

Engineering Weekly Report 12/28/2023 - 1/4/2024

<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
 - Set up monitoring for M3 services: <http://rocinante.shore.mbari.org:3001/status/m3-prod>
 - 701165 - OVAI Phase II
 - Set up monitoring for OVAI services: <http://rocinante.shore.mbari.org:3001/status/ovai>
 - Out of Office
 - Vacation Jan 11, 2024 – Jan 15, 2024
- Francois Cazenave
 - 901221 - Midwater Time Series
 - Designed improved light bars
 - 902106 - Niobicon-Based AUV Docking Development
 - Assembling new latch mechanism
 - Overhead
 - Administrative tasks and organizing
 - Out of Office
 - Vacation
- Danelle Cline
 - 902111 - Carbon Flux Ecology
 - Some minor work familiarizing with the ISIIS instrument output .avi files. The AVI format has problems with a missing image index but exports ok to frame for processing.
 - 901103 - Biodiversity and Biooptics of Zooplankton
 - DINOv2 and DINO cluster experiments in AWS are nearly complete.
 - 901502 - Passive Acoustic Sensing
 - Meeting with model developers with the [Earth Species Project](#) to discuss collaboration and use of their BioLingual model - a model based on contrastive language-audio pretraining on a million audio caption pairs that can identify over a thousand species.
 - A quick prototype for FLAC file metadata extraction in same fashion as our .WAV files looks good. Should be able to quickly parse FLAC audio hosted in GCP. Talks on handling data in GCP are planned in January with the broader community.
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations, and Outreach
 - We have bird clusters for our team to validate. Do you see the mola among the birds?



- - 902204 - Scalable Robotics
 - Working on sightwire pipeline for stereo data ingest and visualization.
- Duane Edgington
- Jon Erickson
- Kevin Gomes
 - 200105 - Core Navigation - MDUC
 - More work on Redis implementation and aliasing flattened JSON to datamanager 'items'
 - Overhead
 - Caught up from vacation
 - Slack migration planning with IS
 - Early steps in performance reviews
- Andy Hamilton
- Kent Headley
 - Overhead
 - Review prep
 - Hiring (application review)
- Rich Henthorn
 - Overhead
 - Touching base w/ group
 - Annual review prep
 - Hiring
 - Misc admin
- Brett Hobson
- Irene Hu
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Experimenting with Maduino
 - Small edits to clean up jbox board
- Scott Jensen
- Brent Jones
 - 901112 - Monterey Bay Time Series
 - Received Maxon EPOS4. Learning how to use it
 - Out of Office

- 3 days
- Chad Kecy
 - Out of Office
 - Jan. 22- Potential Jury Duty
 - Out of office on Fridays
- Brian Kieft
 - Out of Office
 - 02/12-02/16 (MST)
- Denis Klimov
- Eric Martin
 - 901101 - Seafloor Mapping
 - Met with Mauro last week to drum up some ideas.
 - Orders for INS's were put in
 - Strobe service inquiries
 - Lidar integration check in progress, they keep making it longer.
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Reviewing wiring drawings for debugging planned later this week.
 - 901911 - ROVVR
 - End of year purchases gave me a better test setup, planning for wrapping up the control server.
 - 902204 - Scalable Robotics
 - Start of year prep and planning
 - Falkor Integration
 - OAK driver updates
 - 902312 - Seafloor Processes
 - Waiting for crane to get back in the tank
 - Will be bringing the new iridium test box online soon.
 - Overhead
 - End of year review.
- Thom Maughan
 - 300083 - DMO Support - LRAUV
 - BPC1 diagnosis. Reviews of BPC1 schematics with Denis
 - BPC2 firmware implementation
 - 901805 - Coastal Biogeochemical Sensing Program
 - V5 pHFET-SOS release for MFET
 - QA box assembly
 - V5 testing on nanoFET
 - 902004 - Planktivore
 - PCB checkout
 - Out of Office
 - Jan 9 - 12 CES
 - Feb 9 - 14 Vacation Colorado
 - Feb 18 - 23 OSM24
- Mike McCann
 - 901910 - Plankton Taxonomic Groups from AUVs
 - Shared Notebooks that calculate Dorado HS2 -> Pontus Ecopuck transfer functions
 - Frustrations with upgrades of auv-python requirements & keeping datashader working
 - 902403 - Expedition DB Modern
 - Created 902403_EXPD_Modernization folder in projectlibrary for Capstone presentations
 - Scheduled kickoff meeting for next Tuesday
 - Overhead

- Catching up from travel & vacation
- Rob McEwen
- Paul McGill
 - 701147.99 - MARS IV Node Upgrade
 - Had Zoom meeting with UW to get progress update and to discuss possible power supply upgrade
 - 902304 - Piscivore Cam
 - Added requested feature to camera software which will delay deployment for given number of days. Code is done but will take most of the week to test.
- Enoch Nicholson
 - 706008 - READI-Net
 - 2024 Sampler prototype sketching & concept CAD
 - 771131 - Great Lakes PCM/HAB
 - 2024 Moon pool sampler sketching
 - 902306 - SINKER
 - Viewport retainer revision & order
- Tom O'Reilly
- Mike Risi
 - Out of Office
 - Out of office on Fridays
 - March 4 - March 8, 2024
- Paul Roberts
 - 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Multispectral ROV camera electronics
 - 902001 - Ventana 4k Camera
 - Assembly and testing of camera
 - 902204 - Scalable Robotics
 - Assembly and testing new PoE Can
 - Overhead
 - Postdoc letters of support
- Brent Roman
- Carlos Rueda
 - 902101 - LRAUV Technology Development
 - TethysL now [3.7.4](#). Provided assistance to Yanwu re use of the TethysL VSCode extension for updates to the lineCaptureHoming.tl mission.
Resuming C++ implementation of parser to allow the LRAUV to directly load TethysL missions.
 - Out of Office
 - Jan 10–11: vacation
 - Jan 3: Out sick
- Karen Salamy
 - 200103 - Core CTD Data - MDUC
 - Still waiting for updates from etp3....
 - 300057 - Mooring Maintenance
 - Performed New Year and last year updates on M1, OA1, and OA2 data download scripts on coredata and draco.
 - Overhead
 - Spent a lot of time catching up on emails following the holiday vacation break.
 - Out of Office
 - On-campus 3 days/week (**T**, **W**, **TH**).
- Brian Schlining

- 500055 - VARS, M3/RS, DSG
 - Continued work on the [backend renovation of the annotation service](#). The current focus is on [switching from eclipselink to hibernate](#) to allow for history tracking via [envers](#); the switch has been done, but Brian is putting in unit tests for all database methods to verify everything is working as expected.
- Overhead
 - Wrote up a 2024 work plan.
 - Updated [Brian's people page](#) with 2024 projects
- Alana Sherman
- George Stern
- Johann Voigtlander