

Brian Schlining

Week 52

- 500055 - VARS, M3/RS, DSG
 - Iron Mountain video imports. To date, here are the statistics for the video tape to file conversion.
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
 - Wrapping up development, testing and integration of the new Sharktopoda 2 video player.
 - First release of VARS with Sharktopoda 2 integration is [1.4.0-rc8](#).
 - Setup instructions with VARS are [here](#).
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office
 - Jan 3 - 11 - Vacation

Week 51

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
 - This week has been all about testing and integrating the new Sharktopoda video player.
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office
 - Jan 3 - 11 - Vacation

Week 50

- 500055 - VARS, M3/RS, DSG
 - Brian continues to work with Paul Rogers to polish up our new video player for annotation work and integrate it into VARS
 - To reduce support overhead, Brian merged [m3-registrar](#) codebase, which handles all video registration into M3/VARS, into the [m3-support](#) project.
 - Added support for single file registration.
 - [Investigating](#) why a few files won't register in M3/VARS
 - IMES imports
 - Continuing investigation/workarounds on table rendering [issues](#)
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - Meeting with Squiddle devs re: FathomNet integration

- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office
 - Jan 3 - 11 - Vacation

Week 49

- 500055 - VARS, M3/RS, DSG
 - Fixed time-alignment issues when staff annotated a corrupted video.
 - Modified image [registration script](#) for DARC
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
 - Most of my Brian's time this week has been running tests and integrating the new Sharktopda video player. Involved repos are:
 - [Sharktopoda](#) (private repo)
 - [vars-annotation](#) (feature/sharktopoda2 branch)
 - [vcr4j](#) (develop branch)
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office
 - Jan 3 - 11 - Vacation
 -

Week 48

- 500055 - VARS, M3/RS, DSG
 - Too much work on a [weird bug](#) in the TableView control in VARS. Started work on replacing the offending JavaFX control with a Swing version.
 - 4 VARS Annotation releases since the last weekly report.
 - Modified framegrab filenames so that the timestamp in the name now has millisecond resolution. Previously it was only second resolution; that prevented framegrabs from being taken very close together in time.
 - Iron mountain video ingest
 - Added a [count by dive endpoint to Charybdis](#) to support changes to EXPD.
 - Integrated automated image analysis via machine learning into VARS.
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
 - Met with Crissy to work out changes to loading tripod images from station M into VARS.
- 902002 - FathomNet
 - Continuing to work on VARS to FathomNet sync.
 - Merged a [pull request](#) for the OVAI games and redeployed them.
- 902005 - VARS Annotation Assistance
 - Started testing the new Sharktopoda 2 video player. Also starting work on integrating it with VARS for integration testing.
 - Migrating the code that ingests ML output into VARS from its [own repo](#) into [m3-support](#) to reduce duplicated code across projects.
 - Updated [m3-registrar](#) to manage issues that occurred while registering videos for VAA Benchmarks.

- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office

Week 47

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office

Week 46

- 500055 - VARS, M3/RS, DSG
 - Usual support tasks
 - Iron Mountain video import
 - [Integrating ML into VARS.](#)
 - Removing most disk IO for framecapture to [speed up 4k framegrabs.](#)
 - Working on handling bounding box/localization rescaling for proxy videos with different sizes than master/mezzanine.
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
 - Continuing to work with Paul Rogers on new video player
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - Continuing investigations into the University of Hawaii's annotation bug.
- Out of Office

Week 45

- 500055 - VARS, M3/RS, DSG
 - Configuring a Mac Pro workstation for ML work and general video lab task support (e.g. generating video proxies).
- 901221 - Midwater Time Series
 - Set up merge between i2MAP annotations and the processed netcdf nav/ctd data files to occur every morning at 6AM.
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - Set up JIRA cloud (free tier) for the Ocean Vision AI project.
- 902005 - VARS Annotation Assistance
 - [Integrating image ML endpoint into VARS.](#)
- 902012 - Telepresence on MBARI Research Vessels
- Overhead

- With the plethora of messaging and issue tracking services in use by various projects, Brian started using [Obsidian](#) for a daily task/general notes tracker (it can link to all the issues/messages). It's pretty slick!
- Out of Office

Week 44

- 500055 - VARS, M3/RS, DSG
 - Ongoing Iron Mountain video ingest tasks
 - [Fixed](#) misnamed framegrab directories.
 - Fixed time issues for a number of imported videos in VARS
 - [Working on integrating image ML endpoint](#) into VARS
- 901221 - Midwater Time Series
 - Generated transect volume reports for all midwater transect dives
 - Chatted with Mike McCann about [accessing processed i2MAP data](#). Starting work on merging that AUV data with VARS annotations.
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
 - Working on request for changes on how images are registered in VARS
- 902002 - FathomNet
 - Investigated how to track funders for submitted data sets
 - Run tests with yolov5 with 33k and new 315k models.
 - For the ocean vision AI games([here](#), [here](#), and [here](#)), [investigated issues](#) with logging a users game results
 - [Continuing workarounds](#) for VARS to FathomNet sync to deal with major one-time import from ML proposals.
- 902005 - VARS Annotation Assistance
 - Running tests against Paul Roger's video player project (replacement for Sharktopoda/Cthulu). [#1](#), [#2](#)
 - Meets with Paul to discuss video player development
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - Investigating ongoing [bug](#) that [DARC](#) is encountering in VARS
 - Looking into venues for possibly hosting the next Marine Imaging Workshop (2024 or 2025)
 - The Cookie break app is long dead as the tools to build it don't actually exist anymore. Started putting together a [new one](#).
 - On Su, M, Tu, and Wed, attending a remote imaging workshop hosted by CSIRO/Ifremer
- Out of Office

Week 43

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office

Week 42

- 500055 - VARS, M3/RS, DSG

- Modified [tapemigration](#) code to handle ingest of Mini ROV tapes. 🤖 I had no idea we even had those.
- Updated [m3-quickstart](#) project with initial SQL Server support and added a script to delete video sequences at the request of [Geomar](#)
- Squeezed in a little time to work on the [new deep-sea guide](#). Sorting out how to best [integrate the VARS Query functions](#) into it.
- Iron Mountain video imports.
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - [Modifying the import from VARS and FathomNet](#) to deal with the mess created by a ML generated bounding box import done by the video lab. This task is temporarily on hold due to yesterday's [FathomNet press release](#). (We don't want to break anything while FathomNet is getting media attention)
 - The FathomNet team met with our new web designer, Katie Parker, to discuss [proposed enhancements](#).
- 902005 - VARS Annotation Assistance
 - Investigated [discrepancies](#) between the number of localizations pulled using [m3-download](#) and the number actually in the database. On the off chance that you ever need it, [here's a script to convert Pascal VOC files to a CSV](#).
 - Continuing work with Paul Rogers on a [new Sharktopoda video player](#) that integrates Cthulhu localization functions.
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - [Tried out](#) Java 19's new project [Loom](#) (i.e. a preview feature of virtual threads and structured concurrency).
- Out of Office

Week 41

- 500055 - VARS, M3/RS, DSG
 - IMES imports
 - Addressed [issues with VARS on postgresql](#).
 - Working on the new DSG. Ran UI demos on it using [Quasar](#) and [Naive-UI](#). Opting to use Naive-UI and Bootstrap.
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - Working on the [VARS-FathomNet sync](#) to accommodate weird, one-off, import path used to [load ML proposals into VARS](#)
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office
 - 10/3 - 10/7 - [Marine Imaging workshop](#), Brest, France. Presentation is online [here](#).

Week 40

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901603 - Video TAG

- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office
 - 10/3 - 10/7 - [Marine Imaging workshop](#), Brest, France

Week 39

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - New publication is out: Katija, K., Orenstein, E., Schlining, B, Lundsten, L, Barnard, K., Sainz, G., Boulais, O. Cromwell, M., Butler, E., Woodward, B. and Bell, K.C. FathomNet: A global image database for enabling artificial intelligence in the ocean. 2022. Scientific Reports **12**, 15914.
<https://doi.org/10.1038/s41598-022-19939-2>
- 902005 - VARS Annotation Assistance
 - Created [presentation](#) for the Marine Imaging Workshop.
 - Set up a [public VARS server](#) for interactive sessions at the Marine Imaging Workshop. Working on materials for the interactive session. Also created Windows builds of [VARS Annotation](#) and [jsharktopoda](#) so that researchers can try out VARS during the session. During the setup, Brian has been [tracking issues to resolve](#) as part of next year's "VARS for the masses" project.
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office
 - 10/3 - 10/7 - [Marine Imaging workshop](#), Brest, France

Week 38

- 500055 - VARS, M3/RS, DSG
 - Iron Mountain has ramped up the tape to video file process. We're now receiving 5 LTOs every two weeks. The increased data velocity has been filling up the allocated disk quota on M3. IS has updated the quota for M3 share from 320TB to 440TB for now. This gives us up to 290TB for /M3/master and a bit of breathing space.
 - Some tapes imported from the older VARS system did not have the correct start time and duration set. Brian created a [script](#) to update those as needed.
 - Working on talks for the Marine Imaging Workshop
 - Work on Vue 3 version of new [Deep-sea Guide](#)
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - For OceanVisionAI games support.
 - Added endpoint for generating leaderboard scores: for example:
<https://fathomnet.org/ovaigame/scores?mode=tetris&activeSpecies=fish>
 - Added SSL proxy to [game logger](#). e.g. <http://fathomnet.org:8899/logs> is proxied by <https://fathomnet.org/ovaigame/logs>
 - The [games](#) have been deployed to:
 - <https://fathomnet.org/fathomnet-no-timer/tetris/production>

- <https://fathomnet.org/fathomnet-no-timer/timed/production>
- <https://fathomnet.org/fathomnet-no-timer/non-timed/production>
- 902005 - VARS Annotation Assistance
 - Paul Rogers has accepted the contract to work on the new [Sharktopoda/Cthulhu video player](#). Development has started in a the private repo at [dingosky/Sharktopoda](#)
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office
 - 10/3 - 10/7 - [Marine Imaging workshop](#), Brest, France

Week 37

- 500055 - VARS, M3/RS, DSG
 - Working on talks and hands-on session presentations for the upcoming marine imaging workshop
 - Released [VARS Annotation 1.3.0](#). This fixes [a bug](#) that was [introduced](#) with JavaFX 16.
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - Image size information is needed to correctly sync localization data from VARS to FathomNet. [Added image sizes](#) to 900K images in VARS that were missing this information.
 - Refined [milestones](#) for the next phase of FathomNet development.
 - Updated the [OceanVision AI game logger](#) to track changes in logging formats that the remote devs keep making.
 - [Added SSL](#) to all FathomNet APIs as well as the main website.
 - Reviewed proofs for the new FathomNet paper accepted to Scientific Reports.
- 902005 - VARS Annotation Assistance
 - Meetings with freelance developers for work on the [new Sharktopoda video player](#).
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - Added a feature to M3/VARS to allow adjusting the start timestamp of a single video asset. This required changes to [vampire-squid](#), the [m3 python api](#), and [DARC's M3 setup](#).
- Out of Office
 - 10/3 - 10/7 - [Marine Imaging workshop](#), Brest, France

Week 36

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office
 - 10/3 - 10/7 - [Marine Imaging workshop](#), Brest, France

Week 35

- 500055 - VARS, M3/RS, DSG
 - Iron Mountain video imports.
- 901221 - Midwater Time Series

- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - Deployed a new [OceanVision AI game logger](#). The logger is written using [Quarkus](#). API docs at <http://fathomnet.org:8899/q/swagger-ui/>. GraphQL docs at <http://fathomnet.org:8899/q/graphql-ui/>
 - Laid out [development road map](#) for FathomNet for remainder of 2022.
- 902005 - VARS Annotation Assistance
 - Starting [search for developers](#) to work on [Sharktopoda 2](#). First developer to be interviewed will be former MBARI-an Paul Rogers!
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - Provided [DARC](#) with code to change dates of video in VARS.
 - Working on proposal feedback.
- Out of Office
 - 10/3 - 10/7 - [Marine Imaging workshop](#), Brest, France

Week 34

- 500055 - VARS, M3/RS, DSG
 - [Finished specs for video player](#). Shopping for external contractor.
 - Iron Mountain video ingest.
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - Writing a new [Oceanvision AI game logger](#).
 - Created [milestones](#) for upcoming, externally funded work. Starting work on a development plan for [beta-2](#).
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - AWS workshop
- Out of Office
 - 10/3 - 10/7 - [Marine Imaging workshop](#), Brest, France

Week 33

- 500055 - VARS, M3/RS, DSG
 - Updated [docs for raziel](#). Added github actions for tests and documentation generation.
 - [Prep for VAA/VARS Meeting](#)
 - Investigating [slow frame capture with 4k video](#) on the ships.
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - Organized the next [three milestones](#).
 - Reviewing community feedback to add to milestones.
 - Group meeting
- 902005 - VARS Annotation Assistance
 - Updated [docs](#) and [client/server implementations](#) based on the feedback from the team on the spec for the new video player.

- Brian decided that the older Cthulhu spec was not sufficient enough for the new player and has started a new [UI spec](#).
- Addressed frame capture failures on a recent Rachel Carson cruise.
- Group meeting
- 902012 - Telepresence on MBARI Research Vessels
 - Group meeting
- Overhead
 - Discussion with DARC developers on how to manage security handshakes with VARS REST Services.
 - Working on travel arrangements for Marine Imaging workshop
 - Updated a [Scala project template](#) to include default github actions. To use the template, run ``sbt new mbari-org/scala3-mbari-cli``.
- Out of Office
 - 10/3 - 10/7 - [Marine Imaging workshop](#), Brest, France

Week 32

- 500055 - VARS, M3/RS, DSG
 - Revisiting work on the [Vue 3 version of the deepsea guide](#)
 - On-going Iron Mountain video ingest.
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
 - Integrated [beholder](#) into the docker stacks in both the [m3-quickstart](#) (for external users) and [m3-microservices](#) for (internal users).
 - Completed both the client and server implementations for a new remote video control protocol.
 - Issue is tracked at <https://github.com/mbari-org/vcr4j/issues/9>
 - [Updated a video player](#) to use this protocol.
 - “Nearly” [finalized spec](#) has been written.
 - Brian is starting work on getting an external contractor to update [Sharktopoda](#) to use this protocol and to add the new localization features in the spec.
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - GitHub Pages now supports building static web sites using GitHub actions. This is useful for build tools that can produce documentation sites (e.g. [Maven](#)), or if you need to generate API documentation when you commit code.
 - Example site: <https://mbari-org.github.io/beholder/>
 - Example GitHub action to generate site: <https://github.com/mbari-org/beholder/blob/main/.github/workflows/scala.yml>
 - Addressed some data issues for [DARC](#) in their VARS system
 - Meet with DARC techs working on adding analysis/reporting to their VARS system.
 - Attending intern presentations
- Out of Office
 - 10/3 - 10/7 - [Marine Imaging workshop](#), Brest, France

Week 31

- 500055 - VARS, M3/RS, DSG
 - Finishing up a test implementation of the [new remote control protocol in vcr4j](#) in [jsharktopoda](#)
 - The usual Iron mountain ingest
- 901221 - Midwater Time Series

- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
 - Created a new microservice, [beholder](#), for capture/caching images from videos. For ML workflows, this allows viewing localizations without having to store/manage thousands of images per video. API docs are at <http://singularity.shore.mbari.org:8088/docs/>
 - Integrated beholder with [raziel](#). Switched Raziell from using [Scalatra](#) to [Tapir](#) so that API docs can be automatically generated. API docs are at <http://nexus.shore.mbari.org:8400/docs/>
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - Meeting with Core Nav team
- Out of Office
 - 7/25 - 7/28 - Vacation

Week 30

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office
 - Jul 19 - out of office
 - Jul 25-28 Vacation

Week 29

- 500055 - VARS, M3/RS, DSG
 - Iron mountain video ingest.
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - [Podman](#) has improved their systemd support. (It used to be essentially unusable). New docs for it are [here](#). Deployed FathomNet using systemd/podman.
 - Working on localization data cleanup and [re-import into FathomNet](#) and for VAA model training.
 - Merging the [fathomnet-m3-sync](#) project into [fathomnet-support](#) to reduce redundant code and maintenance costs.
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office
 - Jul 19 - out of office
 - Jul 25-28 Vacation

Week 28

- 500055 - VARS, M3/RS, DSG

- Adding API docs to [Raziel](#) using [Tapir](#) to see if Tapir is suitable for general production use in MBARI microservices. Tracking this [here](#).
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
 - [Merged ML generated localizations](#) from a staging database into VARS.
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - Proposals
- Out of Office
 - Jul 5-8 Vacation
 - Jul 25-28 Vacation

Week 27

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office
 - Brian is (still) working at home taking care of a daughter with COVID.
 - Jul 7-8 Vacation
 - Jul 25-28 Vacation

Week 26

- 500055 - VARS, M3/RS, DSG
 - Generating web-friendly HD/H264 [proxies](#) for all 4K/h265 videos
 - Iron Mountain video ingest
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
 - Still working on new [vcr remote control protocol](#). Testing tcp vs udp.
 - Modifying [jsharktopoda](#) to use as a test app for the new protocol.
 - Worked on loading Benchmark videos into the video asset manager which unearthed a [bug](#) in handling a new use case (videos with the same name but different durations). Working on a fix.
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - Addressing some VARS issues at University of Hawaii.
- Out of Office
 - Brian is (still) working at home taking care of a daughter with COVID.
 - Jul 7-8 Vacation
 - Jul 25-28 Vacation

Week 25

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
 - Continuing to work on new vcr/localization remote protocol and reference implementation.
 - Attempted to run a merge/sync operation between many localizations staged in a temporary database into the main VARS database. The attempt failed due to a database deadlock from a large SQL query (executed by a researcher). Follow up is waiting on the testing database on Fog to be synchronized with the production database. (It appears that the sync operation hasn't been working for a few months, IS has been notified)
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office
 - Brian is (still) working at home taking care of a daughter with COVID.
 - Jul 7-8 Vacation
 - Jul 25-28 Vacation

Week 24

- 500055 - VARS, M3/RS, DSG
 - Working on spec and implementation for testing a new video player that combines [Sharktopoda's](#) video playing stability and smoothness with [Cthulhu's](#) video annotation features. Completed a first draft implementation of a new remote protocol for VCR players. This includes [the video player side](#) and the [annotation/controller app side](#). The implementation needs some final tweaks before putting a new video player request out for bids.
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
 - Working through [merge code](#) to pull ML generated bounding boxes from a staging database into VARS.
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office
 - Brian is (still) working at home taking care of a daughter with COVID.
 - Jul 7-8 Vacation
 - Jul 25-28 Vacation

Week 23

- 500055 - VARS, M3/RS, DSG
 - Finishing up the [implementation](#) of the [new video player remote protocol](#).
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - [Discussions with the BIIGLE team](#) about the [ifdo](#) 'standard'.
 - Wrote a [proof-of-concept ifdo to FathomNet csv converter](#).
- 902005 - VARS Annotation Assistance

- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office
 - Brian is working at home taking care of a daughter with COVID.
 - Jul 7-8 Vacation
 - Jul 25-28 Vacation

Week 22

- 500055 - VARS, M3/RS, DSG
 - [VARS Annotation 1.2.1](#) was released. This release adds [features to help minimize clutter](#) in the UI for machine learning generated annotations.
 - Working on client/server implementation to test [new video player comm spec](#). Once those are written, we will be contracting out for an update to integrate [Cthulhu](#) functions into [Sharktopoda](#).
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - Updated the [fathomnet REST service](#) to address database deadlocks that can occur when large updates are pushed while the site is under heavy usage.
 - Pushed 16K localizations from VARS into FathomNet. This push is mostly midwater localizations. Example data set is [here](#).
 - Working on merging localizations from a staging database into the main VARS database. The work on VARS Annotation and discussions with the video lab on how to accommodate this have been done. The merge will result in some annotations being double counted. These new localizations will be put in a different group than the ROV annotations so that can be id'd as potentially non-quantitative annotations.
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office
 - Jul 7-8 Vacation
 - Jul 25-28 Vacation

Week 21

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office
 - Jul 7-8 Vacation
 - Jul 25-28 Vacation

Week 20

- 500055 - VARS, M3/RS, DSG
 - Iron Mountain video imports.
- 901221 - Midwater Time Series
- 901603 - Video TAG

- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - Deployed first iteration of Ocean Vision AI game to <http://fathomnet.org/game-prototype-v0.2.0>
 - Meetings with Viame, Biigle developers to discuss FathomNet integration.
 - Reviewed abstracts for marine imaging workshop
- 902005 - VARS Annotation Assistance
 - Running analysis comparing human annotations to ML annotations.
<https://github.com/mbari-org/vaa-track-analysis>
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - Abstract presentation
 - Meeting with GEOMAR to discuss a VARS deployment.
- Out of Office
 - Jul 7-8 Vacation
 - Jul 25-28 Vacation

Week 19

- 500055 - VARS, M3/RS, DSG
 - Iron Mountain video ingest
 - Modified code that archives ancillary metadata to improve speed. Rerunning on all staged Iron Mountain LTOs
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - Reviewed 2023 abstract for continuing FathomNet
 - Deployed Ocean Vision AI game to <http://fathomnet.org/ocean-one-timer-0.1.2/#/>
- 902005 - VARS Annotation Assistance
 - Working on analysis comparing ML annotations to human annotations
 - Analysis notebooks at <https://github.com/mbari-org/vaa-track-analysis>
 - Testing boxjelly with V4244 ML output to cleanup data for analysis.
 - Updated [Cthulhu](#) to run on M1 macs for testing with box jelly
 - Working on abstract for [2022 Marine Imaging Workshop](#)
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - Working on abstracts
- Out of Office
 - May 5th. Off the grid.

Week 18

- 500055 - VARS, M3/RS, DSG
 - Never-ending imports of video files from Iron Mountain ...
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
 - Working on analysis comparing ML output with human annotations
- 902012 - Telepresence on MBARI Research Vessels
- Overhead

- Moved to new office.
- Out of Office
 - May 5th. Off the grid.

Week 17

- 500055 - VARS, M3/RS, DSG
 - Finalized support for postgresql to all M3 microservices. M3 services can now run on SQL Server, Apache Derby, Oracle, and PostgreSQL.
 - Finalized a migration path for existing VARS systems to copy a database to a new location and finalized testing ... [here](#), [here](#), and [here](#). The copy can work across different databases. (e.g. copy from SQL Server to PostgreSQL)
 - Updated the [m3-quickstart](#) project, which allows labs to easily run a VARS system, to use postgresql as the default database
 - Updated the [jsharktopoda](#) video player's code base to the latest version of JavaFX. JavaFX 18+ is supposed to support HEVC, but it didn't work in testing.
 - Lots of support fun related to this week's titan upgrade!!
 - Created [integration tests](#) to quickly pin-point any issues with MBARI's M3 services. All tests can be run using [http_runner.py](#). Created a parallel test set for DARC to test their services.
 - Discussions about codecs/color spaces for 4k video. Met with Sony representatives for updates on their hardware video encoders.
 - Ran transcoding tests for ProRes 4K to HEVC to see if it was a feasible solution in the case where we can't encode both streams on the ships. On an M1 mac (which has hardware encoder/decoders for both ProRes and HEVC), the transcode rate is about 0.77x, so a 5 minute 4K file would take 6 ½ minutes to transcode. On a system without hardware support, transcoding the same file takes about 3 ½ hours.
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
 - Working on [Sharktopoda's](#) communication specifications to integrate [Cthulhu's](#) localization functions and remove dependencies on ZeroMQ. We'll use this spec to contract the development of an updated Sharktopoda video player that supports localizations on video. Once the spec is done, Brian will create [a test client and server](#) for testing new development. The video lab hopes to contract out development of the new video player ASAP.
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - Migrated DARC's VARS system to a postgresql database
- Out of Office

Week 16

- 500055 - VARS, M3/RS, DSG
 - Continuing port from Apache Derby to [Postgresql](#) for non-mbari use. Running tests using DARC's data setup imported into Postgres. Postgres handles UUIDs differently than other databases, so working through that in annosaurus and vampire-squid apps.
 - Created [apps to copy](#) M3/VARS databases to another database.
 - Testing framecapture on the Rachel Carson after reports of issues. tl;dr: Everything is working fine, someone was running an old version of VARS that's not compatible with the new framecapture setup.
 - On-going imports of Iron Mountain tape-to-video files.
 - Reviewed shortcomings of Cthulhu video player with the video lab.

- Investigation into service failures. Looks like they were due to network issues related to work on Mt. Toro.
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office

Week 15

- 500055 - VARS, M3/RS, DSG
 - Updating the new deepseaguide development to use Vue3 and typescript. Temporary repo at <https://github.com/mbari-org/deepseaguide-exp>
 - Created arm64/amd64 crossbuilds of docker containers for all M3 services.
 - Brian is getting a number of external requests from groups interested in VARS. He's fixing up [the m3-quickstart project](#) to help groups get started. The latest task is finishing the port from Apache Derby to Postgres.
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - Discussion with NOAA over statement of work for archiving backups of FathomNet and generating DOIs for versions of FathomNet. Also discussed workflows for having NOAA serve and archive external contributions of images into FathomNet.
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - Spent some time learning Vue 3's composition API and typescript.
- Out of Office

Week 14

- 500055 - VARS, M3/RS, DSG
 - Porting new deepseaguide from Vue 2 to Vue 3
 - Investigating using web components in our on-line apps.
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - Presented at FathomNet workshop last Thu and Fri
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office

Week 13

- 500055 - VARS, M3/RS, DSG
 - The [new framecapture system](#) worked well on last weeks WF cruise. Testing new framecapture system on the Rachel Carson

- Met with Sony rep to discuss alternatives to Softron for 4k/BT.2020/HLG video encoding.
- Updating [m3-quickstart](#) project to use [Postgresql](#) instead of [Derby](#).
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - Preparing for upcoming FathomNet workshop on Thu and Fri
 - Merged and deployed [PR](#) to include Google Analytics in FathomNet
 - Integrated our new [WoRMS name server](#) into FathomNet's [REST API](#). That automatically makes it available on the website.
 - Met with the team to discuss deploying the ocean AI classification game on MBARI hardware.
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - Upgrades to titan cluster computers changed enough things that the LTO Manager web app and the automated video disk space app stopped working. Those are fixed now.
- Out of Office

Week 12

- 500055 - VARS, M3/RS, DSG
 - Investigating [new crashes](#) in VARS Annotation
 - Merged Kevin B's [pull request](#) into VARS and published [new release 1.1.13](#)
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - Built a fast WoRMS taxonomic name server for FathomNet. This will also enable some other automations for other projects (e.g. notify video lab when the VARS KB and WoRMS drift apart). <https://github.com/fathomnet/worms-server>
 - Gave part of the project update on Monday
 - Prepping for next week's FathomNet workshop
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - Fixed an issue with [DARC's](#) data merge of CTD with their video annotations
- Out of Office

Week 11

- 500055 - VARS, M3/RS, DSG
 - Discussions with Todd Walsh about encoding HDR2020 4k video
 - Installed and tested [libbmagic](#) on the Western Flyer for VARS to use for framecapture. The video lab will be using this on the upcoming midwater lab's cruise.
 - Reviewed M3/VARS system architecture for Megan
- 901221 - Midwater Time Series
 - Generated O2 profiles for all midwater transect dives
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - Working with the team to prep for the upcoming FathomNet workshop. Working on presentations too.
 - Working on presentation for Monday's project update

- [Investigating loading WoRMS](#) into a VARS KB server.
- [Fix to prevent very large searches](#) that can cause a service to fail.
- Did some testing with capturing metrics using [gtag](#)
- 902005 - VARS Annotation Assistance
 - [Ported Danelle's event tracks DB schema from Postgresql to SQL Server](#)
 - Putting together a system diagram.
 - [Investigating issues with visualization of ML output](#) in [Cthulhu](#). Carlos will be picking that up.
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - Investigating issue with [DARC's script that merges CTD/NAV](#) with video annotations
- Out of Office

Week 10

- 500055 - VARS, M3/RS, DSG
 - Installed Kent's [libbmagic](#) on the Western Flyer. Brian will be running tests on the RC and WF.
 - Investigating new JVM crashes in vars-annotation.
 - Investigating "jumping" behavior in the table view in vars-annotation. This may have been introduced when the underlying JavaFX library was upgraded. See issue [#1](#) and [here](#).
 - Imported 5 new LTO drives of videos from Iron Mountain.
 - Fixed a new issue in vars-annotation where user created "quick association" buttons were being unintentionally deleted.
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - Working on presentations for the upcoming FathomNet workshop.
 - Chrome's security restrictions have changed and reports a link to an external font as a phishing attack. This has been addressed.
- 902005 - VARS Annotation Assistance
 - Worked on porting the [deepsea-ai-backend](#) from postgresql to SQL server so we can run on our production database. Port is stalled as Prisma seems to require writing to the master database on the server. Looking for a workaround.
 - Gamed out alternative database designs for deepsea-ai backend.
 - Added a [script to load Yolo output into Cthulhu](#) to visualize localizations.
 - Team was able to process a dive using an ML pipeline. Reviewing the output.
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - Provided additional documentation to [DARC](#) for their [VARS installation](#).
- Out of Office

Week 9

- 500055 - VARS, M3/RS, DSG
 - Pumped out a few [new releases of VARS Annotation](#) addressing various issues.
 - Working on additional issues: [#128](#), [#129](#)
 - Porting public quickstart database from [Apache Derby](#) to [Postgres](#).
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - Preparing for upcoming workshop and project update.

- 902005 - VARS Annotation Assistance
 - Investigating porting [deepsea-ai database](#) from Postgresql to SQL Server.
- 902012 - Telepresence on MBARI Research Vessels
 - Pointed Eric Martin at VARS endpoint for finding annotations within geospatial bounds.
- Overhead
 - Completed the set up of VARS at DARC.
 - Started building cross-platform docker containers for M3 services. Example build script at <https://gist.github.com/hohonuuli/f94942e280819095ef1eeae2460fe097>
- Out of Office

Week 8

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - The migration of DARC's video annotations from the old VARS to the new system has been completed.
 - Creating supporting code for DARC's video annotation workflow.
- Out of Office
 - Feb 14 - Feb 25 - Brian will be a visiting scientist at [DARC](#) to upgrade their video annotation system.

Week 7

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - Brian is upgrading DARC's video annotation systems
- Out of Office
 - Feb 14 - Feb 25 - Brian will be a visiting scientist at [DARC](#) to upgrade their video annotation system.

Week 6

- 500055 - VARS, M3/RS, DSG
 - Dealing with IMES imports
 - Investigation of navigation errors in some ROV dives. Met with the team to discuss how to handle them.
 - Continued work on adding localization tools to VARS.
- 901221 - Midwater Time Series
 - Investigated/resolved data issues with transect volume estimates.
 - Updated camera parameter history for the ROVs in the transect database.
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
 - Working on podman networking between two containers. Re-deployed FathomNet using podman pods.
 - Meeting with [BIIGLE](#) dev about coordination with FathomNet

- Discussions with NOAA/NCEI on statement of work for archiving some fathomnet images as well as data/metadata archival formats.
- Added [tag API](#) to FathomNet to allow adding coverage estimate tags.
- FathomNet has purchased the domain names oceanvisionai.net and oceanvisionai.com.
- Working on adding annotation coverage estimates to all images in FathomNet. (Image below: Blue is human annotated, yellow is ML annotated, green is the intersection of ML with human)
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - Coordinating with DARC in prep of next week's VARS upgrade.
- Out of Office
 - Feb 14 - Feb 25 - Brian will be a visiting scientist at [DARC](#) to upgrade their video annotation system.

Week 5

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
 - Continuing work on adding [image localization tools](#) into the current [VARS app](#).
- 902002 - FathomNet
 - Implementing a % coverage estimator to report on images in FathomNet. It uses an ML endpoint, provided by CVisionAI, that proposes localizations on an image, and compares those results to the localizations in FathomNet. (Team private repo at <https://github.com/fathomnet/fathomnet-support>)
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office
 - Feb 14 - Feb 25 - Brian will be a visiting scientist at [DARC](#) to upgrade their video annotation system. Note that the dates were rescheduled from the original Jan 31 - Feb 11.
 - Due to COVID in his family, Brian is working remotely for now.

Week 4

- 500055 - VARS, M3/RS, DSG
 - Updated docs and instructions for
 - [m3-quickstart](#)
 - [Vars-kb-server](#)
 - Investigating and resolving issues occurring in recent versions of VARS with large annotation sets.
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
 - Continuing to work on an annotation pane for desktop applications at <https://github.com/mbari-org/imgfx>
- 902002 - FathomNet
 - [Discussion](#) with MorphoCluster team about integrating it into our tools. They are also interested in using our vars-kb-server in their tools.
 - Looking into ML image annotation as a service using <https://gitlab.com/bgwoodward/keras-model-server-fast-api>
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office

- Feb 14 - Feb 25 - Brian will be a visiting scientist at [DARC](#) to upgrade their video annotation system. Note that the dates were rescheduled from the original Jan 31 - Feb 11.
- Due to COVID in his family, Brian is working remotely for now.

Week 3

- 500055 - VARS, M3/RS, DSG
 - Wrote support scripts for [changing passwords](#) and [listing videos in a dive](#).
 - Testing with [libbmagic](#) as THE framecapture tool for VARS on the ships. Big shout out to Kent Headley for getting it working with BlackMagic's PCI cards on the ships!!
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
 - Building JavaFX UI controls for image annotation to support porting the image annotations features from the older VARS, that Ken's lab is running, into the new system. These controls will also allow for rapid development of new annotation applications independently of VARS. Rapidly evolving source code is at <https://github.com/mbari-org/imgfx>, video demo of one of the controls at <https://youtu.be/Er3728Jh0C8>.
- 902002 - FathomNet
 - Discussions on NOAA's statement of work agreement to host external group's image collections for FathomNet.
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
 - Crash tutorial for Lisa Emanuelson on using bash.
- Out of Office
 - Jan 31 - Feb 11 - Brian will be a visiting scientist at [DARC](#) to upgrade their video annotation system.
 - Due to the frequent COVID cases among MBARI staff, Brian is working remotely for now.
 - Jan 20 - Jan 25 - Intermittently participating in the JChampions conference
 - Jan 20 - Marine Imagery Annotation Standard Workshop

Week 2

- 500055 - VARS, M3/RS, DSG
 - Started work on converting some core JavaScript in the Deep sea guide to TypeScript so that it's easier to hand off to other team members.
 - Upgraded all M3 microservices on the ships. Testing the new VARS (with [raziel](#) integration). VARS works but still sorting out framecapture with [libbmagic](#). The (much) older VARS build is still currently being used for now.
 - Ingested the latest Iron Mountain video drop.
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
 - Scoping and prototyping work to port image annotation tools from the older VARS system into the new system. <https://github.com/hohonuuli/imgfx>
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office
 - Jan 31 - Feb 11 - Brian will be a visiting scientist at [DARC](#) to upgrade their video annotation system.

- Due to potential COVID exposure at MBARI, Brian is working at home waiting for the results of his COVID test.

Week 1

- 500055 - VARS, M3/RS, DSG
 - There's a new release of VARS Annotation:
 - Integrated with [raziel](#), which allows VARS to be easily configured for it's deployment location. Notes on setting it up are at <https://docs.mbari.org/vars-annotation/setup/>
 - This release is integrated with [Cthulhu](#) allowing staff to localize annotations directly on video.
 - Integration with Kent's [libbmagic](#) for ship framecapture.
 - Support for [adding notes about dives and videos](#).
 - Improved startup time. (Optimized the calls to load a user's preferences from the database)
 - Created a project to allow labs to easily spin up the entire M3/VARS software stack at <https://github.com/mbari-media-management/m3-quickstart>. This stack includes a proxy/video server, database server, as well as [support scripts](#) for managing the docker life-cycle, initializing the knowledgebase, registering media with VARS, and building supporting applications.
 - Worked through the backlog of master (ProRes/MOV) video files that needed to be registered, which has been a challenge due to space constraints on titan. The current setup runs daily and will process up to 10TB of files. Once the new files are registered they are migrated off of spinning disk to LTO.
- 901221 - Midwater Time Series
- 901603 - Video TAG
- 901618 - Pelagic-Benthic Coupling and the Carbon Cycle
- 902002 - FathomNet
- 902005 - VARS Annotation Assistance
- 902012 - Telepresence on MBARI Research Vessels
- Overhead
- Out of Office
 - Jan 31 - Feb 11 - Brian will be a visiting scientist at [DARC](#) to upgrade their video annotation system.