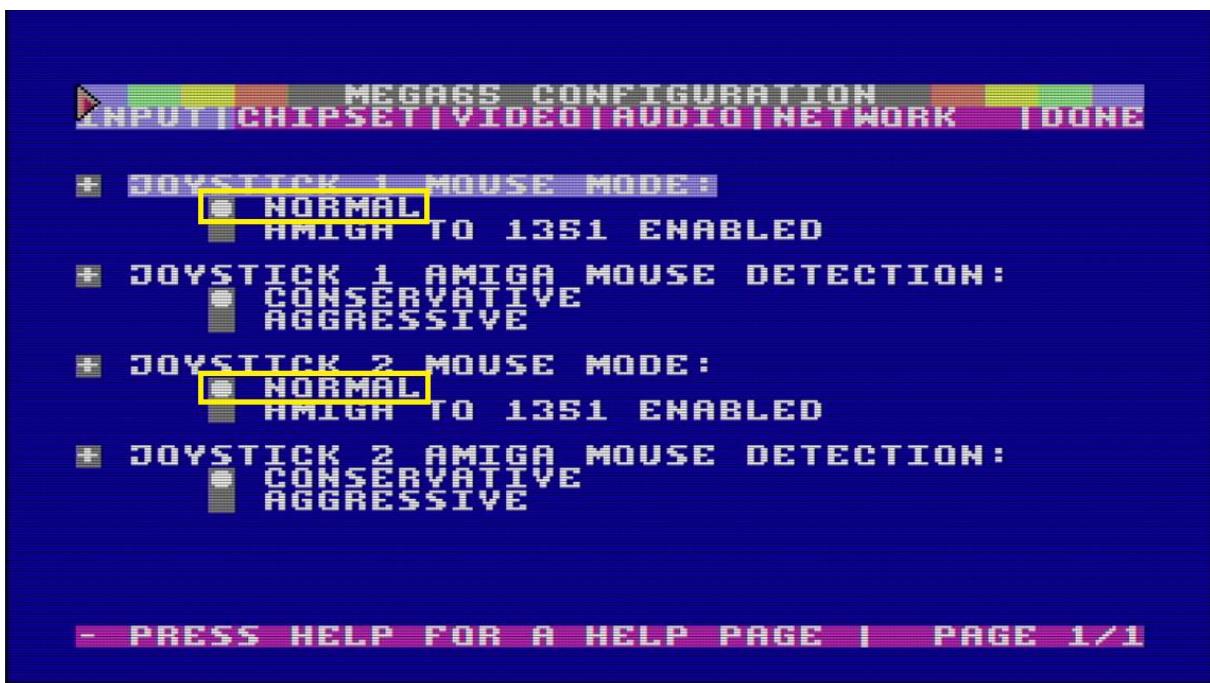
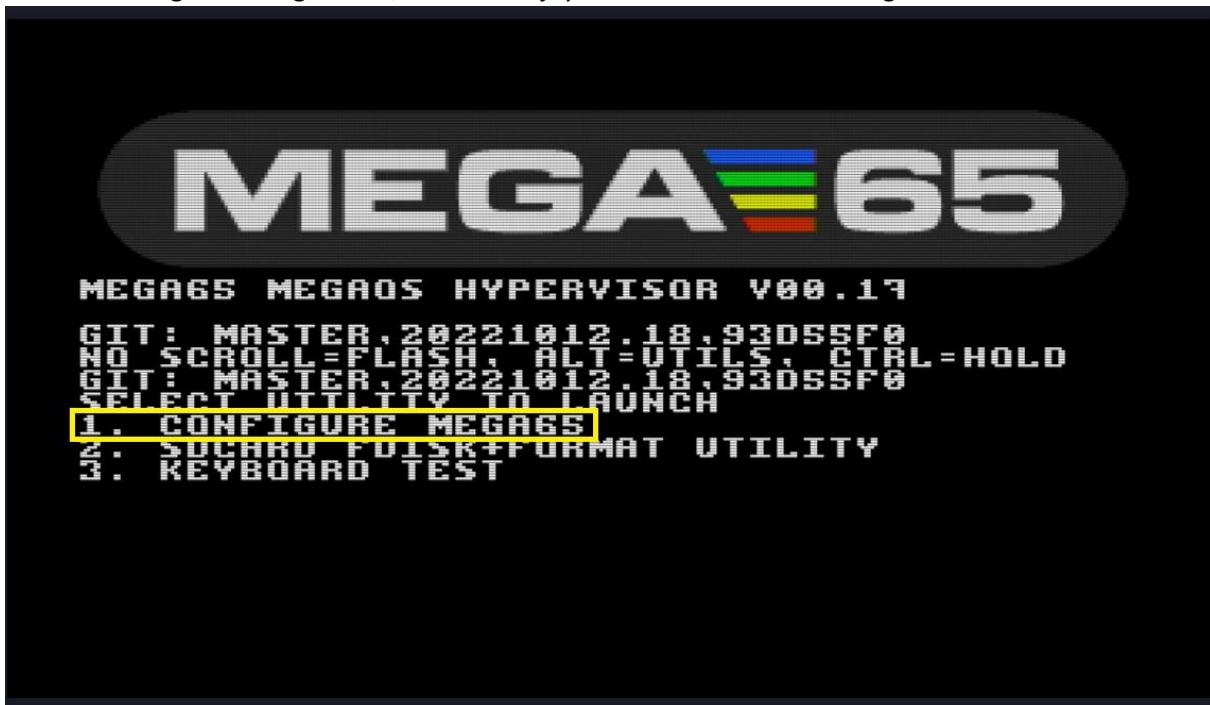


GEOS with the MEGA65 c64 core.

- This document describes the very basic steps required to run GEOS on the MEGA65 c64 core.
- It comes with a set of .d64 files which can be used to explore the basics of GEOS and its applications.
- For an exhaustive description and resources about GEOS, visit
<https://www.lyonlabs.org/commodore/onrequest/geos/index.html>
- For video resources about using GEOS and other retro stuff, visit
<https://www.youtube.com/@MyDeveloperThoughts>

1. Pre-requisites :

- In the Mega65 configuration, ensure the joystick mouse mode is configured as « NORMAL »



- Connect a Mouse or a Joystick on Port 1
- If using a **mouSTER** adapter,
- ensure it is configured as a "C64" mouse
- in .ini file, you should have :

```
[mouster]
; general settings.

; mode=
; Operating mode, what device mouSTER will emulate.
; Default:
; mode=auto
;
; Possible values:
; [00|auto|self] - mouSTER will self determine what device to emulate (Mouse or Gamepad).
; [01|mouse|mice] - lock to mouse mode only.
; [02|gpad|gamepad] - lock to gamepad mode only.
; [03|cd32|apad] - emualate Amiga CD32 gamepad
; [255|reset_to_default|jmp_$e477] - Load default values for mouSTER configuration and end processing ini file. ###NOT IMPLEMENTED YET###

mode=mouse
```

```

[mouse]
; mouse emulation settings.

; type=
; Mouse type to emulate.
; Default:
; type=amiga
;
; Possible values:
; [00|atari|ata] - mouSTer will emulate atari mouse.
; [01|amiga|ami] - mouSTer will emulate amiga mouse.
; [02|c1351|c64] - mouSTer will emulate commodore C1351 mouse. Requires mode=mouse !! will not work in auto. Require real or fully emulated SID.
; [03|trackball|trb] - Trackball (Atari CX-22) emulation mode. #### Function in experimental stage ####
; [04|a8|lame8] - Special mode dedicated to A8 - #### Function not implemented yet #####
; [05|micromys|mimmys] - mouSTer will emulate mouse with micromys protocol. ####NOT IMPLEMENTED YET####

type=c1351

```

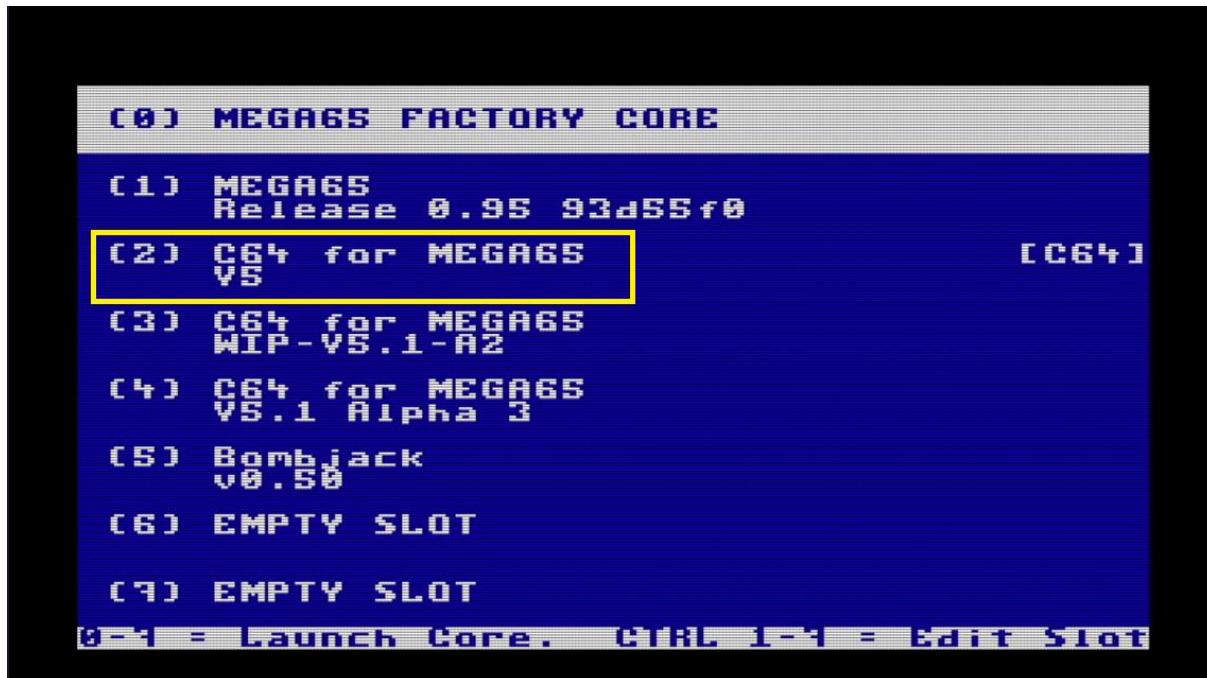
- For an exhaustive description of the mouSTer adapter, refer to this youtube video :
https://youtu.be/L8rbam3OjGY?si=j_sLrAJI2a0sDCz

- Copy the following files to the "c64" directory of your SD card :

GEOS64.D64
 APPS64.D64
 GEOCALC.D64
 SPELL64.D64
 WD-CALC.D64
 WD-PAINT.D64
 WD-WRITE.D64
 WRUTIL64.D64

EMPTY.D64 [this is an empty disk created using dirmaster <https://style64.org/dirmaster>]

2. Start the c64 core



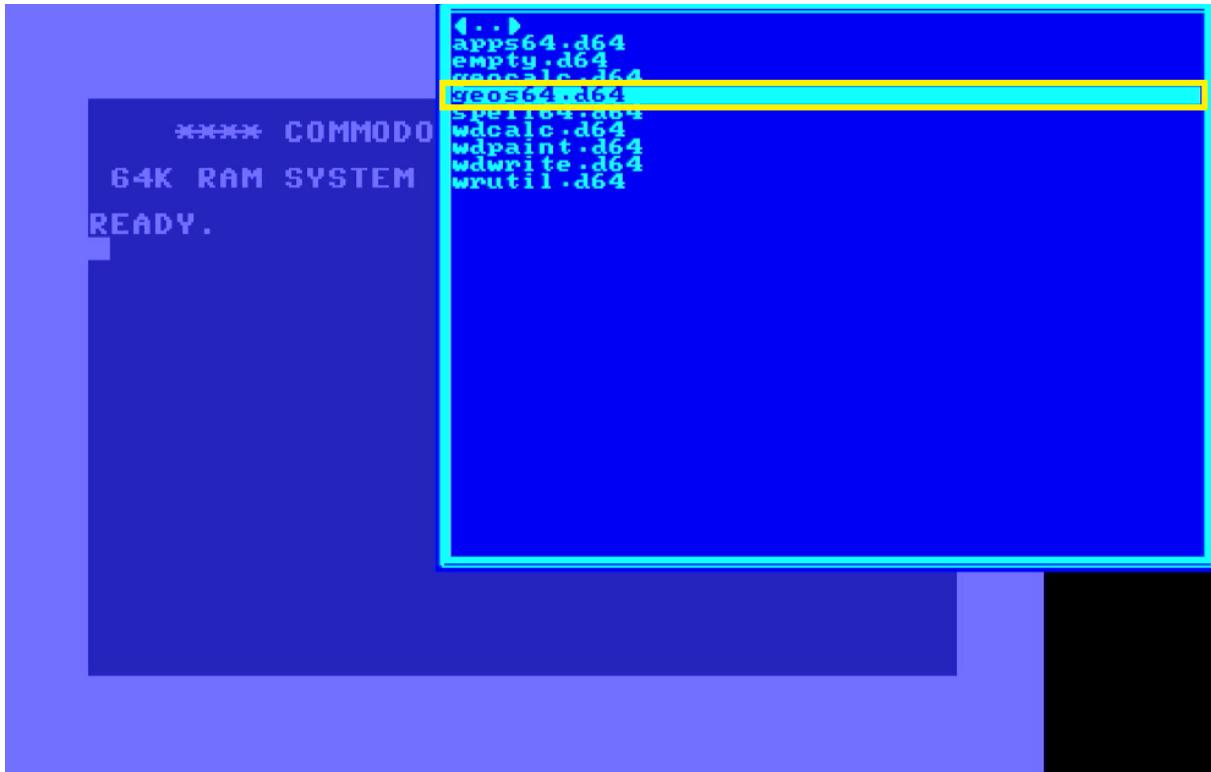
3. c64 Core configuration

- Enter OSM : « HELP » key
- Ensure REU is enabled : « Simulate 1750 REU 512KB »
- Ensure JiffyDos is not enabled : « Kernal : Standard »



4. Mount geos64.d64



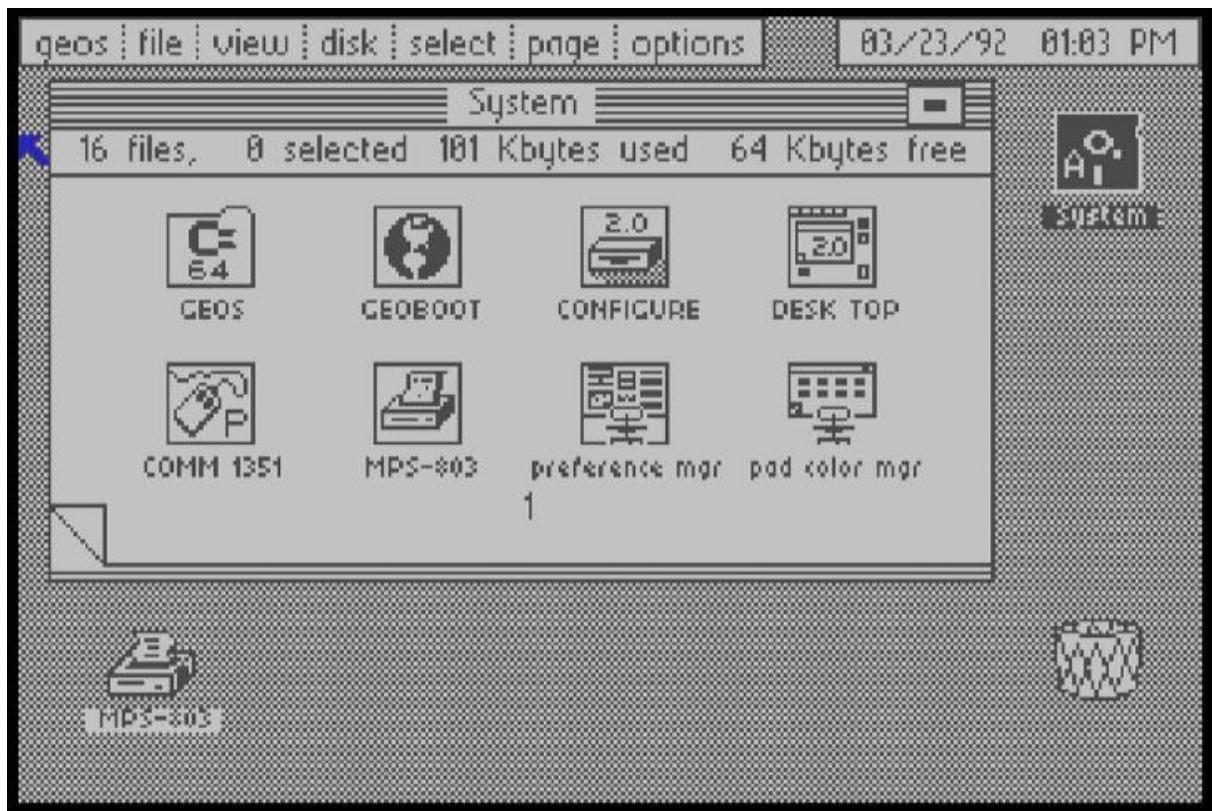


5. Load main GEOS program



This will load and start GEOS desktop automatically.

6. The GEOS desktop appears



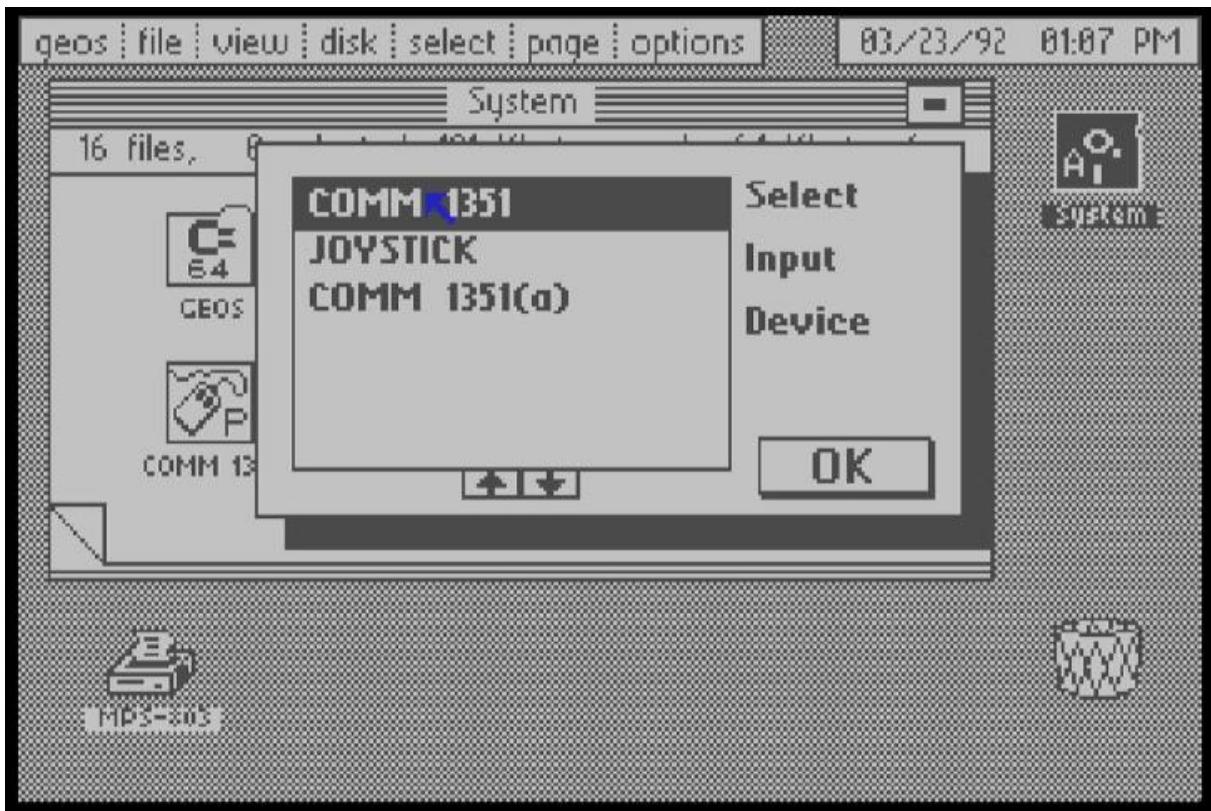
7. Configure the device you want to use to control the blue arrow pointer

- Press "MEGA" + "I" to display the device selector

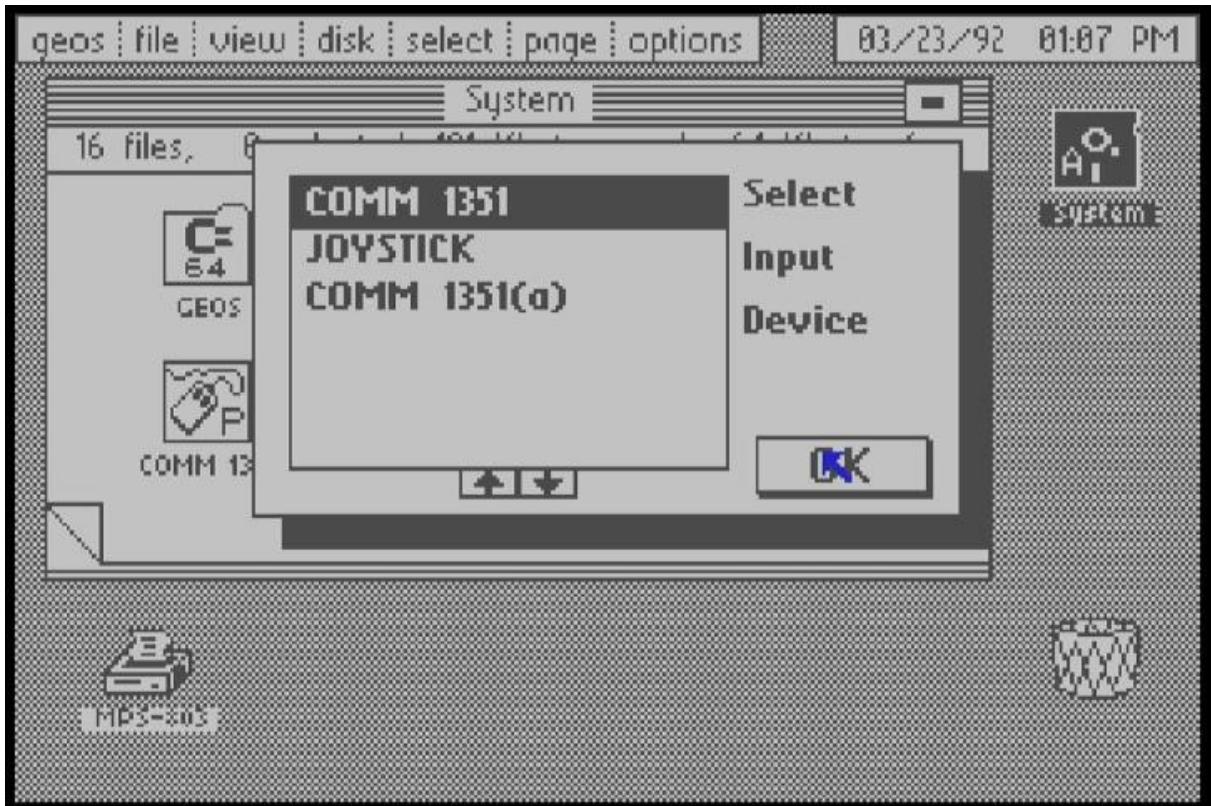


When no device has been selected yet, use "Arrow" Keys move the blue arrow

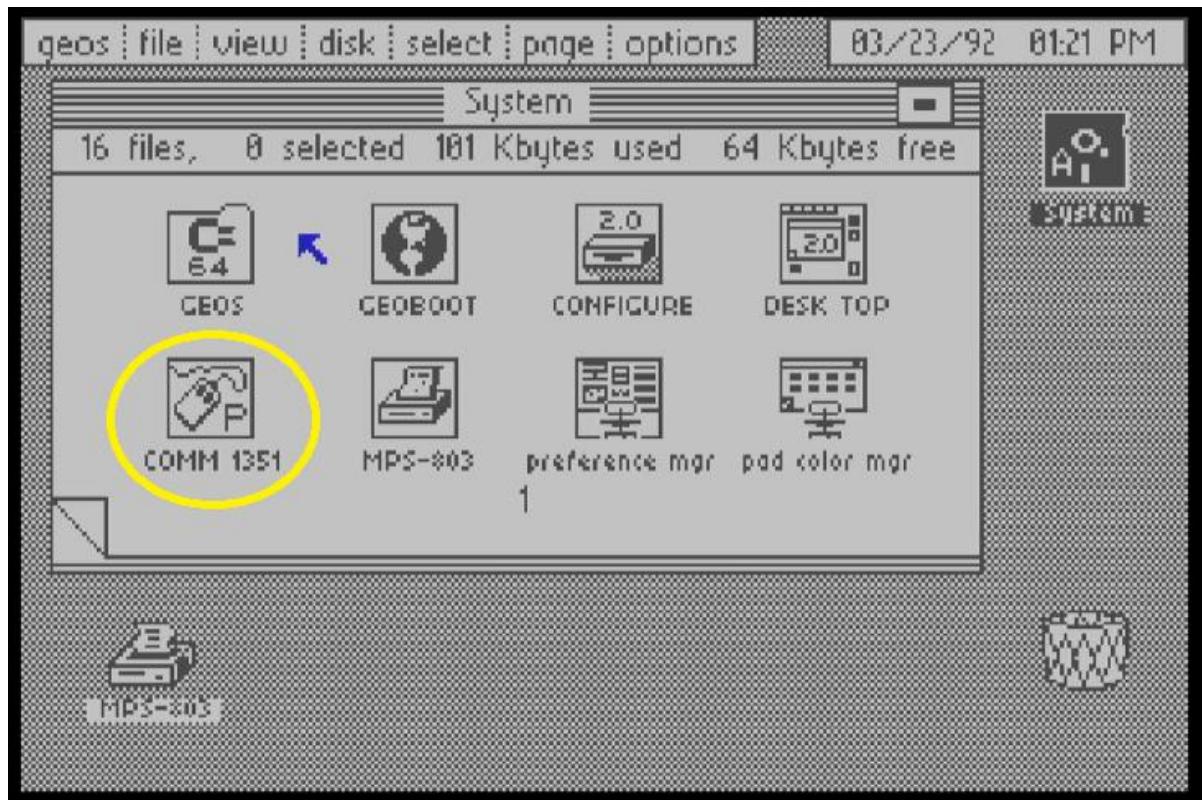
- To use a Mouse,
 - move the blue arrow to "COMM 1351" and press "ENTER"



- move the blue arrow to "OK" and press "ENTER"

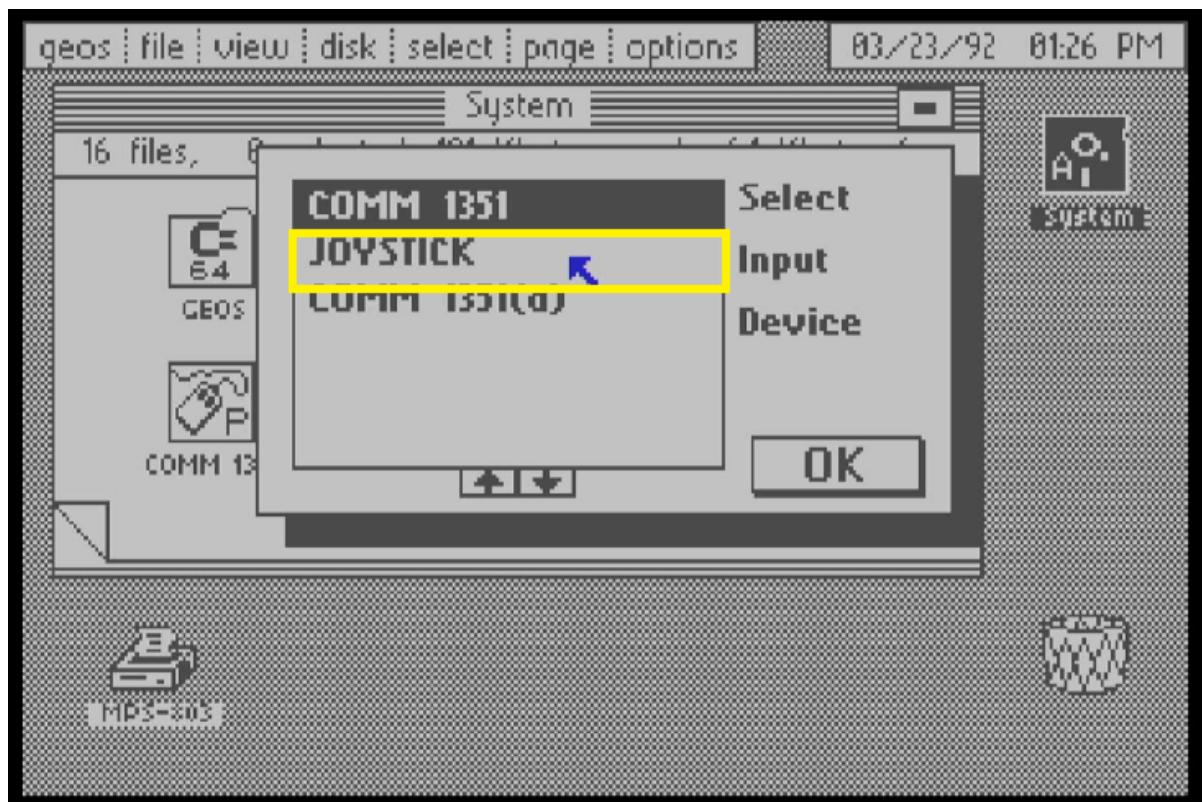


- The mouse is now configured and ready to be used



- To use a Joystick,

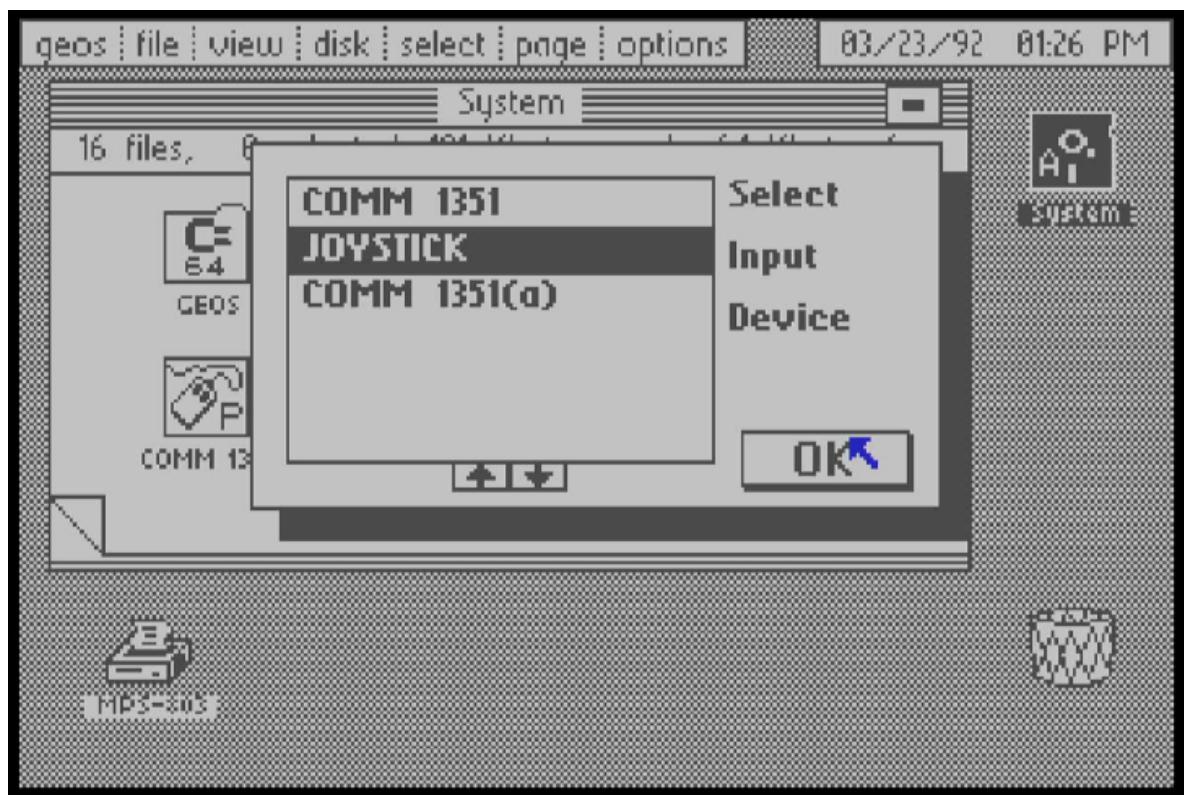
- move the blue arrow to "JOYSTICK"



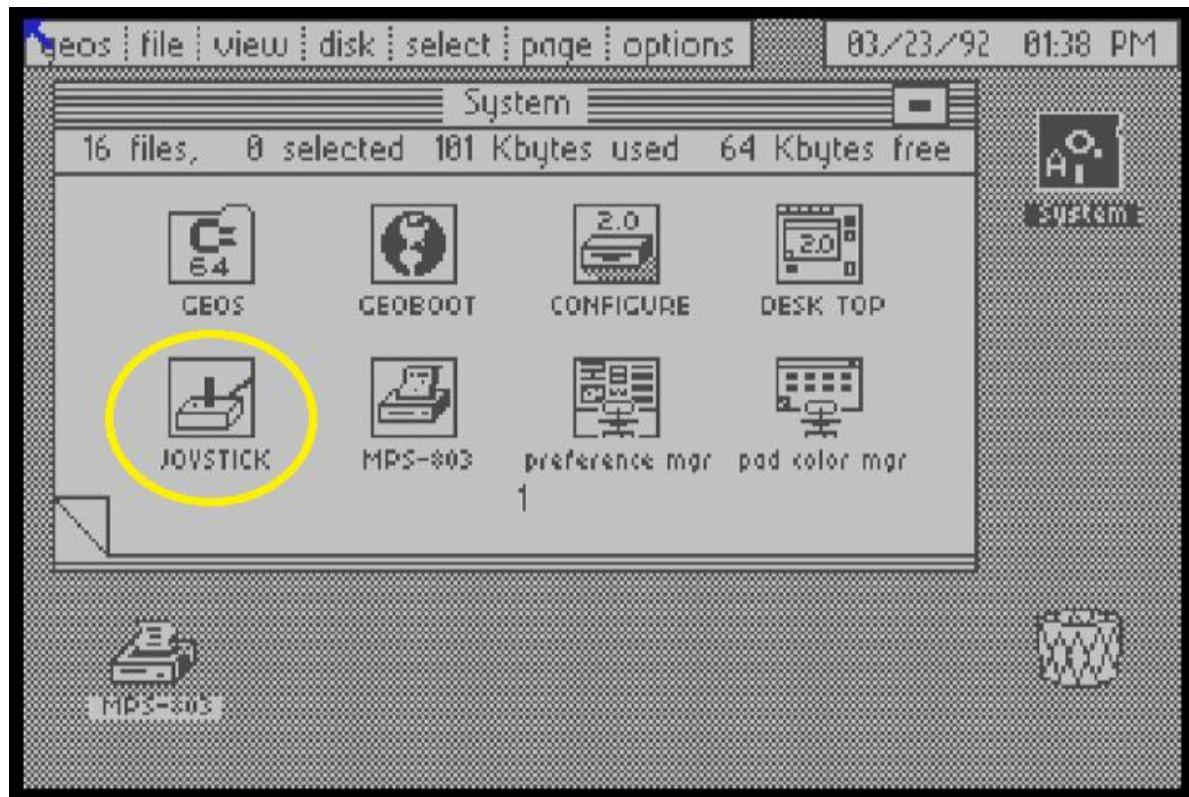
- press "ENTER"



- move the blue arrow to "OK" and press "ENTER"

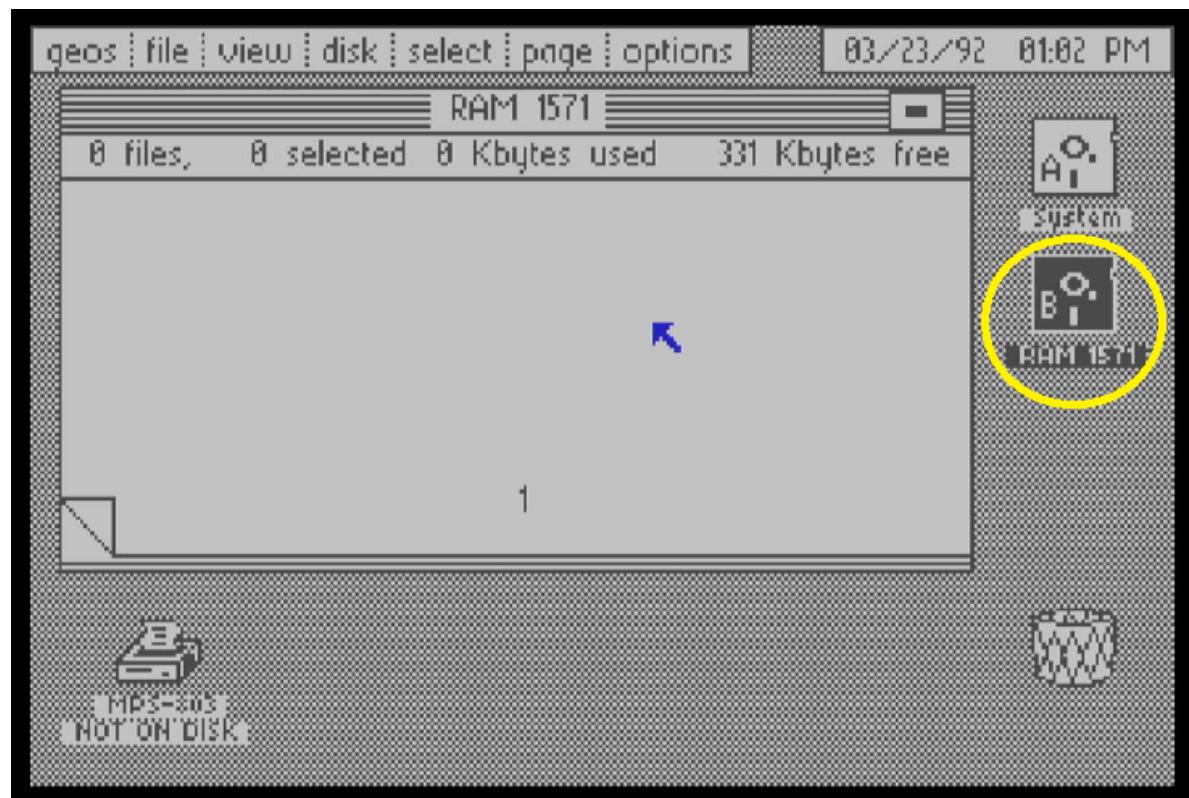


- The Joystick is now configured and ready to be used



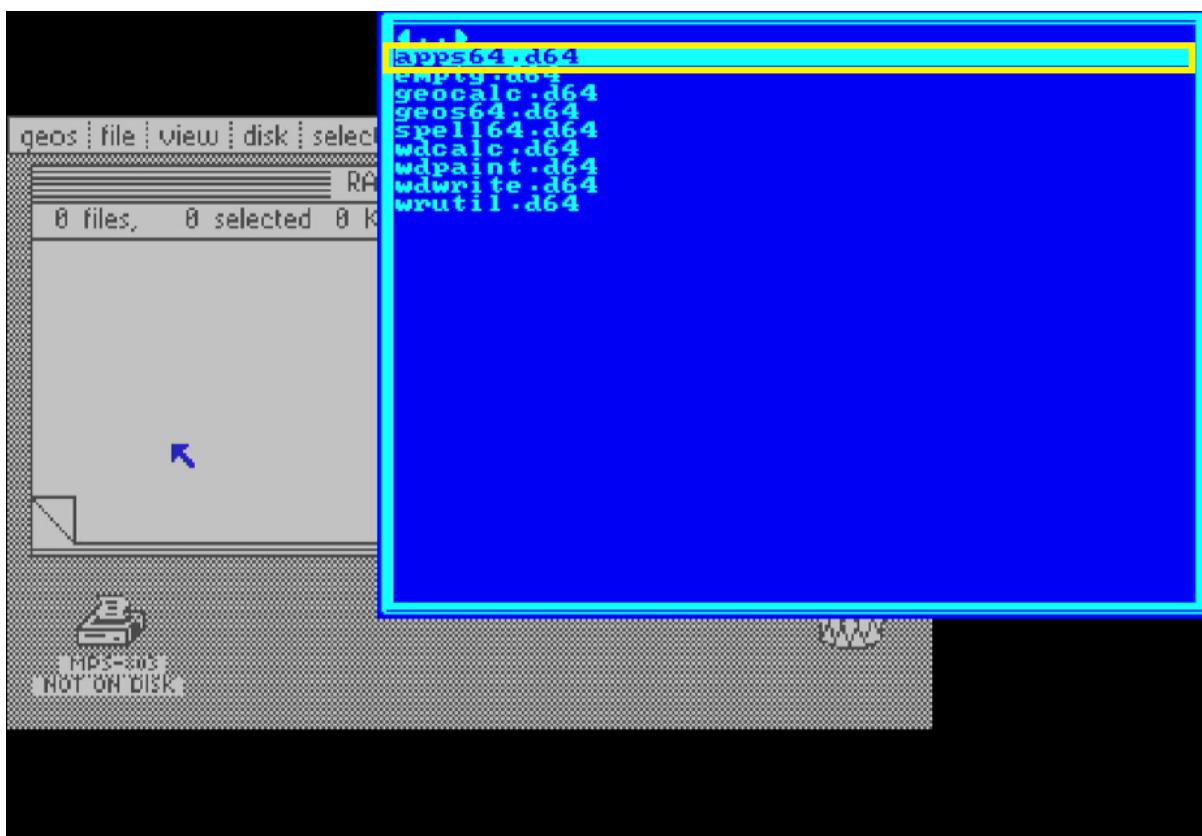
- At any time you can re-configure the device with "MEGA" + "I"

8. Initialize the REU virtual drive with "MEGA" + left "SHIFT" + "B"

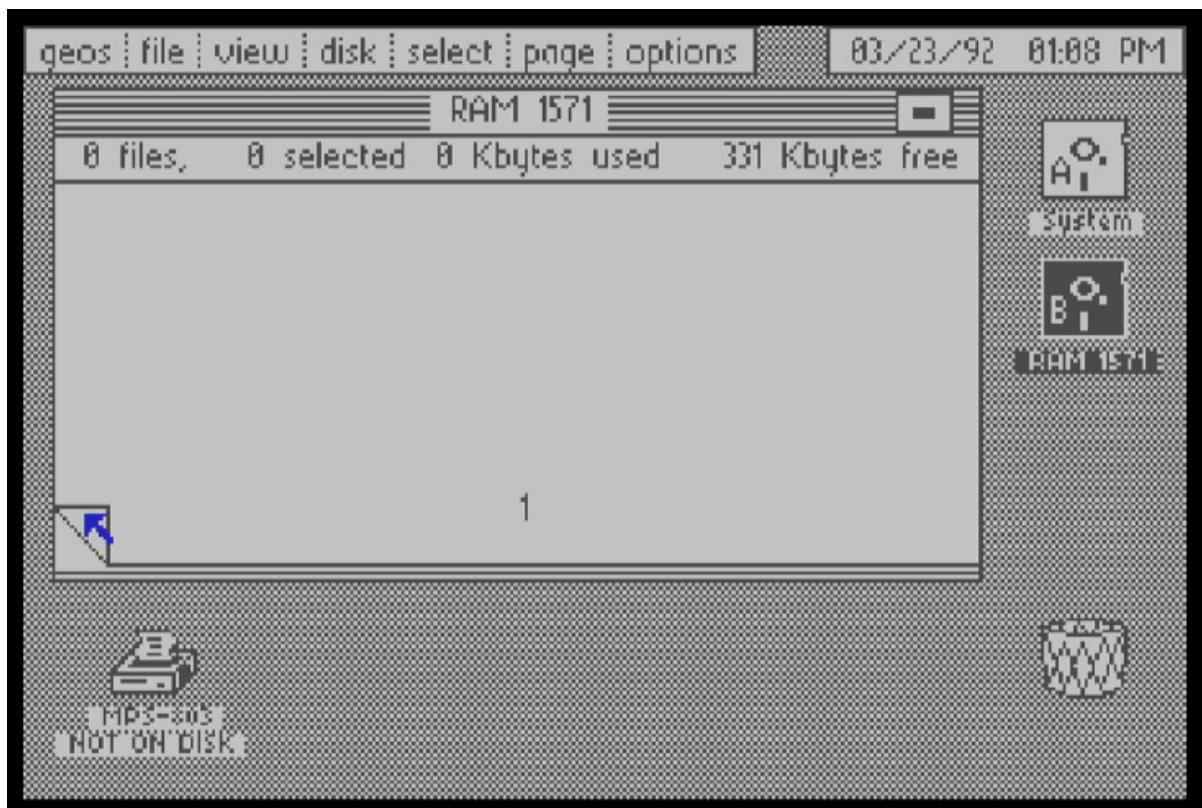


- We now have a REU ram drive called "RAM 1571" and we are going to copy the applications to it.

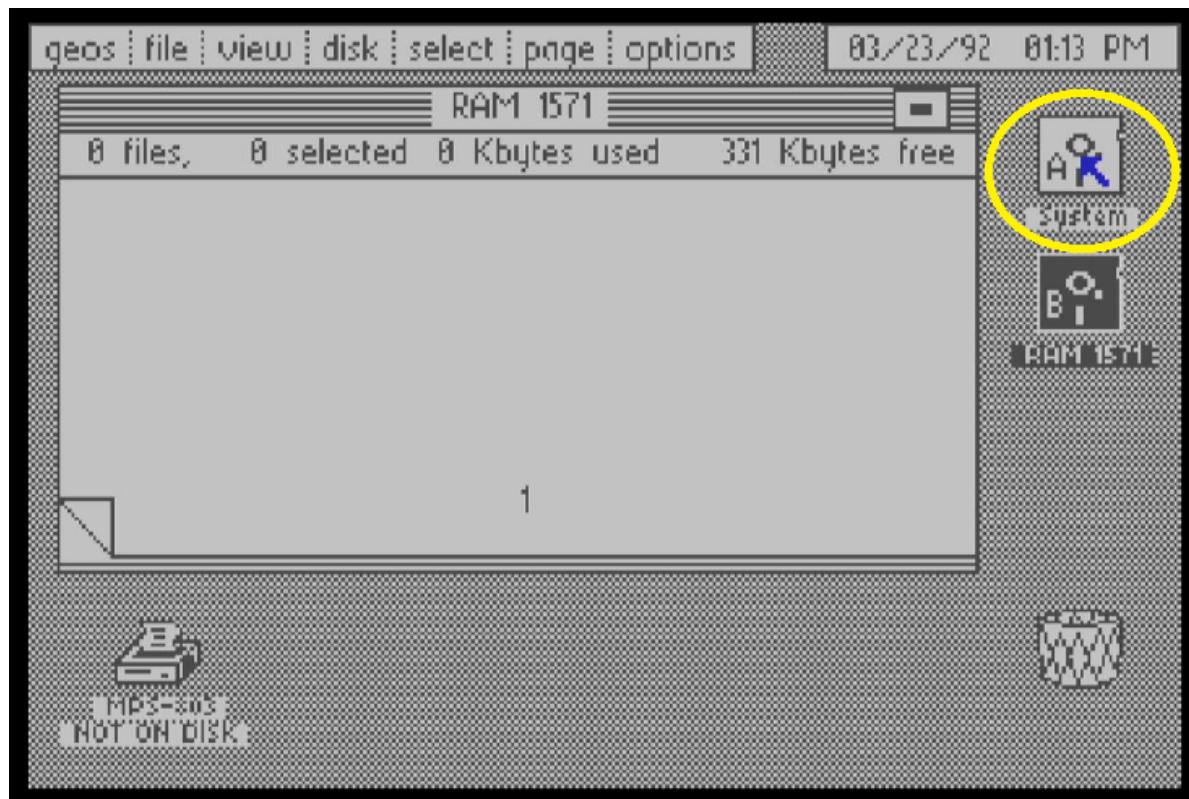
9. Mount the disk called "apps64.d64"



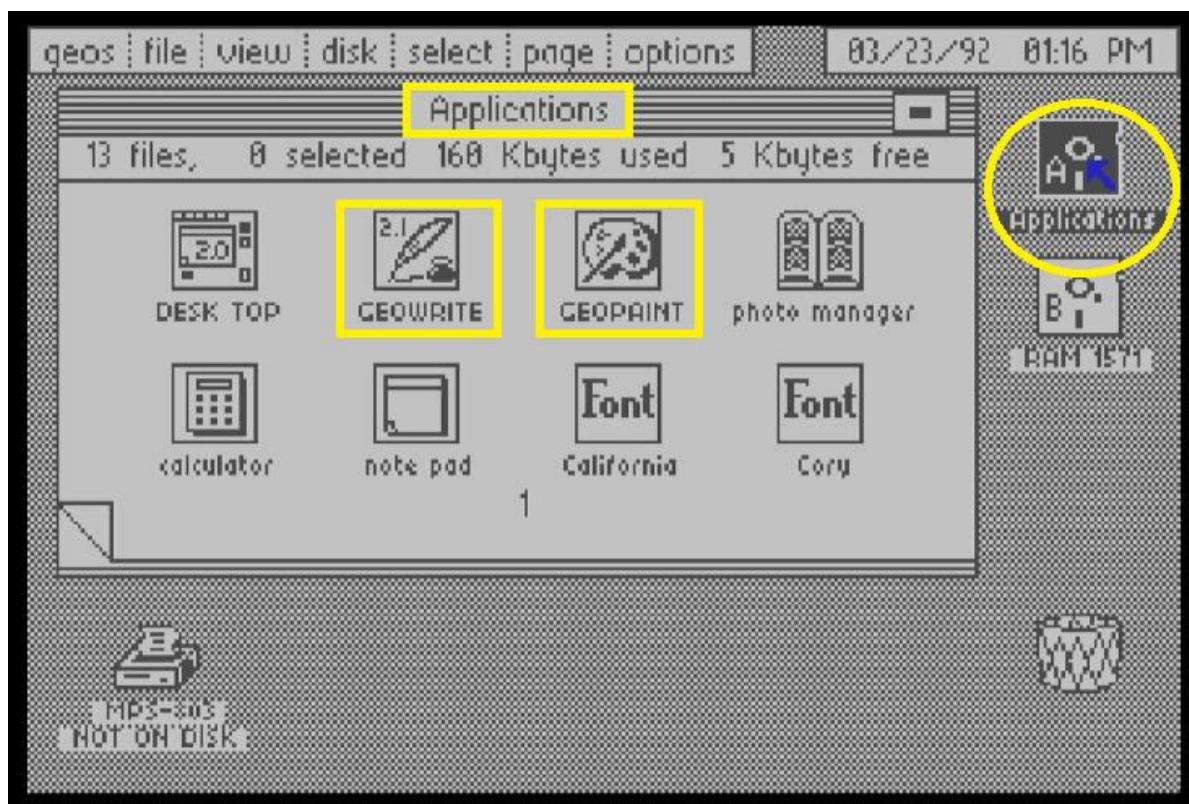
- No change is visible yet on the desktop.



10. Move the mouse pointer on to the "system" disk



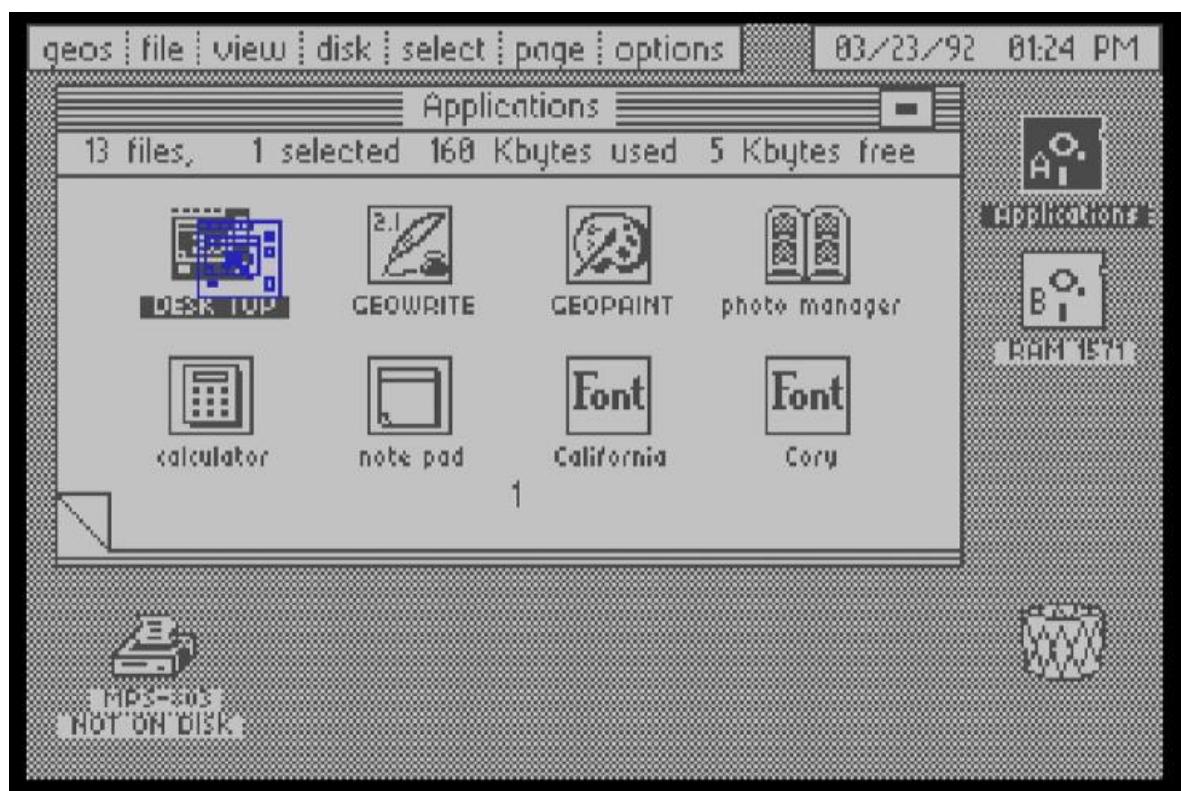
11. left click on the "system" disk, it will switch to "Applications" disk.



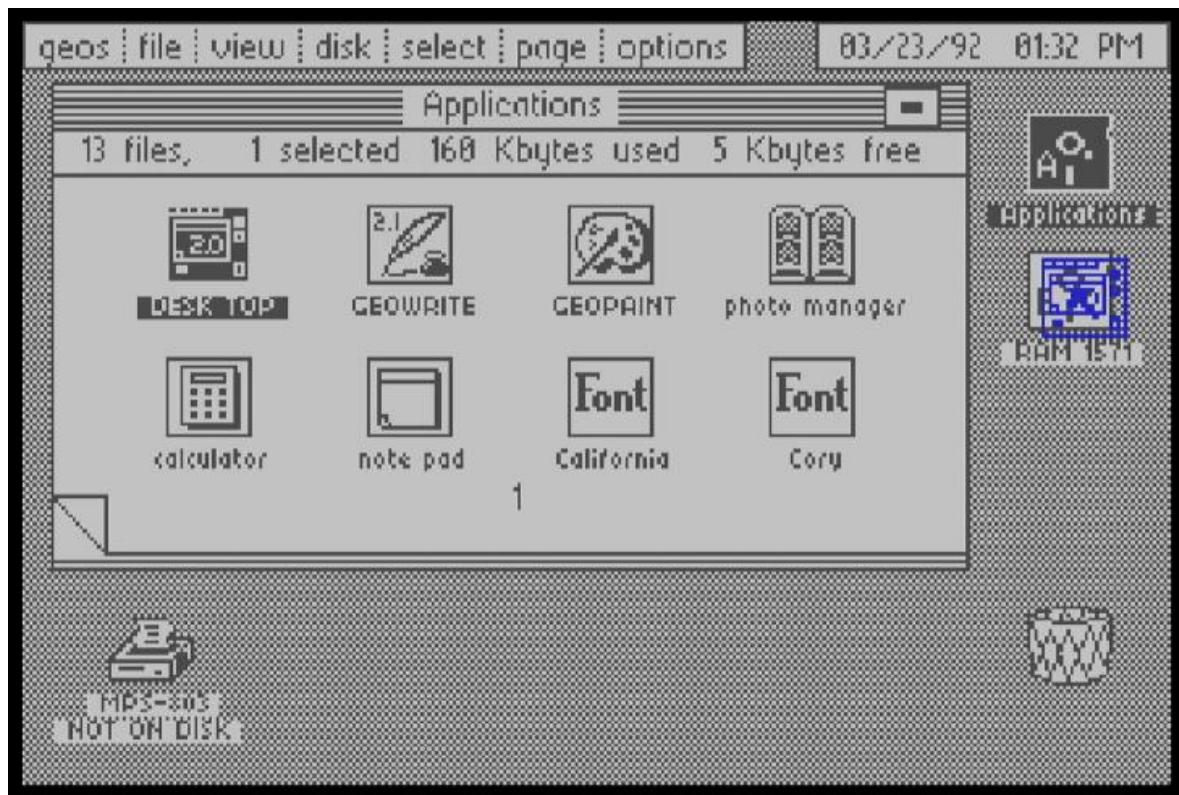
12. left click once on "DESK TOP" to select it.



13. Left click again on "DESK TOP" : A blue copy of the desktop icon is highlighted.

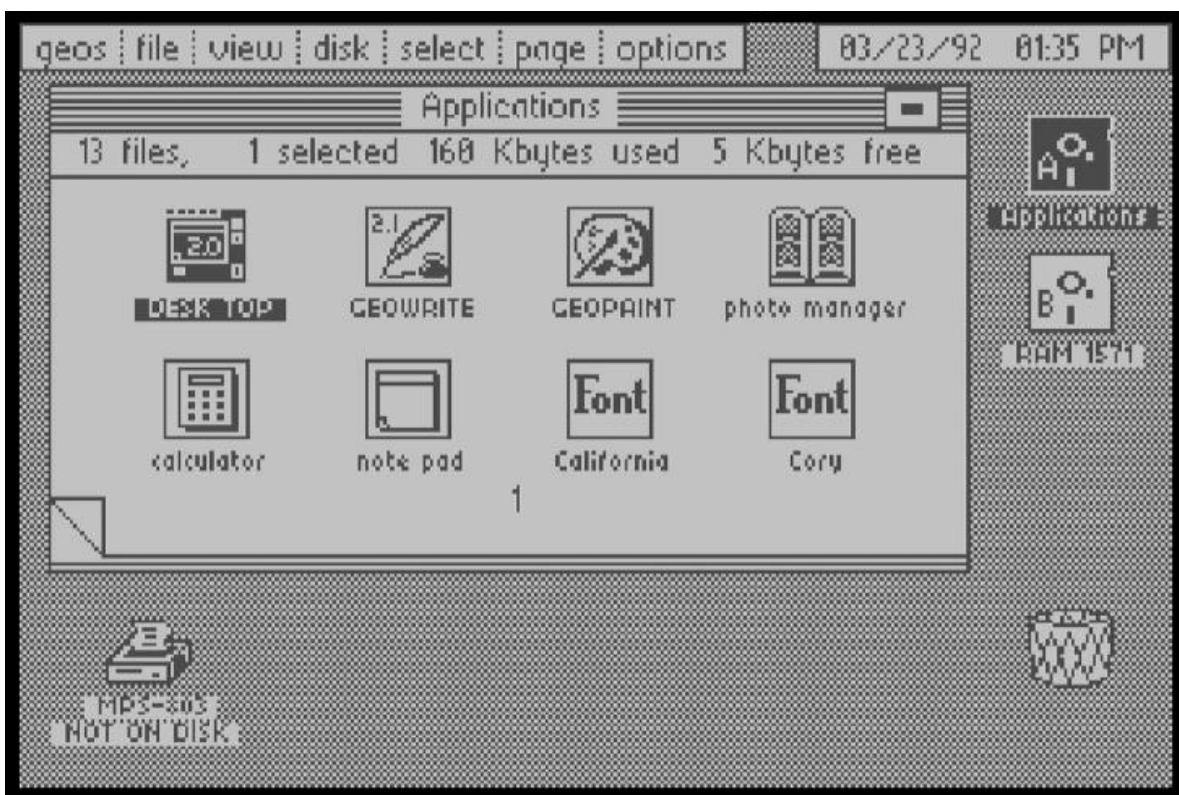


14. Drag the blue icon on to "RAM 1571"

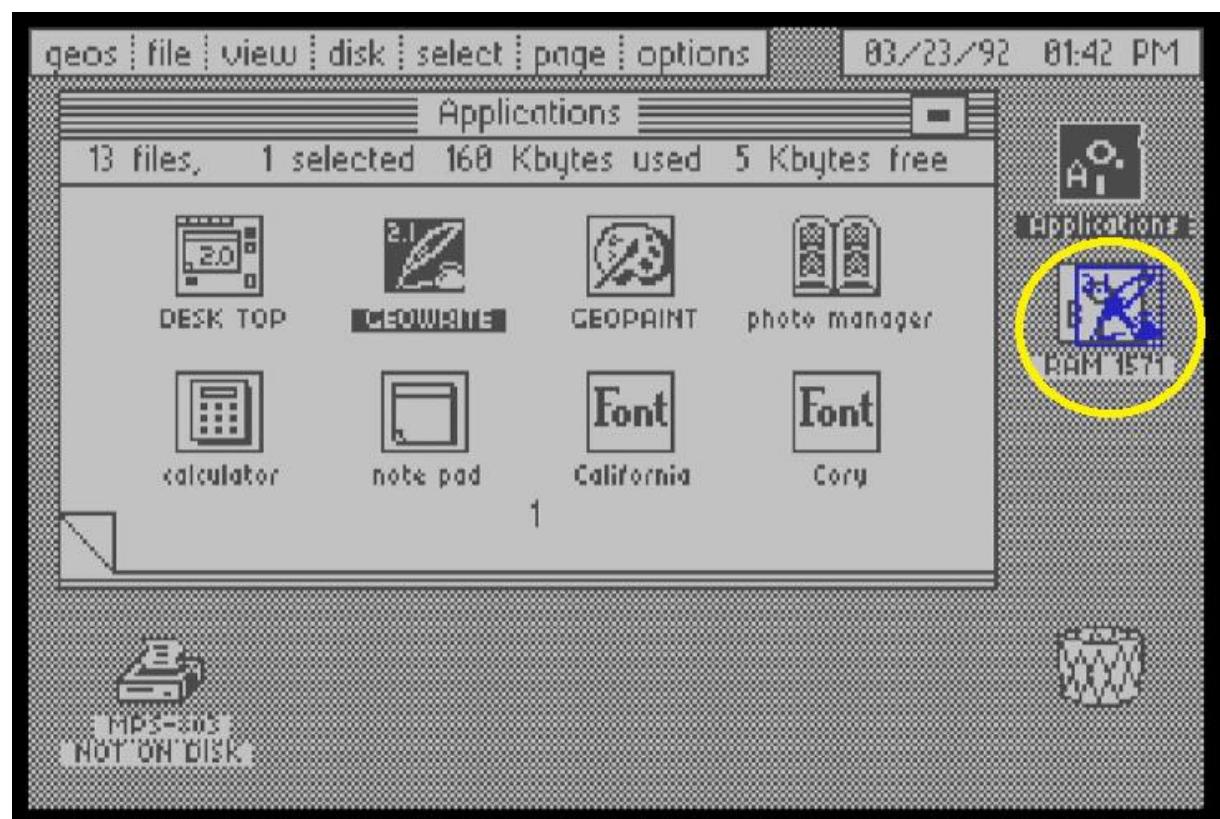


15. then when pointer is on "RAM 1571" disk, left click to trigger the copy to the REU drive

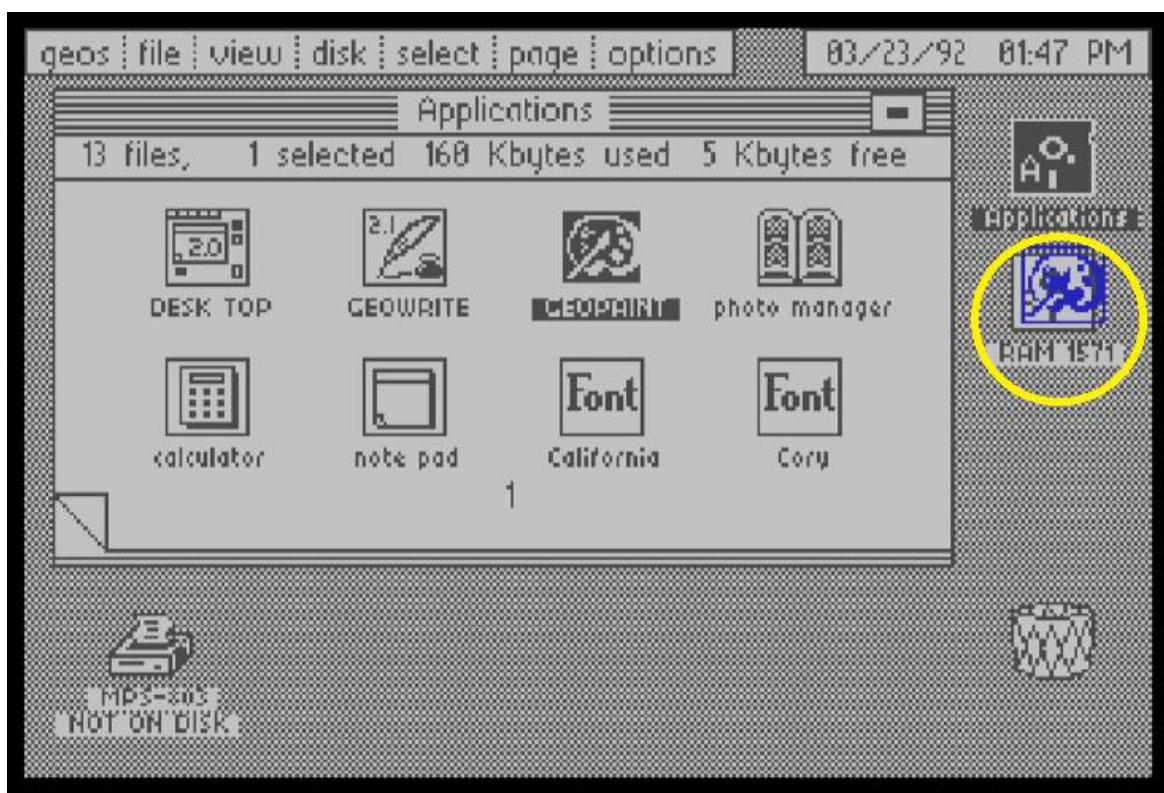
- The MEGA65 drive led will start to flash. wait until the LED stops flashing before moving forward.



16. Proceed the exact same way to copy "GEOWRITE" to the REU drive.



17. Proceed the exact same way to copy "GEOPAINT" to the REU drive.

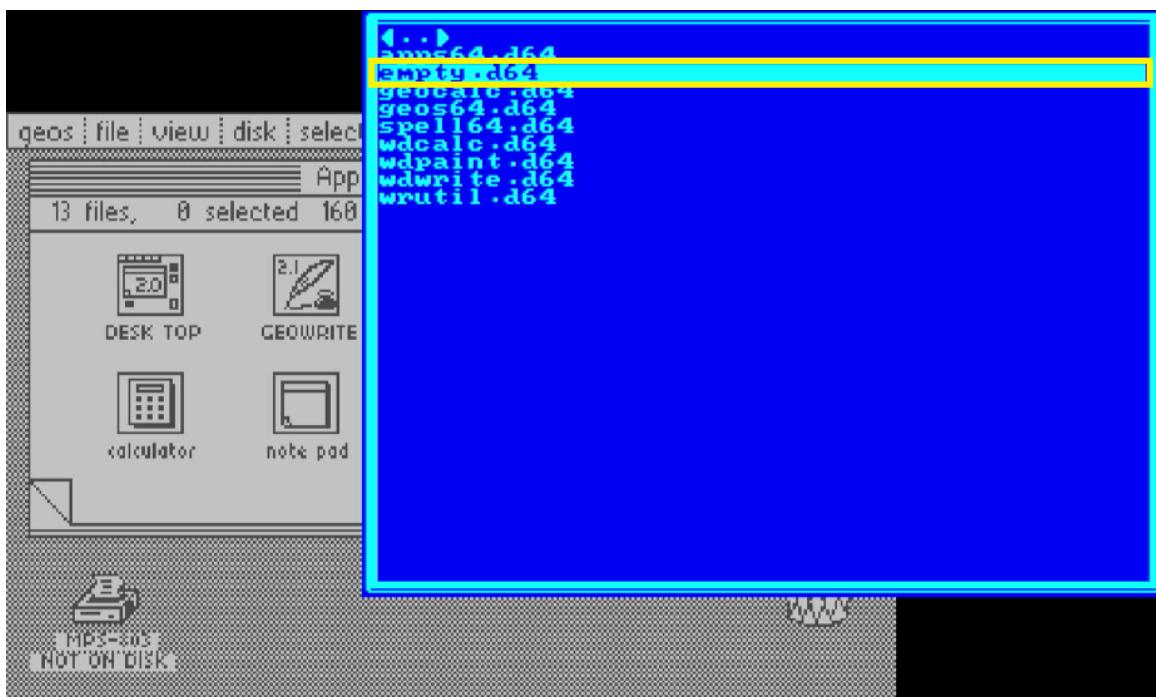


Note :

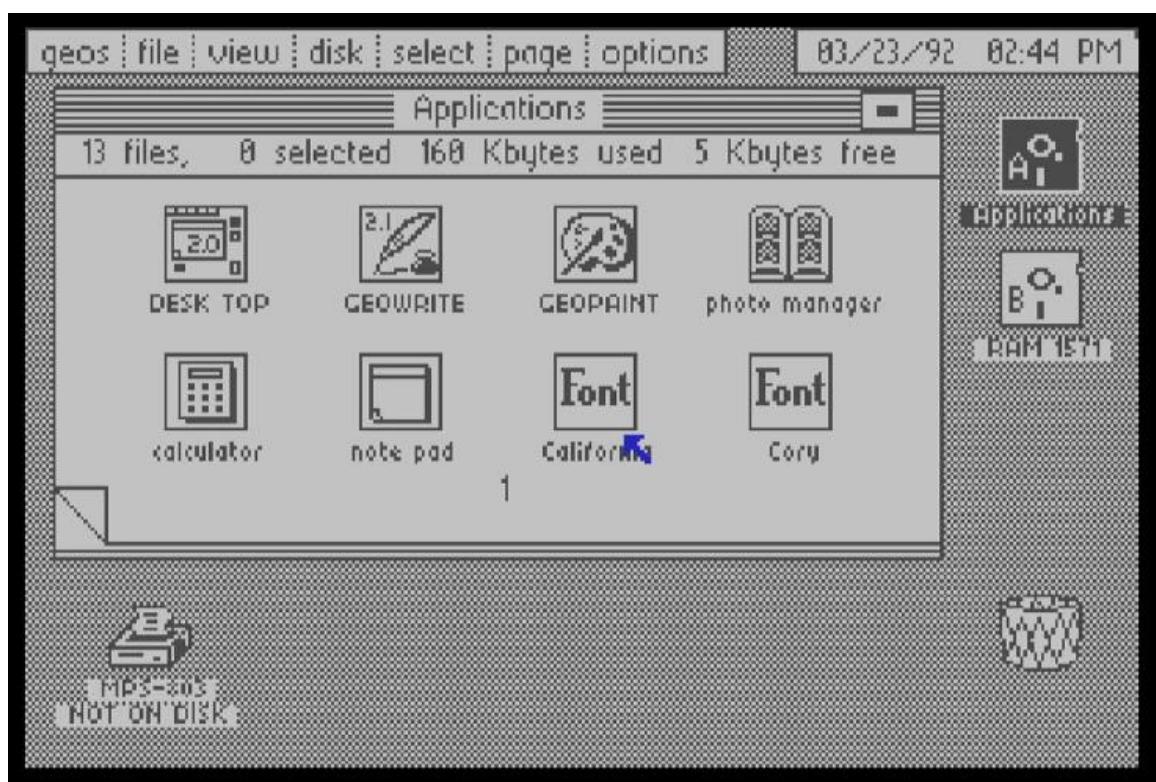
- "DESK TOP" is copied in order to avoid having to re-mount "geos64.d64" when we exit "GEOWRITE" or "GEOPAINT".
- At this stage we could start using the applications from the REU drive

Now we are going to create our own floppy and copy the applications from the REU drive to it.

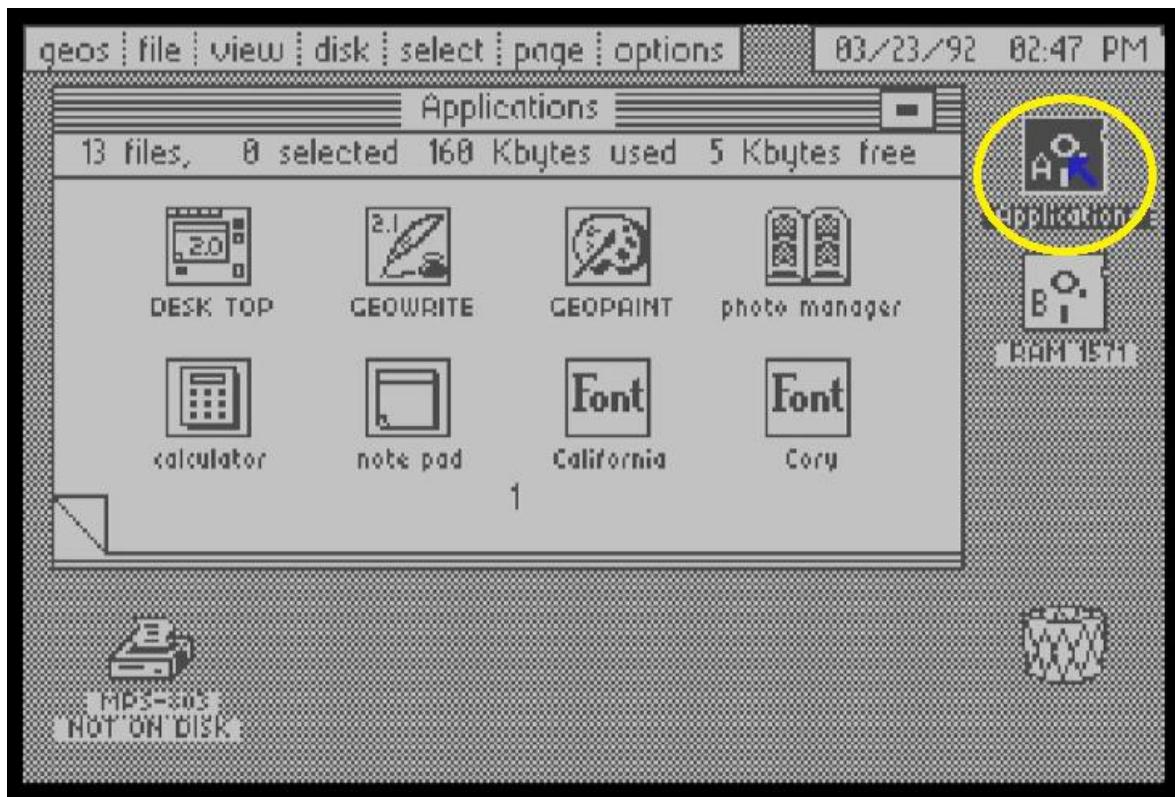
18. Mount "empty.d64" disk



- No change is visible yet on the desktop.



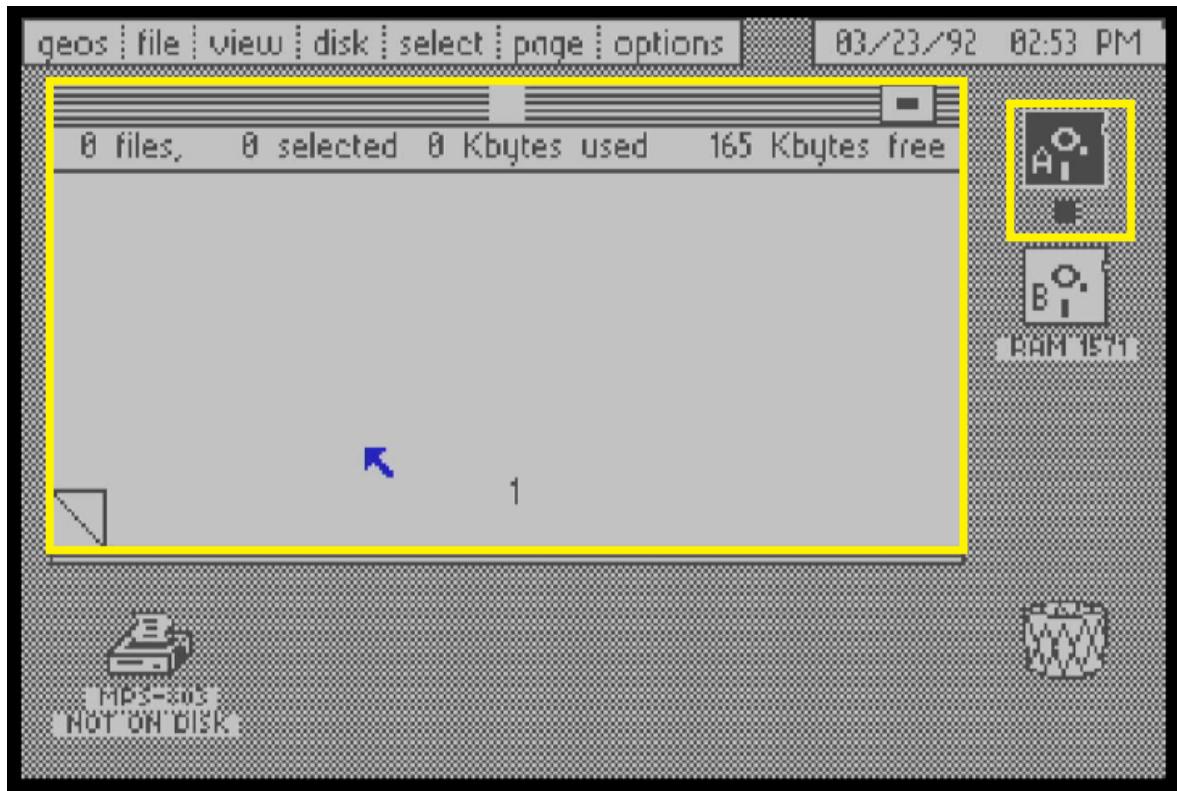
19. Left click on "Applications" disk



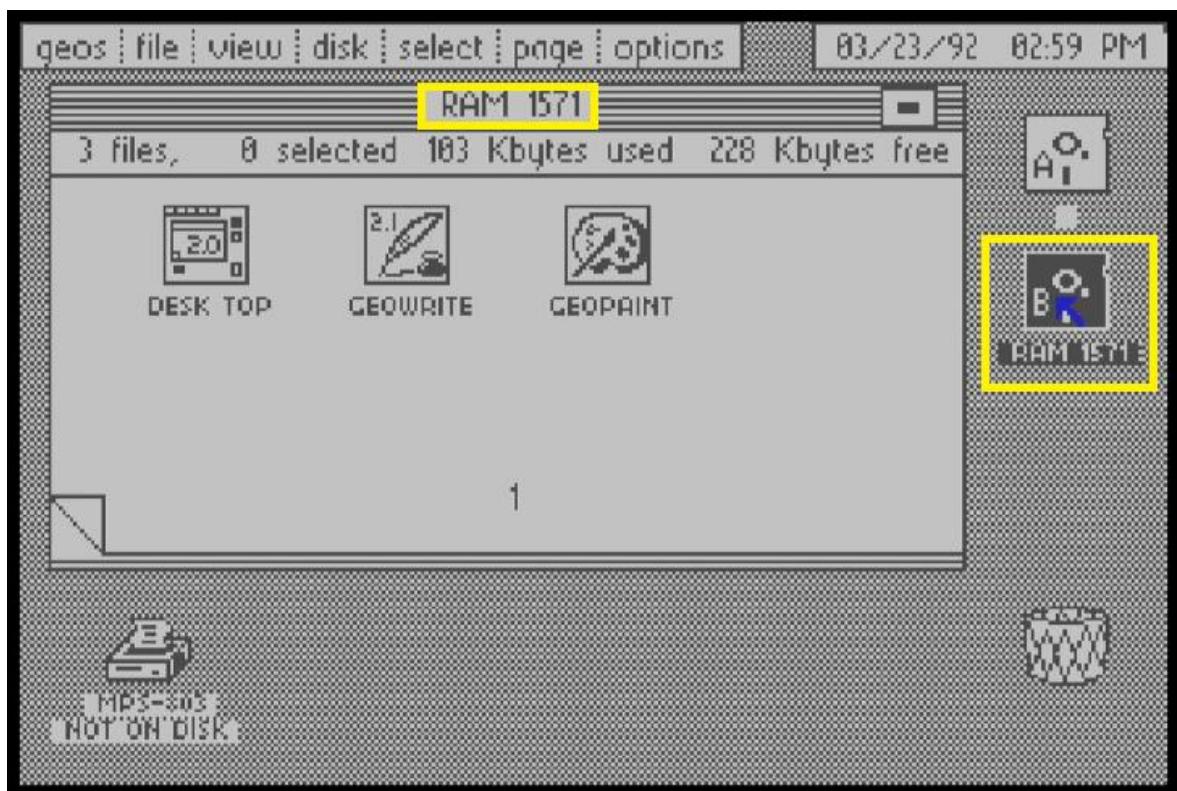
20. GEOS discovers the mounted empty disk and asks to confirm you want to convert it to GEOS format.



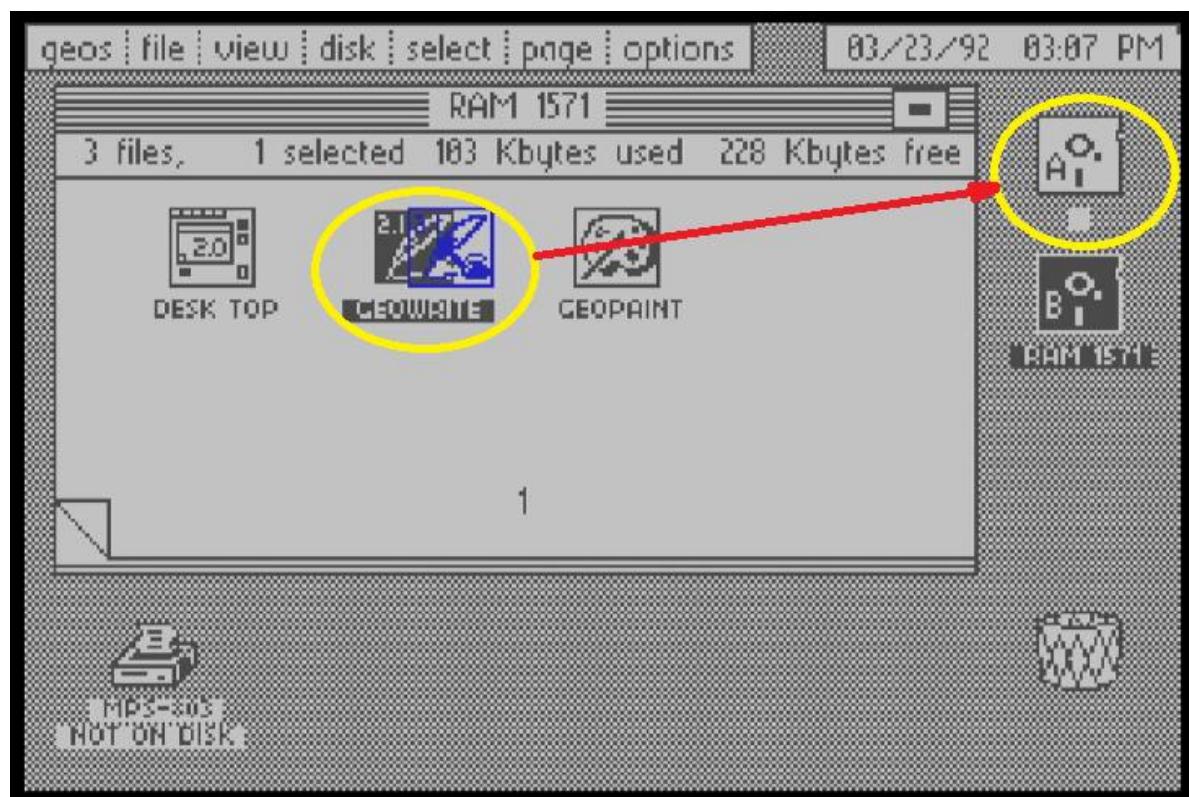
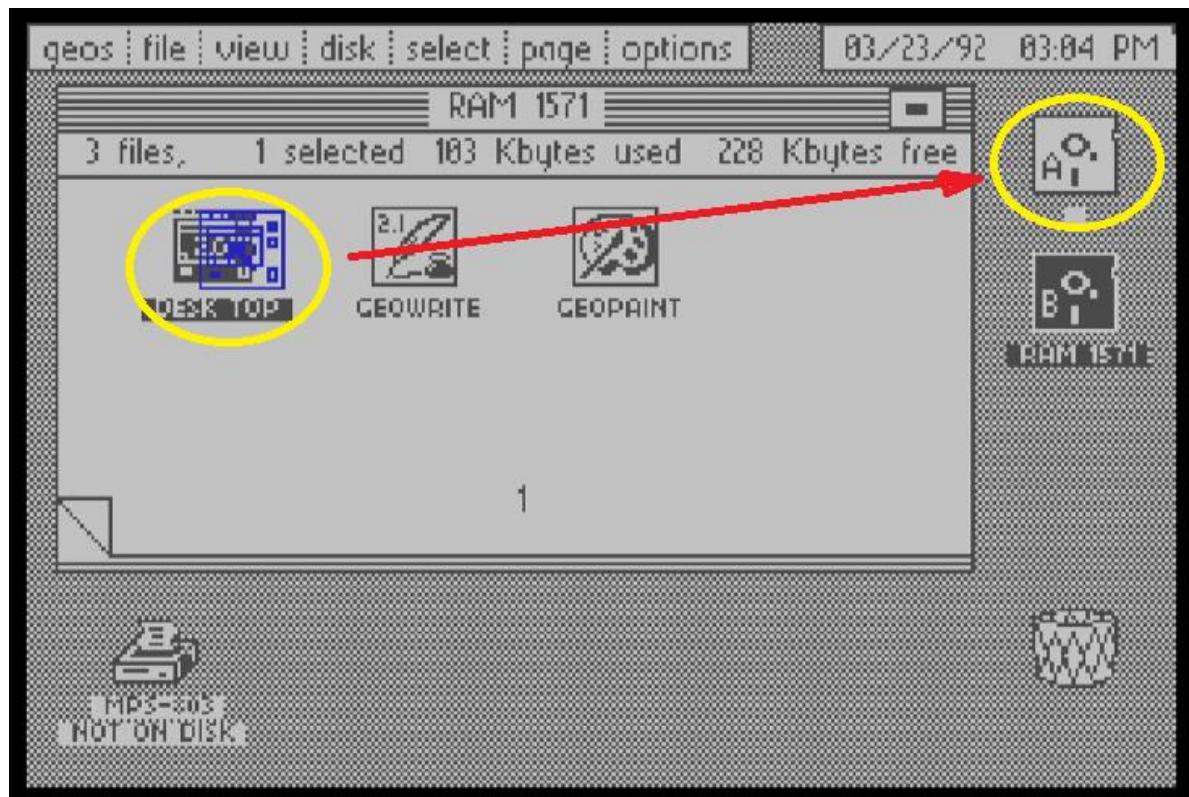
21. Left click on "YES", we now have an empty disk on which we are going to copy the content from REU drive

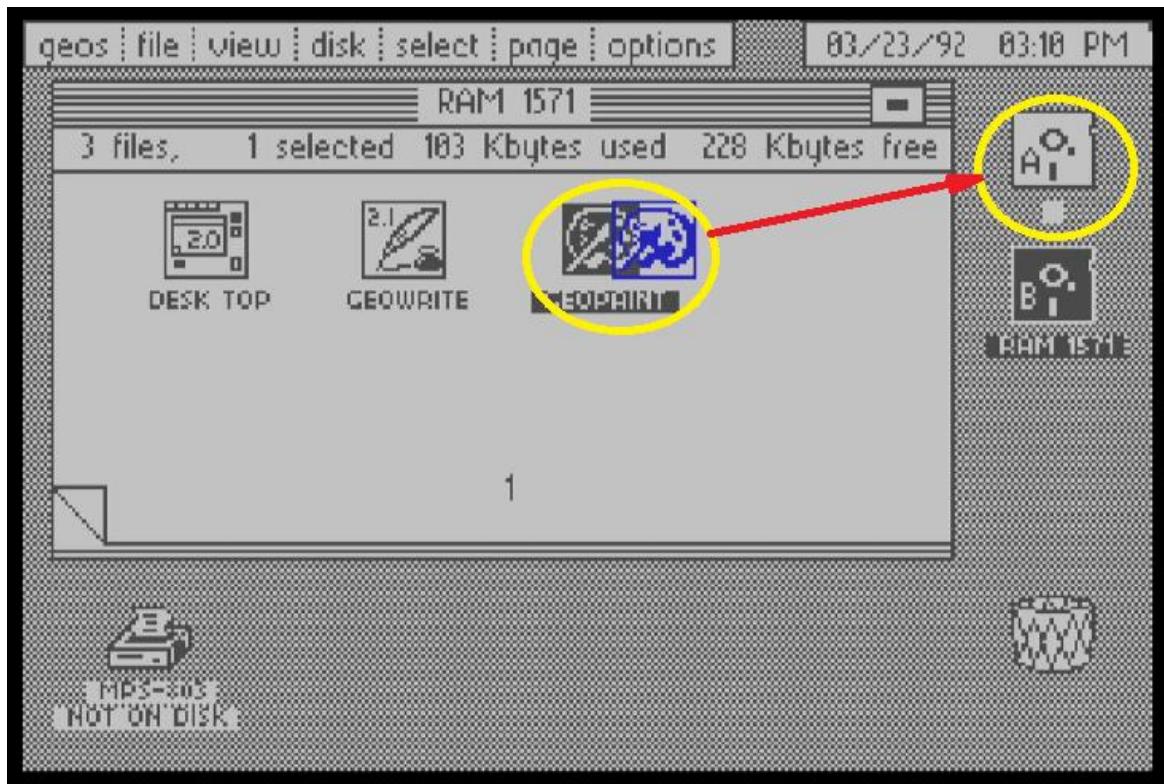


22. Left click on "RAM 1571" drive B to access its content



23. Repeat steps 12 to 15 to copy "DESK TOP", "GEOWRITE", "GEOPAINT" from "RAM 1571" to drive "DISK A"

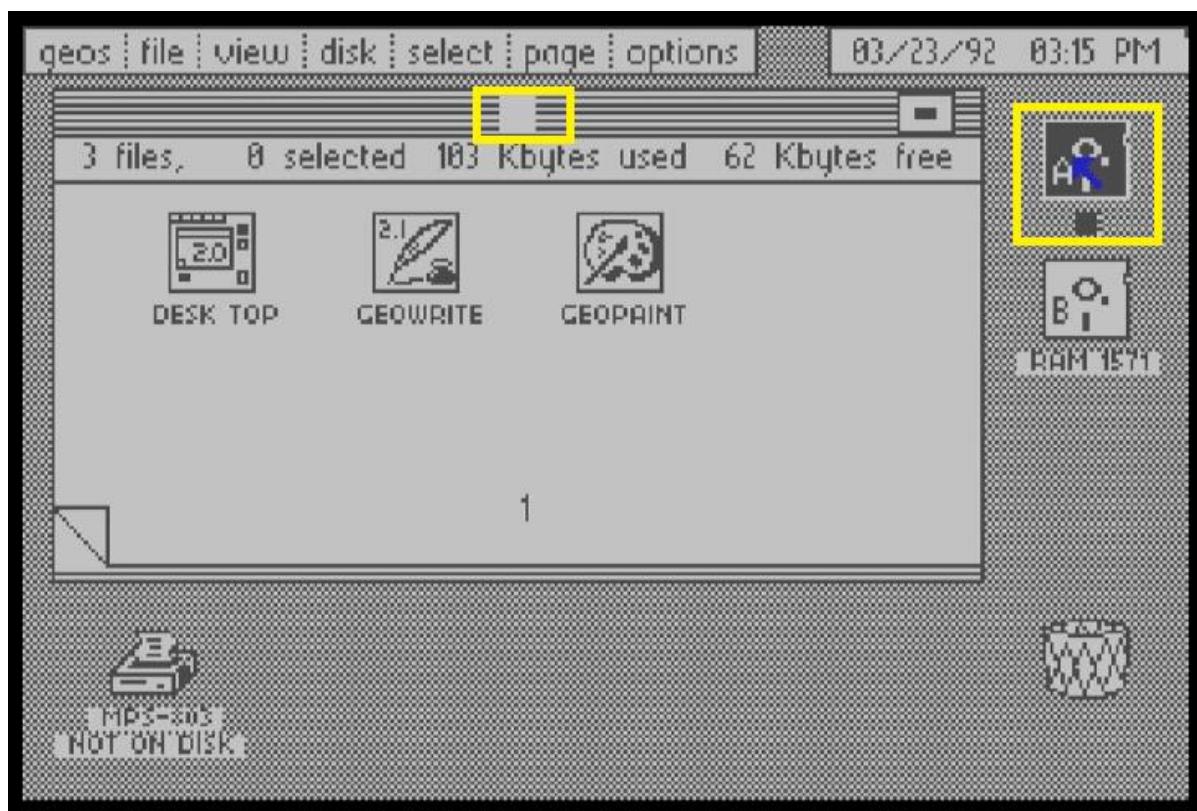




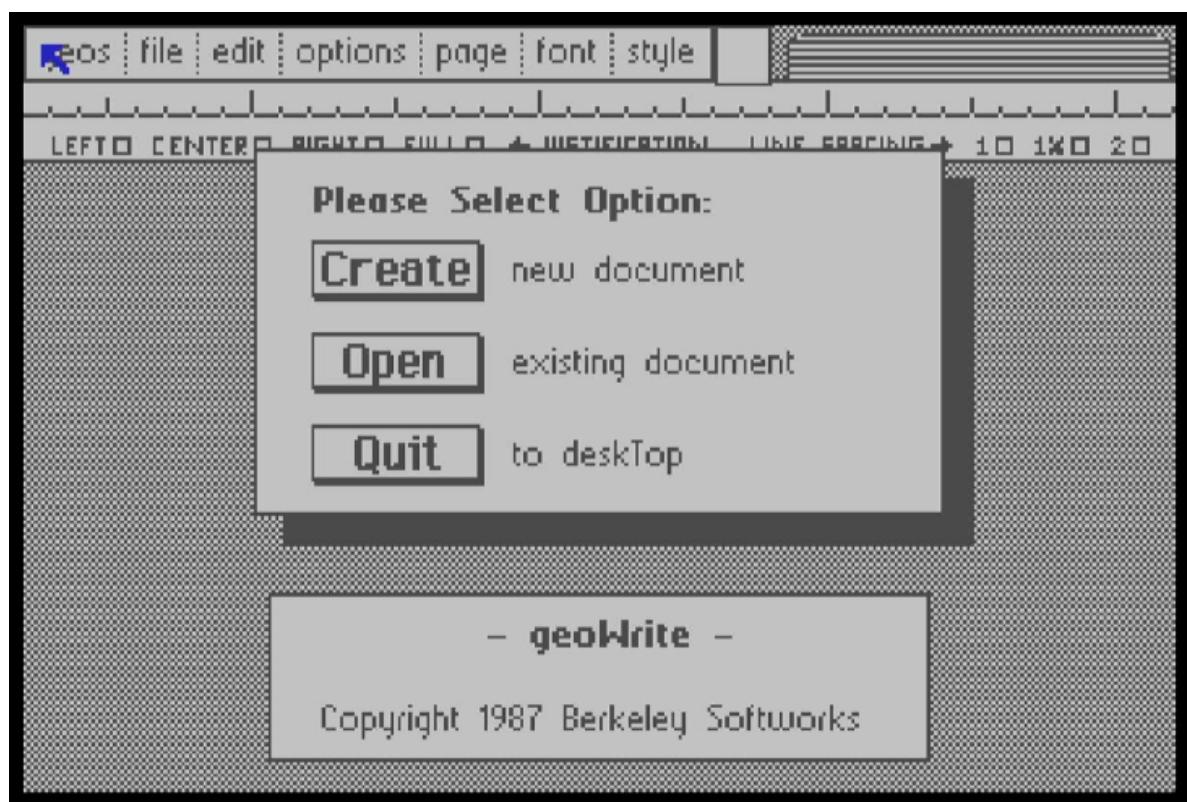
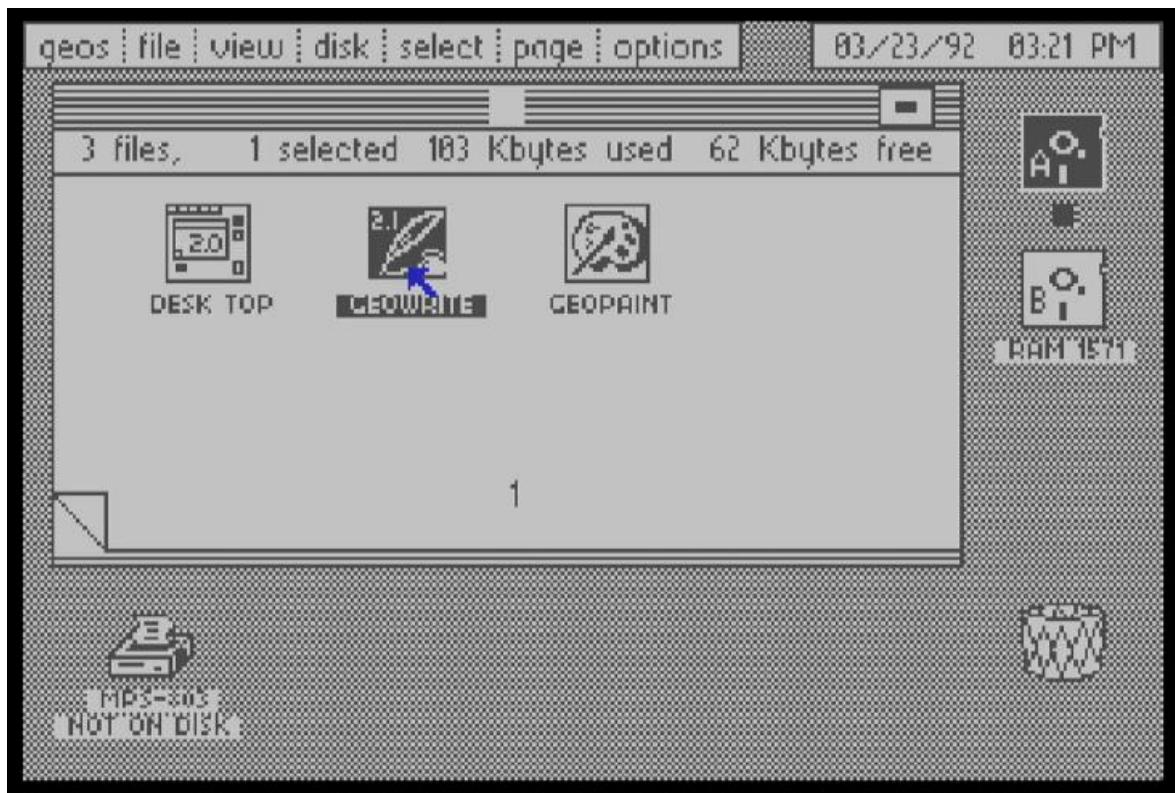
- At this stage we are ready to work with GEOS applications from DISK A

Work with GEOWRITE

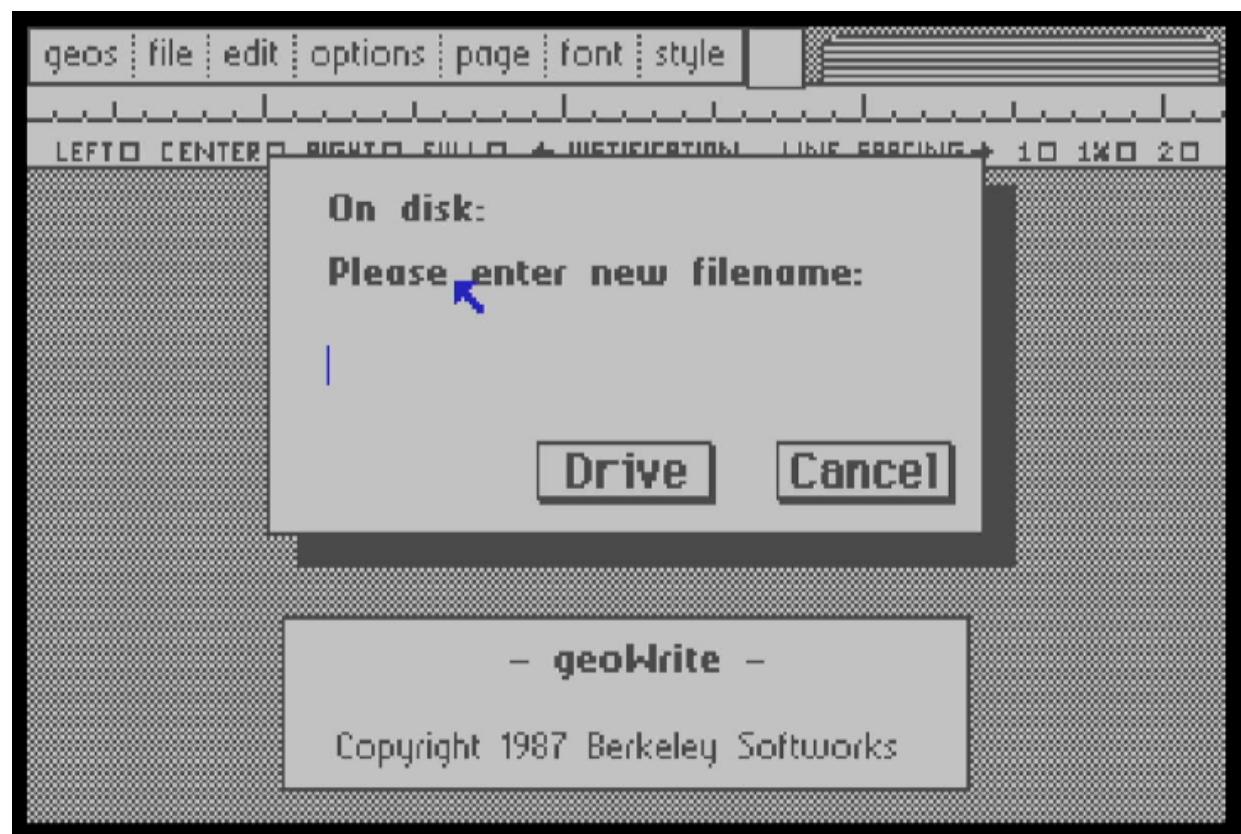
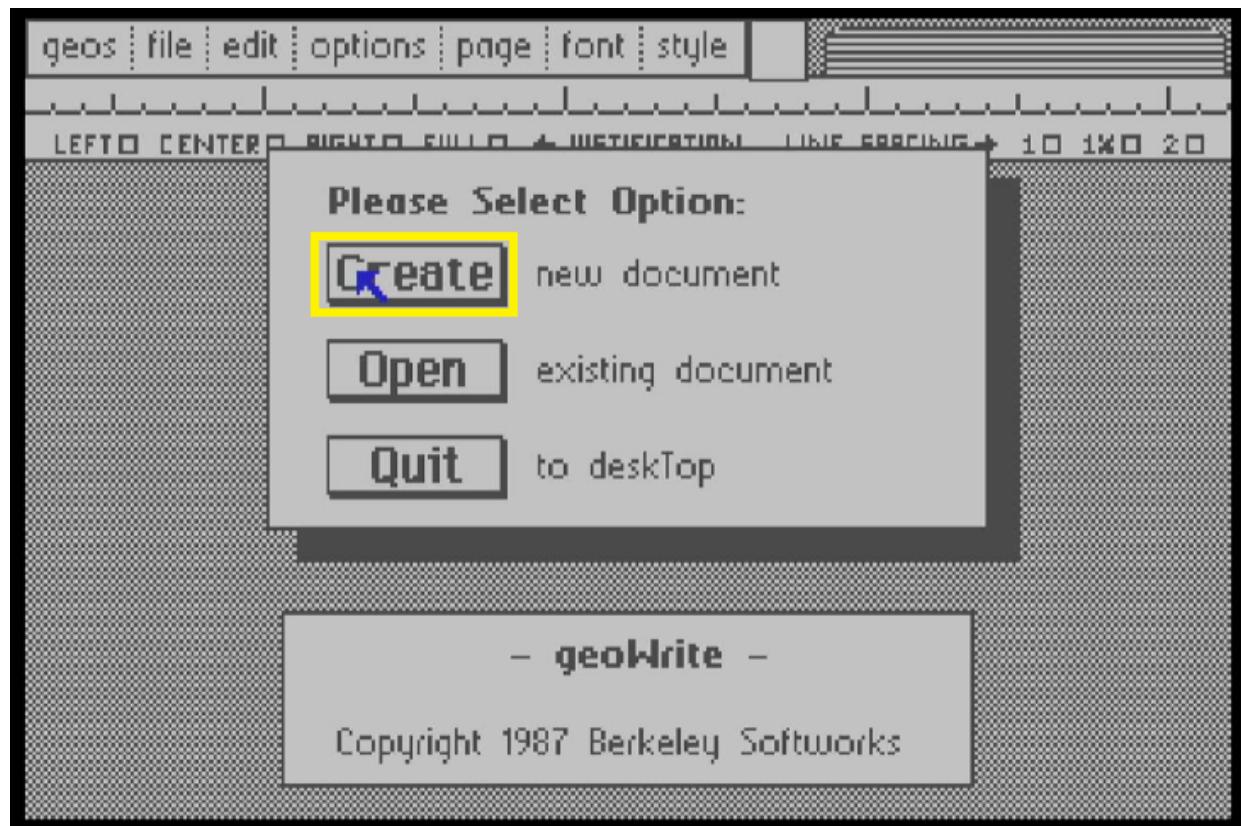
24. Left click on "DISK A"



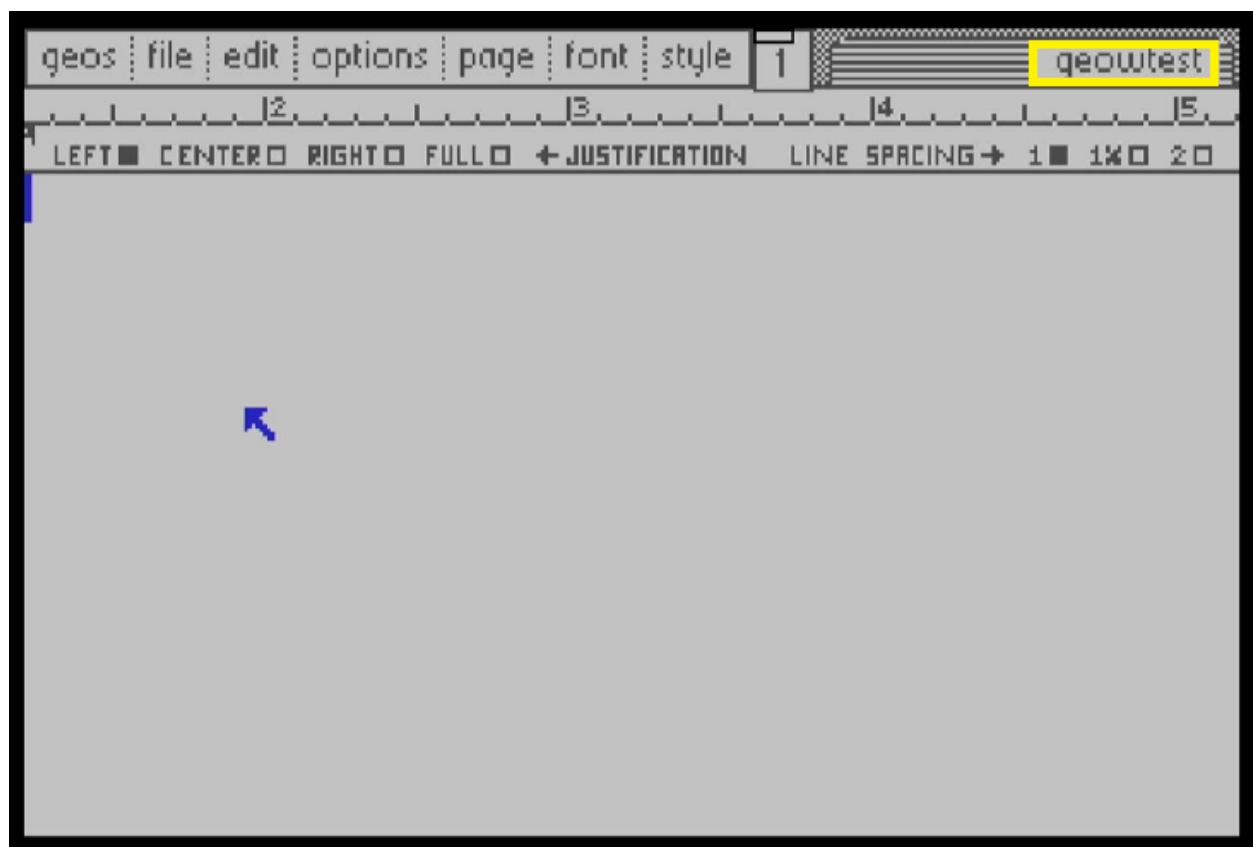
25. Double left click on "GEOWRITE" to launch GEOWRITE



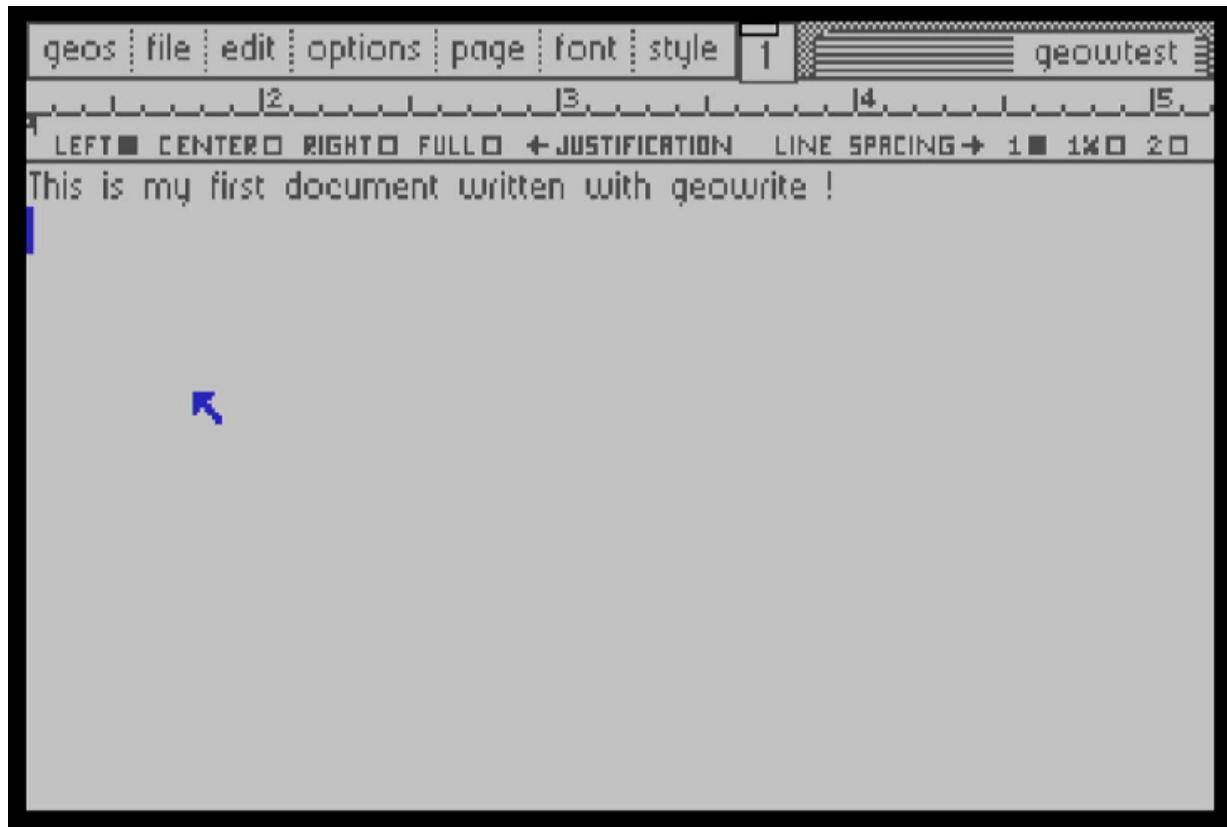
26. Left click on "CREATE" to create a new document



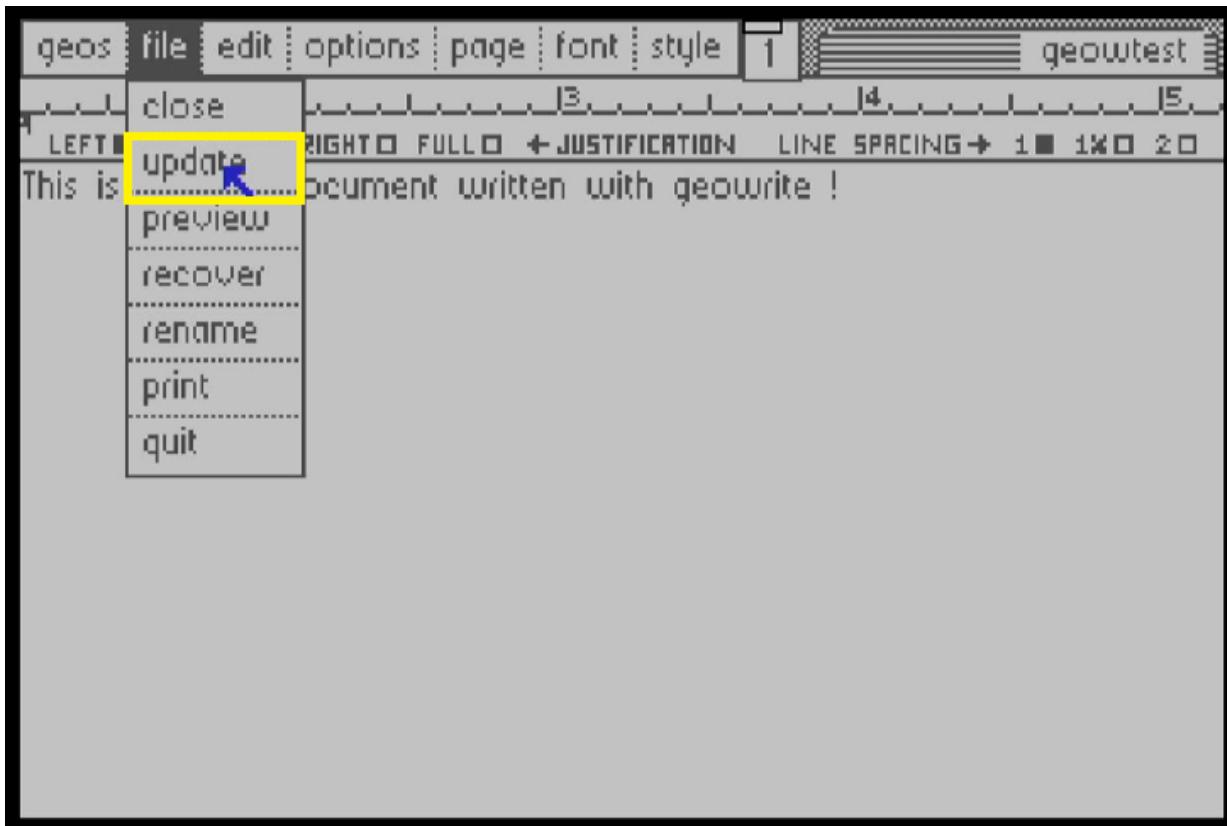
27. Enter the name of your document "geowtest" and hit "ENTER"



28. Type in some text

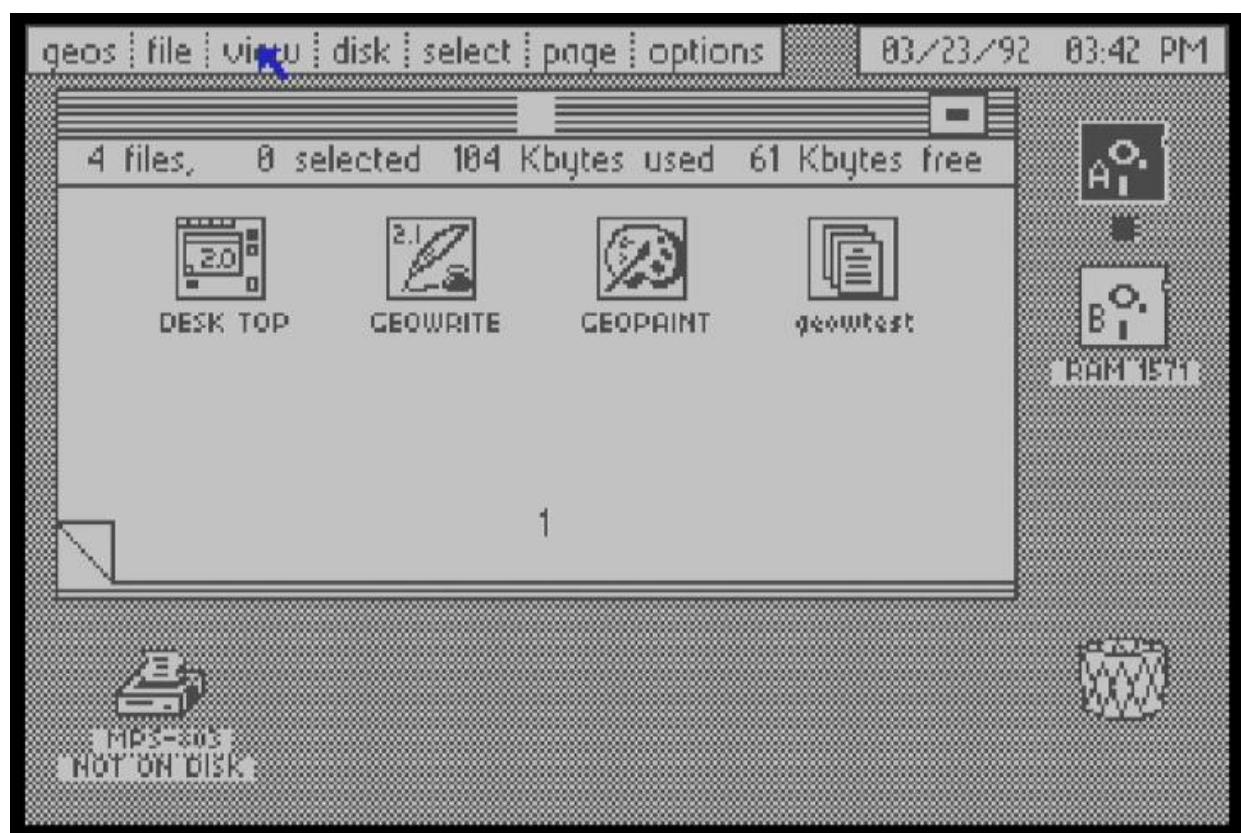
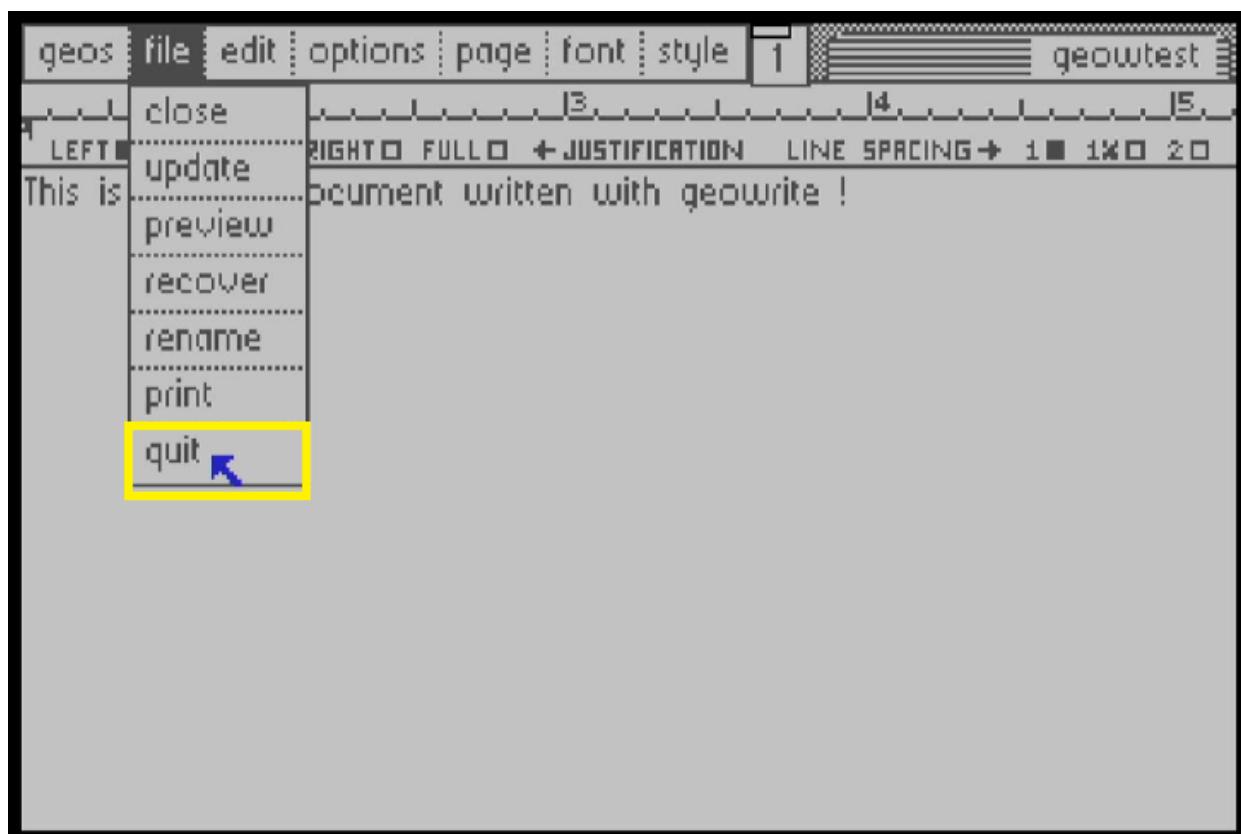


29. Left click on "file" -> "update" in order to update your file on disk with its new content.

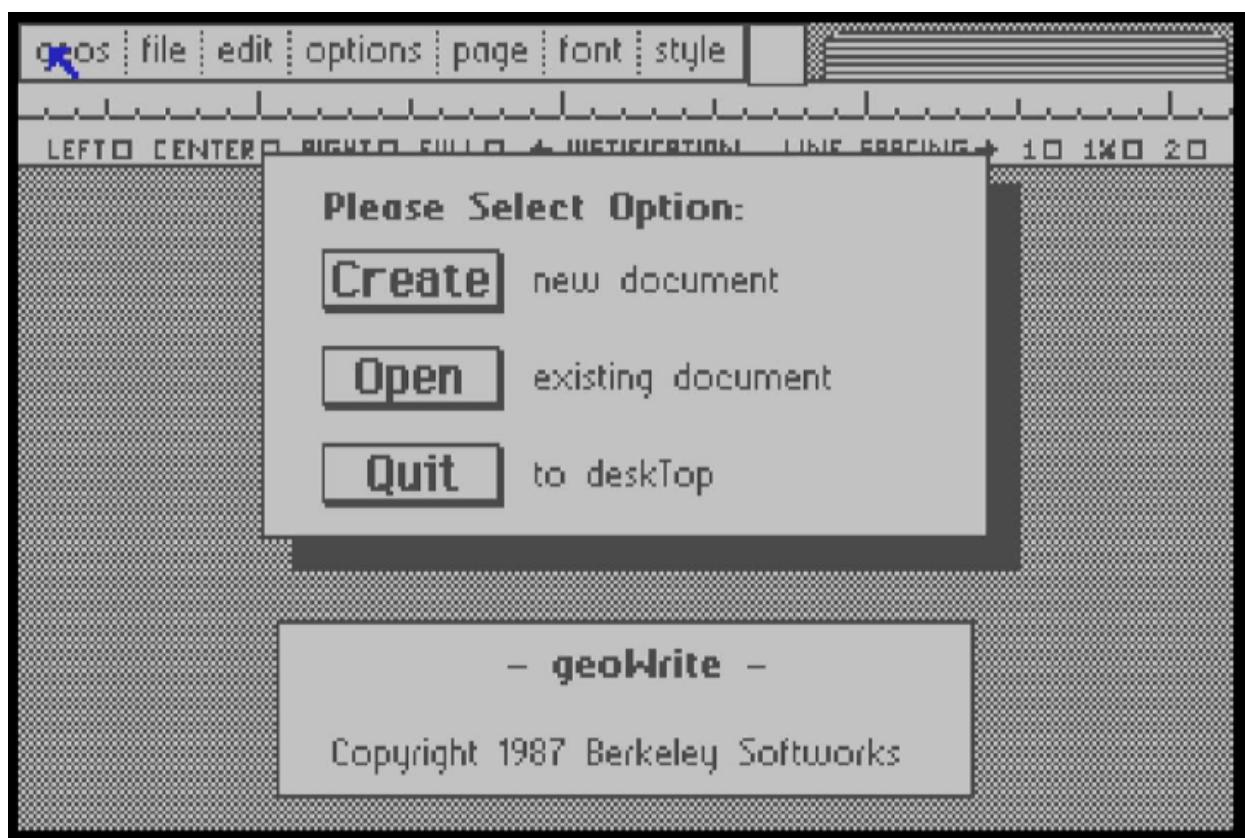
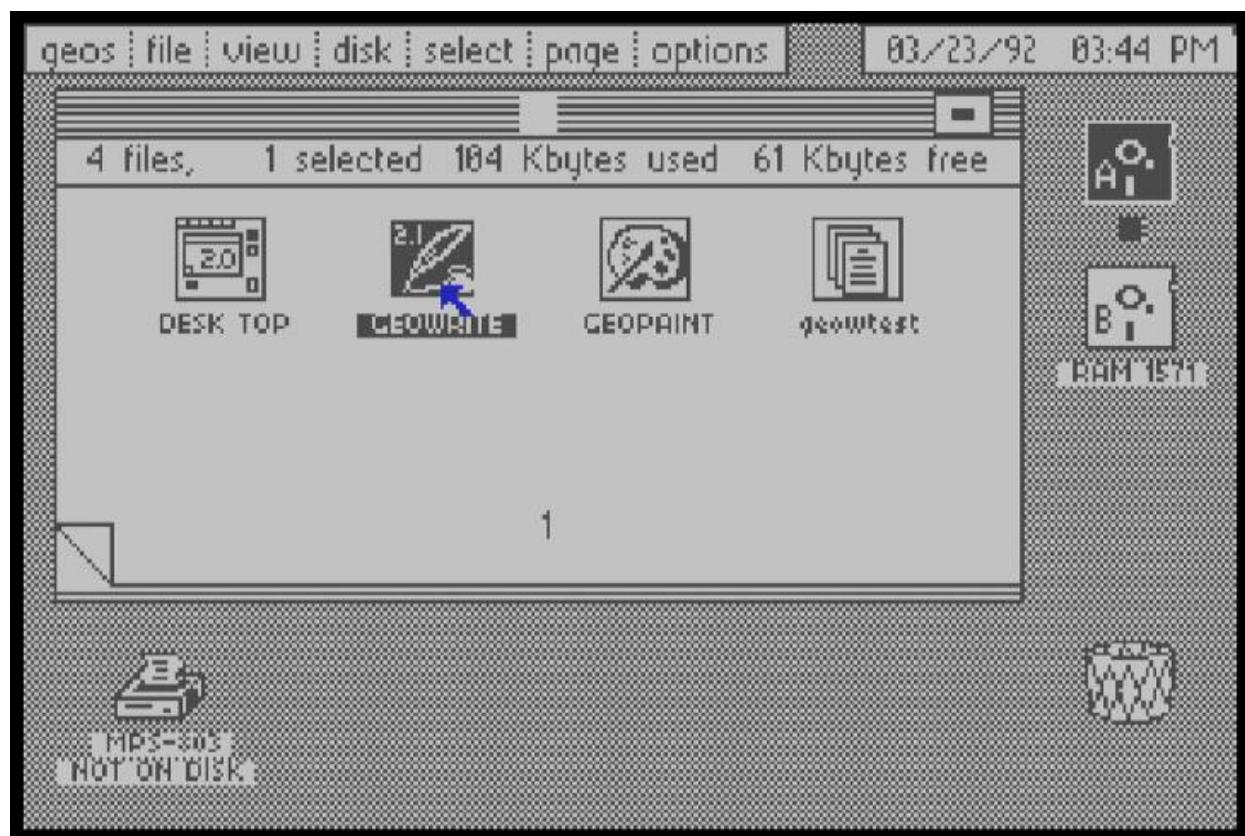


- wait until the MEGA65 drive LED stops flashing before moving forward

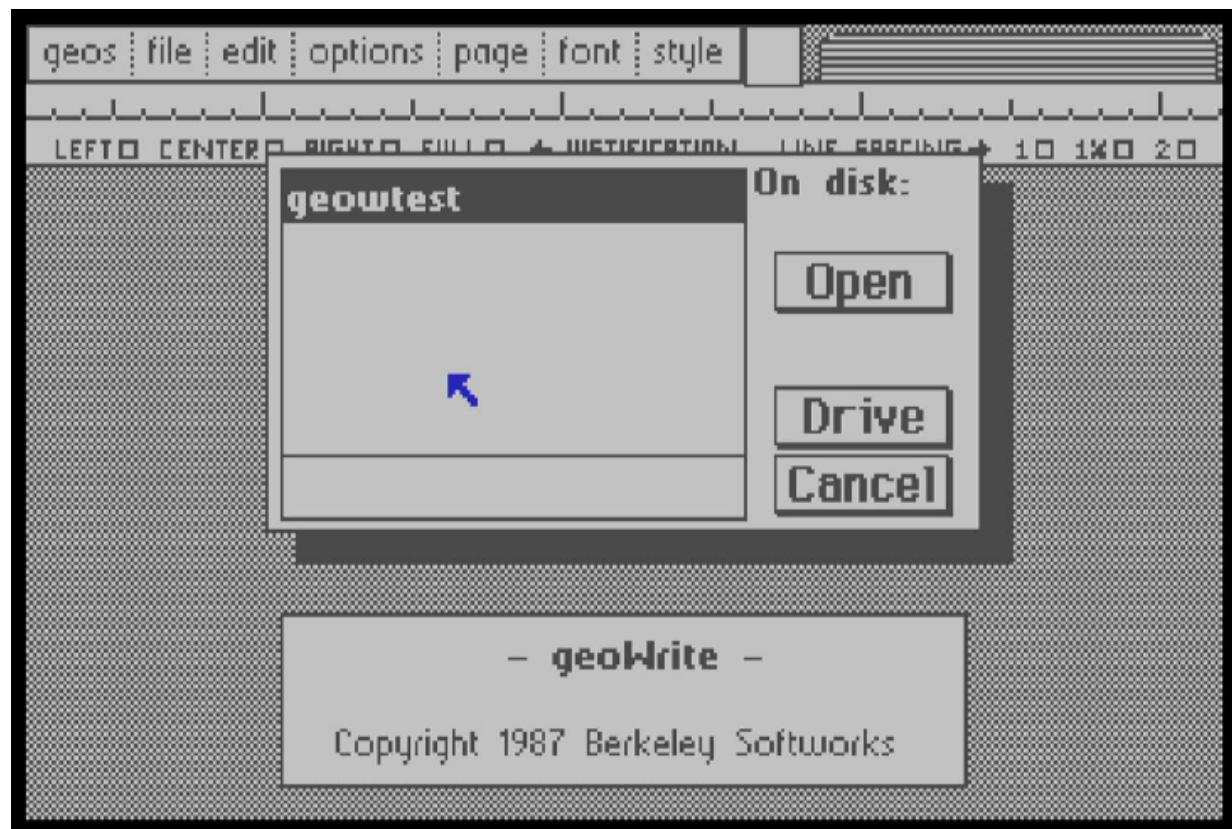
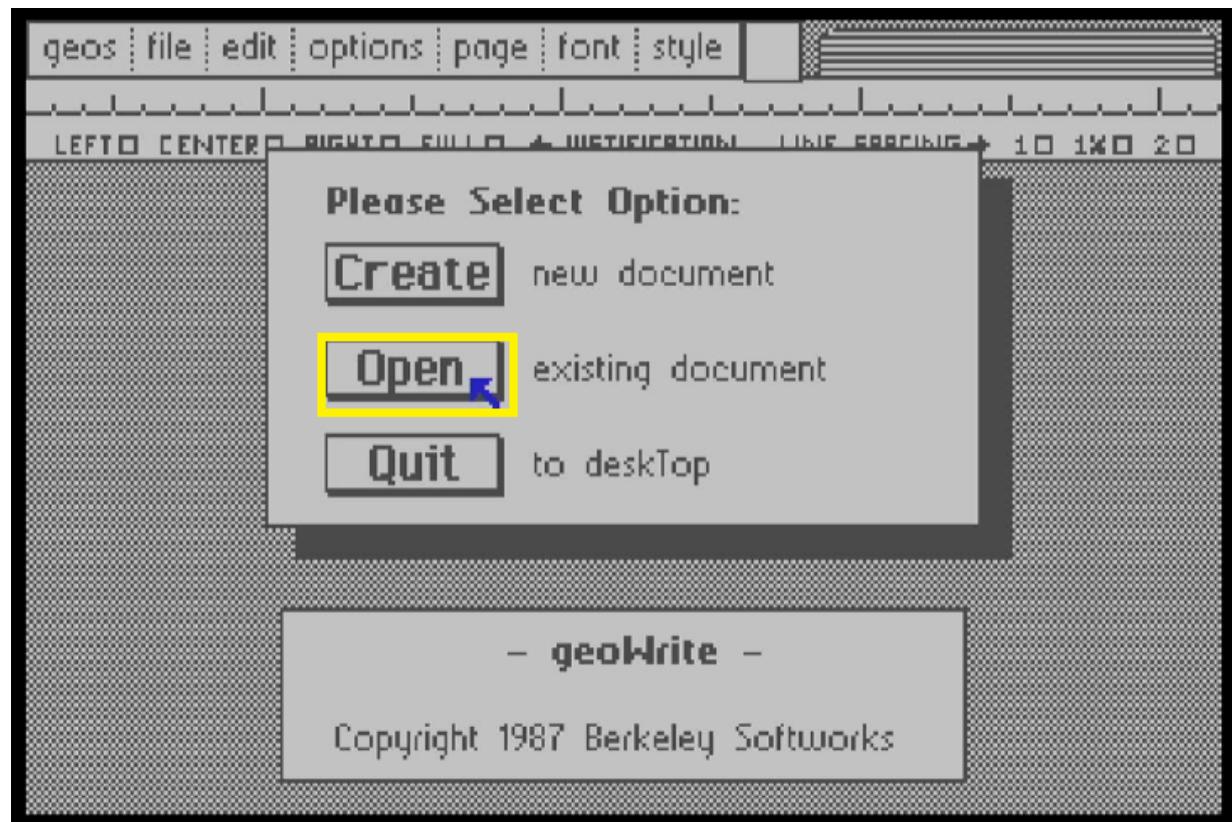
30. Left click on "file" -> "quit" to exit GEOWRITE



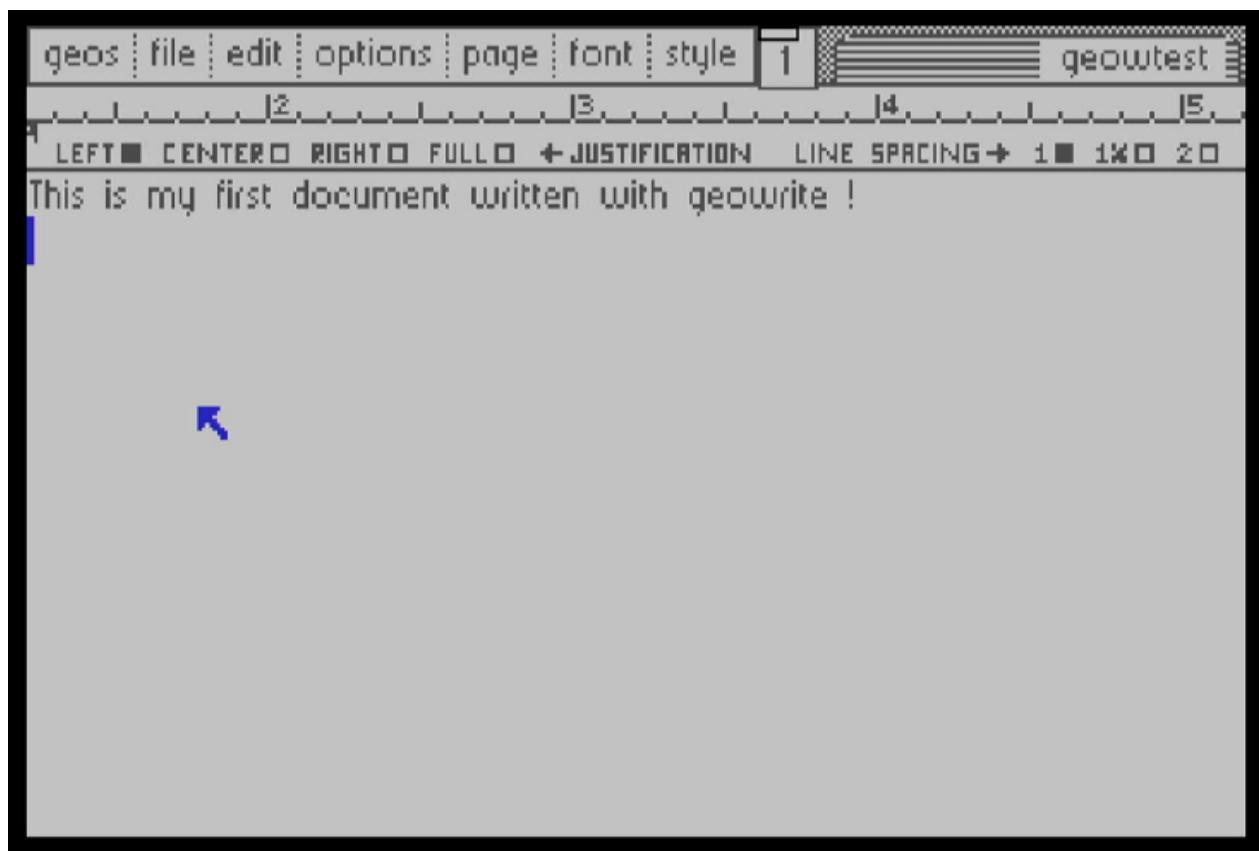
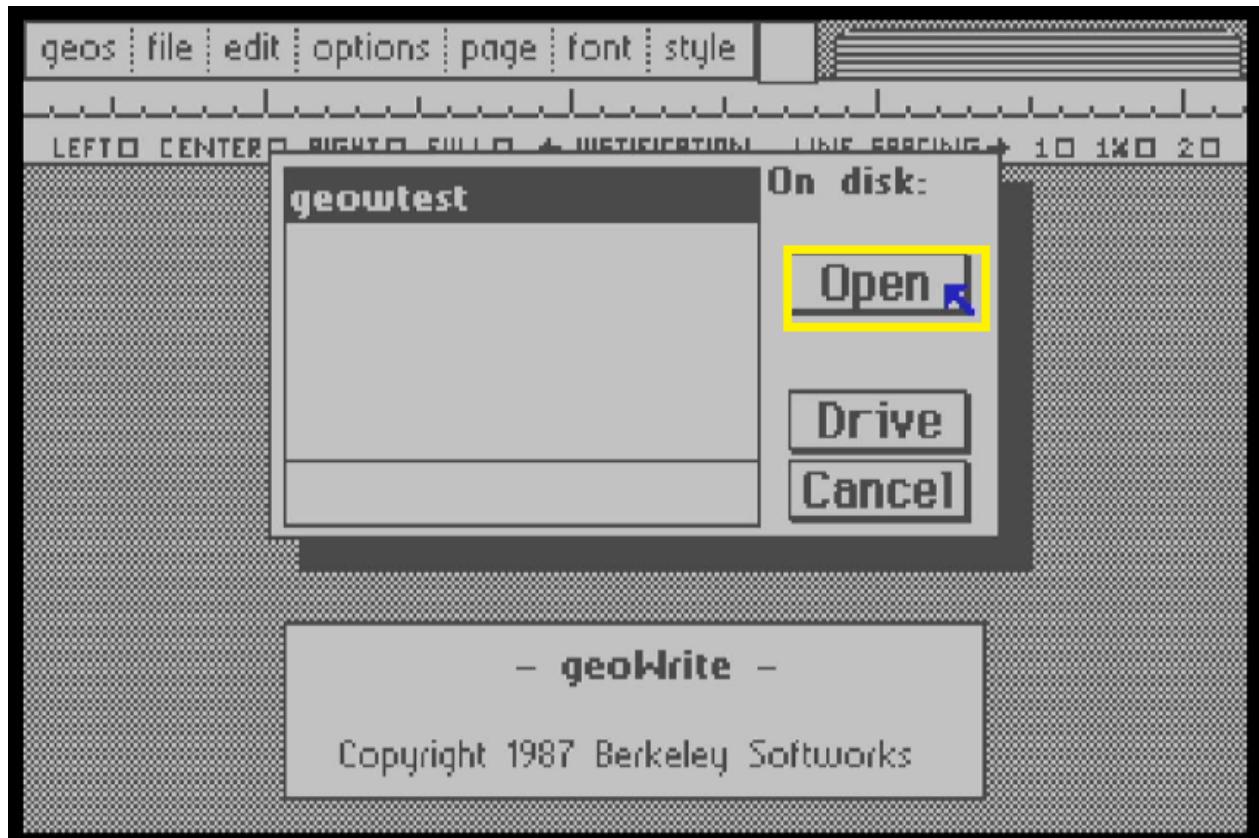
31. Double left click on "GEOWRITE" to launch GEOWRITE again



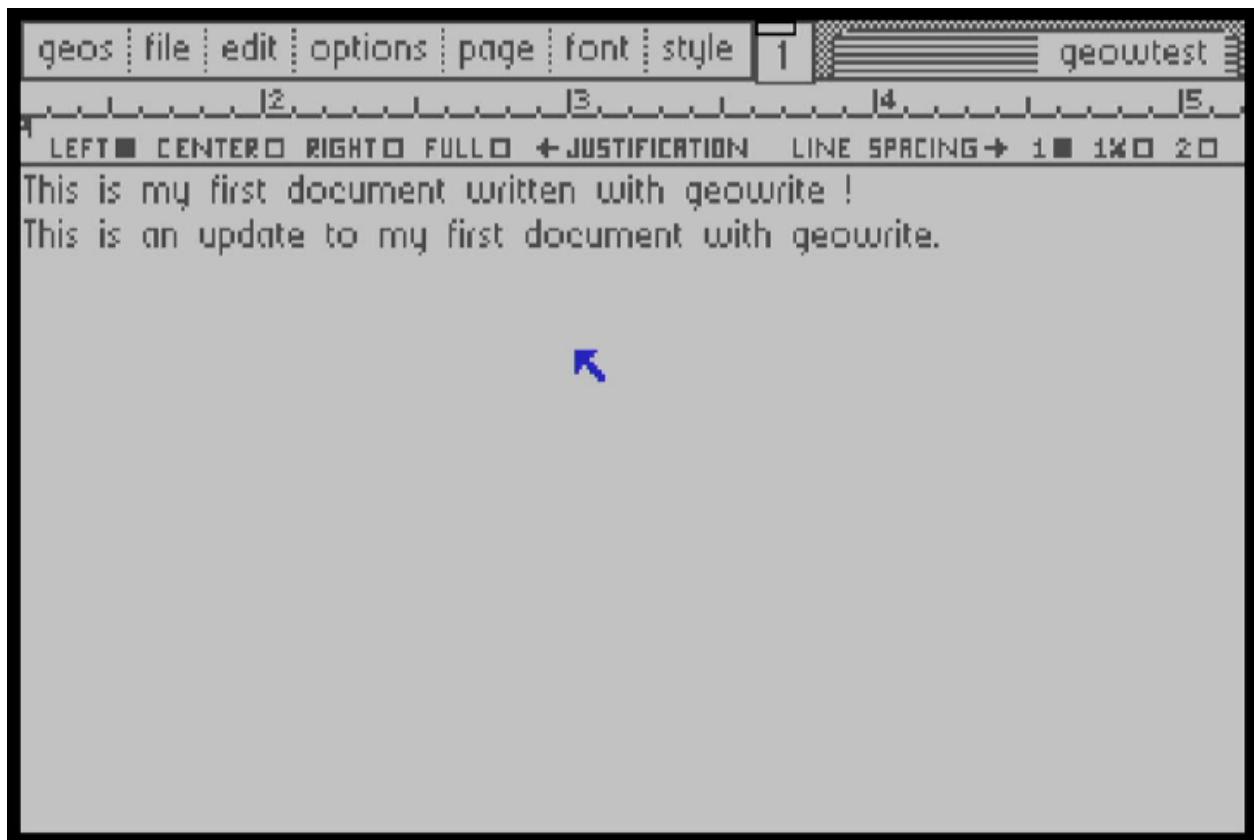
32. Left click on "Open"



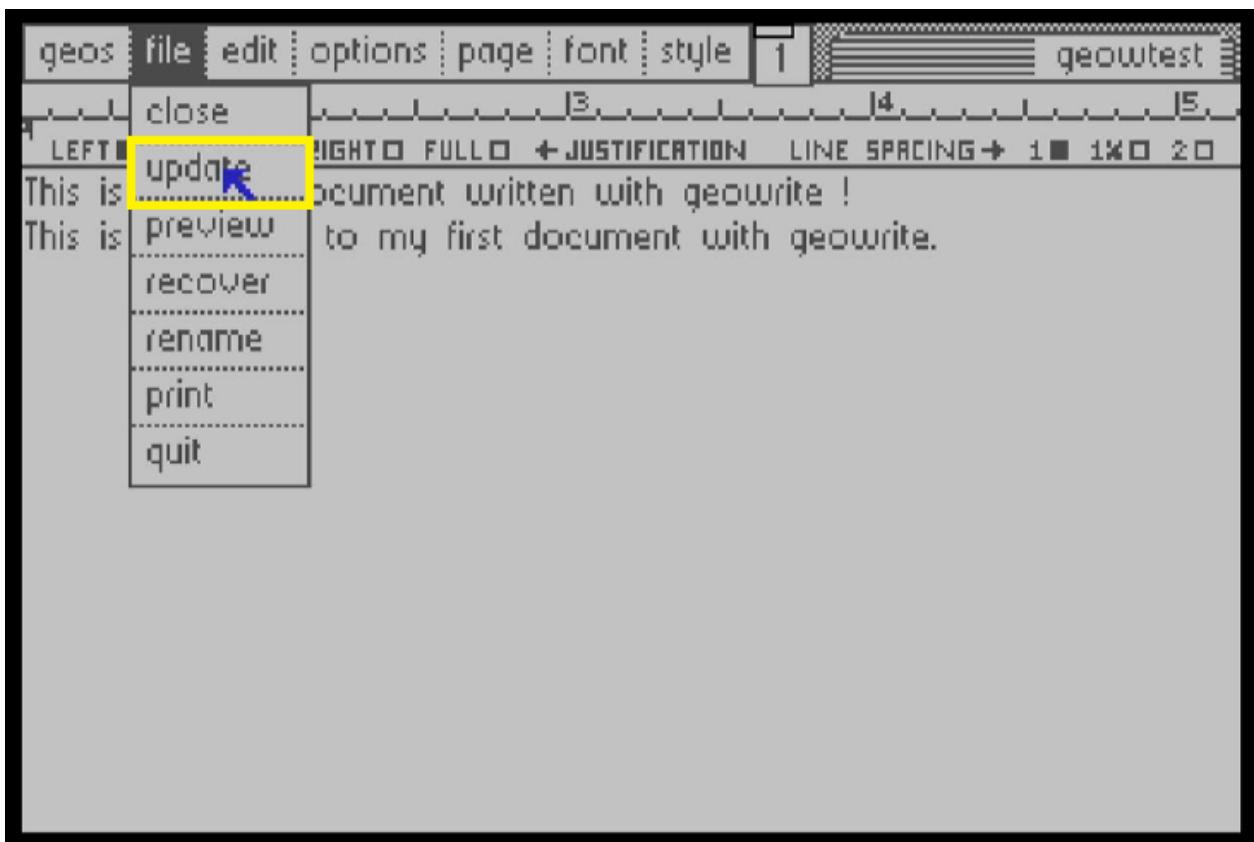
33. select your file and left click on "Open"



34. Your file is loaded and you can continue working on it.

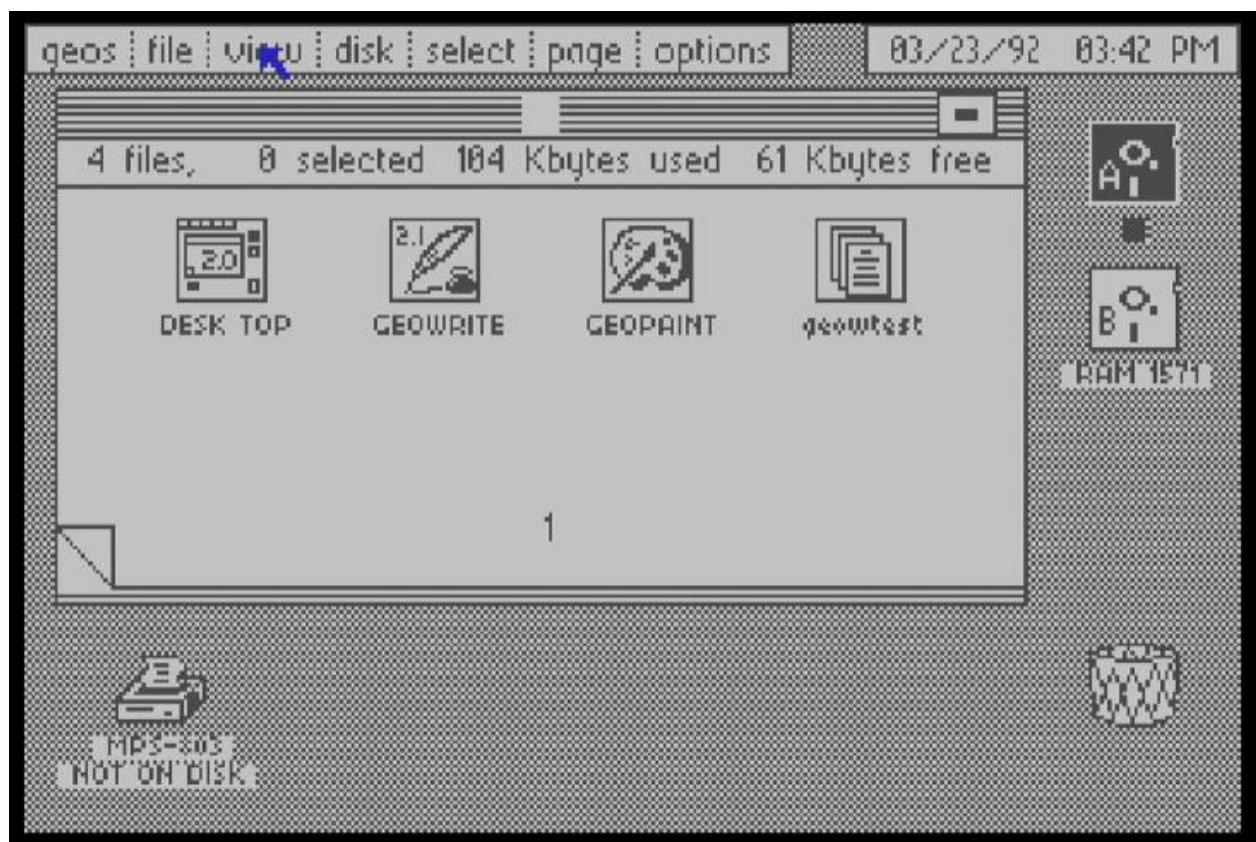
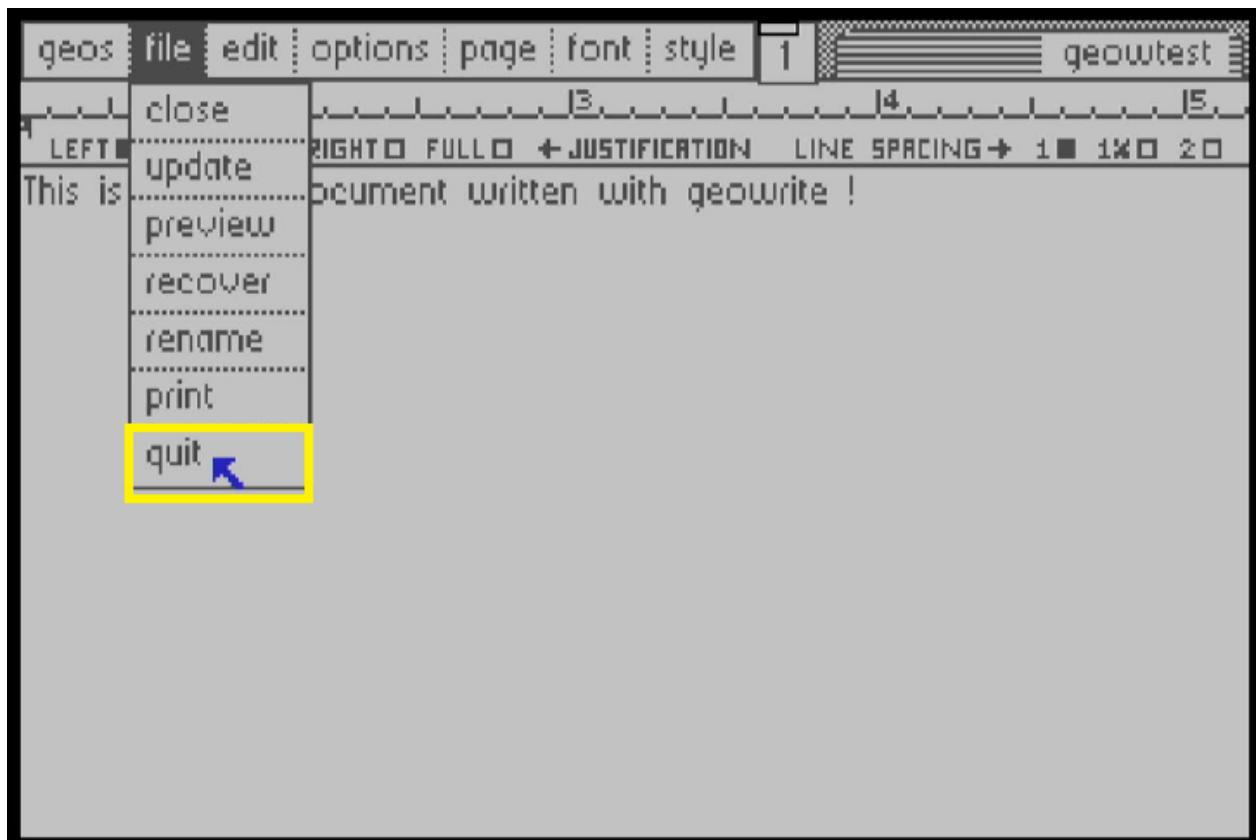


35. Left click on "file" -> "update" to save the new content of your file to disk

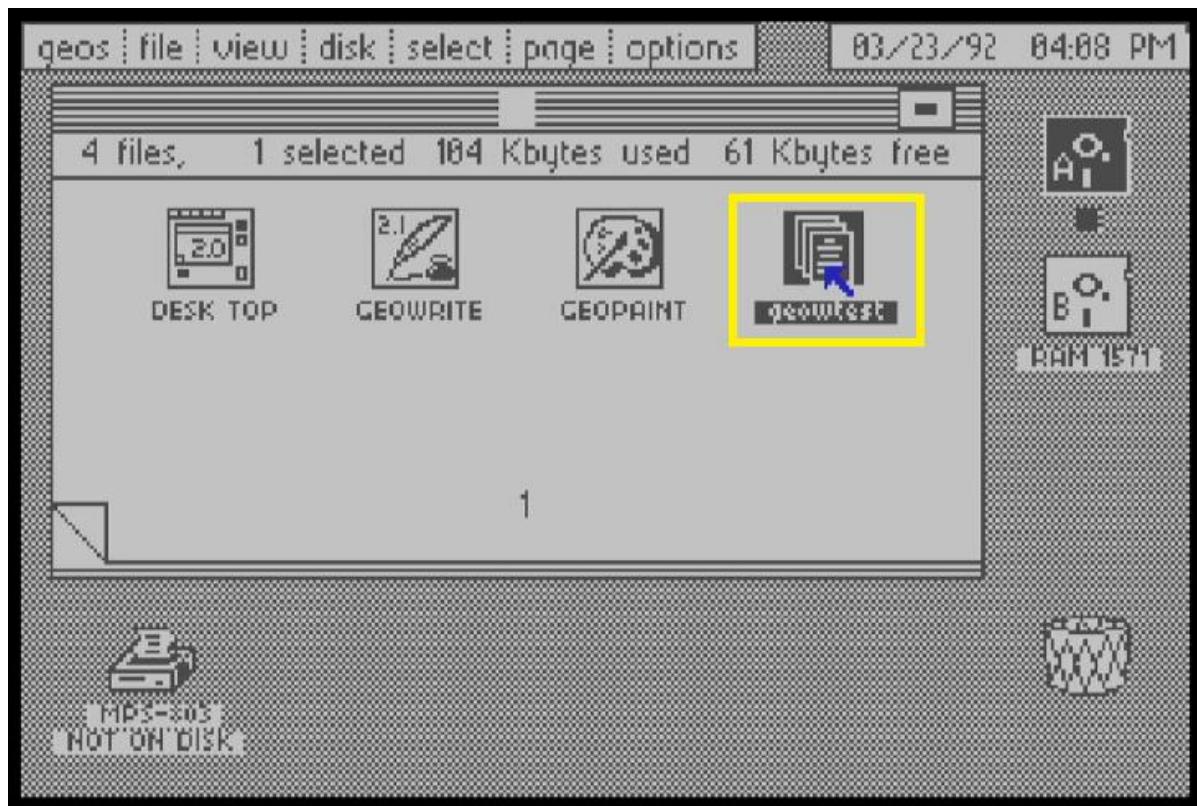


- wait until the MEGA65 drive LED stops flashing before moving forward

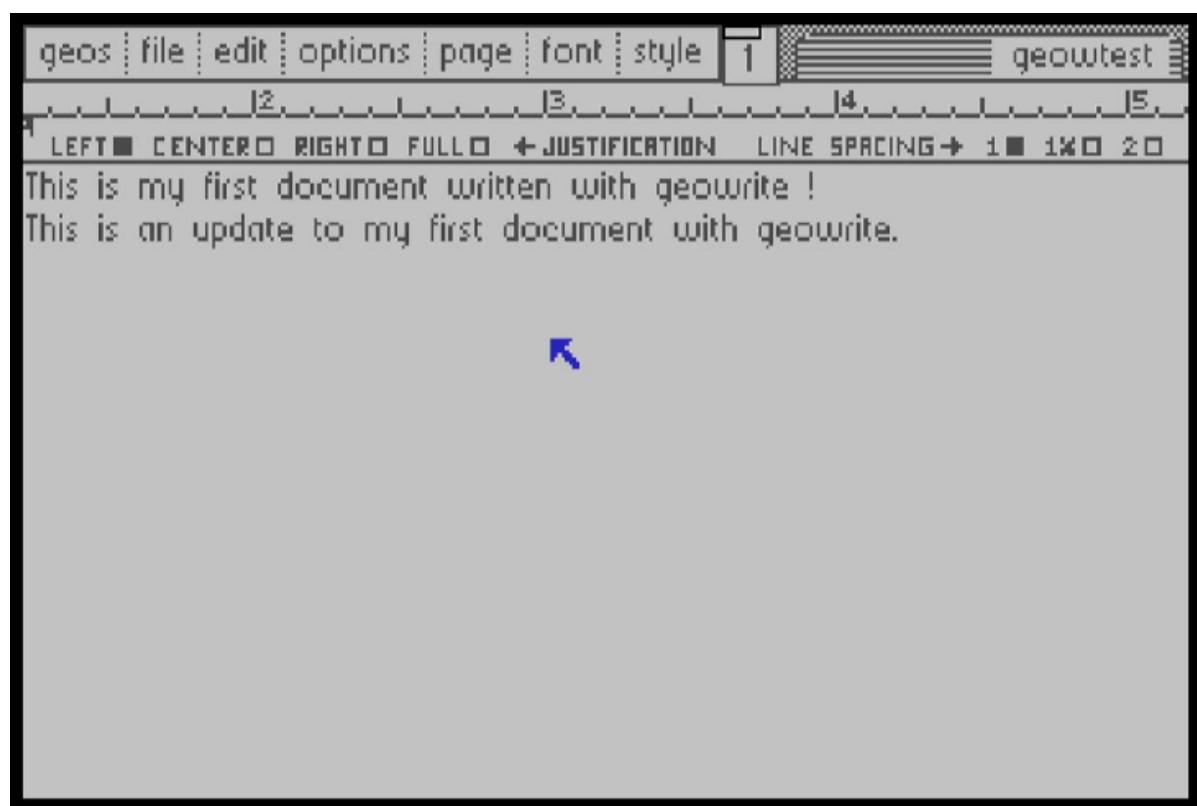
36. Left click on "file" -> "quit" to exit GEOWRITE



37. Double left click on your document



- This will launch GEOWRITE and automatically open your document



Work with GEOPAINT and GEOCALC

- The exact same principles apply for GEOPAINT
- For GEOCALC, the exact sample principles also apply, you just have to mount "geocalc.d64" and perform the copy steps described above.