

Engineering Weekly Report 11/16/2023 - 11/23/2023

<https://docs.mbari.org/internal/projects/Engineering/Weeklies/2023/>

Executive Council Notes

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Individual Activities

- Michael Anderson
- Kevin Barnard
 - Out of Office
 - LASS on Ventana/Rachel Carson cruise: Oct 10, 2023 – Oct 12, 2023
 - CSIRO: Oct 20, 2023 – Nov 5, 2023
 - MiniROV/Fulmar cruise: Nov 6, 2023 – Nov 9, 2023
- Francois Cazenave
- Danelle Cline
 - Out of Office
 - Thanksgiving, November 22nd-November 24th.
- Duane Edgington
 - 901103 - Biodiversity and Biooptics of Zooplankton
 - Evaluating Yolov5x6 model, 1280 image size, trained with Ctenophora images.
 - Overhead
 - TBD Potential video conf with Tom Uram from Argonne National Labs
 - Out of Office
 - Nov 21 - 22: Vacation (PST) UTC-8
 - Nov 27 - Dec 1: Vacation (EST) UTC-5
 - Dec 10 - 16. NeurIPS 2023. (virtual) UTC-6
- Jon Erickson
- Kevin Gomes
 - Out of Office
 - Nov 20-22: Vacation
 - Out sick: 11/9-11/15
- Andy Hamilton
- Kent Headley
 - 600034 - Precision Control Technologies for ROVs and AUVs
 - Committed a branch of work related to TRN (terrain relative navigation) in the ROV context in the libtrnav and MB-System. Worked closely with Steve Rock and Dave Caress to use the LASS data set collected in October at Sponge Ridge to develop and demonstrate a complete TRN pipeline on Ventana. We were able to use a combination of sensors from the LASS sled and the vehicle to produce TRN output in post-processing. A long term objective is to use sensors of opportunity to efficiently locate places of interest in repeat surveys, increasing time available for science activities. Kudos to the Rachel Carson crew and Ventana pilots for their support and accommodation to collect this data set.
 - Working to wrap up TRN dorado simulation code review submitted by Rob McEwen
 - 902204 - Scalable Robotics

- Committed some changes to address issues with the Gemini Sonar GUI. Specifically, range and gain values were not propagating correctly, and the window would resize unexpectedly. These tests are pending testing (requires tank test).
 - Added features : GUI overlays to display a border around the sonar image and image timestamp; add grid and range text display in cartesian mode.
- Overhead
 - Hiring: application review
- Out of Office
 - Nov 23-24
- Rich Henthorn
 - Out of Office
 - Dec 18 - 28: Holidays
- Brett Hobson
- Irene Hu
 - Out of Office
 - Nov 15: out
 - Nov 21-22: Thanksgiving vacation
- Scott Jensen
 - 706008 - READI-net
 - Checked out and prepared instrument copy 2
 - Discussions about puck revision
 - 901205 - ESP SURF Center
 - Lab straightening
 - Locating spare parts
 - Overhead
 - Motor sizing research
- Brent Jones
 - Out of Office
 - 1 day vacation
- Chad Keycy
 - Out of Office
 - Out of office on Fridays
- Brian Kieft
 - Out of Office
 - 10/23-10/31 vacation (PDT)
 - 11/07-11/10 Phoenix (MST)
 - 11/20-11/27 vacation (PST)
- Denis Klimov
- Eric Martin
 - Out of Office
 - Sick day on Tuesday, 11.07.2023
- Thom Maughan
 - 901009 - CANON
 - User support for deepedna2 server
 - 901805 - Coastal Biogeochemical Sensing Program
 - About half done with commandline implementation and sleep management.
 - Held a 'users review' with Yui, Jackie, Joseph and Irene to get feedback on usage, names, etc. Great feedback.

- Working towards a beta release first week in Dec.
- Out of Office
 - Vacation in Nov. TBD, Colorado
 - Vacation in Dec, couple days around Xmas
 - Jan 9 - 12 CES
 - Feb 9 - 14 Vacation Colorado
 - Feb 18 - 23 OSM24
- Mike McCann
 - 200105 - Core Navigation Data - MDUC
 - Provided dive and CTD times report for Linda to improve QC of ROV nav data
 - Looking at using HTMX for a simple form entry of a data_validation_code in EMDB
 - 300078 - DMO Divisional Support - AUV
 - Processed Dorado mission 2023.324.00
 - Overhead
 - Signed project partner letter with Durham Univ. for using STOQS for terrestrial smart boulders
- Rob McEwen
- Paul McGill
 - Out of Office
 - Was on vacation Thu and Mon
- Enoch Nicholson
 - 902306 - SINKER
 - Chassis Assembly
 - Housing Pressure Testing
 - 901205 - ESP SURF Center
 - Heater fixture design
- Tom O'Reilly
- Mike Risi
 - Out of Office
 - Out of office on Fridays
 - May 30 - June 6
 - August 21
 - September 5 - September 7
 - November 20 - 23, 2023
 - March 4 - March 8, 2024
- Paul Roberts
 - 901904.99 - Corral Camera System
 - multispec ROV camera fabrication
 - 902004 - Planktivore
 - RIMS integration
 - 902204 - Scalable Robotics
 - Scoping SOI integration
 - 902306 - SINKER
 - System controller bringup
 - Optics testing
 - Out of Office
 - 11/23-11/26
- Brent Roman
 - 901205 - ESP SURF Center
 - Helping to support Nadia in her efforts to build up 2G and 3G ESPs
 - Answered few support queries from WHOI

- 901913 - Wet Wifi
 - Put Galene and waveglider into the tank again.
 - Chris Wahl improved mounts for H150 modem under the sub body
 - Stable networking in tank, however video only works a few seconds without breakup
 - Learned much more than I ever wanted to about video streaming protocol
 - Finally got GStreamer's RTSP with RTCP error feedback working!
 - (At least in a network simulating 10% dropped packets)
 - Need to get Galene back into the tank to verify this!
- Carlos Rueda
 - Out of Office
 - Nov 15-16: (virtual) Generative AI (AI Barcelona)
 - Nov 20-22: vacation
 - Nov 27-30: Working from home some of these days
- Karen Salamy
 - Out of Office
 - On-campus 3 days/week (**T, W, TH**).
 - **JURY DUTY (until first week of Dec)**. - Finished up jury duty late last week.
Decompressing a bit.
- Brian Schlining
- Alana Sherman
 - 706008 - READI-net
 - Working on external connectors on board
 - 902312 - Seafloor Processes
 - Had kickoff meeting for Geosense and CSEM
 - Created task list for Geosense
 - Did research into fiber optic connector options
- George Stern