

# Running CLI Applications - Mac

This page will help you to understand how to run a CLI application from SKAARHOJ Innovation Lab on Mac. CLI means "command line interface" and it's the kind of geeky programs that need to get started from a black window with white text... sigh. The world is unfair, I know. But help is here.

The example below is based on the popular Raw Panel emulator called "Raw Panel Dummies" (it emulates any SKAARHOJ panel so you can easily and freely get started on integrating support in your hardware or software applications). The principles will however be the *same for any CLI application from SKAARHOJ*, you just need to change the filenames.

## Steps








### 1. Download the relevant application.

For example, raw-panel-dummies is downloaded from from

<https://github.com/SKAARHOJ/raw-panel-dummies-releases/releases>. For Mac, look for files that says "**darwin**" or "mac" in the filename, eg. "raw-panel-dummies\_1.0.0\_darwin\_amd64" for Intel Macs or "\_arm64" for M1 macs

#### ▼ Assets

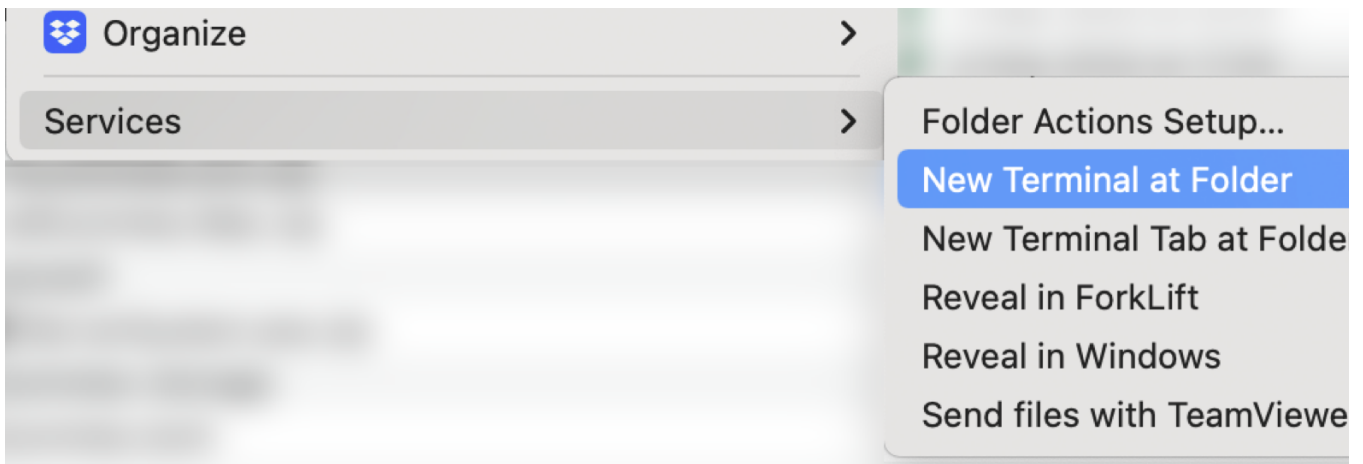
9

 <a href="#">checksums.txt</a>	627 Bytes	yesterday
 <a href="#">raw-panel-dummies-releases_Linux.tar.gz</a>	91 MB	yesterday
 <a href="#">raw-panel-dummies-releases_Windows.zip</a>	91 MB	yesterday
 <a href="#">raw-panel-dummies_1.0.0_darwin_amd64</a>	99.1 MB	yesterday
 <a href="#">raw-panel-dummies_1.0.0_darwin_arm64</a>	99.5 MB	yesterday
 <a href="#">raw-panel-dummies_1.0.0_linux_amd64</a>	98.2 MB	yesterday
 <a href="#">raw-panel-dummies_1.0.0_windows_amd64.exe</a>	98.5 MB	yesterday

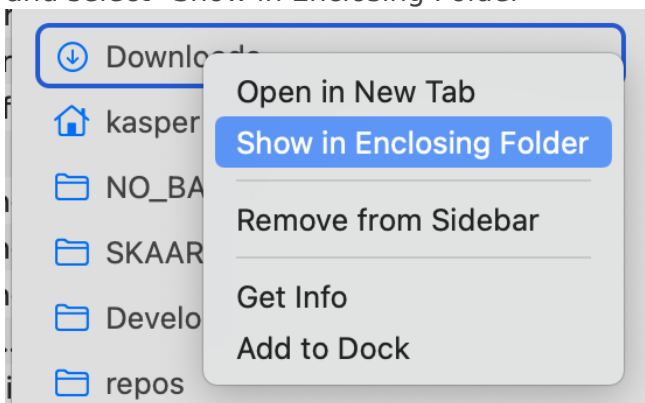
At other times, they may be distributed in a zip-file that you need to unzip first.

### 2. Open the download folder in Terminal

In Finder, right click the download folder, select "Services", select "New Terminal at Folder".



If you can't see your Downloads folder in this way, right click the Downloads folder in finder and select "Show in Enclosing Folder"



### 3. Set "execute" permissions

In the Terminal window that opened, type in `chmod +x [filename of downloaded file]` and Enter. This will set permissions to run the application.

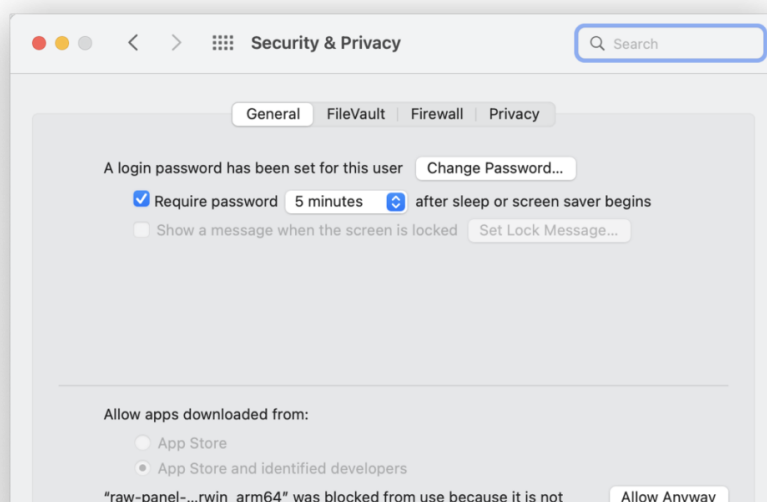
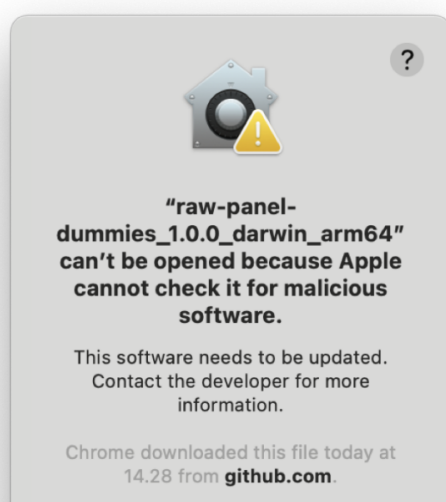
```
~/Downloads > chmod +x raw-panel-dummies_1.0.0_darwin_arm64
```

### 4. Run it first time and manage security settings

Now, try to run the application like this:

```
./[filename]
```

Security will kick in some way: When prompted, press OK, then go to Settings > Security & Privacy and press "Allow Anyway"



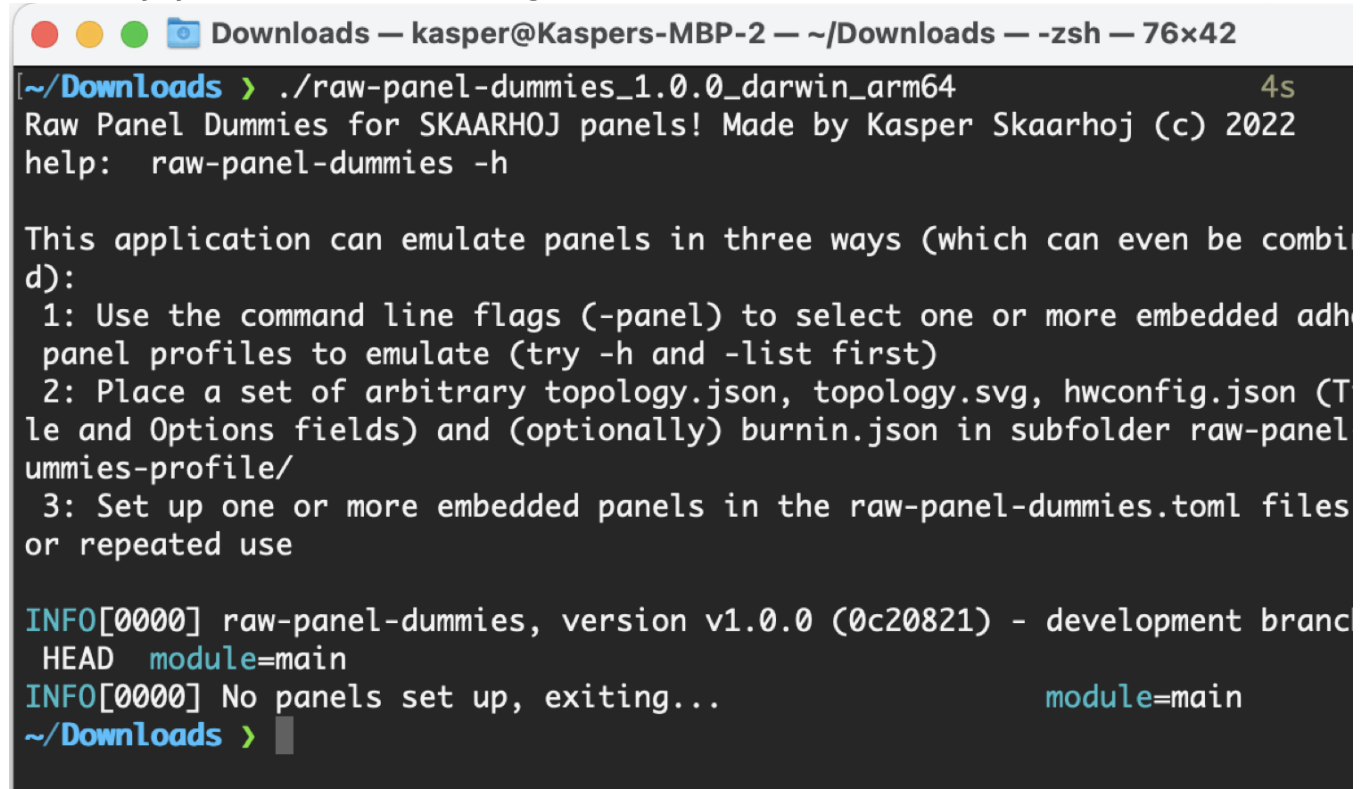
This may take a little forth and back. If the "Allow Anyway" button is not there, try to run it again, try to close and reopen the Settings window etc.

## 5. Run it again until it is accepted

Try to run the application again. It may ask a security related question once more. Just press "Open", "OK" or "Yes" and try once more.

```
[~/Downloads > ./raw-panel-dummies_1.0.0_darwin_arm64
```

Eventually, you should see something like this:



```
Downloads — kasper@Kaspers-MBP-2 — ~/Downloads — -zsh — 76x42
[~/Downloads > ./raw-panel-dummies_1.0.0_darwin_arm64 4s
Raw Panel Dummies for SKAARHOJ panels! Made by Kasper Skaarhoj (c) 2022
help: raw-panel-dummies -h

This application can emulate panels in three ways (which can even be combined):
 1: Use the command line flags (-panel) to select one or more embedded adh
panel profiles to emulate (try -h and -list first)
 2: Place a set of arbitrary topology.json, topology.svg, hwconfig.json (Title and Options fields) and (optionally) burnin.json in subfolder raw-panel-dummies-profile/
 3: Set up one or more embedded panels in the raw-panel-dummies.toml files or repeated use

INFO[0000] raw-panel-dummies, version v1.0.0 (0c20821) - development branch
HEAD module=main
INFO[0000] No panels set up, exiting... module=main
~/Downloads > █
```

Usually, if you study the text here, it will tell you clues to what do to, like run the application with "-h" to get some help for options.

## 6. Run it with options

You are now ready to run it for real, so type in

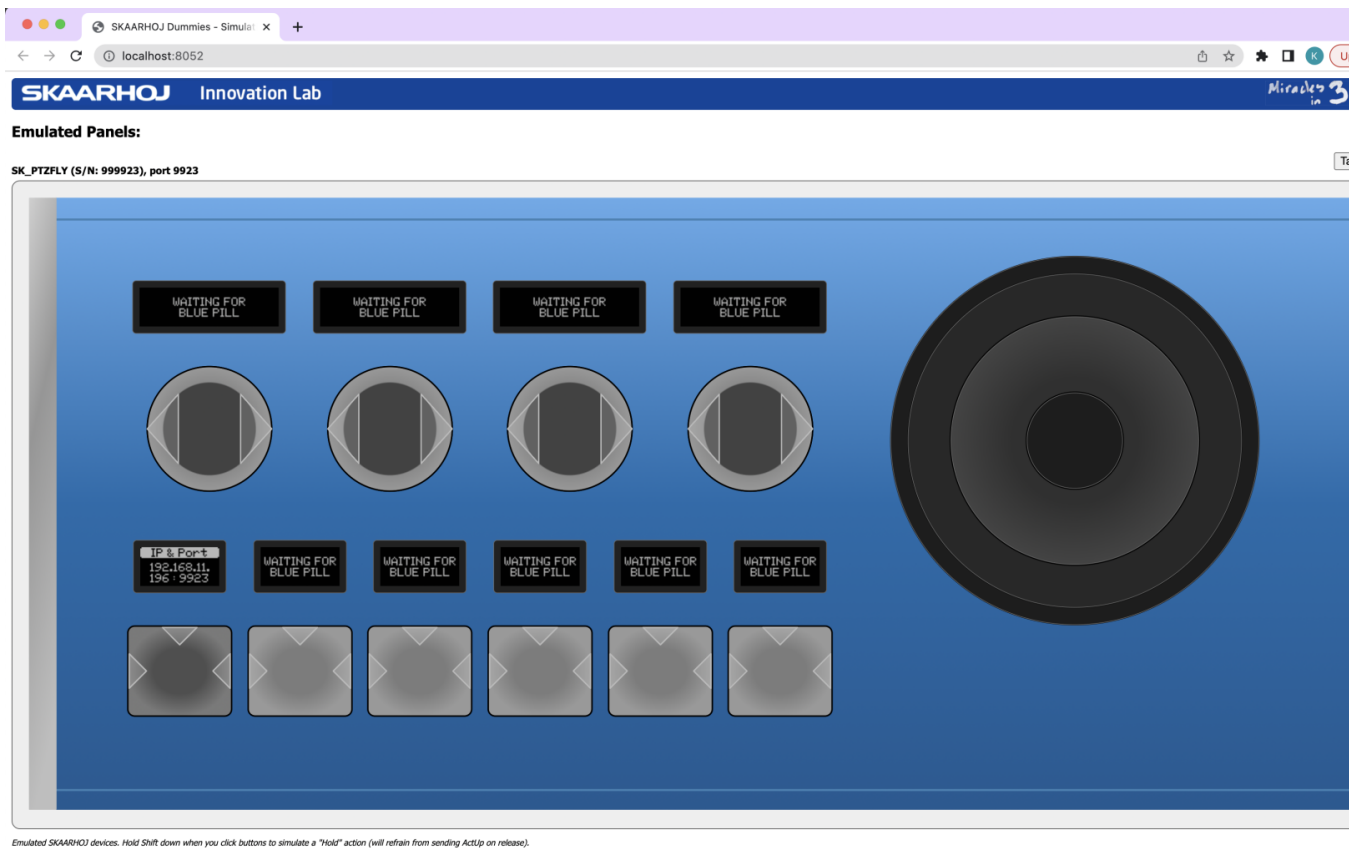
```
./raw-panel-dummies_1.0.0_darwin_arm64 -panel PTZFLY
```

and Enter. This will emulate a PTZ Fly panel.

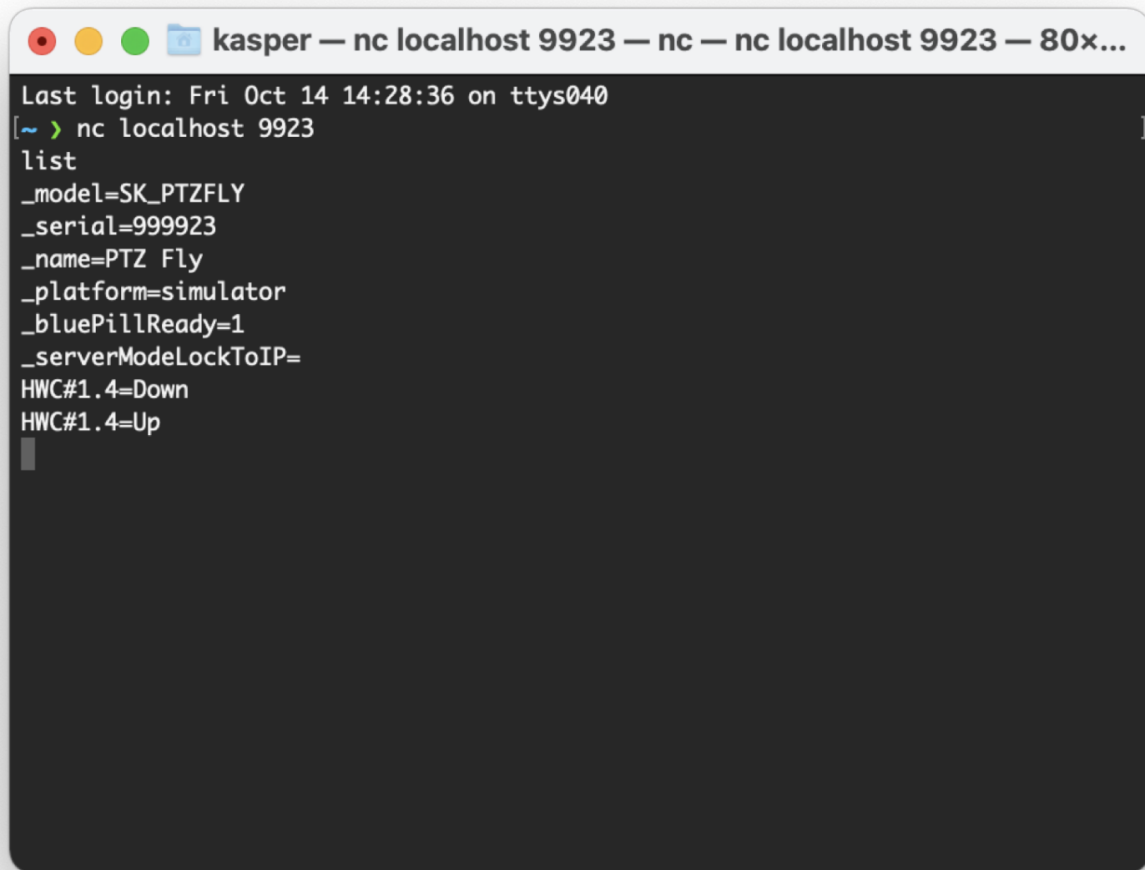
Try other options, especially "-h" or "-list"

## 7. UI - yes!

Many applications will have a sort of UI, it will open automatically in a web browser



Every application will be different. **For Raw Panel Dummies** that emulates a panel, here is an example of how to use the application: You can now connect with Telnet (or "nc") to the panel on port 9923 of your computer. Notice, the emulator runs Raw Panel in server mode. Type in "list" + Enter to identify as an ASCII client and try to press a button on the PTZ Fly emulated panel in the browser - you should see something like this:



```
kasper — nc localhost 9923 — nc — nc localhost 9923 — 80x...  
Last login: Fri Oct 14 14:28:36 on ttys040  
[~ > nc localhost 9923  
list  
_model=SK_PTZFLY  
_serial=999923  
_name=PTZ Fly  
_platform=simulator  
_bluePillReady=1  
_serverModeLockToIP=  
HWC#1.4=Down  
HWC#1.4=Up  
█
```

Let us know if you are still in trouble. Reach SKAARHOJ Innovation Lab on [innovationlab@skaarhoj.com](mailto:innovationlab@skaarhoj.com) or try to contact SKAARHOJs support team on [support@skaarhoj.com](mailto:support@skaarhoj.com)

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