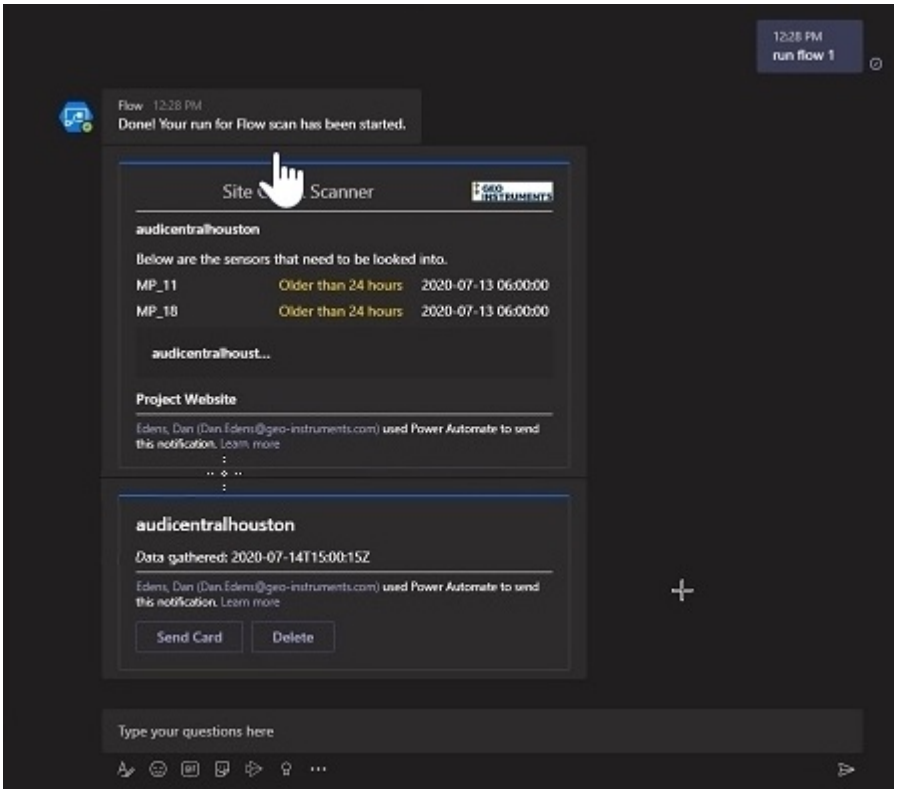
Tools for Project managment

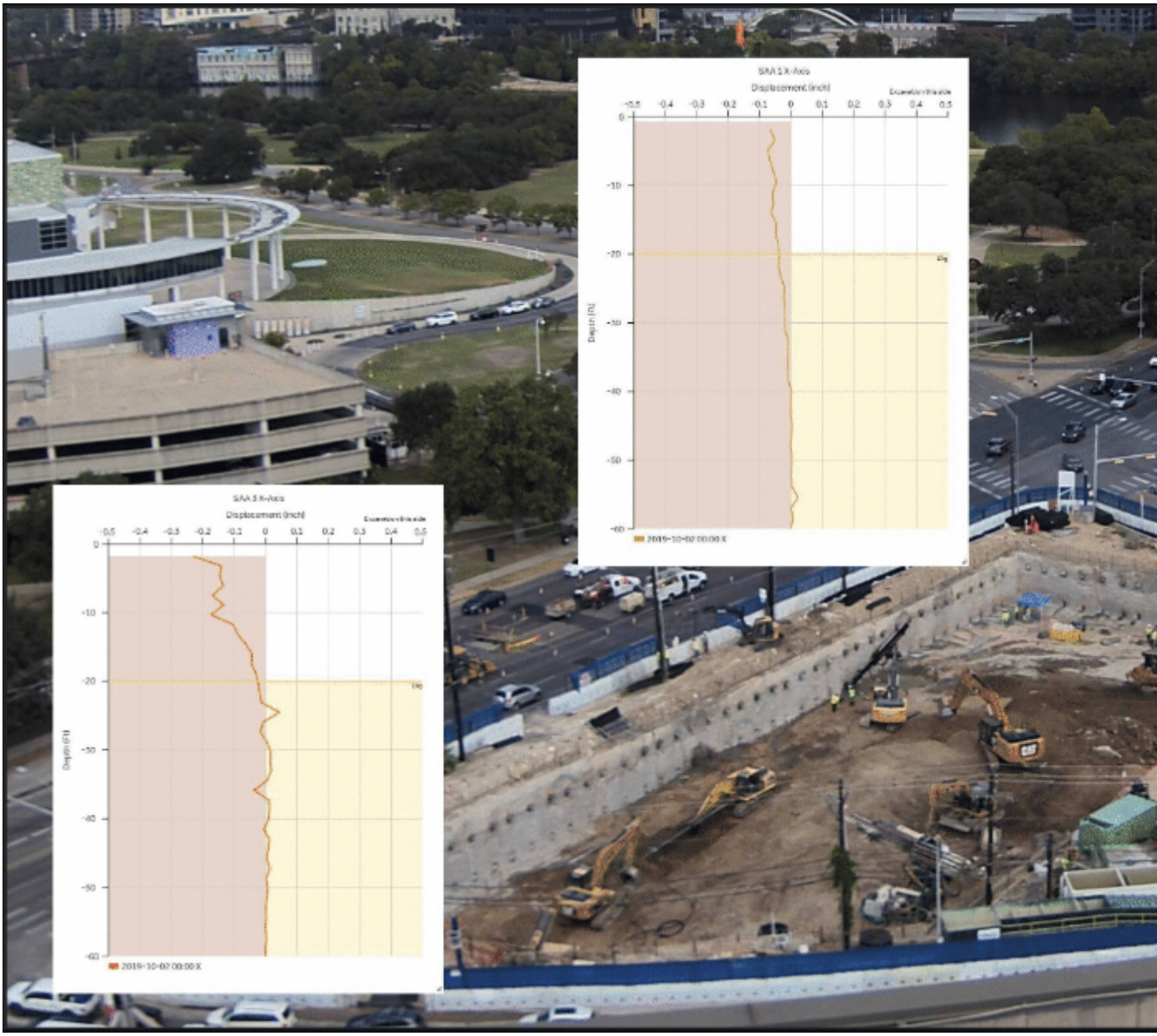
1. Sitecheck Scanner
   - A CLI for end-to-end testing Client websites.
   - Generates Visual tour of multiple Geotechincal monitoring platforms, used to assists Geo-Instrument's field technicians with Issue Visablity
   - Navigates through Planviews and alerts the User to changes in sensor status, missed 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 visablity.

     ### **Demo on Youtube** — **Check it out on Github** — **Install via Pip**



2. Timelapse Factory
   - Web scrapper for manipulating data displayed on our Quickview platform.
   - Used to overlay data plots onto Jobsite Camera footage.

     ### **Demo On Youtube**

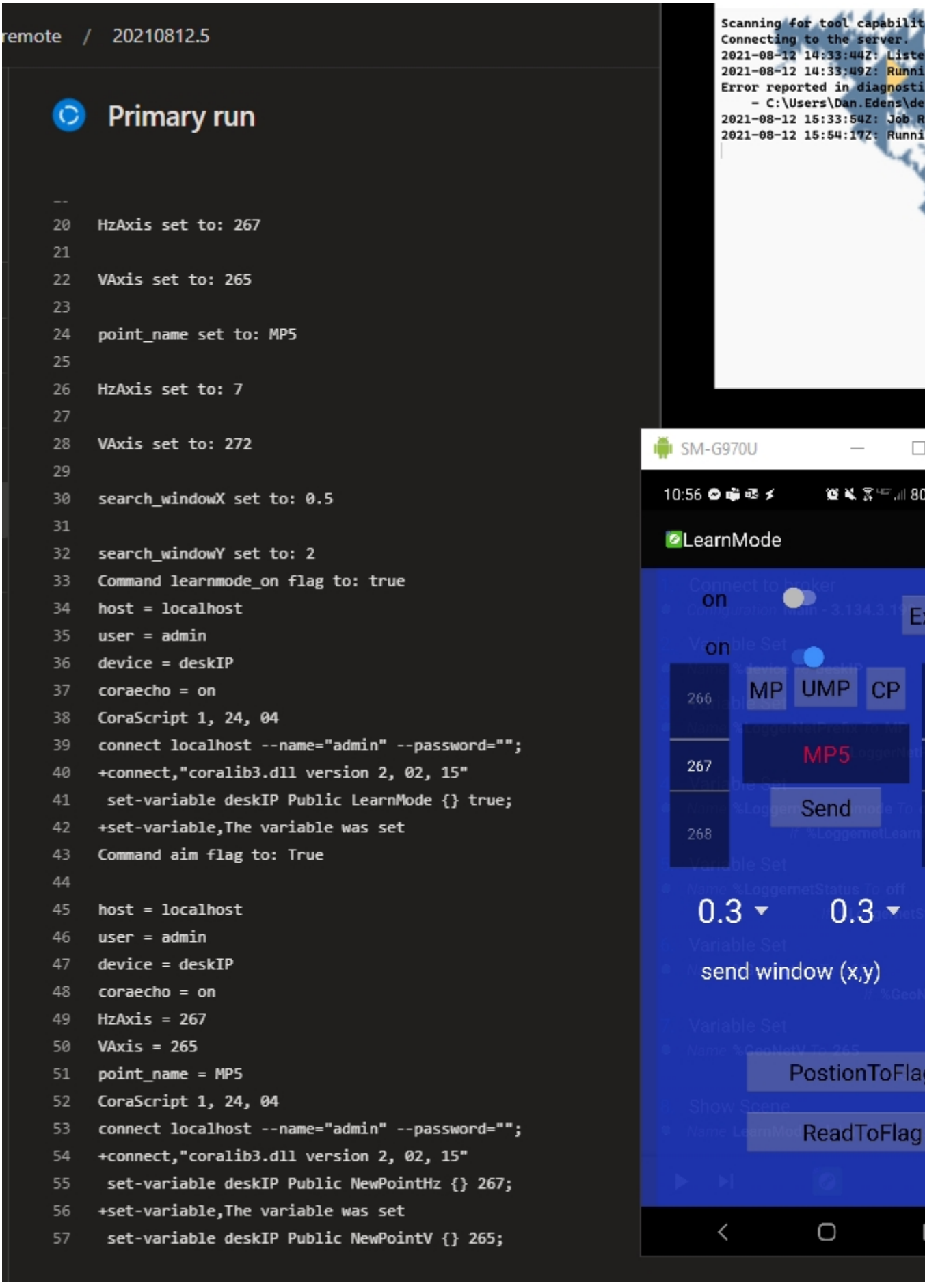


Tools for the Field

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:
   - Andriod App for controling **Topcon** total stations.
   - Internal replacement for Campbell Scientic'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
HzAxis set to: 267
VAxis set to: 265
point_name set to: MP5
HzAxis set to: 7
VAxis set to: 272
search_windowX set to: 0.5
search_windowY set to: 2
Command learnmode_on flag to: true
host = localhost
user = admin
device = deskIP
coraecho = on
CoraScript 1, 24, 04
connect localhost --name="admin" --password="";
+connect,"coralib3.dll version 2, 02, 15"
set-variable deskIP Public LearnMode {} true;
+set-variable,The variable was set
Command aim flag to: True
host = localhost
user = admin
device = deskIP
coraecho = on
HzAxis = 267
VAxis = 265
point_name = MP5
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connect localhost --name="admin" --password="";
+connect,"coralib3.dll version 2, 02, 15"
set-variable deskIP Public NewPointHz {} 267;
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Scanning for tool capabilit
Connecting to the server.
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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
on
on
266
MP
UMP
CP
267
MP5
Send
268
0.3
0.3
send window (x,y)
PostionToFla
ReadToFlag

Tools for the Shop

1. AMTSworkshop

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

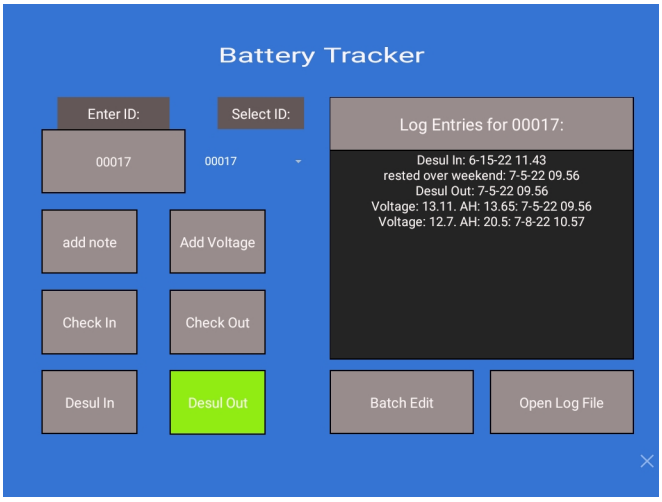
   

   – Worked on an R&D project for a new type of Monitoring prism.
   – Azure DevOps pipelines for testing each commit on live lab equipment
   – Designed to handle rolling out changes slowly due to certain project specs requiring legacy versions on remote data loggers.

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.