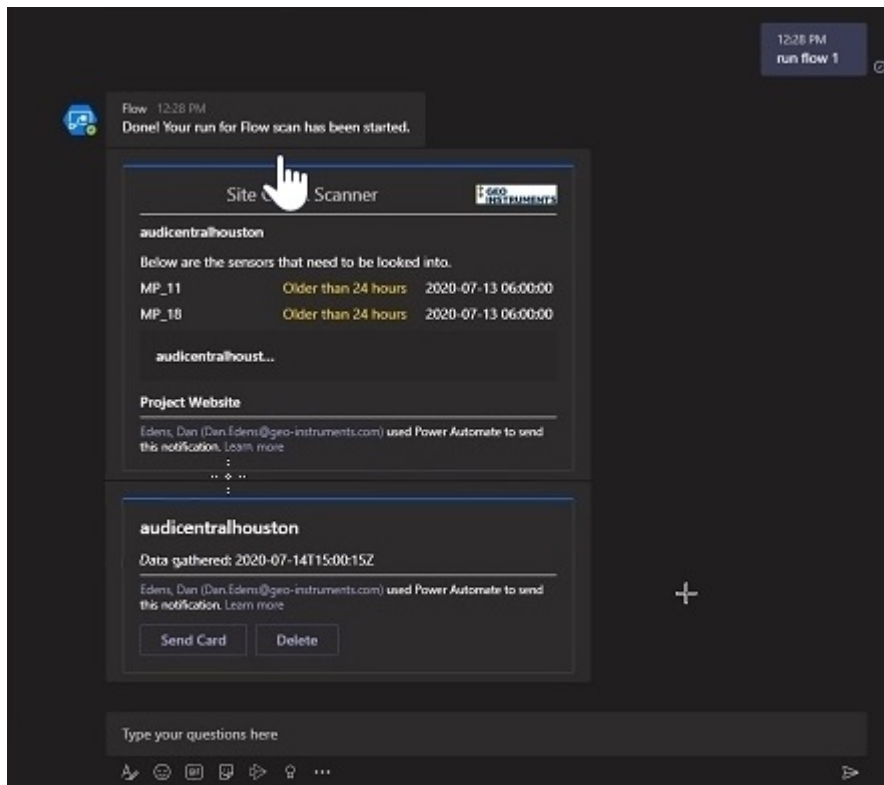


Tools for Project management

1. Sitecheck Scanner

- A CLI for end-to-end testing Client websites.
- Generates Visual tour of multiple Geotechnical monitoring platforms, used to assist Geo-Instrument's field technicians with Issue Visibility
- Navigates through Planviews and alerts the User to changes in sensor status, missed readings and setup errors.
- Support for Microsoft Team's Adaptive Cards.
- SQL database is monitored, alerting on missing sensors and reporting via MQTT broker.
- Decentralized database access, and reduced Human error in Issue visibility.

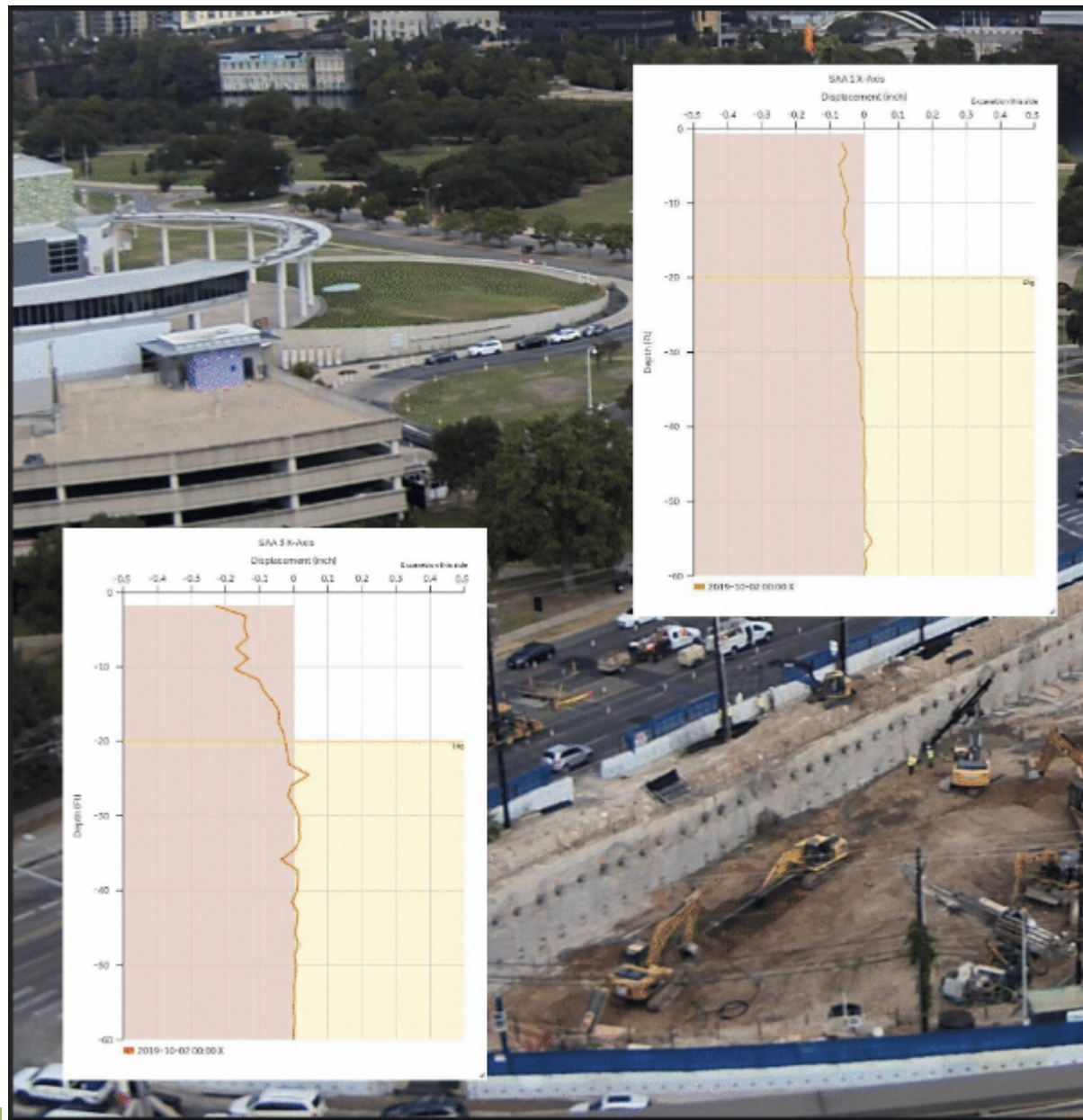
[Demo on Youtube](#) — [Check it out on Github](#) — [Install via Pip](#)



2. Timelapse Factory

- Web scraper for manipulating data displayed on our Quickview platform.
- Used to overlay data plots onto Jobsite Camera footage.

[Demo On Youtube](#)

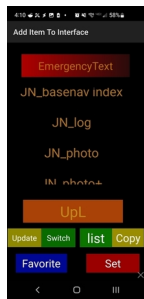


Tools for the Field

1. Interface Panel -

Download on Taskernet

- GUI for assigning scripts to Mobile device triggers such as Shake, Hardware buttons, NFC tags, and Voice commands.
- Used to assist in safely operating testing equipment in Industrial environments.
- Able to detect current job by closest address, and uses this for sorting data.
- "SOS button" mode to alert On-Site Safety Manager



2. LnetFieldApp

Frontend:

- Android App for controlling **Topcon** total stations.
- Internal replacement for Campbell Scientific's **Loggerlink** app.
- Significantly improves ability to locate survey points.



Backend:

- Lightweight and scalable python script that pipes MQTT topics into **Xargs**.
- Non-blocking control of several Units through the **Loggernet CLI, Corascript**.
- Server utilizes Python, Xargs, and Mosquitto.

remote / 20210812.5

Primary run

```
--
20  HzAxis set to: 267
21
22  VAxis set to: 265
23
24  point_name set to: MP5
25
26  HzAxis set to: 7
27
28  VAxis set to: 272
29
30  search_windowX set to: 0.5
31
32  search_windowY set to: 2
33  Command learnmode_on flag to: true
34  host = localhost
35  user = admin
36  device = deskIP
37  coraecho = on
38  CoraScript 1, 24, 04
39  connect localhost --name="admin" --password="";
40  +connect,"coralib3.dll version 2, 02, 15"
41  set-variable deskIP Public LearnMode {} true;
42  +set-variable,The variable was set
43  Command aim flag to: True
44
45  host = localhost
46  user = admin
47  device = deskIP
48  coraecho = on
49  HzAxis = 267
50  VAxis = 265
51  point_name = MP5
52  CoraScript 1, 24, 04
53  connect localhost --name="admin" --password="";
54  +connect,"coralib3.dll version 2, 02, 15"
55  set-variable deskIP Public NewPointHz {} 267;
56  +set-variable,The variable was set
57  set-variable deskIP Public NewPointV {} 265;
```

Scanning for tool capabilit
Connecting to the server.
2021-08-12 14:33:44Z: Liste
2021-08-12 14:33:49Z: Runni
Error reported in diagnosti
- C:\Users\Dan.Edens\de
2021-08-12 15:33:54Z: Job R
2021-08-12 15:54:17Z: Runni

SM-G970U

10:56

LearnMode

Connect to linker
on

Variable Set

266 MP UMP CP

267

Send

268

0.3

0.3

send window (x,y)

Variable Set

Name %CoraNetV To: 265

PostionToFlag

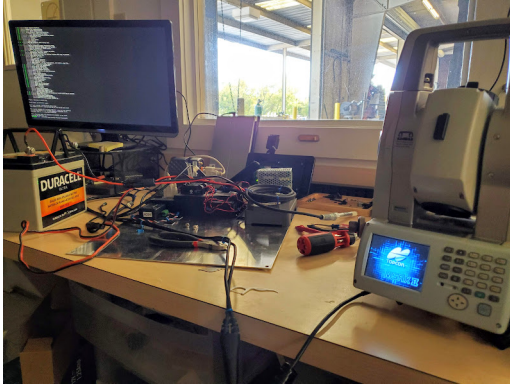
Show Scene

Name LearnMo ReadToFlag

Tools for the Shop

1. AMTSworkshop

Began as migration of 20 years worth of Campbell Scientific Datalogger programs into Git.

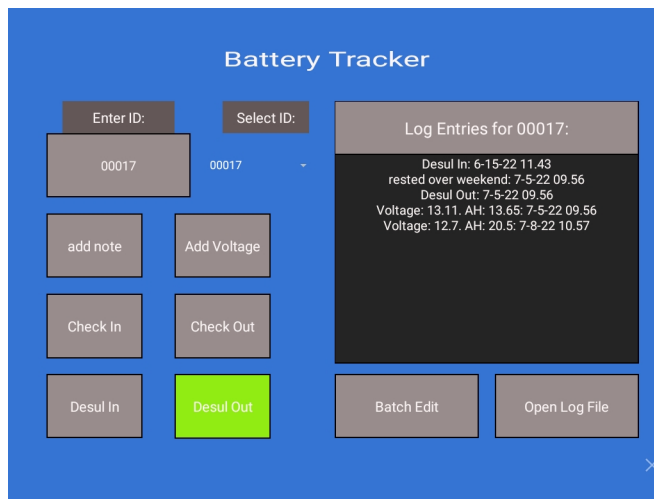


- Worked on an R&D project for a new type of Monitoring prism.
- Azure DevOps pipelines for testing each commit on live lab equipment
- Designed to handle rolling out changes slowly due to certain project specs requiring legacy versions on remote data loggers.

2. Geo Battery Bot

Check it out on [Github](#)





Mobile app for tracking inventory of Geo-instrument's fleet of 110ah AGM batteries.

This is used to manage the **desulfating** schedule.

- I created a QRcode generator which publishes a number and status to the (Join API)[<https://joaoapps.com/j>]
- A tablet located in the Geo-Instrument's Shop acts as the server.
- Created an Andriod app as GUI and backend to log unit events.
-

Stickers are generated in a given range of serial numbers by

python script: QR-generator.py

Project Portfolio:

1. MSE Wall Repair (Project Spotlight)

- Apr 2021 - Oct 2021
- Planned and executed a Monitoring plan for a collapsed MSE wall in Fort Worth, Tx.
- Deployed Tiltmeters and Crack monitoring equipment to monitor for movement during wall repair.
- Built and Maintained Client website displaying Tiltmeter and AMTS Data.

2. Lock and Dam (Project Spotlight)

- Nov 2018 - Feb 2019
- Emergency Repair of an Army Corps of Engineers' Lock and Dam.
- Provided Equipment troubleshooting and Live Data monitoring for the repair team.
- Developed a Grout logging app for Crew working in heavy storming.
- Deployed Piezometers and Tiltmeters 40 feet underwater on the Dam's slab.

3. Capitol Complex Excavation

- Mar 2018 - Jul 2022
- Excavation monitoring in downtown Austin, Tx.
- Installed AMTS systems, Tiltmeters, Automated Inclinometers, and Vibration Monitors.

4. SH288 WSE wall failure (News Article on Emergency)

- Apr 2021 - Oct 2021
- Provided the client with SAA and Piezometer data during operations.
- These were used to monitor for additional settlement and the height of the water table during Emergency repairs.

5. **Fuji (Project News article)**

- Aug 2021 - Apr 2022
- Tunneling Monitoring below 14 lines of Railroad.
- Provided the client settlement data during tunnelling.

6. **Pittman Hotel (Project News article)**

- Aug 2018 - Apr 2019
- Monitoring underpinning activities during the preservation project of The Pittman Hotel in Dallas, Tx
- Provided the client with a website for viewing Settlement and tilt data.

7. **425 Riverside (Project News article)**

- May 2019 - Jun 2020
- Diaphragm wall project in Downtown Austin, Tx
- Data used to verify design loads during construction, resulting in the elimination of a row of anchors.

8. **Atoka Pipeline Repair (Project News article)**

- Jul 2019 - Jan 2022
- Tunneling project to relocate a Water pipeline underground
- Installed 2 AMTS systems to monitor the active water pipeline during blasting activities

9. **Government Center Parking Garage - MBTA Greenline LT(Project News article)**

- May 2022
- Load Test performed on supports affected by the Government Center Garage collapse in Boston, MA.
- Deployed MPBX Laser systems and String potentiometer during testing.