

Engineering Weekly Report 9/8/2022 - 9/15/2022

Executive Council Notes

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Individual Activities

- Michael Anderson
- Kevin Barnard
 - 701139 - ML Tracking
 - Data analysis for Science Robotics submission
 - 902002 - FathomNet
 - Re-generated midwater dataset for CVision AI model
 - 902204 - Scalable Marine Robotics Foundations
 - Evaluated RTAB-Map for stereo-based SLAM
 - Continued support for GIM Robotics introduction to Kimera
 - Out of Office
 - Marine Imaging workshop Oct 3 - 7 2022 CEST Brest, France (GMT+2)
 - Vacation Oct 8 - 23
- Francois Cazenave
 - Out of Office
 - Out sick on Monday
- Danelle Cline
 - Out of Office
 - Marine Imaging workshop 3 - 7 Oct 2022 CEST Brest, France (GMT+2)
- Duane Edgington
 - Out of Office
 - Vacation (international) Sept 12 - Oct 1 2022
 - Marine Imaging workshop Oct 3 - 7 2022 CEST Brest, France (GMT+2)
 - Vacation (international) Oct 9 - 19 2022
 - Vacation October 21-23 2022 (Southern California)
- Jon Erickson
 - 901805 - Coastal Biogeochemical Sensing Program
 - The pico-pH case design is in the shop queue. Three items.
 - 901809 - Deep Sea Bioinspiration
 - Finished the multicam interface can. We need the Mini ROV tool sled to finish the mounting.
 - 902004 - Planktivore
 - Spent most of the last two weeks in design and drafting for the pressure case and “flashlights”.
 - Will do a preliminary design review on Fri. to eliminate some of the design options.
 - 902010 - Mesopelagic LRAUV
 - The as built carbon tube came in over size from the advertised dimensions. Will need to Rev the titanium end rings to fit.
- Kevin Gomes
 - 300058 - DMO Support - Western Flyer
 - Documentation of systems in preparation for decommissioning

- 300070 - DMO Support - Ventana
 - Some assistance with GSS logs and getting applicable logs to GSS for troubleshooting.
- 901915 - Improving the Impact of MBARI's Data
 - Got feedback from visceral on questions for data posts, will hold a meeting with improving impact team to get help with data post migration (and expansion)
- 902202 - MBARI Cloud Integration Exploration
 - Met with IS and AWS to work at configuration of VPN and AD/SSO integration. Helped configure accounts and test instances to help Adriana with VPN creation.
 - Discussions about strategic planning with AWS
 - Responding to some requests about accounts and permissions
- Overhead
 - Reviewing phase 2 responses
 - Checking resource hours after phase 2 changes
 - Tours for candidates
 - Preparation work for STEM talk at Carmel High on 9/23.
 - Renewal of JetBrains product licenses (annual)
- Out of Office
 - 10/3-10/6: Vacation
- Andy Hamilton
- Kent Headley
 - 600034 - Precision Control Technologies for ROVs and AUVs
 - Working with Rob to integrate mbtrnpp filtering/TRN processing with Dorado simulation. I've been developing some new C++ TRN client components for QNX, and working on making them portable to OSX/linux. The integration is progressing, and we are currently working out synchronization design to enable repeatable/deterministic simulation behavior; the two systems are not coupled/synchronized in real time, but must be in discrete time to ensure deterministic results.
 - Overhead
 - Developing job description and committee
 - EE candidate interview lunch
 - Phase 2 resource balancing updates and meetings
 - SRSC document review
 - JEDI committee
- Rich Henthorn
 - Out of Office
 - Aug 31 - Sep 16, vacation in Germany, email only
 - Sep 19 - 21, WFH post-travel quarantine
 - Sep 28 - Oct 6, Sta.M Cruise (final scheduled cruise of the Western Flyer)
- Brett Hobson
- Scott Jensen
 - 901205 - SURF Center
 - More coding on the brass board for the next prototype sampler
 - Preparations for the Wyoming recovery
 - 901805 - Coastal Biogeochemical Sensing Program
 - Tests of nanopHOx
 - 902106 - Niobicon-Based AUV Docking Development
 - Design and Drawings for Dock 2022
 - DQ2113 - Tidal Turbine
 - Meetings about next steps

- Overhead
 - EE interview
- Out of Office
 - On travel 9/18-21
- Brent Jones
 - 901009 - CANON
 - Deployed Wire Walker with hydrophone + pH. Was not going up and down. Traced problem to too little buoyancy. Added foam and confirmed it is profiling
 - 901112 - The Monterey Bay Time Series
 - Prepped, deployed, flying LRAUV daphne in support of MBTS run
 - 901805 - Coastal Biogeochemical Sensing Program
 - Deployed spray 29 and am piloting in support of Yui's experiments
- Chad Keczy
- Brian Kieft
 - Out of Office
 - 07/31 - 08/11 (EDT) USGS
 - 08/19 - appointments
 - 08/28 - 09/01 (EDT) USGS
 - 09/12 - 09/28 (GMT+2 - vacation)
- Denis Klimov
 - 902004 - Planktivore
 - We are looking at building a mobile setup for Aquawore.
 - 902101 - LRAUV Technology Development and Fleet Operations
 - Removing LRAUV project related parts from building G.
 - Overhead
 - IFCB on Power Buoy is deployed!
- Eric Martin
 - Out of Office
 - Aug 21-Sept 18 Arctic Expedition
- Thom Maughan
 - 901713 - Nearshore FOCE
 - Reloaded v3.9.1 on a borrowed MpHOX. Provided two options for pump control to nsFOCE team. Updated nsFOCE MpHOX User's Guide and the MpHOX for labview development.
 - 901805 - Coastal Biogeochemical Sensing Program
 - Added support for 128KB FRAM and provided a pre-release of phfet-sos to enable nanoFET lab testing with a durafet.
 - Released v4.1.4 phfet-sos on MpHOX update for CENCOOS. In progress on Wirewalker MFET fast sampling.
 - Continuing to run tests on microSD cards on MpHOX and MFET to create a test case for the bad block problem. So far, no errors using ymodem on 40+ MByte files. Changed the incoming QA procedure for new microsd cards from 'format with windows' to format with microsd card association utility.
 - Working on continuous sampling in deployment for Wirewalker.
 - 902004 - Planktivore
 - Working deployment plan and coordinating vehicle access with Yui. Window of opportunity to get out on Spray 34 before first of Oct.
 - Working with Brent J. on best course wrt battery replacement.
 - Roman finished Spray blocks with an inaugural use of new water jet. Mobile cart based Planktivore lab...

- Also, worked Castroville fast access with Greg / Norm - big help.
- Overhead
 - Planktivore Proposal response
- Out of Office
 - 1+ week starting on the 14th is delayed until after Planktivore.
- Mike McCann
 - 200109 - Core Mooring Data - MDUC
 - Debugged reason for Dorado processing not being able to read SWR data from M1
 - 901009 - CANON
 - Rolled out shortened URL database app for STOQS "Share this view" feature
 - 901221 - Midwater Time Series
 - Got dockerized auv-python to work and deployed it on kraken
 - Moved auv-python to a private repo on GitHub so that it can use Actions
 - Testing automated processing of i2map vehicle data upon copy of log files to the M3 share
 - Overhead
 - Helped Neil clean up old/unused .wrl (VRML 97) files from the 3DReplay share
- Rob McEwen
- Paul McGill
 - Out of Office
 - Will be on vacation Aug 29 thru Sep 5.
- Tom O'Reilly
- Doug Pargett
 - Out of Office
 - August vacation
- 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
 - July 19-20 - vacation
 - August 8-9 - out of office
 - Out of office most Fridays
- Paul Roberts
 - Out of Office
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- Brent Roman
 - Out of Office
 - Sept 6 through roughly Sept 16
- Carlos Rueda
 - 901009 - CANON
 - MXM: Decided to go ahead with the migration of the UI component to Vue3/Quasar2 and newer Apollo mechanisms for interaction with the GraphQL endpoint. Taking good shape, and also with the development cycle (hot reload) faster than with the previous setup.
 - 901502 - Soundscape Research and Education
 - Reviewing some click detection literature. Group mtg. Paper draft review/discussion.
 - 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Awaiting a functional ServerExec to proceed with testing/tuning up wave glider commanding.
 - 902005 - VARS Annotation Assistance

- Group mtg. Will look into some pointers provided by Lonny and Danelle related to object detection/tracking.
- 902009 - AUV User Experience Design
 - I believe good progress has been made on the new UI and supporting API. We should start planning a group meeting to see where we are and determine concrete next steps.
- 902101 - LRAUV Technology Development and Fleet Operations
 - New passwords for all LRAUVs now in place.
 - Dash system maintenance release (4.12.7).
- Overhead
 - Took a Daphne watch shift for this evening (9/14).
- Out of Office
 - Out sick 3 days over past two weeks
 - Oct 10–12, Nov 11–14, 23–30, Dec 8–9: vacation
- Karen Salamy
 - 300057 - Mooring Maintenance
 - Standard weekly data verification checks.
 - 901101 - Seafloor Mapping
 - Continue to work on the new SMDB sidebar. I have had some success combining code from two other sidebar examples given the requests by the science team. I will need to go over with Mike on how I can generally access the mission data information from the GUI for it to be effective.
 - 200103 - Core CTD Data - MDUC
 - John R. is setting up a meeting for next week for the team along with Kevin B. and myself to go over the project and the work required as I take over the ROV O2 QC.
 - Overhead
 - Going through tons of emails from the last week after taking a few days off.
 - Out of Office
 - Personal Day: October 20.
- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - Working on talks and hands-on session presentations for the upcoming marine imaging workshop
 - Released [VARS Annotation 1.3.0](#). This fixes [a bug](#) that was [introduced](#) with JavaFX 16.
 - 902002 - FathomNet
 - Image size information is needed to correctly sync localization data from VARS to FathomNet. [Added image sizes](#) to 900K images in VARS that were missing this information.
 - Refined [milestones](#) for the next phase of FathomNet development.
 - Updated the [OceanVision AI game logger](#) to track changes in logging formats that the remote devs keep making.
 - [Added SSL](#) to all FathomNet APIs as well as the main website.
 - Reviewed proofs for the new FathomNet paper accepted to Scientific Reports.
 - 902005 - VARS Annotation Assistance
 - Meetings with freelance developers for work on the [new Sharktopoda video player](#).
 - Overhead
 - Added a feature to M3/VARS to allow adjusting the start timestamp of a single video asset. This required changes to [vampire-squid](#), the [m3 python api](#), and [DARC's M3 setup](#).
 - Out of Office
 - 10/3 - 10/7 - [Marine Imaging workshop](#), Brest, France
- Alana Sherman
 - Out of Office

- Out for dentist appt