

Engineering Weekly Report 5/19/2022 - 5/26/2022

Executive Council Notes

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Individual Activities

- Michael Anderson
- Kevin Barnard
 - 701139 - ML Tracking
 - Reviewed track information from May 2021 data
 - Started generating visualizations of successful tracks in Discovery mode
 - 902002 - FathomNet
 - Pulled down all localizations and corresponding images from VARS and ML database into Pascal VOC for model training
 - 902005 - VARS Annotation Assistance
 - Several new features/fixes to BoxJelly + Cthulhu
 - UI for persistent app settings
 - Track timeline view selection/seeking
 - Cthulhu highlight on track select
 - Read/write deepsea-track artifacts
- Francois Cazenave
 - Out of Office
 - Returned from 12 days vacation
- Danelle Cline
 - 901502 - Soundscape Research and Education
 - Shoutcast stream DNAS software installed and tested; more work to open network ports and bring some old python code up to date
 - World oceans day blog writing in coordination with ITD/AWS
 - 902005 - VARS Annotation Assistance
 - Drafting [jupyter notebooks](#) to help the team with integration/editing against tracks database
 - Ongoing work to test micro EC2 auto-scaling CDK stack is going well with short 1-minute video clips processing.
 - Zoom call with summer intern Manual Gozzi
 - Overhead
 - Project update presentation
 - Out of Office
 - May 27th, 28th,
- Duane Edgington
 - 901618 - Pelagic-Benthic Coupling
 - Scheduling offsite meeting with Dan Davis to get update on latest Laser Measure matlab code.
 - 902004 - Planktivore
 - Project team meeting. Paul R. will be loading Planktivore images into RIMS this week.
 - 902005 - VARS Annotation Assistance
 - Continued work on project assignments
 - Weekly Team meeting

- 902202 - MBARI Cloud Integration Exploration
 - Attending selected sessions of AWS Non-profit summit virtually.
- Overhead
 - Covid-19 PCR test May 23. ArcPoint.
 - Project update presentation.
- Out of Office
 - Working from home this week
- Jon Erickson
 - Still working with and advising Quest Institute. Mostly about their MARS experiment.
- Ben Erwin
 - Out of Office
 - Vacation 2/12-2/20
- Kevin Gomes
 - Out of Office
 - 5/17-18: Sick leave
 - 6/20: Vacation
 - 8/1-8/5: Vacation
 - 10/3-10/6: Vacation
- Andy Hamilton
- Kent Headley
 - 600034 - Precision Control Technologies for ROVs and AUVs
 - Working out reference frame issues for TRN inputs; easy to say, very time consuming to do
 - 902204 - Scalable Marine Robotics Foundations
 - Trying to find protocol documentation for Gemini 720i imaging sonar
 - Looking at ZCM specs/doc
 - Overhead
 - Working on shipping Carbon Waveglider materials to NOAA/PMEL
 - Out of Office
 - July 14-29 (tentative, vacation)
- Rich Henthorn
 - 800139 - EyeRIS (Remote Imaging System)
 - Getting the EyeRIS LRAUV Interface (ELI) backup and going
 - Working on the camera controller serial interface and logging
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Refining DoorMan module and the application
 - General monitoring of the deployment
 - Out of Office
 - Thursday May 26, WFH after dentist
 - July 4 - 18, WFH and vacation time, email, phone, zoom OK
 - Aug 30 - Sep 16, vacation in Germany, email
 - Sep 22 - 29, Sta.M Cruise (final scheduled cruise of the Western Flyer)
- Brett Hobson
- Scott Jensen
 - 901205 - SURF Center
 - Investigated ways to push the high level communications out to an external module.
 - Untangled carousel position codes and now have a means to position the carousel.
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 - 902106 - Niobicon-Based AUV Docking Development
 - Faraday Cages built for the modems to try to limit unwanted "talking". Seems to have helped but now they are having trouble talking even without the cages.

- Checked out insulation monitoring system in preparation for redeployment.
- DQ2113 - Tidal Turbine
 - Preparing for shipping equipment
- Brent Jones
- Chad Keczy
- Brian Kieft
 - Out of Office
 - 05/15 - 06/04 (EcoHAB PDT)
 - 07/02 - 07/09 (HST - vacation)
 - 07/13 - 07/22 (AKDT)
 - 08/01 - 09/03 (EDT)
 - 09/12 - 09/28 (GMT+2 - vacation)
- Denis Klimov
- Diana LaScala-Gruenewald
- Eric Martin
 - 708167 - WEC Dynamics and Control
 - Working with rob.
 - Data issues last week, the system seems rather stable despite.
 - 901101 - Seafloor Mapping
 - Cruise prep
 - Meeting with Paul Devine at Teledyne Reson, working on a quote plan for a new T50 system for the sled.
 - 901206 - Coastal Profiling Float Transition to Science Applications
 - Troubleshooting issues with latest energy monitoring mods.
 - Wake from sleep
 - 902012 - Telepresence on MBARI Research Vessels
 - Reviewing report from Leila, great results, and we're getting ready to release the report more broadly.
 - Planning a project update to discuss these results with the broader community at MBARI
 - 902204 - Scalable Marine Robotics Foundations
 - Project management bits.
 - Lots of work with GIM robotics
 - presented the ASV concept and received feedback.
 - Sprint #1 review last thursday.
 - Prepared new dataset for GIM to try different SLAM on.
 - Coordinating with facilities for lab changes.
 - Overhead
 - Katie Maier interview last week, writing up.
 - Exposures last week have kept me at home, likely through Thursday
- Thom Maughan
 - 901805 - Coastal Biogeochemical Sensing Program
 - Wired up MFET+OCR504 to the Spray chassis in BOG lab to enable remote dev by Brent.
 - Worked on nanoFet, configured ads1248 for all inputs, however that did not solve the current draw problem.
 - Working on bug fixes / enhancements for mphox/mfet.
 - 902004 - Planktivore
 - Test and prep for Monday deployment of Planktivore on Spray with dive to 150m over the canyon. Canceled due to Covid exposure.
 - Handing Spray over to the Carbon Lab. Removed Planktivore and transferred to table cart to enable Chris or Brent to do the battery swap and reconfig in B109

- Assembly and test of Noot battery housing. Working alternate deployment plans to test pressure gated sampling and collect more plankton data.
 - Paul setup ZFS to pool nvme drives on DeepRip. We debugged the sata drives and found power supply cables that were not compatible (corsair vs evga). One of the four drives was bad. RAID controller on the motherboard setup was problematic however ZFS handled pooling the drives wonderfully.
- Out of Office
 - May 27 - 31 Camping
 - Jul 6 - 19 Camping, Bear Lake Monster Swim
- Mike McCann
 - Out of Office
 - 27 June - 29 July: Vacation
- Rob McEwen
- Paul McGill
 - 701145 - Penguin Hotspots
 - Wired AOS sensors to test before potting
 - 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
 - Arranging to get Laser Measure code from Dan Davis
 - 901700 - Acoustical Ocean Ecology
 - Working on building new cable for MARS Echosounder
 - Overhead
 - Helped Doc Ricketts pilots troubleshoot suction sampler carousel
 - Spent hours troubleshooting licensing issue with my PIC C compiler
- Tom O'Reilly
- Craig Okuda
- Doug Pargett
- Ben Raanan
- Mike Risi
 - Out of Office
 - May 5 - vacation
 - May 9-10 - vacation
 - June 2-8 - OI cruise
 - June 10-14 - vacation
 - June 20-22 - vacation
 - August 8-9 - out of office
- Paul Roberts
 - Out of Office
 - 4/2 - 4/9 (spring break san diego)
- Brent Roman
 - Out of Office
 - Thanked and Excuses from Jury Duty last Friday afternoon.
- Carlos Rueda
 - Out of Office
 - May 16-20: vacation
- Karen Salamy
 - 300057 - Mooring Maintenance
 - Helped Jared F. begin setup and data tests of new instruments for the upcoming July 15, 2022 M1 Mooring turn.
 - 901101 - Seafloor Mapping

- Dealt with some very frustrating issues merging and checking in code to VS Code this past week. I was able to submit a pull request for my UI changes to Mike M. earlier this week and hope the updates will be included in the next merge.
- 902009 - AUV UI
 - Adding this project to my list of projects for this year - Kevin can you permanently add?
 - Built the MBARI LRAUV-dash2 code from the Sumo Creations Git repository. Most everything built easily (a few exceptions) and I had the system up and testing in 20 minutes. I spent some time on Slack chatting with Jim Jeffers of Sumo Creations this week as well. We are scheduling a ZOOM Meeting for next week (after the holiday) to go over the code, build and any other issues that I may be of help to them with including some react JS edits.
- Overhead
 - Spent time this week helping various users with the CVS repo - forgotten passwords
 - Had several desktop computer update issues that got ironed out thankfully.
 - Spent some time better understanding various git commands and controls.
- Out of Office
 - Friday, May 27, 2022 and Monday, May 30, 2022 - Vacation for Memorial Holiday
 - Also, Doug was exposed to one MBARI employee that came down with COVID this past week. As a result, we are all staying off-campus until tested. We are hopeful it will not interrupt our holiday weekend.
- Brian Schlining
 - Out of Office
 - Jul 7-8 Vacation
 - Jul 25-28 Vacation
- Alana Sherman
 - Out of Office
 - Out sick all week