

Geogebra testing

Notebook: alan richardson's notebook

Created: 19/10/2014 21:51

Updated: 20/10/2014 20:26

Summary:

Infrastructure

- use of process monitor
- use of proxy (amend net.properties)
- see console output (renamed java to javaw)

Testing Summary

- Tried creating a lot of open GeoGebra's, but that crashed the system and I had to delete roaming data (after using Process Explorer from Sysinternals) to figure out what files were in use - not repeatable
- check with proxy to see traffic to check for 404, 500 etc. - handled fine
- try and see command line argument execution
 - BUG - geogebra.exe displays to console log but not system out on dos/windows so you don't see the output if it is a command that terminates e.g. --help or --v
- run with java instead of javaw to see console output
- possible bug- trace on animation removed when resize or drag screen
- BUG - can create a circular reference between 3 slider variables, and the ggb with this does not load
- some minor issues that I'm not sure if they are a bug or not
 - spreadsheet sum [1,a] error with result 0
 - compared to spreadsheet sum [b,a] no displayed error with result "ba"
 - Text does not update when it contains objects, and the objects change values
- minor bugs
 - Separator shown as insertable "Tool" when clicked on a top level toolbar item
 - Can add as many Separators as you want
 - Feature Request: When [Close] after editing toolbar, system doesn't prompt "you changed the toolbar, are you sure you don't want to apply your changes"
 - Uninstall does not remove user folder on Windows 8

Follow on actions:

- started experimenting with 'tools' seems like it could show some interaction errors, i.e. a wizard where you switch between tabs, not obvious it is a wizard. follow up on "could not delete tool" experience.

5.0.11.0

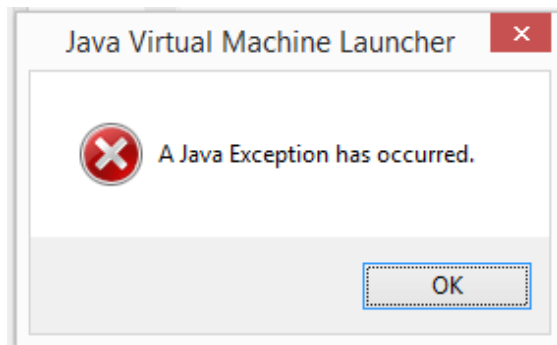
21:30

Oh, it has a Cntrl+N to create a new 'window' instance

I'll create 90 of those ... click click click

crash crash

stop the JVM



Reboot

oops, still does it after restarting my machine

since the JRE is local to Geogebra - try uninstall, reinstall

ocht - it still fails to start

Try runing process monitor from sys internals for any info

[Process Monitor From Sysinternals](<http://technet.microsoft.com/en-gb/sysinternals/bb896645>)

**** NOTE:**

I needed to find a way to observe the system anyway, so this will be my start point for seeing what the system does.

One of the last thing the process does is access stuff in

Process Monitor - Sysinternals: www.sysinternals.com							
File Edit Event Filter Tools Options Help							
Time of Day	Process Name	PID	Operation	Path	Result	Detail	
22:01:42.2511524	javaw.exe	3444	QueryNameInfo...	C:\Windows\SysWOW64\shell32.dll	SUCCESS	Name: \Windows\...	
22:01:42.2511718	javaw.exe	3444	QueryNameInfo...	C:\Windows\SysWOW64\KernelBase.dll	SUCCESS	Name: \Windows\...	
22:01:42.2512149	javaw.exe	3444	QueryNameInfo...	C:\Windows\SysWOW64\mm32.dll	SUCCESS	Name: \Windows\...	
22:01:42.2512659	javaw.exe	3444	QueryNameInfo...	C:\Windows\System32\wow64cpu.dll	SUCCESS	Name: \Windows\...	
22:01:42.2512928	javaw.exe	3444	QueryNameInfo...	C:\Windows\System32\wow64.dll	SUCCESS	Name: \Windows\...	
22:01:42.2513212	javaw.exe	3444	QueryNameInfo...	C:\Windows\System32\wow64win.dll	SUCCESS	Name: \Windows\...	
22:01:42.2513547	javaw.exe	3444	QueryNameInfo...	C:\Windows\SysWOW64\ntdll.dll	SUCCESS	Name: \Windows\...	
22:01:42.2513915	javaw.exe	3444	QueryNameInfo...	C:\Windows\System32\ntdll.dll	SUCCESS	Name: \Windows\...	
22:01:42.2516620	javaw.exe	3444	Process Exit		SUCCESS	Exit Status: 1, User...	
22:01:42.2516840	javaw.exe	3444	CloseFile	C:\Windows	SUCCESS		
22:01:42.2517456	javaw.exe	3444	RegCloseKey	HKLM\System\CurrentControlSet\Control\SESSION MANAGER	SUCCESS		
22:01:42.2517673	javaw.exe	3444	CloseFile	C:\Program Files (x86)\GeoGebra 5.0	SUCCESS		
22:01:42.2518485	javaw.exe	3444	CloseFile	C:\Users\Alan\AppData\Roaming\GeoGebra 5.0\jars\current\geogebra_export...	SUCCESS		
22:01:42.2518823	javaw.exe	3444	RegCloseKey	HKLM\System\CurrentControlSet\Control\Nls\Sorting\Ids	SUCCESS		
22:01:42.2519110	javaw.exe	3444	RegCloseKey	HKLM\System\CurrentControlSet\Control\Nls\Sorting\Versions	SUCCESS		
22:01:42.2519294	javaw.exe	3444	RegCloseKey	HKLM	SUCCESS		
22:01:42.2519469	javaw.exe	3444	RegCloseKey	HKCU	SUCCESS		
22:01:42.2519702	javaw.exe	3444	RegCloseKey	HKLM\System\CurrentControlSet\Control\Nls\CustomLocale	SUCCESS		
22:01:42.2519925	javaw.exe	3444	RegCloseKey	HKLM\System\CurrentControlSet\Control\NetworkProvider\HwOrder	SUCCESS		
22:01:42.2520149	javaw.exe	3444	CloseFile	C:\Windows\WinSxS\x86_microsoft.windows.common-controls_6595b64144cc...	SUCCESS		
22:01:42.2520828	javaw.exe	3444	CloseFile	C:\Program Files (x86)\GeoGebra 5.0\jre\lib\vt.jar	SUCCESS		
22:01:42.2521208	javaw.exe	3444	CloseFile	C:\Users\Alan\AppData\Roaming\GeoGebra 5.0\jars\current\geogebra.jar	SUCCESS		
22:01:42.2521827	javaw.exe	3444	CloseFile	C:\Program Files (x86)\GeoGebra 5.0\jre\lib\jrt.jar	SUCCESS		
22:01:42.2522156	javaw.exe	3444	CloseFile	C:\Users\Alan\AppData\Roaming\GeoGebra 5.0\jars\current\geogebra_main.jar	SUCCESS		
22:01:42.2522536	javaw.exe	3444	CloseFile	C:\Program Files (x86)\GeoGebra 5.0\jre\lib\jsse.jar	SUCCESS		
22:01:42.2522926	javaw.exe	3444	CloseFile	C:\Users\Alan\AppData\Roaming\GeoGebra 5.0\jars\current\geogebra_gui.jar	SUCCESS		
22:01:42.2523276	javaw.exe	3444	CloseFile	C:\Users\Alan\AppData\Roaming\GeoGebra 5.0\jars\current\geogebra_prope...	SUCCESS		
22:01:42.2523614	javaw.exe	3444	CloseFile	C:\Users\Alan\AppData\Roaming\GeoGebra 5.0\jars\current\geogebra_cas.jar	SUCCESS		
22:01:42.2523949	javaw.exe	3444	CloseFile	C:\Users\Alan\AppData\Roaming\GeoGebra 5.0\jars\current\geogebra_algos...	SUCCESS		
22:01:42.2524272	javaw.exe	3444	CloseFile	C:\Users\Alan\AppData\Roaming\GeoGebra 5.0\jars\current\geogebra_javas...	SUCCESS		
22:01:42.2524683	javaw.exe	3444	CloseFile	C:\Users\Alan\AppData\Roaming\GeoGebra 5.0\jars\current\geogebra_3d.jar	SUCCESS		
22:01:42.2525018	javaw.exe	3444	CloseFile	C:\Users\Alan\AppData\Roaming\GeoGebra 5.0\jars\current\jlm_greek.jar	SUCCESS		
22:01:42.2525347	javaw.exe	3444	CloseFile	C:\Users\Alan\AppData\Roaming\GeoGebra 5.0\jars\current\javagiac-win32.jar	SUCCESS		
22:01:42.2525661	javaw.exe	3444	CloseFile	C:\Users\Alan\AppData\Roaming\GeoGebra 5.0\jars\current\jlm_cymllic.jar	SUCCESS		
22:01:42.2525981	javaw.exe	3444	CloseFile	C:\Users\Alan\AppData\Roaming\GeoGebra 5.0\jars\current\gluegen-rt.jar	SUCCESS		
22:01:42.2526421	javaw.exe	3444	CloseFile	C:\Users\Alan\AppData\Roaming\GeoGebra 5.0\jars\current\OpenGeoProver...	SUCCESS		
22:01:42.2526750	javaw.exe	3444	CloseFile	C:\Users\Alan\AppData\Roaming\GeoGebra 5.0\jars\current\jna-4.1.0.jar	SUCCESS		
22:01:42.2527058	javaw.exe	3444	RegCloseKey	HKLM\System\CurrentControlSet\Control\Nls\Locale	SUCCESS		
22:01:42.2527227	javaw.exe	3444	RegCloseKey	HKLM\System\CurrentControlSet\Control\Nls\Locale\Alternate Sorts	SUCCESS		
22:01:42.2527369	javaw.exe	3444	RegCloseKey	HKLM\System\CurrentControlSet\Control\Nls\Language Groups	SUCCESS		
22:01:42.2527596	javaw.exe	3444	CloseFile	C:\Windows\SysWOW64\en-US\user32.dll.mui	SUCCESS		
Showing 5,018 of 317,295 events (1.5%)				Backed by virtual memory			

C:\Users\Alan\AppData\Roaming\GeoGebra 5.0

delete the folder C:\Users\Alan\AppData\Roaming\GeoGebra 5.0

** Note:

I did do an uninstall, so the uninstall does not delete the user details. Would this be considered a bug?

And see if that helps

Huzzah - now it starts

** Reflect:

Is this behaviour cross platform? -

TODO: investigate cross platform behaviour with JRE

Hypothesis: because this is an installed app, the JRE is copied to the current user directory to remove any type of permission problem? Does this happen with the portable edition? (portable, to me, means that it leaves no footprint outside the running directory)

TODO: Investigate portable vs install JRE behaviour.

TODO: Investigate the wrapper used to create the .exe to start the app.

**

22:00 -

Have a look at a tutorial

http://wiki.geogebra.org/en/Tutorial%3AMain_Page

Quickstart

http://static.geogebra.org/help/geogebraquickstart_en.pdf

Toolbar - stuff
input bar

1+1 [enter]

show Number a=2

Followed the triangle circle bisector tutorial

Hmmm, I'm going to have to find some functional bugs because I don't know enough to push the domain.

Log in to geogebra tube and load a diagram someone created

22:15 - test this thing tomorrow

09:15 *Identify an initial scope to start with*
Math domain going to be hard for me to test.

Function is not the only domain: e.g. JRE Infrastructure, portable install vs proper, Web Geogebra tube login and traffic, ... others?...

Investigate:

TODO: Investigate JRE between portable and install (using VM) (DONE)

TODO: Investigate traffic when logged in to Geogebra tube and app - check 404 and 500 responses as a minimum

TODO: Scope app for other domains

09:18 *Investigate portable in a VM*

Using VM from modern.ie that I used for [XP speedrun](<http://seleniumsimplified.com/speedrun-installs/#windowsxp>)

Download (portable Geogebra for windows)

[http://wiki.geogebra.org/en/Reference:GeoGebra_Installation]

While updating VM and VMWare tools - looked through the code files for the install and setup of geogebra

[Code Geogebra](<https://code.google.com/p/geogebra/source/browse/trunk/>)

Using Process Monitor, it seems as though the 'portable' directory is used for the JRE.

Uses javaw to execute - so could probably run from command line with java -jar and see command line messages, errors etc. at command line

09:45 Just going to increase the amount of memory that my VM has as it is running slow

Created 84 instances of Geogebra - running slow ... and it has crashed

But it restarted - so I suspect that the initial crash, can't restart is limited to the 'installed' version, rather than the portable edition, due to the JRE copying into the user - but it might also be the difference in

windows versions.

Try on Windows 8 - portable edition, now that have it running on VM for future testing.

Delete appdata\roaming - to see if portable edition creates it (EDIT: it does not)

Gets up to 32 instances quickly and then hangs - got up to 82 instances before slow down and crash

But - I can re-run the app, so I think it is only the install version than can create a corrupt JRE in the users app data.

Going to retry. with installed version

With the installed version it is a lot easier to create new windows, just keep hitting cntrl+n - no loss of focus

It eventually crashed, but this time, didn't mess up the JRE - so I 'got lucky' the first time I did this action, to get the "Cannot start result"

****Result: Inconclusive - would have to do more work to recreate problem - not going to try any more**

But I will continue using the portable version.

10:25 Investigate the GeoGebra tube login

To get Geogebra to use the proxy, need to edit

net.properties in the jre\lib

and set the

java.net.useSystemProxies=true

Observe

- When it starts it makes version checks

What else makes network calls?

Sign In

Geogebra Tube - does not require sign in

Set geogebra.org to 404

start geogebra

Version check received 404 on first call, and did not do any other calls for version

Also made a call to geoup - not sure why or when - just seems to be about 10 seconds after loading

- check if this happens with no user interaction

starts - version check - nothing after 2 mins

as soon as I interact with the gui it does a geoup call

Also doesn't show the Sign In, and Geotube options - so has gone into some sort of 'offline mode' seems like a good preventative measure.

What happens with a 50x error?

502 error returned from server

same result

204 no content?
same result

200 - but blank content
same result

no connection?

11:20

Command line execution

http://wiki.geogebra.org/en/Reference:Command_Line_Arguments

geogebra.exe --v

shows no result

geogebra.exe --help

shows no result

geogebra.exe --showSplash=false
starts app with no splash screen - so the command line arguments do 'something' but don't necessarily 'work'
perhaps things are logged, but not displayed on console because it starts with a javaw instead of java

looking around dir for property files etc.

version.txt - changed the contents to 4.0.18.0 but all version calls to server were 5.0.18.0 so this is just a documentation file rather than the 'version' - must be coded into the app

11:30

renamed java in the jre\bin to javaw.exe so I can see the debug output from the application

try geogebra.exe --help

I can see the output displayed in the java window but too fast to read since it disappears then the app closes

going to run the app using java instead of javaw when I test in case I see interesting messages

The fiddler certificate was causing the Sign in etc. not to appear, so have stopped the proxy for the moment, then start GeoGebra, no use proxy

11:40 Geogebra tube

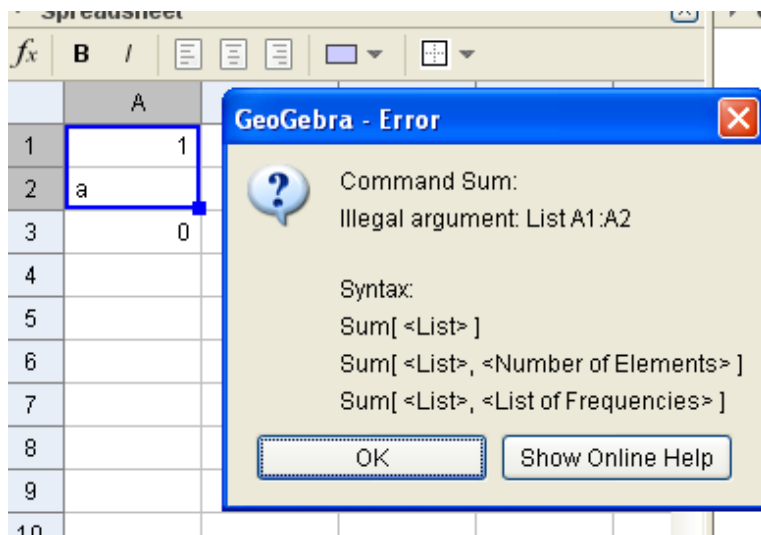
the open from GeoGebra tube is a ggb file download

The GeoGebra tube widget is

<http://tube.geogebra.org/widgetprovider/index/widgettype/desktop/lt/nouser/page/2/r/0>

So this is an online component, rendered in the application and can be tested separately

11:50 Spreadsheet



I almost expected 1a as the results since

	A
1	b
2	a
3	ba
4	

Sum A1:A2 == ba

But this does throw exceptions of undefined variable to the command line when running

Experimenting with copying in an image

create a line

reflect around line

drag and drop point and the image moves

create slider

set slider to animation

use slider reference as the y in a point

...thinking

and it has created an animation

changed some of the vars

When zoom in and out the 'trace points disappear', same with move display

- assume these are rendered on gui, rather than modelled in the system

- so probably shouldn't class this as a 'bug', but it feels like a bug

****NOTE:**

Possible bug - trace points in an animation are removed when resize or move the display canvas

Now I have something I can save!

20141020_two_images_moving_with_trace.ggb

12:15

tried to add the slider value into itself and it picked up a circular definition

**** NOTE:**

slider disappeared from the display when I closed the dialog - can't replicate

TODO: investigate how to repeat this bug

Edit: perhaps this was caused by me clicking the point in the side window, not realising that that hides the slider from display

Create a slider with an invalid interval e.g. from b to (a value less than b) where b is a slider from -50 to 50 then a 'number' is created, but it is really a slider that is not displayed - then you can edit it to be a proper slider

Oh - the little dot beside the number hides and shows the slider - perhaps that was the source of the 'earlier glitch I saw'

Try to force a circular reference

create c(b as min, b*2 as max), - cannot reference c from b

d with (-c as min, c as max) - can I reference d from b? (yes (as max))

run animation - it doesn't run, it doesn't show an error dialog

The debug info in the console shows an extending error.

I can move the sliders, and the slider move but the actual animation itself does not move.

I think I have created a circular reference that the system does not pick up.

20141020_1240_circular_reference_with_three_sliders.ggb

Trying to load the above file, fails, causes an hour glass, not sure if it is still trying to load or not - but cannot load the circular reference file.

****BUG**

Can create a circular reference with 3 vars

sliders b, c, d

b [-50 to 50]

c [b to b*2]

d [-c to c]

edit b to be [-50 to d]

no errors shown but does not render and when saved it does not reload

20141020_1240_circular_reference_with_three_sliders.ggb

see 20141020_1255_amend_b_to_use_d_as_max.ggb as the immediate setup then edit b to use d as max to recreate issue

13:00 Fast hunt for low hanging fruit

Try a Text Field

Text does not update when it contains objects, and the objects change values - I expected it to - perhaps text is a static field? You have to manually open it, then [OK] it to update it.

** Note:

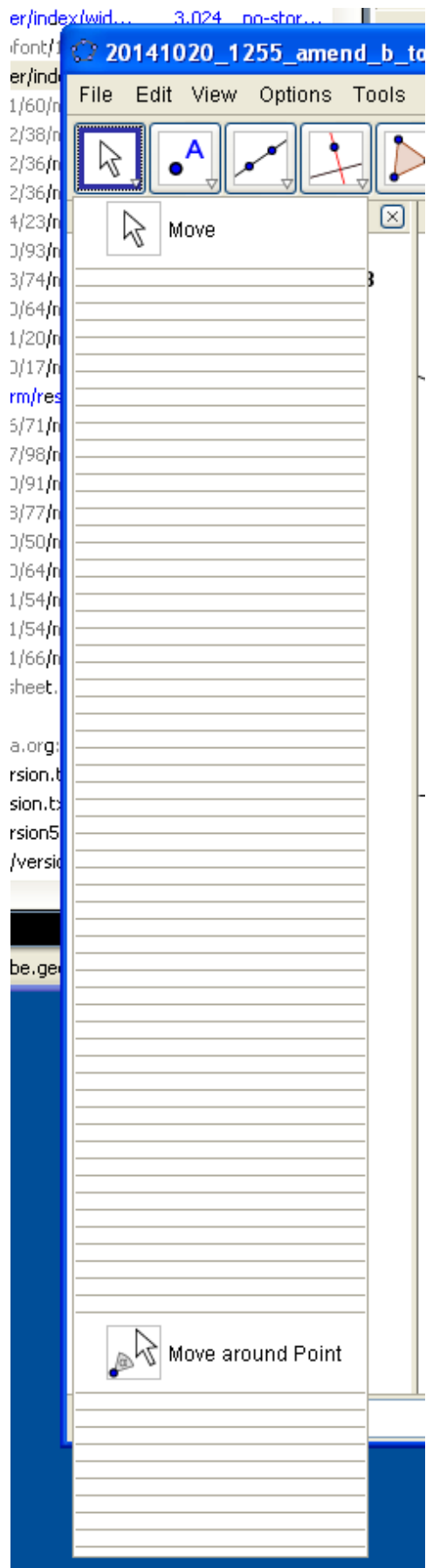
Would need to confirm if this is a bug or not

TODO: search help files and see if it describes Text as a static item

**

13:03 Tools \ Customize Toolbar ...

Toolbar editing allows you to add as many "-separator" in sub menus as you want, and create odd GUI



Should probably limit adding separator

Should also probably not show the separator when working at the high level toolbar as you are not allowed to add it, but you can select it, and click insert

BUG: Separator shown as insertable "Tool" when clicked on a top level toolbar item

BUG: Can add as many Separators as you want

Feature Request: When [Close] after editing toolbar, system doesn't prompt "you changed the toolbar, are you sure you don't want to apply your changes"

Tools

Create New Tool dialog shows

I created a tool I can't delete because it uses objects in the diagram

- don't understand

- at least tool disappears when I close GeoGebra - custom tools might be stored with ggb file then

**** NOTE:**

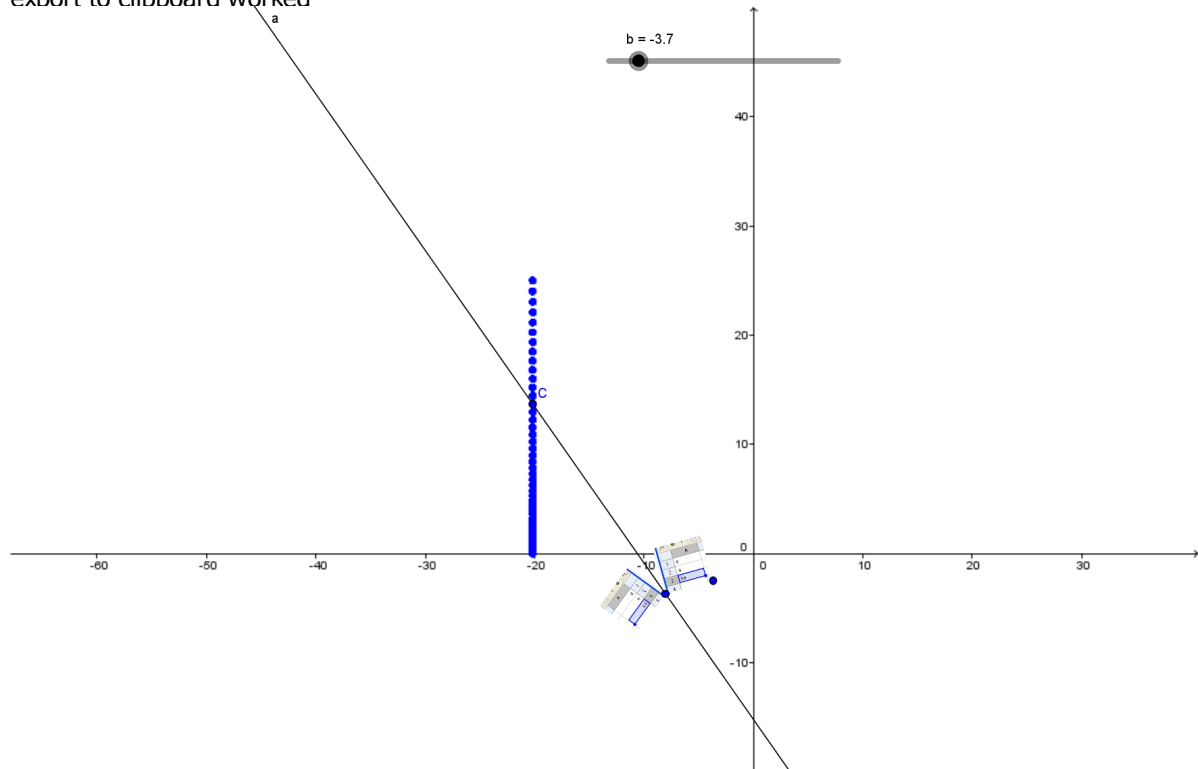
Add "New tool" to future exploration list, and investigate "could not delete tool" experience

13:20

Shutting up shop

Webinar

export to clipboard worked



save as image failed

