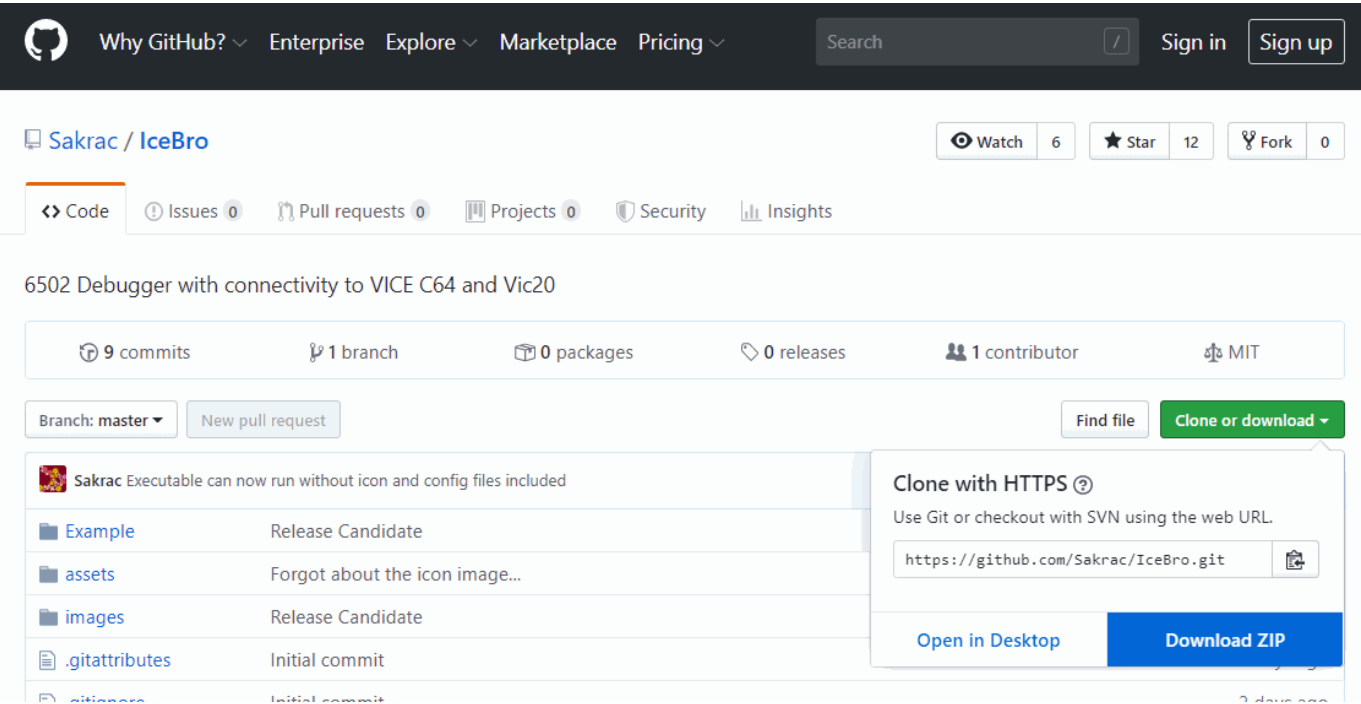


# Basic tutorial of IceBro with screenshots

## Download and Run

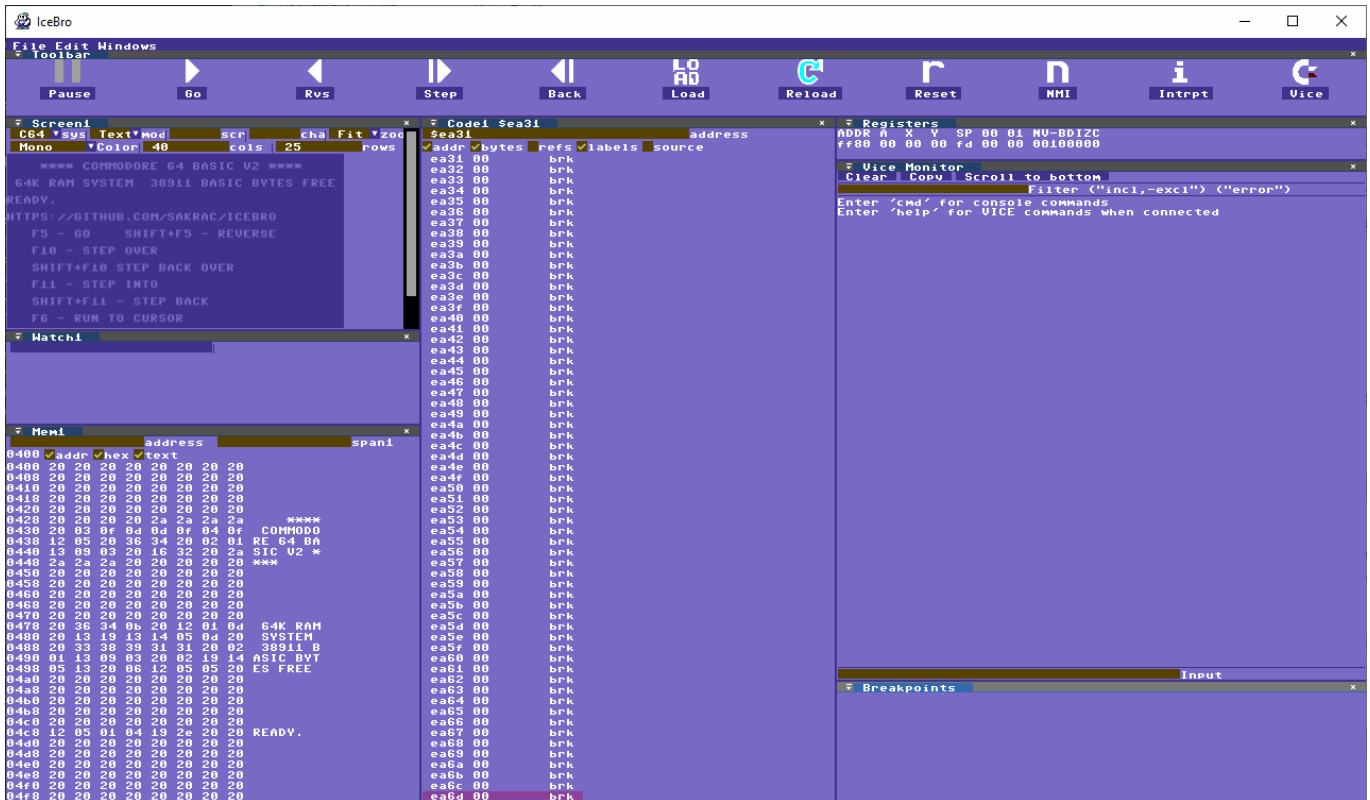
The simplest way to download a folder from GitHub is download as zip by first clicking on the green Clone or Download button. You can download just IceBro.exe, all the necessary files are embedded, but to get the example and documentation you might want the entire folder.



Just extract the files into a convenient folder

Name	Date modified	Type	Size
.git	12/15/2019 5:33 PM	File folder	
assets	12/15/2019 4:44 PM	File folder	
Basics	12/15/2019 5:35 PM	File folder	
Example	12/14/2019 1:25 PM	File folder	
images	12/14/2019 5:37 PM	File folder	
.gitattributes	12/14/2019 10:41 ...	Text Document	1 KB
.gitignore	12/14/2019 10:41 ...	Text Document	7 KB
Basics.md	12/15/2019 5:33 PM	MD File	0 KB
IceBro.cfg	12/15/2019 4:43 PM	CFG File	1 KB
IceBro.exe	12/15/2019 4:42 PM	Application	622 KB
imgui.ini	12/15/2019 4:43 PM	Configuration sett...	3 KB
LICENSE	12/14/2019 10:41 ...	File	2 KB
README.md	12/15/2019 4:46 PM	MD File	14 KB
README.pdf	12/15/2019 4:46 PM	PDF File	256 KB

Just click IceBro.exe to begin, it should look like this the first time

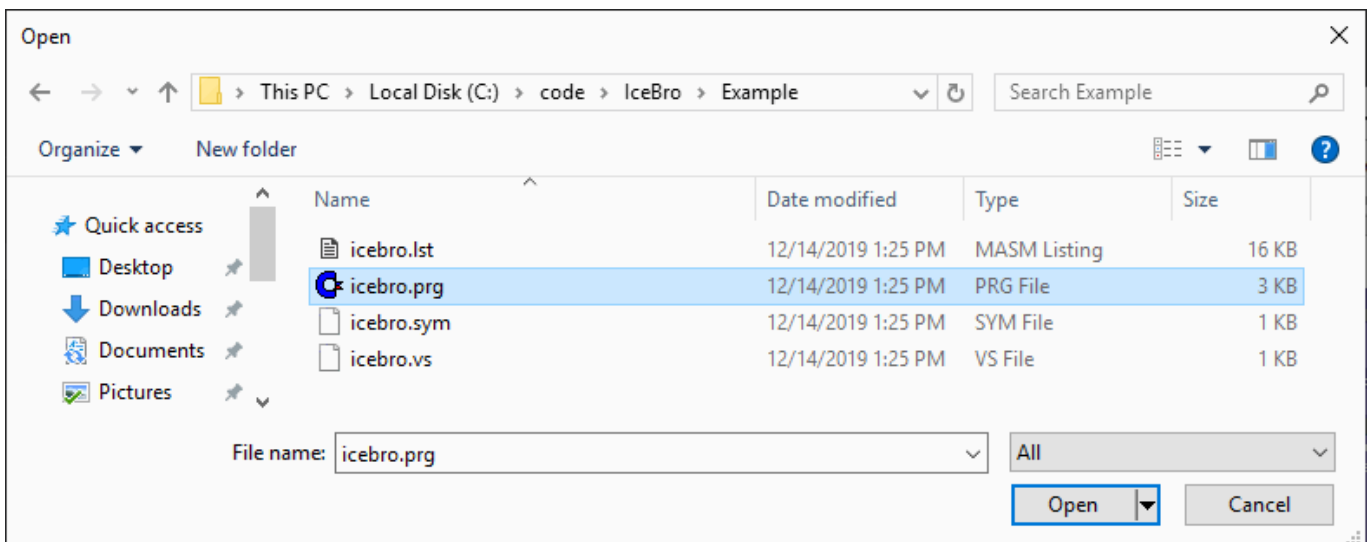


## Using IceBro without connecting to VICE

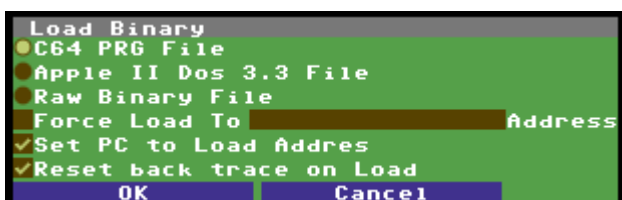
To try the example without VICE just click the LOAD icon to bring up the file dialog



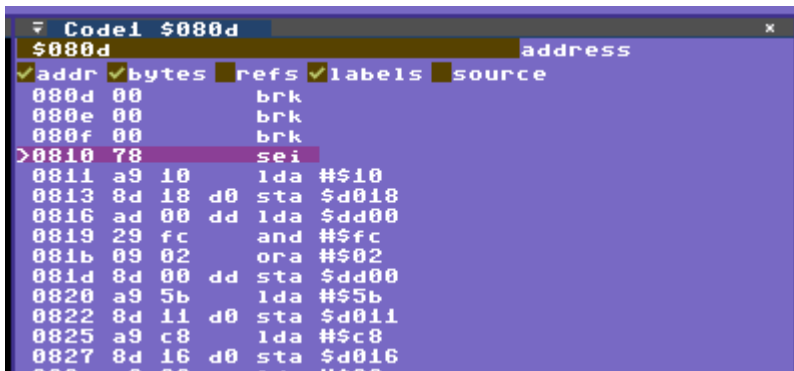
Select IceBro.prg and open it



This is a PRG file so you don't need to specify a load address, just click OK.



Here is what you should see in the code view after loading the example



```
0847 8d 24 d0 sta $d024
084a a9 01 lda #$01
084c 8d 25 d0 sta $d025
084f a9 06 lda #$06
0851 8d 26 d0 sta $d026
0854 20 ba 08 jsr PlaceSprite ; $08ba
0857 20 b4 11 jsr CopySprite ; $11b4
085a 20 90 11 jsr CopyFont ; $1190
085d 20 66 08 jsr CopyScreen ; $0866
0860 20 8a 08 jsr CopyColors ; $088a
0863 4c 63 08 jmp $0863
```

The screenshot shows the Game Boy Advance emulator interface. The main window displays the game 'Super Mario Bros.' with Mario on a platform. The 'Dev Kit' window is open, showing the assembly code for the \$082c memory address. The code includes instructions like 'sta', 'lda', and 'jsr' with their respective addresses and operands.

addr	bytes	refs	labels	source
082c	8d 20 d0	d0	sta \$d020	
082f	8d 21 d0	d0	sta \$d021	
0832	8d 17 d0	d0	sta \$d017	
0835	8d 1b d0	d0	sta \$d01b	
0838	8d 1d d0	d0	sta \$d01d	
083b	a9 03		lda #\$03	
083d	8d 22 d0	d0	sta \$d022	
0840	a9 09		lda #\$09	
0842	8d 23 d0	d0	sta \$d023	
0845	a9 0b		lda #\$0b	
0847	8d 24 d0	d0	sta \$d024	
084a	a9 01		lda #\$01	
084c	8d 25 d0	d0	sta \$d025	
084f	a9 06		lda #\$06	
0851	8d 26 d0	d0	sta \$d026	
0854	20 ba 08	08	jsr PlaceSprite ; \$08ba	
0857	20 b4 11	11	jsr CopySprite ; \$11b4	
085a	20 90 11	11	jsr CopyFont ; \$1190	
085d	20 66 08	08	jsr CopyScreen ; \$0866	
0860	20 8a 08	08	jsr CopyColors ; \$088a	
0863	4c 63 08	08	jmp \$0863	

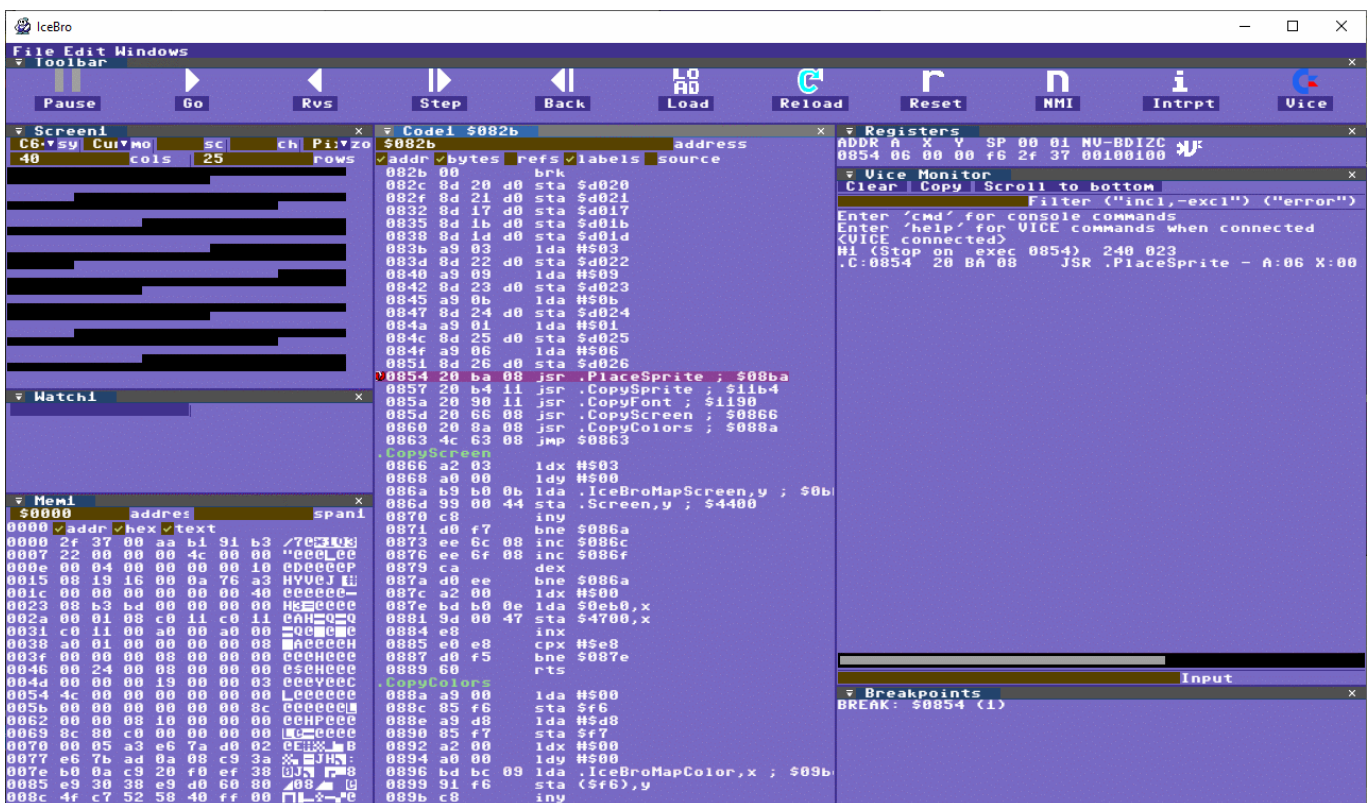
The idea is to start VICE by itself and while it is starting up hit the C= icon in IceBro. Make sure IceBro is running and start VICE from the command line with the `-remotemonitor` and `-moncommands` options like this:

```
\vice\x64sc.exe -remotemonitor -moncommands Example\icebro.vs Example\icebro.prg
```

Immediately after hitting return and seeing VICE starting click the C= icon in IceBro to connect the debugger to VICE



The monitor commands for VICE in the example contains a breakpoint so if everything works VICE should pause at the same place as the example without running VICE.



The screen mode is set up and you can press F10 to step in the debugger, or type X in the Vice Console to return to VICE then press the Pause Icon to pause VICE and return to the debugger. You can also type N into the debugger to step over in VICE but this requires you type type SYNC to update the debugger (otherwise the Vice Console feels too slow).

SYNC is also useful if you've started debugging but want to start over from the point VICE paused at, although in most cases you can just press Shift+F5 to reverse to to the same point.

While VICE is running you can press the pause icon at any time (or type PAUSE into the Vice Console) to pause VICE and return to the debugger

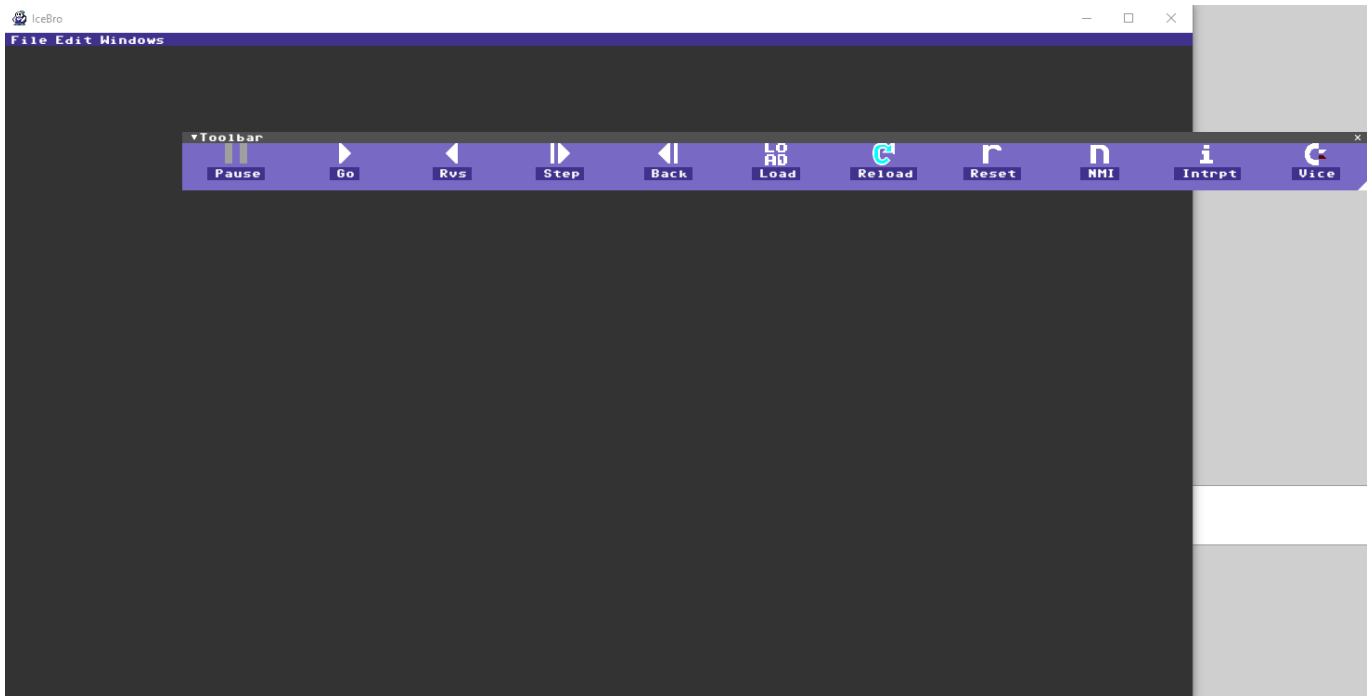


## Changing the layout

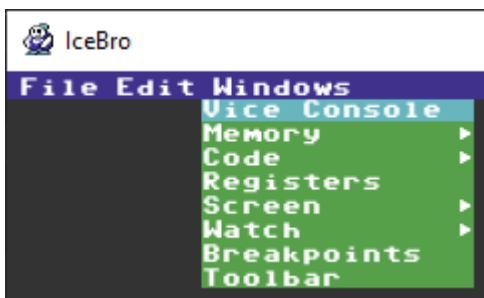
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IceBro uses a Dock Space system to customize the layout, which is very useful for creating tools in the sense that I don't need to cater to specific use cases, and for users to be able to customize exactly how they prefer to work.

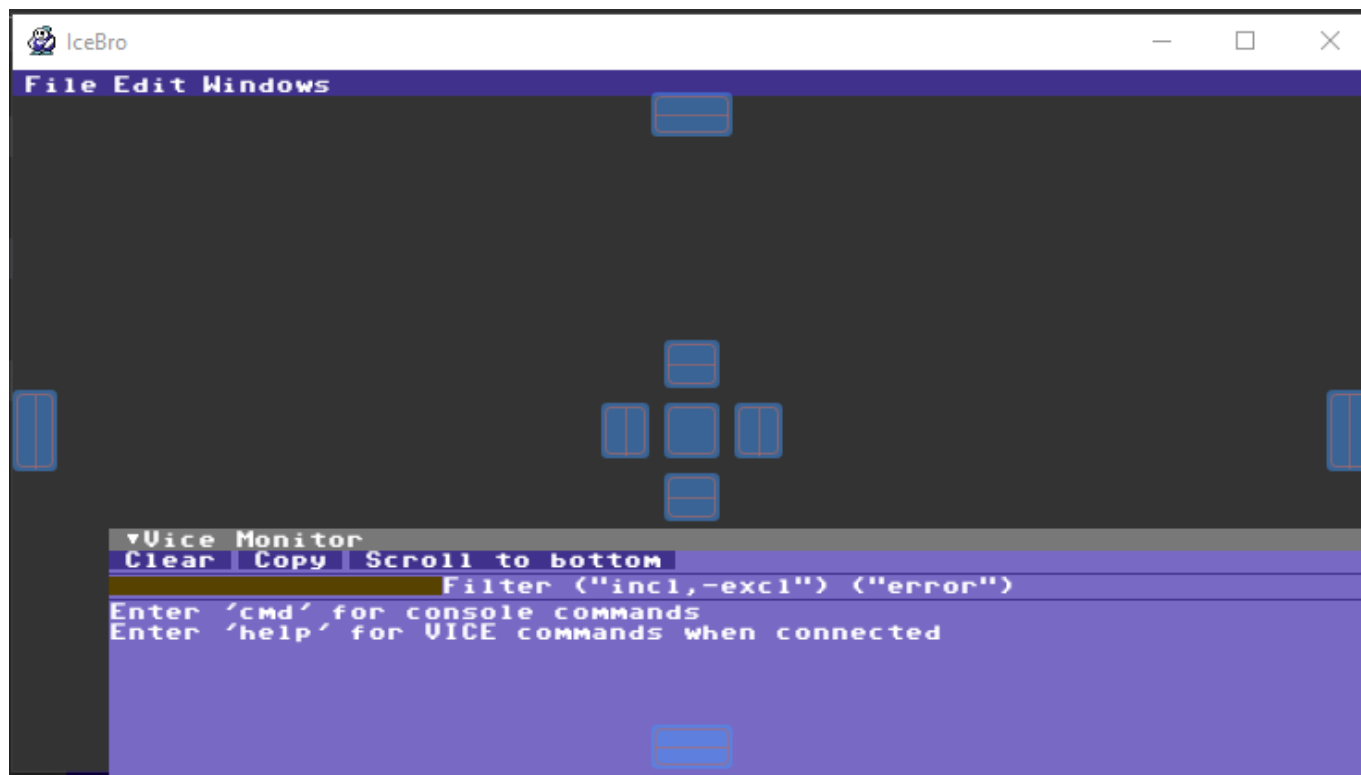
The concept is perhaps not intuitive but here are the basics. You don't need to close all the windows to rearrange them, but just to make the process easier to see I'm doing that to show the basics.



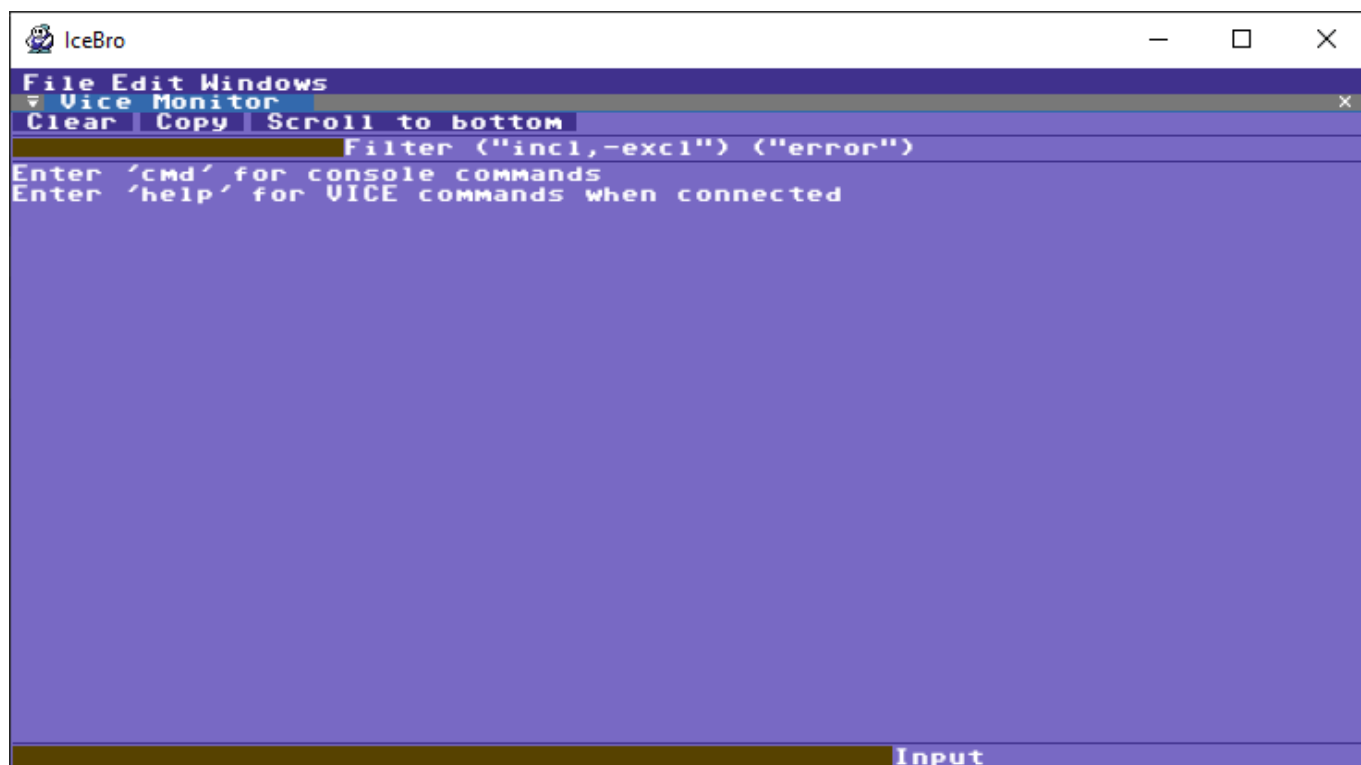
Closed windows can be reopened in the Windows menu bar, let's open the Vice Console



If you grab the title bar of the Vice Monitor and move it over the IceBro window you can see the docking anchors shown, dropping the window over any of these anchors defines how the window will be fitted into the docking space.



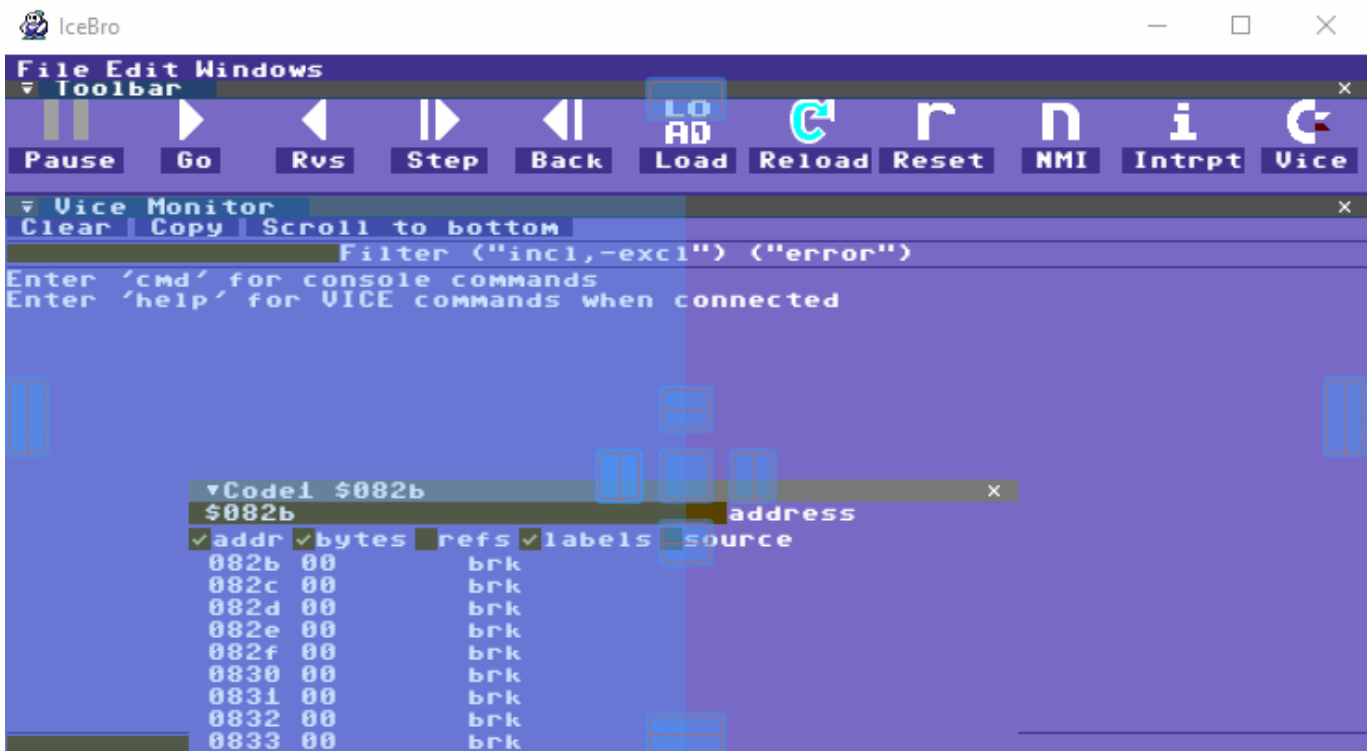
Let's drop the Vice Console on the center box which will make the Vice Console fill the entire Dock Space for now



Next let's drop the Toolbar window on top of the Vice Console by dropping it on the box at the top of view Dock Space



Next let's show one of the Code Views by selecting it from the Windows menu and releasing it over the box to the left of the center box in the Vice Console.



If you want to have more windows open than you have space for you can drop them in the center box of another window. This will create a tab in that window and you can quickly switch between the windows.

Note: If you delete the `imgui.ini` or `IceBro.cfg` files you will return to the default window arrangement. This can be useful if you get stuck and want to start over. The default layout files will be removed from IceBro in the future so you can keep your setup when upgrading.