

Engineering Weekly Report 8/4/2022 - 8/11/2022

Executive Council Notes

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Individual Activities

- Michael Anderson
- Kevin Barnard
 - 902002 - FathomNet
 - Minor improvements to vars-localize
 - 902204 - Scalable Marine Robotics Foundations
 - Started a deep dive into Kimera-VIO
 - Working to evaluate Kimera-VIO out of the box on the PNW dataset
 - Continued development of stereo calibration library
 - Out of Office
 - Marine Imaging workshop Oct 3 - 7 2022 CEST Brest, France (GMT+2)
- Francois Cazenave
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Making repairs to buoy for upcoming deployment
 - 902106 - Niobicon-Based AUV Docking Development
 - Designing new mooring
 - 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
 - 901502 - Soundscape Research and Education
 - Team meeting
 - Alexa Skill user support
 - Daily spot monitoring of Alexa Skill Ocean Soundscape live stream
 - 902005 - VARS Annotation Assistance
 - Intern Manuel Gozzi meetings. Presentation and final report preparation.
 - Continued testing updates to batch processing pipeline
 - Overhead
 - Intern Symposium day August 10.
 - Out of Office
 - Registered for 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
 - Overhead

- Was on vacation last week
 - All proposals and resource leveling so far this week
- Out of Office
 - 10/3-10/6: Vacation
- Andy Hamilton
- Kent Headley
 - 600034 - Precision Control Technologies for ROVs and AUVs
 - Chatting w/ Rob re TRN integration with Dorado simulation
 - Wrapping up a pull request
 - 902204 - Scalable Marine Robotics Foundations
 - Looked at debug build support for Tritech Gemini sonar linux SDK; turns out unsupported, so requested windows SDK as a backup.
 - Overhead
 - Proposal review
 - Hiring
 - Misc admin
- Rich Henthorn
 - Out of Office
 - July 4 - 18, WFH and vacation, email/phone/zoom, mostly available so contact encouraged
 - Aug 30 - Sep 16, vacation in Germany, email only
 - Sep 22 - 29, Sta.M Cruise (final scheduled cruise of the Western Flyer)
- Brett Hobson
- Scott Jensen
 - 901205 - SURF Center
 - Working on brass board initial coding
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Work toward an incremental; prototype of the Cell management portion of the BMS
 - 901805 - Coastal Biogeochemical Sensing Program
 - Testing of nanoFET. Indications are that the analog front end is functional
 - 902106 - Niobicon-Based AUV Docking Development
 - Efforts to get a nocturnal load running so that daytime energy collection can be ascertained
 - DQ2113 - Tidal Turbine
 - Report writing
 - Overhead
 - Interviews for EE and EE-tech
- Brent Jones
 - 901009 - CANON
 - Rebuilding SIPPER with new ELMO electronics. Requires all new wiring harness and software
 - Out of Office
 - Sick Leave due to Covid exposure
- Chad Keczy
- Brian Kieft
 - 708168 - DHS/LRAUV Under-Ice



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- Out of Office
 - 07/31 - 08/11 (EDT) USGS
 - 08/28 - 08/31 (EDT) USGS
 - 09/12 - 09/28 (GMT+2 - vacation)
- Denis Klimov
- Eric Martin
 - 901101 - Seafloor Mapping
 - Arctic expedition meeting last thursday, much to learn.
 - Meeting Monday on winfrog/sonardyne setup on the Araon
 - Working with Chad on the modifications to the LASS
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Troubleshooting CAN bus, likely problem was found in a failed wet cable.
 - 901911 - ROVVR
 - Went threw a new pile of items, collected all the the parts into the B125 lab.
 - 902012 - Telepresence on MBARI Research Vessels
 - Coordinating for the final telepresence cruise, for Kakani Katija.
 - 902204 - Scalable Marine Robotics Foundations
 - Gettting the tank stereocam together with intern Alex.
 - Out of Office
 - Aug 21-Sept 18 Arctic Expedition
- Thom Maughan
 - 901009 - CANON
 - Working on details for a mock custom microfluidics 'lab on chip' quote to inform CANON proposal budget.
 - Battery charging circuit research
 - Xavier NX and basecamp
 - 901805 - Coastal Biogeochemical Sensing Program
 - Hallway pitch to Yui for a glass electrode halfcell with solid state AgAgCl electrode. Another ISFET vendor is being pursued so not likely of interest to the Carbon lab.
 - 902004 - Planktivore
 - Camera control board update. Finished 'Wakestr' design, layout and review with Paul M. Created assembly package and kit of parts. In progress on high efficiency buck-boost converter with support for battery backup to allow linux shutdown in case of power loss.
 - Overhead
 - Provided project info to group leads.
 - Move Planktivore project out of Rock Lab. Request for lab space, no answer yet.
 - Intern presentations. Roy G implemented the hot knife release modelled after the SharkCafe Cam release.

- Out of Office
 - 2week Vacation postponed until sometime in August.
- Mike McCann
 - 901111 - AUV Infrastructure Support
 - Checked that currently deployed LRAUV data is flowing into STOQS on tethysviz
 - 901915 - Improving the Impact of MBARI's Data
 - Casted MBARI's vote for ESIP's endorsement of Science-on-Schema.org Guidelines
 - Overhead
 - Added rudimentary functional tests to help me remember what [expd_mapping](#) does
 - Making sure that Mini ROV navfile metadata is getting properly loaded into emdb
 - Intern symposium
 - Out of Office
 - Aug 12, 18-19: Vacation days for CSUMB teaching prep
- Rob McEwen
 - 600034 - Precision Control Technologies for ROVs and AUVs
 - Integrating Kent's SimMB1Svr with Simulator.cc
 - 902201 - John Ryan's Hydrophone Deployments
 - Simulated the descent rate and the distance the release travels after the anchor lands, for both the small and large rigs.
- Paul McGill
- Tom O'Reilly
- Doug Pargett
 - Overhead
 - Closing out my office here
 - 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
- Paul Roberts
- Brent Roman
 - Out of Office
 - July 26 through roughly August 26
- Carlos Rueda
 - 901009 - CANON
 - Focused on general revision of MXM, both spec and implementation.
 - 901513 - Targeted Sampling by Autonomous Underwater Vehicles
 - Awaiting access to the ServerExec executable on the SMC-2 to be able to run commands.
 - 902009 - AUV User Experience Design
 - Adjustments/additions to the [API docs](#).
 - More logic moved from the DashUI to the TethysDash backend
 - 902101 - LRAUV Technology Development and Fleet Operations

- TethysDash: Refactored/expanded logic to recognize waypoints in mission scripts, with immediate need for the “Smear” mission being exercised in the Great Lakes, but with flexibility to add more cases.
- Overhead
 - Attended some Summer Internship presentations.
 - Continue to be gladly impressed with [Quarkus](#), very well documented and with lots of powerful features (GraphQL, OpenAPI, gRPC, Security, Async/sync, metrics, ...)
- Karen Salamy
 - Out of Office
 - Vacation: August 4-5; family visiting from out of town.
- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - Revisiting work on the [Vue 3 version of the deepsea guide](#)
 - On-going Iron Mountain video ingest.
 - 902005 - VARS Annotation Assistance
 - Integrated [beholder](#) into the docker stacks in both the [m3-quickstart](#) (for external users) and [m3-microservices](#) for (internal users).
 - Completed both the client and server implementations for a new remote video control protocol.
 - Issue is tracked at <https://github.com/mbari-org/vcr4j/issues/9>
 - [Updated a video player](#) to use this protocol.
 - “Nearly” [finalized spec](#) has been written.
 - Brian is starting work on getting an external contractor to update [Sharktopoda](#) to use this protocol and to add the new localization features in the spec.
 - Overhead
 - GitHub Pages now supports building static web sites using GitHub actions. This is useful for build tools that can produce documentation sites (e.g. [Maven](#)), or if you need to generate API documentation when you commit code.
 - Example site: <https://mbari-org.github.io/beholder/>
 - Example GitHub action to generate site: <https://github.com/mbari-org/beholder/blob/main/.github/workflows/scala.yml>
 - Addressed some data issues for [DARC](#) in their VARS system
 - Meet with DARC techs working on adding analysis/reporting to their VARS system.
 - Attending intern presentations
 - Out of Office
 - 10/3 - 10/7 - [Marine Imaging workshop](#), Brest, France
- Alana Sherman
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Offloaded images from DiSCO, worked great for a year- very active community
 - 902208 - MiniROV Operations
 - Made up two spare cables for Mini
 - Overhead
 - Engr Proposal review
 - EE candidate Zoom interviews
 - Out of Office
 - On vacation 7/21-30