there was an error installing GEOWIZARD, it will still display the error DB and you will have to click OK to continue booting. In either case, GEOS will boot as normal.

GEOWIZARD Setup

GEOWIZARD has two modes for activation - a generic mode (compatible with any input device) and a special mouse mode. GEOWIZARD as supplied on this disk uses the mouse mode. To change the mode, you need to select the GEOWIZARD icon from deskTop and pick "info" from the "file" menu (or just hit C= Q). The GEOWIZARD info box will come up.

To change the mode, you need to change the marker at the very beginning of the text box. For mouse mode (the default) it should read "*M*" (quote marks are just for clarification - don't type these). For generic mode, it should read "*J*" (as in joystick). The *M* or *J* must be the FIRST characters in the info box text, or

else it will not be recognized and mouse mode will be automatically selected.

Here's how the two modes work:

Mouse mode: Mouse mode requires a mouse in port 1, and assumes you use the standard 1351 (or 1351(a)) mouse driver. This mode works by checking port 1 directly, bypassing the GEOS input device. Therefore if you use a mouse in port 2, or use a double-click input driver (which may not be compatible with geoWizard), you should select Generic mode. Mouse mode requires that you have the right setup, but is a little nicer in that you can activate geoWizard by just clicking both mouse buttons.

Generic mode: This mode is compatible with any input device (including mice). Use the generic mode if you use a joystick, Koala pad, light pen, mouse in port 2, or some other setup where the Mouse mode will not work. Generic mode uses the GEOS input driver so it will work with anything.

Activating GEOWIZARD

GEOWIZARD can be started from anywhere in MainLoop. MainLoop is the term for the loop GEOS sits in waiting for user input - basically this means you can start geoWizard anytime you can also select icons, menu items, DB icons, etc. You can NOT start geoWizard if the mouse is disabled, is frozen on the screen, or is movable but you can't select menus or icons. An example of this is when geoWrite or geoPublish is re-drawing the screen; the mouse is still enabled and active, but you can't select any menus or icons until it is done updating the screen. GeoWizard can be activated from most System Error boxes, so long as the mouse is still active. (The Sys Error handler jumps right into MainLoop)

GEOWIZARD is started differently depending on whether you have Mouse mode or Generic mode selected:

Mouse mode: Click both mouse buttons. The recommend method is to press the right mouse button, then the left, then release both. This reduces the chances of selecting an icon or other item, if the mouse is positioned over it when you start geoWiz.

Generic mode: Hold the left arrow (above CONTROL) key down, and click the fire button (or left mouse button). Note that you can also start it if you hit the left arrow and release it, and then click the button. Keep this in mind - if you hit the left arrow key by itself, then unless you hit another key after it, a click of the fire button will start geoWizard. There is no easy way to tell if the key was just pressed or if it was hit ten minutes ago.

Once geoWizard has been activated, it will take over the computer. The disk drives will run for a second while it starts up. If you are using GEORAM, it will take 2-3 seconds for geoWizard to start up, as the GEORAM doesn't have DMA capability. When geoWizard is ready, the title bar will appear at the top of the screen.

Using GEOWIZARD

Once geoWizard has been activated, you can use its features. To return back to the original program without doing anything, just click the fire button (or hit Return). GeoWizard will shut down - see "Restoring the System".

The GeoWizard options are accessed via C= key shortcuts. The list appears below:

- C= L - run an application (see below)
- C= SHIFT-L - run an auto-exec (see below)
- C= D - run a desk accessory (see below)
- C= P - screen dump (80 columns - double-height)
- C= SHIFT-P - screen dump (80 columns - normal-height)
- C= Q - Quit to deskTop (for System Error boxes)
- C= R - Reboot (for System Error boxes)

Each option will now be discussed in a little more detail.

Quit to DeskTop & RBOOT (C=Q and C=R, respectively)

These CAN be used anytime but they should only be used to escape from System Errors. Both options will present a DB asking you to confirm the selection - as both of these can destroy a program in RAM, this isn't something you want to accidentally trigger. If you click Cancel on the confirmation DB, nothing will happen. If you click OK, it will perform the action.

Quit to DeskTop: This will shut down geoWizard (see "Restoring the System") and will then start up deskTop. The original program that was running when geoWizard was started will NOT regain control. Many programs only save data when shutting down or performing major operations, so changes made to a file may not be saved to disk.

RBOOT: This will immediately perform an RBOOT, without shutting down geoWizard first. An RBOOT will completely restore the whole GEOS KERNAL from the RAM expander, and should only be used as a last resort. **RBOOT will disable geoWizard.** This can sometimes be helpful, if you need to run a program which is not compatible with geoWizard. You can start up geoWizard and do an RBOOT, and when deskTop appears, geoWizard will no longer be active.

Screen Dump (C=P or C=SHIFT-P)

This will do a screen dump of the original screen - whatever was on the screen when you started geoWizard. The geoWizard title box will not be included, rather the original screen that was under it will be printed.

The normal C=P dump will do a double-height dump in 80 columns. Each row will be doubled, so the resulting printout will be twice as tall. This makes for better looking pictures, as the aspect ratio is better. If you want to do a standard single-height dump, use C=SHIFT-P. In 40 columns, the screen will be printed single-height, whether you use C=P or C=SHIFT-P - it only makes a difference in 80 columns.

In GEOS 128, the default RAM-resident printer driver will be loaded. In GEOS 64, it needs to be loaded from disk. If the selected printer driver can't be found on disk, a DB will appear ("Can't load printer driver xxxx") and the dump will be aborted.

The screen dump can be aborted in the middle by holding down the fire button.

When the screen dump is finished, geoWizard is still active and you are free to select other geoWizard options, or click the mouse to quit geoWizard.

Desk Accessory (C=D)

By pressing C=D you can run a desk accessory. A DB will appear letting you select a desk accessory (DA) from the current disk. To run a DA from another disk in the current drive, select the Disk icon. To change drives, select Drive. All 3 drives will be supported if you have them activated.

To start the DA, click its name (to highlight it) and then select Open. The DA will then be loaded and run. When you quit the DA, it will normally NOT disappear from the screen - don't let this confuse you. After quitting the DA, geoWizard is still active and you can select other geoWizard options.

Notes:

* The desk accessory may require disk space, if it will overwrite part of geoWizard. This is common to GEOS 64 users as DA's ALWAYS require disk space. But it will be used on GEOS 128 too, if needed. If there isn't enough free space to buffer the DA, it will not be loaded. The most space you should ever need is 8K. Many DA's (most, in fact) will not overwrite geoWizard at all and won't require any memory to be saved, even on GEOS 64.

* On GEOS 128 - when the list of desk accessories is presented, only those that will run in the current video mode will be displayed.

* Desk Accessories such as Preference Manager can be run, but any changes made to the current setup (screen colors, mouse prefs, etc.) will generally only remain in effect as long as geoWizard is still activated. Once geoWizard is shut down, the original system will be restored - this includes the original preferences.

Run an Application (C=L or C=SHIFT-L)

This is the most powerful and most used option of geoWizard, and also needs the most explaining. First of all, the difference between C=L and C=SHIFT-L - the only difference is that C=L will display APPLICATIONs in the file selection box, and C=SHIFT-L will display AUTO_EXECs. Since they have different filetypes, the file selection box can't display both at once. From here on out both options work the same, and will be referred to as C=L.

Upon selecting C=L, a file selection box will appear displaying all the applications (or auto-execs) on disk. The Disk and Drive icons will let you change the disk in the current drive, or the current drive (respectively). To select a program, click on its name (to highlight it) and then select the Open icon.

* GEOS 128 users - if the program doesn't run in the current video mode, a DB will inform you and ask if you'd like to switch modes. If you pick Cancel, the program will not be run. If you pick OK, it will switch modes and start the program. If the program doesn't run under GEOS 128 at all, you will be informed and it won't be run.

Upon selecting Open, the application will be loaded and executed, as if it were run from deskTop. The application will run just like normal, with the following exceptions:

* **The application will NOT be able to run desk accessories.** If a DA is selected, it will merely be ignored (the Kernal routine to load them is disabled and the application is fooled into thinking the DA ran with no problems). This is because the GEOS KERNAL can only handle one DA at a time. DA's started from geoWizard use my custom DA routine and therefore aren't affected by this, but DA's started from an application use the standard DA routine in the Kernal.

* **DMA for MoveData is disabled when an application is run from geoWizard on GEOS 128.** GeoWizard needs more RAM available to buffer the screen (for 80 columns - although geoWizard always does it regardless of the video mode, since it can be changed at any time) and has to use the DMA/MoveData space. The Kernal is notified that DMA has been disabled so no conflicts should occur - programs that would normally benefit from the DMA speed will now just run a little slower. Problems **will** occur if a program tries to use the DMA space for itself (i.e. SuperBox, geoDebugger) and the 80 column screen will be corrupted when the application finishes. DMA is re-enabled once the application terminates.

* **Do NOT run a program which is incompatible with geoWizard - see the "GEOWIZARD Incompatibilites" section.**

When the program you started finishes, control will be transferred to the geoWizard shut-down routine and geoWizard will automatically close. See "Restoring the System" for details. To run an application and then a DA, you need to activate geoWizard again.

Restoring the System

When you exit geoWizard, it will restore the computer to the state it was in before geoWizard was started. This includes:

- * restoring the screen

- * 128 - restoring the original video mode

- * restoring all system RAM

- * asking for the original disks - when geoWizard is started, it records which disks are in the disk drives. If they aren't there when geoWizard shuts down, it will prompt you to re-insert them. The reason is that the original program may try to do disk access to a disk that wouldn't be there anymore.

The system is restored almost entirely the way it was before, and the original application or DA will have no idea that anything happened at all. Make sure you understand what this means - the transparency can lead to confusion sometimes.

For example, if you start geoWizard from deskTop, and then run geoWrite and create a file, when you quit geoWrite (and shut down geoWizard) you will NOT be able to find the geoWrite file on the deskTop until you re-open the disk. DeskTop doesn't re-examine the disk when turning pages - it reads the directory in when you first open a disk and that's it - geoWizard is so transparent that deskTop doesn't know you added to the disk.

The same applies for DA's - most programs that support DA's (under the GEOS menu) will read in the list when the application first starts and never again. So if you copy a DA over to the disk with the program, you probably won't find it under the GEOS menu in the original program unless you restart it, since its internal DA list isn't updated.

The only thing that IS updated when the original program returns is the RAM-resident copy of the BAM (Block Allocation Map). Otherwise, if you added files to a disk, the original program wouldn't know anything new was there, and if you wrote a file out, you'd

probably write over the other one. This should not cause any problems, so long as the original program doesn't use the BAM space for its own purposes (a bad programming habit, which I have yet to see).

GEOWIZARD Incompatibilities

Because geoWizard does a lot of non-standard, rule-breaking activity, it may not be compatible with other programs that also do strange things.

***Do NOT try to run geoWizard (the installer) from within geoWizard.** You'll just hang the system. There's no reason to do this anyways.

***Do NOT run CONFIGURE from geoWizard.** You will trash the system.

***Do NOT run CONFIGURE after installing geoWizard.** Each time you run CONFIGURE, it copies the Kernal into RAM expansion memory for the RAM Reboot option. But if it happens while geoWizard is installed, it will only copy PART of geoWizard. If you RBOOT after doing this, you will hang the system. Before running CONFIGURE, start geoWizard and select C=R (RBOOT) to reboot the system and clear out geoWizard - then run Configure. If you should forget and run Configure after installing geoWizard, the following POKE's will allow you to reboot GEOS successfully.

If you were running GEOS 128, quit to 64 BASIC (reset the computer while holding down the C= key) and type:

POKE 996,96 (this restores 128 mode)

Now hit RESET and let BASIC 7.0 (128 mode) appear (don't boot GEOS) then type:

POKE 256,76: POKE 257,221: POKE 258,192

If you were running GEOS 64, quit to 64 BASIC (reset the computer while holding down the C= key) and type:

POKE 256,32: POKE 257,86: POKE 258,250
POKE 259,76: POKE 260,226: POKE 261, 192

Now RBOOT or 128 RBOOT. GEOS SHOULD boot up OK. Save all files from the RAM disk and re-boot the system from scratch, to be safe.

***Don't start geoWizard in geoTerm 128. Will cause many problems.**

***Don't swap C to A or C to B (drives) inside geoWizard.**

***Don't use SuperBox 128 with geoWizard.**

***Don't use geoWizard with SuperDebugger.**

***Don't do a geoPaint flood fill with geoWizard installed.** geoPaint does many complex calculations when doing a fill operation and uses the stack for data storage, and overwrites geoWizard and will hang the system. Disable geoWizard first.

***Be careful using geoCalc and/or geoFile with geoWizard.** This means starting either program from geoWizard or popping into geoWizard with one of these running. Because both of these programs access the BASIC & KERNAL ROM's there may be problems, there are problems with the 128 versions. I don't recommend using these with geoWizard but if you must, be careful and try it first on scrap data. Note that this only applies to actually using geoWizard, just having it installed should not cause a problem.

***If starting geoWizard while using geoWrite, do not modify the Text Scrap file.** GeoWrite makes a note to itself about the state of the Text Scrap (whether it exists or not) when you start it, and if you add or delete the Text Scrap from geoWizard, geoWrite will become confused. If you made a new Text Scrap, you won't be able to paste it upon returning to geoWrite, because it doesn't think the scrap is there. If you delete the scrap (i.e. with MiniDesk) geoWrite will hang if you try to paste it, because it thinks the scrap is still there. If you modify the scrap then, upon returning to geoWrite, run a DA or close/re-open the file so it can log in the new status of the Scrap. If you have a DA on the disk then just run that (normal 'geos' menu, not geoWizard). You don't have to do anything inside it.

***USE COMMON SENSE.** Remember, GEOS programs were not specially written to perform in an environment such as GEOWIZARD. Most of the time you will be OK, but there are problem areas. For example, don't pop out of geoPaint to load MiniDesk and delete the very geoPaint file you're working on. That's just asking for trouble. GeoPaint doesn't know anything happened and when it tries to access the file, it can't find it, it's just like beating geoPaint over the head with a baseball bat, you're going to kill it. This is mainly common sense.

GEOWIZARD Technical Info

This contains information on how geoWizard works and what memory it occupies, for those who are interested.

The geoWizard installation program will search RAM expansion for a free 64K bank and will install geoWizard in it. The geoWizard activator code is wedged into MainLoop at the internal level. (128 - \$9D83 JMP \$C0DD is re-routed to JMP \$0100 and geoWizard back to \$C0DD after the geoWizard addition; 64 - \$C0DF JSR \$FA56 is changed to JMP \$0100 and geoWizard does the JSR \$FA56 before the JMP \$C0E2.)

The geoWizard activator code sits at \$0100, on the bottom of the stack. This is NOT guaranteed to be a free area but for all intents and purposes it SHOULD be. Each word on the stack is 2 bytes and the activator code is about 64 bytes so you'd need about 96 nested JSR's in a row to fill up the stack to the point where it would be overwritten - except for non-standard activity like the

geoPaint fill which steals the whole stack for itself. When geoWizard is activated, it disables interrupts and banks in 8K of code from RAM expansion at \$4000 and transfers control to it. This is the body of geoWizard. It restores the original MainLoop vector, saves away 90% of the system RAM, and calls StartAppl to re-initialize the system.

Upon termination of geoWizard, the original system is recovered and control is transferred back to the code at \$0100 (where it left off) which banks out the geoWizard body at \$4000 and restores the original program. The original status of the interrupt disable bit is recovered and control is transferred back to MainLoop. For the Quit to deskTop option, geoWizard shuts down as normal but jumps directly to EnterDeskTop instead of back into MainLoop.

This information is subject to change in future versions of geoWizard.



geoWizDump



geoWizDump

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GeoWizDump is a DA-based extension of the geoWiz **C=P** command that will dump a screen to geoPaint or Photo Scrap files. It can ONLY be run from geoWizard via the **C=D** (DA) option. If you run it from deskTop or outside of geoWizard, it will just abort and do nothing. Other utilities exist for this purpose already - geoWizDump was written just for doing these dumps within geoWizard (other screen dump utils wouldn't work right as they would dump the current geoWiz screen with the geoWiz box and all, instead of dumping the underlying application screen).

When geoWizDump opens, you choose the output format - geoPaint or Photo Scrap. If you run geoWizDump from 80 columns, it will have an additional icon for doing double-height 80 column dumps (for a proper aspect ratio in printouts). When you are done, click OK.

If you selected Photo Scrap, it will just be created and geoWizDump quits.

If you selected geoPaint, you will be prompted to enter the geoPaint filename. When you hit RETURN the file will be created and geoWizDump quits.

That's about it... this is a fairly simple one (well, was tricky to write but is simple to use!).





MiniDesk



MiniDesk

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MiniDesk is a DA providing three file operations: Copy, Rename, and Scratch. MiniDesk is a standard DA and can be used from any application, or started from geoWizard.

When MiniDesk runs, it will display the file selection box, as well as the Copy, Rename, and Scratch icons. Since Copy is the default mode, the Copy options will be displayed as well. When Copy is selected, a box will appear below the icons for selection of the destination drive. The source and destination drives must be different - on a one drive system, the Copy box will not be displayed. MiniDesk will pick the first (alphabetically) usable drive to copy to. You may change this at will, but if only one drive letter is displayed then it will always be the destination drive. Any time you select a drive for the destination disk, the disk will be logged in - to change the disk to copy TO, just click on the drive letter icon. The destination disk name will be displayed underneath the drive letter icons.

MiniDesk uses the MultiBox file selection box and shows the first 150 or so filenames, so pick the files you want to act on, and make sure you have selected the right mode (Copy, Rename, Scratch) at the bottom. The

files will be processed in the order you select them. When you have selected the operation mode (Copy, Rename, Scratch) and have selected the files, click the Open icon.

Copying-the source and destination disk names will be displayed and you'll be asked to confirm the copy. Use Cancel to back out. Upon selecting OK, the files will be copied automatically. If a file exists, a box will appear asking whether or not to replace it.

Renaming-a box will appear after each file for the new name.

Scratching-you will be asked Once to confirm this, then all the files will be deleted.

That's really about it. If you changed disks in the drive MiniDesk was started from, it will prompt you to re-insert the disk when you quit MiniDesk.

NOTES ON COPY

Copy will only work with GEOS files, and non-GEOS files less than 32K in size. Trying to copy non-GEOS files that are larger than 32K will possibly result in a system lockup. GEOS files can be copied regardless of their size, since GEOS itself imposes the 32K limit on Sequential files, or 32K per VLIR chain. Copying GEOS files larger than 32K will work because they are broken up into separate chains.



Select Printer



Select Printer

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This is a simple desk accessory (DA) which will allow you to change the current Printer Driver selection. Since this is a DA, it can be used even from within an application, thus saving you the hassle of exiting from your current program to make such a selection.

To use Select Printer, make sure it is installed on the disk located on the currently active drive (some programs may allow you to get around this if they use a

file requestor for DA's). The Select Printer DA should now be available in the geos menu (click on geos in the upper left corner to make this menu appear). Some programs use a file requestor for selecting DA's; if this is the case, then you will see an option to select or run desk accessories instead of seeing the desk accessories themselves. Select that option if this is the case.

Once you have started Select Printer, a window containing a file requestor will appear containing the names of printer drivers found on the current disk and drive. If more than eight (8) drivers are located on the disk, scroll gadgets will appear at the bottom of the

requestor to allow you to move through the list.

Up to four (4) buttons will be available on the right side of the window with the following options:

Open-loads the currently selected printer driver

Disk-prompts you to insert a new disk into the drive

Drive-searches for printer drivers on the next



DOS_Wedge



DOS_Wedge

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What is DOS_Wedge?

This desk accessory (DA) will allow you to send standard Commodore style DOS commands to any physical drive attached to your system.

Starting DOS_Wedge

Start the DOS_Wedge DA as you would any other by selecting it from the geos menu. A dialogue box will appear, waiting to accept input. A Quit button is also located in the dialogue box, and clicking on it will return you to wherever you were prior to starting the DOS_Wedge (provided it is still possible to get back).

Command Structure

Commands can be sent to any drive on the system, though the most commonly used drives are A, B, and C. The device identifier should be the first element in the command string, may be either upper or lower case, and immediately followed by a colon. Sending the device identifier and colon alone will return the status of the drive. For example, entering:

a:

followed by pressing <RETURN> will cause the status of drive A to be displayed.

The second element of the command string (if used) is made of any legal DOS command for the drive being used. DOS commands MUST be entered in uppercase characters, since GEOS uses true ASCII codes and Commodore type drives expect commands in PetASCII. Certain parts of the command string, such as names for files or disks, can be in upper or lower case,

available drive (drives A, B & C supported)

Quit-exits from the desk accessory, returning you to wherever you were before starting it.

Please note that changing to a new driver with this DA will not cause drivers to be physically moved around on the disk.



but should match that of an existing file if that is necessary for the command to work (as in the DOS RENAME command). Here are some examples of complete DOS command strings:

- a: N0:Newdisk,ND(formats the disk located in drive A)
- B:R0:Newfilename=Oldfilename
(renames file called Oldfilename on drive B)
- c: S0:Oldfile(deletes file called Oldfile on drive C)

Character string codes may also be sent with DOS_Wedge by typing <Commodore>+<@> and following the symbol that appears with a two character hexadecimal value. Obviously this feature is keyed towards programmers who are more familiar with hexadecimal code. Example usage:

B:U0>'0f(renumber drive B to device 15)

While you may issue most any Commodore DOS command to any physical drive on your system using the DOS_Wedge, keep in mind that some commands may have detrimental effects. For example, it is not wise to send a DOS NEW command to the disk which was active when you entered the DOS_Wedge DA since that will wipe out the GEOS swap file used to get you back to where you were when you exit the program. Likewise, a DOS VALIDATE command should not be used on GEOS formatted disks unless you are using a CMD device which supports GEOS file validation (RAMLink, RAMDrive, FD Series, or HD Series with HD-DOS v1.80 or higher). Also note that DOS commands are executed immediately - you will get no prompt to insert a new disk when sending a DOS NEW (format) command for example.

Tips for CMD Device Users

DOS_Wedge can be especially useful to CMD device users. It can be used to change partitions, send special format commands, or even to set the Real-Time Clock in some CMD devices. RAMLink and RAMDrive users should note that with DOS_Wedge these devices

need to be accessed using their REAL device number. Often these devices may actually be device 12 or higher, even though they are seen as drive A, B or C on the deskTop. FD Series drive owners will find it possible to format disks using the extended format commands for that drive using DOS_Wedge.



AutoAlbumAdd



AutoAlbumAdd

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If you work with photo scraps and the Photo Manager a lot, you'll wonder how you ever got along without this handy little desk accessory (DA). Very simply, this program will automatically locate the current photo scrap on your disk, and place it directly into the first Photo Album located on the disk. This saves you the time consuming task of having to use the Photo Manager to manually place each scrap you create

into the Photo Album.

If no Photo Album currently exists on your disk, this DA will automatically create one and name it Default Album.

To use this DA, simply select it from the geos menu like any other desk accessory. It will not present any requestors - it will simply clear the screen, perform its task, then return you to wherever you were when you started it.



PS Processor



PS Processor 1.0

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What It Does

The PS Processor will work with files produced by geoPubLaser/PS.Patch (see "Setting Up" below) to let you print in landscape mode and mix and match logical geoPublish pages anywhere you want over the physical output pages. It supports printing to a disk file, the parallel port (geoCable), and the serial port (1200 or 9600 baud). Since there is a little bit of setup required for each file, it takes commands through a script file, which is merely a list of commands you enter in a geoWrite file.

Setting Up

Before using PS Processor, you must run the program "PS.Patch (disk)" (PS.Patch 2.0) on a copy of your geoPubLaser (note: geoPubLaser must be dated 3/10/88 or later or you need to get the updated version from BSW). This will modify geoPubLaser to write PostScript files to disk, instead of sending them over the serial port. Once they're on disk, PS Processor can use them. You only need to do this once - then rename

the patched geoPubLaser to something like "geoPubLaser_disk" and save a copy of it somewhere - the program is permanently changed.

Program Operation

Double-click the program icon from the deskTop to run the program. At this point a dialog box will come up displaying the geoWrite files on disk - pick your script file here. Now another dialog box will appear displaying the non-GEOS files on disk - pick the PostScript file (as produced by your patched copy of geoPubLaser) now.

At this point the program will begin to work - a Status line will show the current operation in progress, and error messages may appear if there are problems. When all is done, you will be returned to the start of the program.

Script File Format

This program accepts commands through a geoWrite script file. Put your commands on the start of each line, followed by any necessary parameters. White space (extra carriage returns, spaces, or tabs) shouldn't affect the command processor. A % sign signals that the rest of the line (up to the carriage return) is a comment.

(Note that % is also the comment flag in PostScript itself.)

The commands available are:

landscape
numcopies [pages]
file [filename]
serial <1200>
parallel
origin [x] [y]
include [page] [x] [y]
print <noerase>/<last>
[] denotes a required parameter
<> denotes an optional parameter

landscape

This command puts the page into landscape mode. It must be used before any page operations (origin, include, or print) and will stay in landscape mode for the rest of the script.

Example: landscape % we're now in landscape mode

numcopies [pages]

This is the equivalent of the # Copies box in geoPubLaser itself. Note that the box setting in geoPubLaser is NOT used when printing with this program - unless the numcopies command is used, only one copy of each page will be printed. This can be changed at any time, and the last value given will be used when the print command is issued.

Example: numcopies 2 % 2 copies of each page

file [filename]

This specifies a disk file for PostScript output. The file is written to the disk the input PostScript file is on. It must be given before any page operations (origin, include, or print) and cannot be reversed. The filename is mandatory and will be automatically converted to uppercase. (If you do not give a filename, there will be no immediate error - it will grab your next command and use that as the filename, and then you will be in trouble since the next command will be gone... any parameters it may have had will result in an error.)

Example: file output.ps % write to file OUTPUT.PS

See also: serial, parallel

serial <1200>

This specifies the serial port (RS-232) as the PostScript output device. (This is the same way an unmodified geoPubLaser prints.) The default baud rate is 9600 baud, unless the 1200 parameter is given. Like

file it must be used before any page operations.

Examples: serial % use 9600 baud serial

serial 1200 % use 1200 baud serial

See also: file, parallel

parallel

This specifies the parallel port (geoCable) as the PostScript output device. Do not use this if you don't have a geoCable hooked up, because the program will freeze when it tries to access the parallel port.

Examples: parallel % print via geoCable interface

See also: file, serial

origin [x] [y]

This command moves the default origin (what is (0,0) for the include command). The default origin in portrait mode is (0,0). The default origin in landscape mode is (0,-180) - this sets it up so the TOP part (8.5") of the geoPublish page (which is 11" high) is what appears in the 8.5" window of a landscape page. If the origin is set to (0,0) in landscape mode, the BOTTOM 8.5" of the geoPublish page will be used. The origin command is absolute - each time you issue it, the origin is moved to the new location.

See the section on coordinates for info on the X/Y values.

Examples: origin 0 0 % change origin to (0,0)

origin -40 36 % shift origin LEFT 1/2" and UP 1/2"

include [page] [x] [y]

This reads a page from the input PostScript file (the one geoPubLaser wrote) and adds it to the current output page. The page number is a LOGICAL page number - an index into the number of pages in the PostScript file. The first page is 1 and goes up from there. The actual page number from the original geoPublish file is NOT used - rather, the page 1 means "the first page you printed in geoPubLaser". If you printed from pages 5-10 in geoPubLaser, then here page 1 is page 5, page 2 = page 6, etc. The X and Y values are OFFSETS from the current origin - to print at the origin, use 0 and 0 (no matter what the origin itself is).

Examples: include 1 0 0 % add the first page at (0,0)

include 2 440 0 % add the second page offset 5.5" to the right

print <noerase>/<last>

This command prints the current page. By itself, it prints the page and then clears it to prepare for the next one. With the noerase command, it will print the page

without erasing it - a subsequent include command will draw on the page as if the print had never been issued. The "last" option should only be used on the LAST page you print. Due to a problem in the GEOS PostScript code, the printer will not be restored after printing - subsequent files will not look right because the printer was never re-initialized. The "last" option will fix this error and ensure that the printer is cleared.

(Note that this bug has nothing to do with this program - it is present in both geoLaser and geoPubLaser in all versions. This just provides a convenient way to fix it - if you don't use the "last" command, the files will be no different than those made by geoPubLaser itself. For those interested, the showpage command is usually bracketed with a gsave/grestore - if "last" is used, the last page will NOT have a gsave/grestore around the showpage.) If "last" is used, the processing will end as soon as the page is printed - the printer can no longer accept more pages without restarting.

Examples: print % print the page and erase it
 print noerase % print the page but don't clear it
 print last % print the last page and then shut down

X/Y Coordinate Info

The X coordinates are 80 DPI, and the Y coordinates are 72 DPI. The normal origin of (0,0) is located at the bottom left of the page - positive numbers will move right or up, and negative numbers will move left or down (just like coordinates on a math graph). Some examples:

(80,72) - up and right one inch

(0,144) - up 2"

(440,0) - right 5.5" (half the second panel of a landscape page split in two panels)

(0,-180) - down 2.5"

And so on... remember that if you give a negative origin, it will be off the bottom or left of the page. The default origin of a landscape page (0,-180) works by positioning the logical page 2.5 inches below the lower edge of the physical page - that way the top part is what shows up in the 8.5" window - and the bottom 2.5 inches is ignored. Since the logical page moves UP as Y increases, a landscape origin of (0,0) would cause the bottom 8.5" of the logical page to be printed, and the top 2.5 inches to fall off the top of the physical page.

NOTE: There are many geoPublish/geoWrite script file combos on Side 2 of the Collette Utilities disk to study & print out to aid in understanding PS Processor.

