

Engineering Weekly Report 4/4/2024 - 4/11/2024

<https://docs.mbari.org/internal/projects/Engineering/Weeklies/2024/>

Executive Council Notes

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Individual Activities

- Michael Anderson
- Kevin Barnard
 - 500055 - VARS, M3/RS, DSG
 - Continued implementing changes for digital frame grab tool to support VL
 - 701165 - OVAI Phase II
 - Completed FathomNet-CMS push process
 - 902002 - FathomNet
 - Prepared seminar for CSUMB college of sciences
 - 902204 - Scalable Robotics
 - Scoped development for Mola field deployment
 - Estimation/SLAM
 - State machine/mission execution
 - Path planning/mobility management
 - Logging
 - Status monitoring
 - Migrated SLAM repositories from GIM GitLab to CoMPASLab GitHub org
 - Continued validating GIM WP2
 - Out of Office
 - Out sick Apr 2, 2024 – Apr 5, 2024
- Francois Cazenave
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - PTO test
 - Preparations for deployment
 - 902106 - Niobicon-Based AUV Docking Development
 - Pontus assembly
 - Buoy preparations for deployment
- Danelle Cline
 - Out of Office
 - Medical leave March 18-April 22
- Duane Edgington
 - Out of Office
 - March 28 - April 12, 2024. Vacation UTC+3
 - April 12 - 21, 2024. EGU UTC+2
 - June 10 - 21, 2024. Vacation UTC-8
 - Oct 21 - Nov 8, 2024. Vacation UTC+1
- Jon Erickson
- Kevin Gomes

- Out of Office
 - March 18-21: Vacation
 - March 25-29: Data Council Conference: Austin, TX
- Andy Hamilton
- Kent Headley
- Rich Henthorn
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Making CLI app to set permissive mode for the power converter
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - Image processing implementation and testing on target
 - 902401 - Geo-Sense
 - Weekly meeting
 - 902405 - Precision Control Technologies
 - Design of LCM handling in both TRN and CoNav
 - Out of Office
 - Apr 11 - 12: Vacation
 - May 28 - 30: Vacation
 - July 3 - 11: Vacation and WFH
 - Aug 26 - Sep 11: Vacation
- Brett Hobson
- Irene Hu
 - 901805 - Coastal Biogeochemical Sensing Program
 - Finished Thom's work figuring out programming for MBARI digital boards (for ISUS spectrometer) and confirmed working
 - Troubleshooting on MBARI analog boards (for ISUS spectrometer), various scoping / circuit analysis and traced issue to potentiometer tweaking
 - Interface with Bill Keeler (contractor) for PSOC boards
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Discussion with Paul re: how to set up board files in code
 - Overhead
 - Discussion re: eddy covariance on LRAUV
 - Out of Office
 - May 3-15: Taiwan
- Scott Jensen
 - 706008 - READI-Net
 - Instrument was prepared for some science sample testing.
 - 901205 - ESP SURF Center
 - Preparations for McCloud communications install trip
 - Out of Office
 - April 5-9 vacation
 - June 17-21 vacation
 - July 18-23 vacation
 - July 24-29 vacation
- Brent Jones
- Chad Keczy
 - Out of Office
 - Out of office on Fridays
- Brian Kieft
 - Out of Office
 - 04/04-04/10 (CDT)

- 04/15 (PDT)
 - 05/27-06/21 (GMT+1)
- Denis Klimov
- Eric Martin
 - 901101 - Seafloor Mapping
 - Imaging multibeam selection
 - 901911 - ROVVR
 - HMC Advisement meeting, ne
 - 902204 - Scalable Robotics
 - Boxfish spare system purchase
 - Overhead
 - SEE-EAD Hiring is in full swing with zoom interviews.
 - Out of Office
 - Vacation 4/4-4/9
- Thom Maughan
 - Out of Office
 - Apr 4 - 10 Eclipse Mexico, Cuatro Cienegas and stromatalites
- Mike McCann
 - 901101 - Seafloor Mapping
 - Reloaded database with more relaxed search for Compilations
 - Put associated Missions and Compilations in sortable tables in the detail views
 - 901910 - Plankton Taxonomic Groups from AUVs
 - Reprocessed and reloading 2019 to present stoqs_lrauv_ databases with new backscatter vars
 - Overhead
 - Activated links to R/V *David Packard* on CanyonHead's Expedition Database landing page
 - Out of Office
 - 10-12 April - Vacation
- Rob McEwen
- Paul McGill
 - Out of Office
 - On vacation March 27, returning to MBARI April 15
- Enoch Nicholson
 - 706008 - READI-Net
 - Created 'mock up' of final sampler in CAD and sent Screenshots to Jim for a presentation
 - Overhead
 - AUV Tutorial
 - Out of Office
 - April 5-10 Vacation (Available via Slack & Email)
 - April 14-18 IEEE Oceans (Available via Slack & Email)
 - April 19-23 Vacation (Unavailable)
 - September 19-24 Vacation (Available via Slack & Email)
- Tom O'Reilly
- Mike Risi
 - Out of Office
 - Offsite on Tuesday and Friday
 - January 16 - January 19, 2024
 - February 22, 2024
 - March 4 - March 8, 2024
 - May 20 - May 24, 2024
- Paul Roberts

- 901809 - Deep Sea Bioinspiration
 - DeepSTARia software testing
 - SCUBA-EyeRIS mechanical design
 - Planning for Optim / Galene LRAUV deployment
- 902001 - Ventana 4k Camera
 - Testing second unit topside rack box and camera hardware
- 902004 - Planktivore
 - Preparing for April 15 deployment
- 902204 - Scalable Robotics
 - PoE housing rebuild
- 902306 - SINKER
 - Planning for July Deployments
- Out of Office
 - April 14 through April 20
- Brent Roman
 - 901205 - ESP SURF Center
 - Wrote scripts to mount NFS filesystems only when on the MBARI network.
 - No longer need to alter /etc/fstab depending on where the ESP is deployed
 - DQ2320 - McCloud River Salmon
 - Ordered replacement for BGAN terminal accidentally fried by power wire slipping out of its screw terminal.
 - Helped Scott configure the new terminal for 2nd try at installation on site tomorrow.
- Carlos Rueda
 - 901502 - Ocean Soundscape
 - Brief soundscape analysis meeting.
 - Diagnosed issue with excessive use of bandwidth while fetching data from GCS past week.
 - 902101 - LRAUV Technology Development
 - Exchanges with the team (and WHOI) toward preparing for use of the WHOI dash instance during MBARI 4/19 outage.
 - TethysDash modernization efforts continue. While the selected framework continues to demonstrate its power, several legacy modules and old dependencies in TethysDash are proving tricky to migrate as fast as one would wish. The migration is requiring a lot of non-trivial refactorings.
 - 902204 - Scalable Robotics
 - Meetings/scoping tasks.
 - Dial code cleanup.
 - Out of Office
 - Apr 4, 8: sick
- Karen Salamy
 - Out of Office
 - **April 4th - Trip with daughter while on Spring Break**
 - On-campus 3 days/week (T, W, TH).
- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - Used [kiota](#) to auto-generate client SDKs from Annosaurus' [openapi spec](#) and sorted out how to handle authentication. Client and instructions are at <https://github.com/mbari-org/annoclient>. I'm working on an SDK for all the services at <https://github.com/mbari-org/m3-java-sdk>.
 - Modified the ML visualization and loader pipelines to allow users to omit leading and trailing portions of each track from analysis. Also added a feature to dump out processed data as CSV

files for analysis. <https://github.com/mbari-org/vars-feedback/issues/110>. Released to [mlviz-0.0.15.zip](#)

- Investigating bugs in the VARS Annotation app
- 902002 - FathomNet
 - Released [worm-server 0.5.2](#)
- 902304 - Piscivore Cam
 - Updated video registration job and docs with changes made to the directory structures. Current structure documented at <http://m3.shore.mbari.org/videos/M3/Projects/Piscivore/>
- 902404 - 5th Marine Imaging Workshop
 - Updated <https://miw2024.org/registration.html> with links to registration assistance forms.
 - Discussions about meeting layout and budgets.
- Overhead
 - Reviewed Geomar's "Guidelines for image compression"
 - Discussions with Geomar (Nis Hansen) and OSU (Astrid Leitner) about getting video annotation labs set up.
- Out of Office
 - Apr 11-12 Vacation
- Alana Sherman
 - 902208 - Mini ROV Operations
 - Spent a little time trying to figure out why new mod bus code did not work- luckily, Johann figured it out first
 - Working with Johan to have the plan for nav logging and remote desktop to sonardyne, and 4DNAV
 - 902401 - Geo-Sense
 - Starting to get in cable and connector quotes, lots of communications with vendors and team. We should be able to have a cable review in two weeks.
 - Got quote for glass sphere hard hats
 - Trying to set date for system review
 - 901205 - ESP/Readinet
 - Working on adding the NFC reader circuitry to the project
 - Overhead
 - Met with small group to discuss new building G space
 - Out of Office
 - Vacation Friday
- George Stern
 - 902204 - Scalable Robotics
 - Mola fixturing concepts
 - 902304 - Piscivore Cam
 - custom lighting design for deployment on monday
 - 902306 - SINKER
 - Identify motor candidates and controllers
- Johann Voigtlander
 - 902208 - Mini ROV Operations
 - Opened up core JBox & fiber JBox for maintenance.
 - Fixed labview Modbus code - still investigating issue connecting to core JBox
 - Out of Office
 - April 16th - May 13th Germany CSEM