1. Overview of drill computer setup

## Scripts that are run on regular interval are (crontab -e)

0 \* \* \* \* ntpdate 0.arch.pool.ntp.org  
0 \* \* \* \* /home/drill/sync-logs.sh

Which synchronize the computer clock and drill log with <smb://10.2.3.1/public/drill-logs>.

The last line

## Start-up script **~/drill-bootstrap.sh**

* Set’s IP address statically
* Launches scripts that communicate with load cell, winch encoder (depth counter) , and drill. Values are set in REDIS server.
* Drill control GUI that interactions with values set in REDIS server

## Plotting logs

To plot daily logs (done automatically using crontab; see above):

python3 ~/surface-unit/tools/plot-log.py /mnt/logs/drill.log.YYYY-MM-DD [HOUR\_START} [HOUR\_END}

e.g.:

python3 ~/surface-unit/tools/plot-log.py /mnt/logs/drill.log.2022-07-13 8 24

## **Software repository**

Load cell and depth counter readers: https://github.com/iceandclimate/loggerGUI-DL20

Drill control software and logs plotter: <https://github.com/nicholasmr/surface-unit>

## Old drill control software

For old software from 2019, run:

python /home/drill/drill-surface/legacy/drill\_surface.py

## If unable to resolve hostnames

In /etc/nsswitch.conf: Move “dns” forward (imeadiately after “myhostname”)