Pinngortitaleriffik
Grønlands Naturinstitut
Greenland Insitute of Natural Resources

100 manuelle skridt i et ét skript

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Biolog, Pingortitalieriffik

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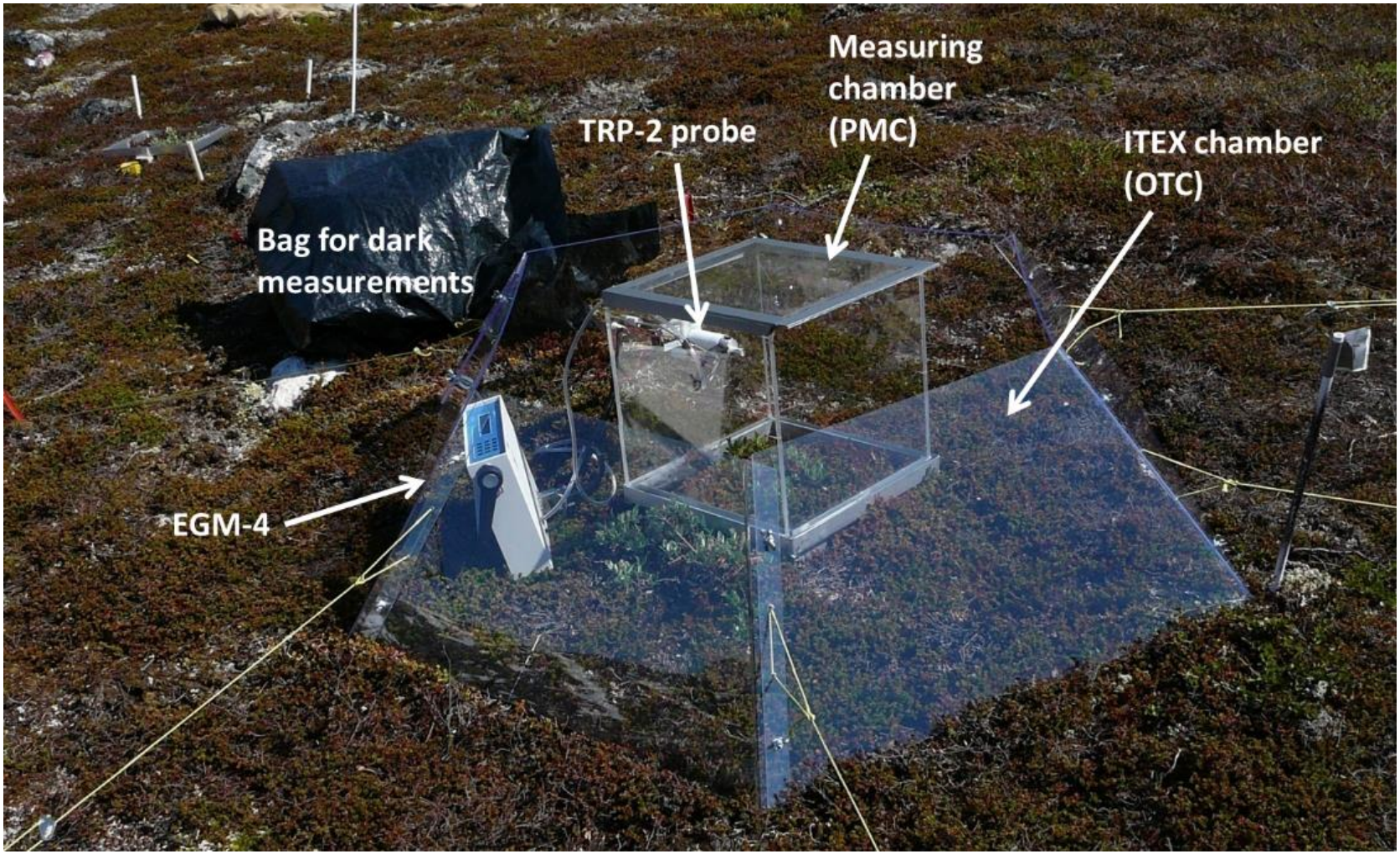
Measuring chamber (PMC)
TRP-2 probe
ITEX chamber (OTC)
Bag for dark measurements
EGM-4

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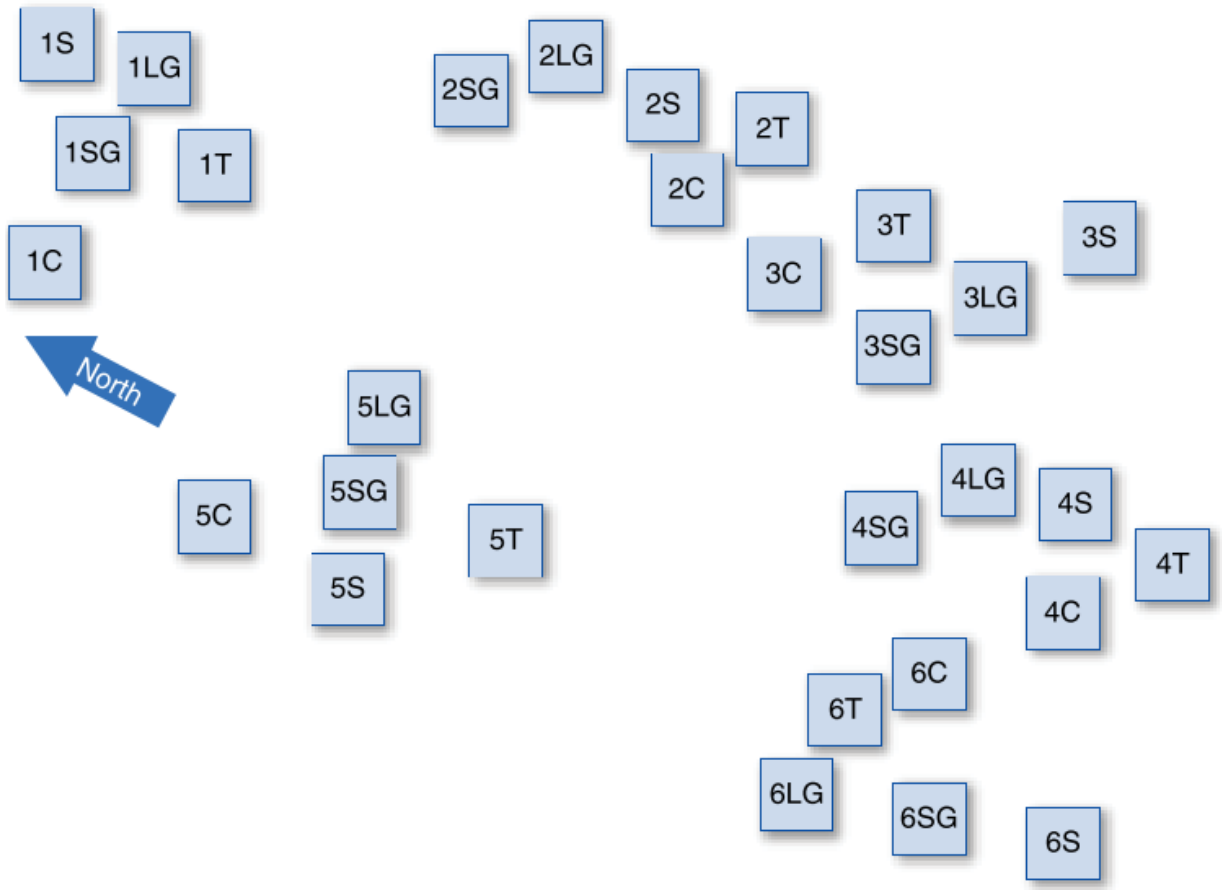

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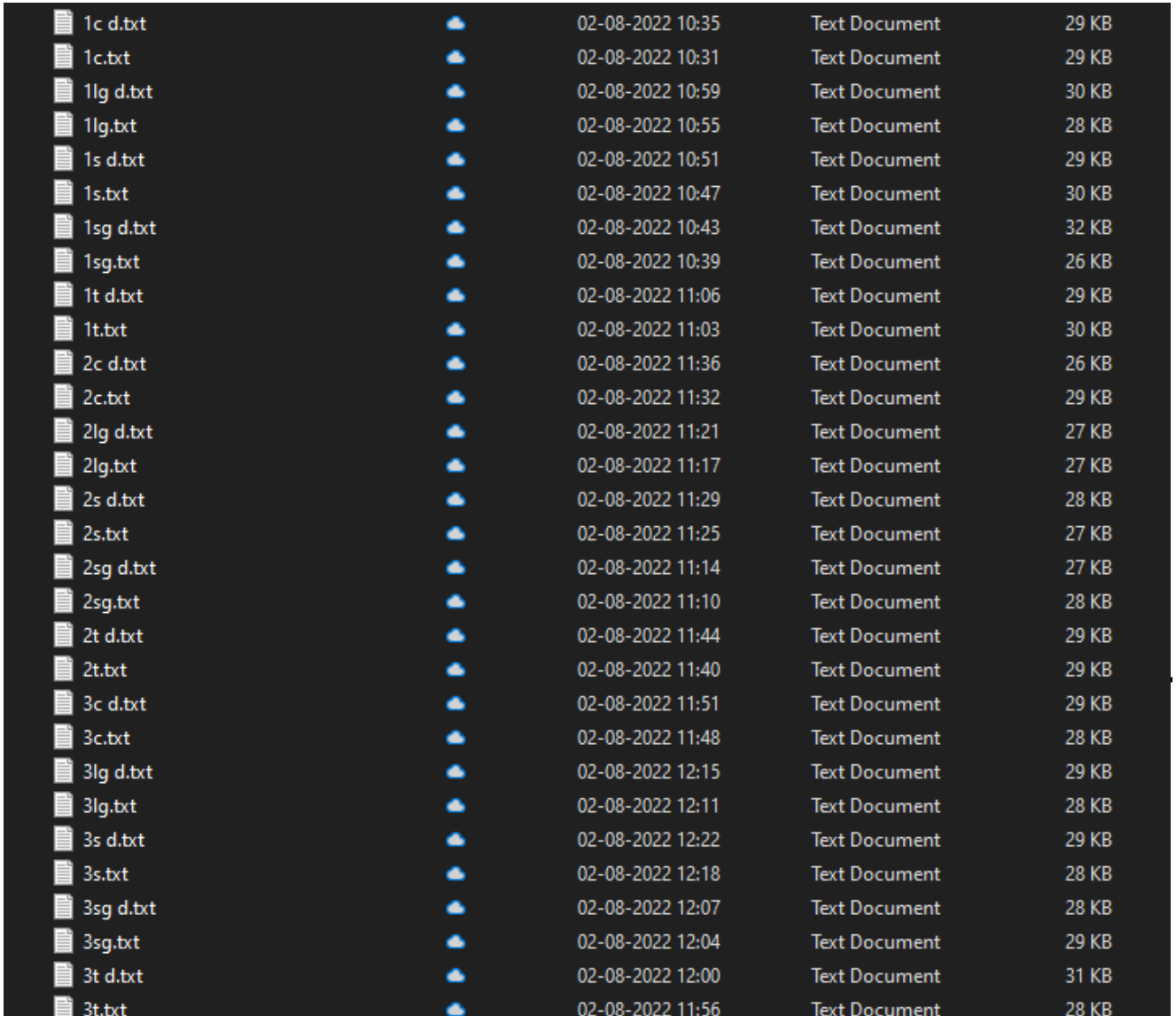

1c d.txt	02-08-2022 10:35	Text Document	29 KB
1c.txt	02-08-2022 10:31	Text Document	29 KB
1lg d.txt	02-08-2022 10:59	Text Document	30 KB
1lg.txt	02-08-2022 10:55	Text Document	28 KB
1s d.txt	02-08-2022 10:51	Text Document	29 KB
1s.txt	02-08-2022 10:47	Text Document	30 KB
1sg d.txt	02-08-2022 10:43	Text Document	32 KB
1sg.txt	02-08-2022 10:39	Text Document	26 KB
1t d.txt	02-08-2022 11:06	Text Document	29 KB
1t.txt	02-08-2022 11:03	Text Document	30 KB
2c d.txt	02-08-2022 11:36	Text Document	26 KB
2c.txt	02-08-2022 11:32	Text Document	29 KB
2lg d.txt	02-08-2022 11:21	Text Document	27 KB
2lg.txt	02-08-2022 11:17	Text Document	27 KB
2s d.txt	02-08-2022 11:29	Text Document	28 KB
2s.txt	02-08-2022 11:25	Text Document	27 KB
2sg d.txt	02-08-2022 11:14	Text Document	27 KB
2sg.txt	02-08-2022 11:10	Text Document	28 KB
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3s.txt	02-08-2022 12:18	Text Document	28 KB
3sg d.txt	02-08-2022 12:07	Text Document	28 KB
3sg.txt	02-08-2022 12:04	Text Document	29 KB
3t d.txt	02-08-2022 12:00	Text Document	31 KB
3t.txt	02-08-2022 11:56	Text Document	28 KB

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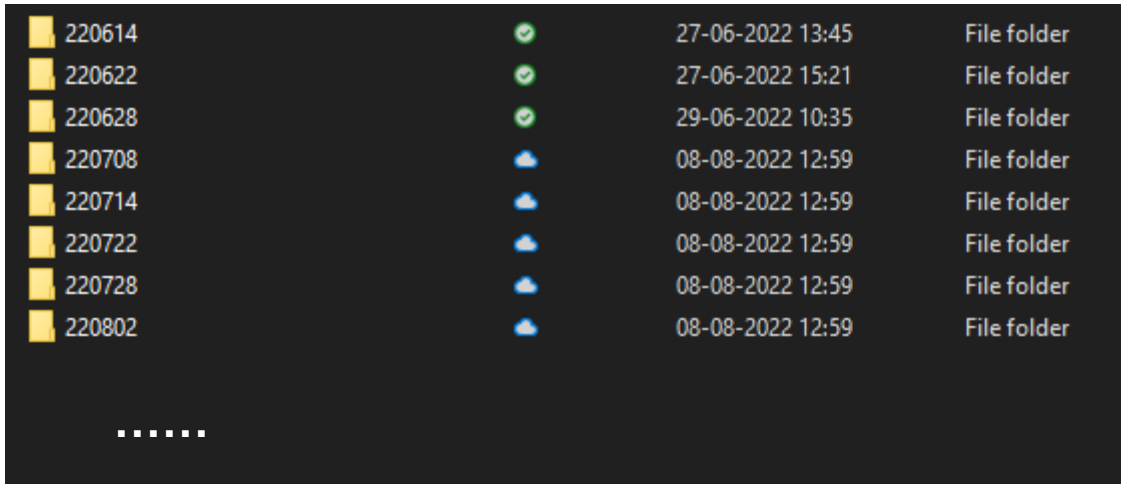
... x alle snefrie uger



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```
BEGIN RECORD

DATE/TIME, DATA FORMAT, EVENT DATE, EVENT TIME, PLOT NO, RECORD NO, CO2, AIR PRESSURE, FLOW RATE, H2O, H2O TEMP, O2, SYSTEM ERROR, AUX VOLTAGE, PAR, TSOIL, TAIR, RH, P1, P2, P3, P4, P5
6/14/2022 10:27:29 AM,   E, 50
6/14/2022 10:27:30 AM,   E, 50
6/14/2022 10:27:31 AM,   E, 50
6/14/2022 10:27:32 AM,   E, 50
6/14/2022 10:27:33 AM,   E, 50
6/14/2022 10:27:34 AM,   E, 50
6/14/2022 10:27:35 AM,   M5,14/06/22,10:26:58,     1,  1259,   427, 1018.4, 300, 0.0, 0.0, 0.0,  0, 0.0000,   478, 0.0,10.8, 0.0,  3,    97,  96.94,  8.241,   907
6/14/2022 10:27:40 AM,   E, 50
6/14/2022 10:27:41 AM,   E, 50
6/14/2022 10:27:42 AM,   E, 50
6/14/2022 10:27:43 AM,   E, 50
6/14/2022 10:27:44 AM,   E, 50
6/14/2022 10:27:45 AM,   E, 50
6/14/2022 10:27:45 AM,   M5,14/06/22,10:27:08,     1,  1269,   422, 1018.4, 300, 0.0, 0.0, 0.0, 50, 0.0000,   492, 0.0,10.9, 0.0,  3,    97,  96.94,  8.240,   908
6/14/2022 10:27:46 AM,   E, 50
6/14/2022 10:27:47 AM,   E, 50
6/14/2022 10:27:50 AM,   E, 50
6/14/2022 10:27:51 AM,   E, 50
6/14/2022 10:27:52 AM,   E, 50
6/14/2022 10:27:53 AM,   E, 50
6/14/2022 10:27:54 AM,   E, 50
6/14/2022 10:27:55 AM,   M5,14/06/22,10:27:19,     1,  1279,   424, 1018.3, 300, 0.0, 0.0, 0.0,  0, 0.0000,   507, 0.0,10.9, 0.0,  3,    97,  96.94,  8.240,   910
6/14/2022 10:27:58 AM,   E, 50
6/14/2022 10:27:59 AM,   E, 50
6/14/2022 10:28:00 AM,   E, 50
6/14/2022 10:28:01 AM,   E, 50
6/14/2022 10:28:02 AM,   E, 50
6/14/2022 10:28:03 AM,   E, 50
6/14/2022 10:28:04 AM,   E, 50
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6/14/2022 10:28:10 AM,   E, 50
6/14/2022 10:28:11 AM,   E, 50
6/14/2022 10:28:12 AM,   E, 50
6/14/2022 10:28:13 AM,   E, 50
6/14/2022 10:28:14 AM,   E, 50
6/14/2022 10:28:15 AM,   E, 50
6/14/2022 10:28:15 AM,   M5,14/06/22,10:27:39,     1,  1299,   424, 1018.3, 300, 0.0, 0.0, 0.0, 50, 0.0000,   525, 0.0,11.1, 0.0,  3,    97,  96.94,  8.239,   909
6/14/2022 10:28:16 AM,   E, 50
6/14/2022 10:28:17 AM,   E, 50
6/14/2022 10:28:20 AM,   E, 50
6/14/2022 10:28:21 AM,   E, 50
6/14/2022 10:28:22 AM,   E, 50
6/14/2022 10:28:23 AM,   E, 50
6/14/2022 10:28:24 AM,   E, 50
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6/14/2022 10:28:28 AM,   E, 50
```

60 x snefrie uger x…

1. Åbne fil
2. Filtrer egentlige målinger
3. Kopierer 13 målinger
4. Paste til dataark
5. Flyt til rigtige kolonner
6. Tilføj supplerende data
7. Manuel sense/kvalitetstjek af værdier

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Alt sammen automatiseret i ”ét” script

1. Åbne fil

2. Filtrer egentlige målinger
3. Kopierer 13 målinger
4. Paste til dataark

5. Flyt til rigtige kolonner
6. Tilføj supplerende data

1. Læser alle filer
   - Navngivning af plots fra filnavne
2. Filtrer egentlige målinger
3. Tager kun de første 13 målinger
4. Generer én fil med korrekte kolonner

5. Tilføj supplerende data

6. ‘Automatisk’ kvalitetssikring

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```r
library(fs)
library(tidyverse)
library(lubridate)
library(janitor)
library(zoo) #to be able to carry forward frame heights


plot_name_from_filepath <- function(path) {
  toupper(str_extract(basename(path), "[^_\\. ]*"))
}

na_locf_nocb<-function(x){
  x %>%
  na.locf(na.rm = FALSE) %>%
  na.locf(na.rm = FALSE, fromLast = TRUE)
}

cfluximport<-function(path){
    additional<-dir_ls(path, glob = "*.csv", recurse = 2) %>%
    read_csv()

    dir_ls(path, glob = "*.txt", recurse = 2) %>%
      read_csv(skip = 2, id = "path")%>%
      clean_names() %>%
      filter(data_format != "E")%>%
      group_by(path) %>%
      mutate(no = row_number()) %>%
      ungroup() %>%
      filter(no < 14) %>%
      mutate(light = if_else( par > 10, "L", "D"),
             date = dmy(event_date),
             DOY = yday(date),
             year = year(date),
             month = month(date),
             day = day(date),
             time = event_time,
      ) %>%
      mutate(plotid = plot_name_from_filepath(path),
             plot = str_extract(plotid, "[0-9]*"),
             treatment = str_replace_all(plotid, "[:digit:]",""))%>%
      left_join(additional, by = c('date','plotid')) %>%
      arrange(date, time) %>%
      group_by(plotid) %>%
      mutate_at(c("frame_height_1", "frame_height_2", "frame_height_3", "frame_height_4"), na_locf_nocb)%>%
      ungroup()
}

```

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```
1
2  source("cflux_import.R")
3
4  path<-"C:\\Users\\idja\\OneDrive - Grønlands Naturinstitut\\General - BioBasis\\BioBasis_Nuuk_2022\\C-flux_2022\\C-flux raw"
5
6  datafile <- cfluximport(path) %>%
7    select(year,
8           month,
9           day,
10          DOY,
11          date,
12          observer,
13          plot,
14          treatment,
15          light,
16          photo_no,
17          cloud_cover,
18          time,
19          co2,
20          air_pressure,
21          par,
22          tair,
23          soil_moisture_1,
24          soil_moisture_2,
25          soil_moisture_3,
26          frame_height_1,
27          frame_height_2,
28          frame_height_3,
29          frame_height_4,
30          remarks
31   )
32
33 write_csv(datafile, file.path(path, "..", "c-flux_2022.txt"))
34
```

```
---
title: "cflux_check"
author: "IBDJ"
date: "29/6/2022"
output:
  html_document:
    df_print: kable
---
```{r include=FALSE}
library(fs)
library(tidyverse)
library(lubridate)
library(janitor)
library(zoo) #to be able to carry forward frame heights
```


```{r include=FALSE}
source("cflux_import.R") #, local = knit::knit_global())
```

```{r include=FALSE}

data<-cfluximport("C:\\Users\\idja\\OneDrive - Grønlands Naturinstitut\\General - BioBasis\\BioBasis_Nuuk_2022\\C-flux_2022\\C-flux raw")

```

Will show a list of files that for some reason have more than 13 rows. An error is occuring if any files are listet.
```{r}

data %>%
  count(path) %>%
  filter(n!=13)

```


Check for any NA values. If output is FALSE everything is okay.
```{r}
data %>%
  select(-starts_with("soil_"),-num_range("p",1:5),-remarks,-photo_no) %>%
  nrow() %>%
  is.na()

```

```{r}


```
```

Nye opmærksomhedspunkter

1. Filer *skal* være navngivet rigtigt
2. Praktisk udførelse skal være korrekt timet

R læring

1. Hvis du kan ønske dig det, så kan det gøres i R
2. Det er brugbart og ikke svært at lave funktioner
3. Strukturering af funktioner, kørsel og 'rapportering'

Tak for jeres opmærksomhed

Spørgsmål?