

Engineering Weekly Report 3/12 - 3/18

Executive Council Notes

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Individual Activities

- Francois Cazenave
 - Out of Office
 - I took one day of vacation (Friday)
 - I took one sick day (Tuesday)
- Mark Chaffey
- Danelle Cline
 - Out of Office
 - Vacation day Monday 3/2.
- Duane Edgington
 - 901009 - CANON
 - Francisco, C. Scholin, and team met for a Project meeting March 12 in the Pacific Forum. I have notes. Francisco asked me after meeting if ODSS, STOQS, etc were good to go.
 - 901618 - Pelagic-Benthic Coupling
 - Mathworks authorized a one month extension on Matlab Computer Vision Toolkit trial license so I could continue evaluation and demonstration.
 - 902004 - Planktivore
 - Next step: figure out how timecodes in images are handled in SPCCConvert and Taxonify.
 - 902005 - VARS Annotation Assistance
 - Danelle is leading us in Sprint to do VAA-32 Ingest localized images
 - Cloned repository into working directory on digits-dev-box-fish. Working over VPN through steps outlined by Brian S. and Danelle.
 - Overhead
 - Gathered laptops and files and books and references from office March 15.
 - Set up a home office with laptops and stuff. So far so good.
 - Webinar "How to scale Kubernetes in AWS" March 18
 - Webinar "Cloud Backup Service" from NetApp March 19
 - Out of Office
 - Yep. Sheltering in place.
 - [Nightly Met Opera Streams](#) free series of encore Live in HD presentations streamed on the Metropolitan Opera of New York website and apps (ROKU etc) during the coronavirus closure
 - Next week is all Wagner, one per evening. Whew.
- Jon Erickson
- Kevin Gomes
 - 901009 - CANON
 - Working on new data extraction stack of software for pulling WaveGlider data from Liquid Robotic's WGMS system
 - 901205 - ESP SURF Center
 - Code changes to do both bug fixes and enhancements for GOM deployment support
 - 901502 - Passive Acoustic Sensing

- Short debugging session when audio stream went down
- 901915 - Improving MBARI Data Impa
 - Working on data catalog stack
 - Working through ideas from last meeting
- Overhead
 - Group/Corona stuff
 - Working on Markdown based internal and external documentation that is being hosted at <https://docs.mbari.org>
 - Slack support
- Out of Office
 - May 6-7: Vacation
- Andy Hamilton
- Kent Headley
 - 600034 - Control Tech - Rock
 - Syncing updates among libtrnav and MB-System git repos
 - 901803 - Carbon Wave Glider Development
 - Refactoring some log utility code, splitting out cross-platform code and adding a file IO wrapper API. This lets me share source code for data log tools between PIC and desktop platforms. Writing desktop versions of the on-board log utils (lcat, linfo, lless) around the refactored code - much simpler.
 - If possible, I'll meet w/ Jacki remotely to talk about a Matlab log reader/loader. If not, I'll take a crack at it.
 - Overhead
 - Misc Admin, group comms
- Rich Henthorn
 - 600034 - Control Tech - Rock
 - Listing candidate updates from auv-qnx to libtrnav
 - 901405 - PowerBuoy Development
 - Working on AHRS server app
 - Overhead
 - Some overdue reorganization of everyday tools (e.g., editors)
 - Gathered hardware for use during closure
 - Out of Office
 - Mon Mar 9 - Thu Mar 12: Vacation, VPN access, PST
- Brett Hobson
- Scott Jensen
 - 901205 - ESP SURF Center
 - Looking like the Harting connector is not going to be that wonderful, looking at a similar solution
 - 901405 - PowerBuoy Development
 - Tried to get HV Bus and Bridge controller sent out, Jose was able to this week
- Brent Jones
- Chad Keczy
- Brian Kieft
 - Out of Office
 - Mar 2 - 10, Vacation, GMT -7
 - Mar 16-29 Michigan (NMU) under ice, EDT
 - July 18-31 Arctic, ADT
- Denis Klimov
- Eric Martin
 - 901206 - Coastal Profiling Float

- Finished transition of info to Gene.
 - Writing calibration software for MBARI MSC
- 901405 - PowerBuoy Development
 - Buoy controller wiring checkout
 - Worked with IS for a stable VLAN configuration
- 901911 - ROVVR
 - Successful FAT and training in Salem, OR last week onsite at the Sexton Corporation.
 - Brought camera back and integrated it easily onto Doc Ricketts
 - We'll likely miss getting any footage before the shipyard due to the closures, we are drumming up a test scheme for
- DQ1942 - Buoy Power Generation
 - Built radar shield dome, radar is integrated
 - Documented effort and wrote a brief collaborator's guide.
- Out of Office
 - Due to childcare needs I'm half time until schools reopen. I tentatively plan on being online from 12:30-5:30.
- Thom Maughan
 - 300083 - DMO Support - LRAUV
 - Working on hardware design, goal is to send the board out next week.
 - 901009 - CANON
 - Have picked up both of my GPU enabled laptops for work at home.
 - Work Plan: benchmark fasta file for BLAST on x86 architecture with 6 cores, next will be GPU-BLAST x86+GPU, then onto BLAST on ARMv8, then GPU-BLAST.
 - 901805 - Coastal Biogeochemical Sensing
 - Gave Scott the pin definitions for the nanoFET.
 - 902000 - Multi-Spectral StealthCam
 - NTR
 - 902004 - Planktivore
 - Picked up from MBARI a Jetson TX2
 - 901713 - Nearshore FOCE
 - Picked up my MFET/MCAP along with cables and the Aanderaa conductivity sensor.
 - Working on polled settings for Aanderaa Conductivity sensor.
 - Overhead
 - Freaking out a bit. Helping my 87 year old mom understand the seriousness of the situation...
 - Out of Office
 - Mar 11 - Mar 25 CANCELLED Vacation (St. Helena with Georgia Aquarium) (Updated). Last week, I was due to travel to St. Helena for the last chance to deploy the whale shark tag for the Georgia Aquarium. After researching covid19 and doing a risk assessment, I first paid to delay my departure flight by 12 hours, then cancelled the trip. Shortly after cancelling the WHO issued the Pandemic warning and the escalation of concern finally hit the White House.
 - Working at home and planning to drive to MBARI to feed Rascal the cat twice a week.
- Mike McCann
 - 500055 - Video Annotation DM
 - Continuing work on vfcbydive to work with new M3 file naming conventions
 - 901009 - CANON
 - Mentoring capstone students on their first [Pull Request](#) implementing Point rendering
 - 901800 - LRAUV Payload & Support
 - Working on better automation of data processing workflows
 - Identified a problem with .dlist files spanning a month boundary that aren't being loaded
 - Overhead

- Web3D Consortium conference call
- Rob McEwen
 - Out of Office
 - 27 Feb.
- Paul McGill
 - 901618 - Pelagic-Benthic Coupling
 - Did a little work estimating Rover's location for upcoming Wave Glider visit, but will have to delay final estimate until we know when WG will be at Station M.
 - 901700 - 2017 Acoustical Ocean Eco
 - Working on neural network code for classifying sonar target data. We're all becoming software engineers...
- Ed Mellinger
- Tom O'Reilly
 - 901101 - Ocean Imaging
 - Assessing how current C-code could be modified to C++ in preparation for "Son of MB-System"
 - 901800 - LRAUV Payload & Support
 - Running tests, cleaning up code style in preparation to merge new LcmSlateWriter code with our 'master' branch
 - 901902 - Aerial Drones for Sci&MO
 - Helped team prepare for last week's 'Believer' fixed-wing test flights at Hollister airfield; refining data and image processing chain using imagery acquired during those flights.
- Craig Okuda
- Doug Pargett
- Ben Raanan
 - 901101 - Ocean Imaging
 - Updating mosystem photomosaic app to OpenCV 4.2 and integrating with MB-System build
 - 901800 - LRAUV Payload & Support
 - Migrating new docking capability to independent module (app code, build, missions, configs)
 - Updating LRAUV BackSeatDriver component to new LCM API
 - 901809 - Deep Sea Bioinspiration
 - Setting up development environment on Nvidia Jetson TX2
- Mike Risi
 - Out of Office
 - February 19-22: Ocean Imaging Cruise
 - March 9-12: Vacation
 - September 18-29: Ocean Imaging Cruise
 - September 30 - October 2: Vacation
- Brent Roman
 - 901205 - ESP SURF Center
 - Supporting ESP 2G users in Denmark and Great Lakes
 - Characterized ESP 3G temperature sensors
 - Implemented Piecewise-Linear control of 3G puck water temperature
 - Repeatable and accurate to +/- 0.05C for reference test puck!
 - DQ1865 - Bryde Whale
 - Lost comms on Friday 3/13. Don't know why.
 - Out of Office
 - 2nd week of April (college prospecting) (6th - 10th)
- Carlos Rueda
 - 708158 - DHS Y6

- Assistance to WHOI. New TethysDash [docker release 3.9.77](#) already installed. Temporary, now unneeded workaround with CNAME removed (thanks Pat).
- 901502 - Passive Acoustic Sensing
 - Along with various code adjustments (incl improved command-line interface using Rust), completed a first pass of HMM based classification on the 4.5-hour whale song unit recording provided and labelled by John: <https://github.com/ecoz2/ecoz2-whale/tree/master/exerc01>. The accuracy on test data (not training data) is now 75.7%, a significant increase wrt to a previous exercise (57.3%) involving a different set of recordings and [preliminary labelling](#).
- 901800 - LRAUV Payload & Support
 - New TethysDash docker release 3.9.77 incorporating recent backend and frontend changes. Tested on our staging server [tethysdocker](#) as well as on [tethysdash2](#) (the one being prepared as the production server as part of the migration to CenOS7).
- Overhead
 - Remote work session with ESIP SemTech lead related with assistance in Scala programming and use of semantic libraries toward enhancements to the set of SWEET ontologies.
- Out of Office
 - Mar 12, Apr 9: Vacation
- Karen Salamy
 - Out of Office
 - March 30 - Apr 2: Vacation
- Brian Schlining
 - 500055 - Video Annotation DM
 - Upgrading all microservices to [Scalatra 2.7.0](#), [Scalatest 3.1.1](#), and [Scala 2.13.1](#)
 - Completed fix of data [sync issues on the Western Flyer](#)
 - Overhead
 - Virtually meeting w/ CSUMB students today
 - Working through this book: [Scala with Cats](#)
 - Out of Office
 - Apr 3 - 13: Vacation
- Rich Schramm
 - Overhead
 - Porting old VB6 Dataprobe app to XOJO
 - Out of Office
 - Mar 20: Vacation CANCELLED
 - Mar 23 - 27: XOJO Developers Conference CANCELLED
 - Jul 30 - 3-Aug Vacation
 - Aug-10 -21 Vacation
- Alana Sherman
 - 901809 - Deep Sea Bioinspiration
 - Revisiting the labview gui I started for the sony block camera. Working on adding focus control.
 - Overhead
 - Gathering work plans