

Engineering Weekly Report 8/25/2022 - 9/1/2022

Executive Council Notes

-

Individual Activities

- Michael Anderson
- Kevin Barnard
 - 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
 - 901915 - Improving the Impact of MBARI's Data
 - Attending Monterey Data Conference. The Theme is [Transforming Science with AI](#). Relevant presentations from academics, researchers from the [DOE national labs](#), and researchers from industry labs on a wide range of science use of AI topics, including climate modeling and the environment.
 - 902005 - VARS Annotation Assistance
 - Continued work on Yolov5 and StrongSort tracker.
 - Out of Office
 - Monterey Data Conference, Aug 29 - Sep 1 2022 PDT.
 - 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
- Kevin Gomes
 - 300058 - DMO Support - Western Flyer
 - Document data pathways with help from Bryan TS
 - Discussions and planning for decommissioning coming up soon
 - 300070 - DMO Support - Ventana
 - Met with Greensea folks several times to discuss Moxa configuration for INS. Changes to baud rate from INS to moxa to GSS seems to have really helped the INS work much better. Test dive showed best INS performance in quite some time.
 - Greensea added a button on the pilot interface to allow the pilots to insert a 'tag' in the LCM data stream named 'GSS_PCOMMS_LOG_MARK' which can identify times when something was happening that should be investigated further. The log files can then be grepped for that particular tag and then played back in the GSS playback interface to examine vehicle state during this time.

- 901915 - Improving the Impact of MBARI's Data
 - Attended new web site reveal from Visceral and will now work on generating data related pages and posts for the new site as we go through several iterations of feedback and development before the release by the end of the year.
- 902012 - Telepresence on MBARI Research Vessels
 - Supported the telepresence activities for the Katija cruise over the weekend.
 - Compiling feedback from users to plan next development activities.
- 902202 - MBARI Cloud Integration Exploration
 - Follow up emails with AWS team for strategic planning
 - Set up meeting for the week after labor day to work on AD/SSO integration with IS and AWS folks.
- Overhead
 - Meetings with project teams to discuss feedback and planning
 - 2022 resource allocation planning for engineering hours requests
 - Prepping a small amount of support for WHOI's deployment of ESP Dennis
- Out of Office
 - 9/7-9/8: Vacation
 - 10/3-10/6: Vacation
- Andy Hamilton
- Kent Headley
 - 902204 - Scalable Marine Robotics Foundations
 - Working in Gemini imaging sonar driver; trying to grab visualization image frames along with raw ping data, which involves Qt and OpenGL - steep learning curve.
 - Overhead
 - Resource planning
 - EE interview lunch
 - Misc admin
- 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
 - The constant acceleration routine is working
 - Command line function and ready for actual commands
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 -
 - 901805 - Coastal Biogeochemical Sensing Program
 - Continued testing of nanoFET and adjustment to a resistor for WAKE
 - 902106 - Niobicon-Based AUV Docking Development
 - Drawings for bigger battery pack
 - DQ2113 - Tidal Turbine
 - Pushing ideas around solidworks for power electronic integration
 - Overhead
 - Interview process
 - Out of Office
 - Out last week due to COVID exposure
- Brent Jones

- 901805 - Coastal Biogeochemical Sensing Program
 - Investigating Spray OCR two blocking issue. Prepping spray 29 for deployment
- Overhead
 - Finishing up mechanical design of M1 cell modem assembly. Waiting for design review hopefully next week
 - Doing config software so we can gain remote access to M1 Cell controller over cell
- 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
 - 800139 - EyeRIS (Remote Imaging System)
 - Revising battery pack design for EyeRIS using newly compiled Battery System Design Check-List
 - Overhead
 - This week we have a deployment of IFCB on Power Buoy; at this time more or less routine deployment still requires careful prepping of IFCB to ensure good optical calibration and quality images.
- Eric Martin
 - Out of Office
 - Aug 21-Sept 18 Arctic Expedition
- Thom Maughan
 - Out of Office
 - 2week Vacation postponed until sometime in early Sept.
- Mike McCann
 - 901009 - CANON
 - Trying to add a url shortening service to STOQS for better "Share this view" urls
 - 901101 - Seafloor Mapping
 - Deployed Karen's improvements for track line display on Google base map
 - 901221 - Midwater Time Series
 - Working on dockerizing auv-python for deployment on MBARI server
 - Got distracted when found a url shortening Django project that uses Poetry
- 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
 -
- Brent Roman
 - Out of Office
 - Sept 6 through roughly Sept 16
- Carlos Rueda
 - 901009 - CANON
 - [MXM reimplementation](#) is now getting in pretty good shape to then continue with further model and API revisions and adjustments. Backend simplified and now based on Quarkus (using JDBI and with both GraphQL and OpenAPI endpoints); frontend still on vue2/quasar1 but also simplified. Using the nice [Quarkus Quinoa](#) extension, which helps integrate the frontend for both development and packaging purposes. New dockerized system deployed at <http://mxm.shore.mbari.org/>.
 - 901502 - Soundscape Research and Education
 - Group meeting. Still need to catch up with various possible tasks here.
 - 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Awaiting a functional ServerExec to proceed with testing/tuning up wave glider commanding for the front tracking software onboard. Some adjustments in MXM provider API here.
 - 902005 - VARS Annotation Assistance
 - Group meeting.
 - 902101 - LRAUV Technology Development and Fleet Operations
 - Dash is now 4.12.6, with internal changes/cleanup and MXM related adjustments.
 - 902102 - Multi-LRAUV Simulation Environment
 - Submitted PR with all vehicle passwords reset. Some exchanges aimed at promoting a focused discussion about possible reorganization of repositories and handling of security aspects.
 - Overhead
 - AWS workshop: Sagemaker and ROS presentations (thanks Kevin for organizing)
 - DEI AC meeting (past week)
 - RoboFlow presentation (thanks Danelle for organizing).
 - Out of Office
 - Oct 10–12, Nov 11–14, 23–30, Dec 8–9: vacation
- Karen Salamy
 - 901101 - Seafloor Mapping
 - Deployed improved SMDB tracks as viewed on the Google Hybrid Basemap Layer.
 - Circling back to try and set up a working SMDB sidebar for the project page.
 - Out of Office
 - Vacation:
- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - Iron Mountain video imports.
 - 902002 - FathomNet
 - Deployed a new [OceanVision AI game logger](#). The logger is written using [Quarkus](#). API docs at <http://fathomnet.org:8899/q/swagger-ui/>. GraphQL docs at <http://fathomnet.org:8899/q/graphql-ui/>
 - Laid out [development road map](#) for FathomNet for remainder of 2022.
 - 902005 - VARS Annotation Assistance

- Starting [search for developers](#) to work on [Sharktopoda 2](#). First developer to be interviewed will be former MBARI-an Paul Rogers!
- Overhead
 - Provided [DARC](#) with code to change dates of video in VARS.
 - Working on proposal feedback.
- Out of Office
 - 10/3 - 10/7 - [Marine Imaging workshop](#), Brest, France
- Alana Sherman
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Macro camera recovered from octopus garden. I downloaded all the images off the camera and am learning how to batch process them in Matlab and photoshop
 - 902208 - MiniROV Operations
 - Communicated with projects teams post-phase 1 and also with Jean from the Fulmar about next years schedule and costs
 - Submitted Phase 1 feedback on the proposal
 - Overhead
 - Did interview about Western Flyer for Maddie Go, MBARI Sci Comm Fellow
 - Strategic Roadmap committee
 - Spent a large amount of time scheduling the first two interviews for the new EE position. Held meeting with the interview committee. Lots of coordination and scheduling.
 - Out of Office
 - Out for dentist appt