

Engineering Weekly Report 1/4/2024 - 1/11/2024

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

Executive Council Notes

-

Individual Activities

- Michael Anderson
- Kevin Barnard
 - 200105 - Core Navigation - MDUC
 - Began scoping rewrite of procman-sheriff GUI
 - 500055 - VARS, M3/RS, DSG
 - Finished implementation of token refresh mechanic
 - Refactored VARS/M3 API client calls
 - 702108 - Deployable AI
 - Began scoping work for Stonefish simulation of MiniROV
 - 902002 - FathomNet
 - Scheduled meetings for planning and kickoff
 - Out of Office
 - Vacation Jan 11, 2024 – Jan 15, 2024
- Francois Cazenave
 - 901221 - Midwater Time Series
 - Supervising fabrication of new light bars
 - 901405 - Wave-Energy Conversion for Oceanographic Applications
 - Inspecting PTO
 - Dealing with vendor (TMT, cable vendor)
 - 902106 - Niobicon-Based AUV Docking Development
 - Assembling new latch
 - Out of Office
 - 1 day of Vacation
- Danelle Cline
- Duane Edgington
 - 500055 - VARS, M3/RS, DSG
 - Team meeting Jan 10.
 - 901103 - Biodiversity & Biooptics
 - Reviewing results of training run December 22, 2023.
 - 901502 - Ocean Soundscape
 - Reading papers on ORCA sound detection/classification
 - 901902 - Unoccupied Aerial Vehicles for Science, Operations and Outreach
 - Returning to labeling clustered data and preparing for model training.
 - EGU 2024 abstract submitted.
 - 902403 - Expedition DB Modern
 - Attended kickoff meeting
 - Out of Office

- Dec 21 - Jan 5 Holidays vacation
- Jon Erickson
- Kevin Gomes
 - 200105 - Core Navigation - MDUC
 - Created a docker compose and dev environment that makes it really easy to develop on the LCM bridge code now.
 - Added functionality to allow the LCM bridge to publish data to Redis under an alias. This is used to map to other names like the old data manager names (for example SHIP.GPS.LAT).
 - 300059 - DMO Support - RV David Packard
 - Weekly meeting to discuss issues and status updates.
 - 300070 - DMO Support - Ventana
 - Working with 4D nav rep to help with 4D Nav demo setup on Carson and trying to figure out how to integrate with existing systems.
 - Working with Risi, we have a navproc process running that reads in the 4D nav feed and have logger set up to log the raw strings for testing.
 - Working with 4D Nav to see if they can put our WMS layers from ERDDAP into 4D nav. Not working yet, will continue to work with them.
 - Changed ODSS script running on board Carson to not only feed the asset locations to Winfrog, but to now send them to 4D Nav.
 - 300079 - DMO Support - RV Rachel Carson
 - Updates for ODSS on Carson to support 4D Nav (assets position pushes)
 - 706008 - READI-Net
 - Going to run through full build test of the sampler through cloud to see if we can get one working end-to-end.
 - 902403 - Expedition DB Modern
 - Kickoff Meeting
 - Overhead
 - Performance review stuff
 - Working with Joe and Andrew in IS to move us closer to migrating the MBARI Slack workspace to the Enterprise Grid organization. Trying to be thorough for testing purposes.
 - Out of Office
 - March 12-21: Vacation
 - March 25-29: Data Council Conference: Austin, TX
- Andy Hamilton
- Kent Headley
- Rich Henthorn
 - 902305 - Event Detection Using the Sedimentation Event Sensor
 - CLAMShell programming on Benthos modems
 - Install serial card on new SES controller
 - 902401 - Geo-Sense
 - Weekly meeting
 - 902405 - Precision Control Technologies
 - Planning meeting with Rock and LRAUV team
 - Overhead
 - Engineering meeting
 - Out of Office
 - Jan 22 - 25: WFH
- Brett Hobson
- Irene Hu
 - 901805 - Coastal Biogeochemical Sensing Program

- Retested Nanofet B002008 and high bias current draw problem has mysteriously disappeared
- 901904 - Deep-Sea Coral-Sponge Community Observatory
 - Basic ethernet comms working between Maduino (Arduino) and computer (Python)
 - Progress on controller board - adapting from SINKER controller
 - More minor fixes to jbox
- Scott Jensen
- Brent Jones
 - Out of Office
 - 3 days
- Chad Keczy
 - Out of Office
 - Jan. 22- Potential Jury Duty
 - Out of office on Fridays
- Brian Kieft
 - 902101 - LRAUV Technology Development
 - Deployed Tethys for more docking work. Debugging some gain issues with the heading command
 - Worked with Brent to solve networking issue surrounding the subsea serial port server on the dock.
 - Met with Scott to do main thruster diagnostics
 - Removed a bunch of dash user accounts for added security
 - 902405 - Precision Control Technologies
 - Met with team yesterday and today and have a plan to move forward with TRN solution ingest onboard the LRAUVs.
 - DQ2322 - Denmark Windfarm
 - Have begun initial logistics for shipping. Meeting tomorrow with team.
 - Overhead
 - Did some annual report work
 - Setting up a spring meeting with NOAA's office of general council natural resources section and some MBNMS members.
 - Out of Office
 - 02/12-02/16 (MST)
- Denis Klimov
- Eric Martin
- Thom Maughan
 - Out of Office
 - Jan 9 - 12 CES
 - Feb 9 - 14 Vacation Colorado
 - Feb 18 - 23 OSM24
- Mike McCann
 - 901910 - Plankton Taxonomic Groups from AUVs
 - Demonstrated Dorado to Pontus transfer function computation Jupyter Notebooks
 - Participated in "mini OSM" meeting for Dorado Diamonds paper that's in preparation
 - 902101 - LRAUV Technology Development
 - Updating STOQS ESP sample parsing code to deal with messages spread across multiple logs
 - Testing reloading stoqs_greatlakes2023
 - 902403 - Expedition DB Modern
 - Held kickoff meeting and scheduled bi-weekly project meetings
 - Continuing to study HTMX and reviewing Selenium functional testing
- Rob McEwen

- Paul McGill
 - 300070 - DMO Support - Ventana
 - Helped DJ with time synchronization issues with WinFrog upgrade, and refinement of ground-fault system on Ventana.
 - 701147.99 - MARS IV Node Upgrade
 - Had serial splitter board fabbed and tested all ports at full speed—it works. Getting a second board built.
 - 902304 - Piscivore Cam
 - Made some more mods to Piscivore controller code, now bench testing over multi-day operations.
 - 902401 - Geo-Sense
 - Attended kick-off meeting for this year.
 - Starting to draw system interconnect schematic.
 - Overhead
 - Attended review of Jason A's mooring design.
 - Mostly done with accomplishments doc for annual review.
- Enoch Nicholson
 - 706008 - READI-Net
 - 2024 Sampler Modeling
 - READI-Net Puck development support
- Tom O'Reilly
- Mike Risi
 - 300070 - DMO Support - Ventana
 - Support work for 4D Nav integration
 - 901101 - Seafloor Mapping
 - Kickoff meeting for LASS development
 - 902204 - Scalable Robotics
 - Preparing for January 18th cruise
 - Developed Sprint INS LCM driver
 - 902405 - Precision Control Technologies
 - Meeting with Steve Rock for obstacle avoidance task
 - Out of Office
 - Out of office on Fridays
 - January 16 - January 19, 2024
 - March 4 - March 8, 2024
- Paul Roberts
- Brent Roman
 - 706008 - READI-Net
 - Ordered Rock S 0 as possible alternative to Rock PI-S board
 - 901205 - ESP SURF Center
 - Working with WHOI to fix a long-standing bug in ESP Ethernet cable Plug/Unplug event handling
 - Rewrote daemon to greatly simplify it. Seems to work. Testing continues...
 - 901913 - Wet Wifi
 - Shipped Modems back to Oceancomm for upgrade
 - Helped LRAUV team access their AUV dock
 - Loaned them an OpenWRT router I'd configured with the needed port forwarding rules
- Carlos Rueda
 - 902101 - LRAUV Technology Development

- The direct loading of TethysL files for the LRAUV to execute is taking shape nicely. Thanks Quinn, Mike G., Brian K. for the help.
- 902204 - Scalable Robotics
 - Brief chats with Sebastián and Danelle.
- Out of Office
 - Jan 10–11: vacation
- Karen Salamy
 - 200103 - Core CTD Data - MDUC
 - Still awaiting ETP3 updates for ROV CTD QC data on last 2-3 months of dives.
 - 300057 - Mooring Maintenance
 - I have spent a bit of time in the new year making sure all of the mooring (OA1, OA2 and M1) data is downloading correctly and into the correct folders. I found a few errors in the data download location for OA1 data and have worked with Jules F. to fix it.
 - 901101 - Seafloor Mapping
 - First meeting is now set for February according to Jenny P.
 - 902101 - LRAUV Technology Development
 - Dealing with a bug in the measure app for DASH5.
 - 902403 - Expedition DB Modern
 - First meeting kicked off yesterday afternoon.
 - Sent a request to various science and engineering science lab managers who submit pre/postcruises often asking for feedback on the existing web forms and what functionality would help streamline their experience.
 - Overhead
 - Catching up on tons of emails from the holiday.....
 - Looking through various REACT examples to fix the current Measurement bug in DASH5.
 - Out of Office
 - Feb. 29 - Mar 10 - Trip to east coast for personal family reasons
 - On-campus 3 days/week (**T, W, TH**).
- Brian Schlining
 - 500055 - VARS, M3/RS, DSG
 - The LTO recall apps have been failing. Brian did some troubleshooting and worked with IS to restore them.
 - [Adding extensive testing to the annotation service backend](#) against both SQL Server and Postgres
 - 701165 - OVAI Phase II
 - Added [database backup](#) for OVAI's CMS
 - Added [additional filtering to a search endpoint](#) in our custom WoRM's server
 - 902403 - Expedition DB Modern
 - Attended kick off meeting. Setup an [issue track](#) and [GitHub project](#) to coordinate and track work.
 - IS has [setup a testing database](#) as EXPD@foggy.shore.mbari.org
- Alana Sherman
 - 902208 - Mini ROV Operations
 - Met with vendors of WinFrog replacement software to review how new software works and could be used for the Mini
 - 902401 - Geo-Sense
 - Had weekly meeting, current tasks are:
 - Negotiating funds for Sintela NRE and terms of PO
 - Discussion of mechanical design of cable termination on bitter end and frame
 - Next step ordering batteries
 - Overhead

- Working on self eval for review
 - Soliciting input for EE group reviews
 - Preparing materials and scheduling for reviews
- Out of Office
 - Was on vacation previous two weeks
- George Stern
- Johann Voigtlander
 - 902208 - Mini ROV Operations
 - Building a backup Focal box