

# Brian Schlining

## Week 53

- 500055 - Video Annotation DM
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office
  - 12/21-1/1 Vacation

## Week 52

- 500055 - Video Annotation DM
- 901221 - Midwater Time Series
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- Out of Office
  - 12/21-1/1 Vacation

## Week 51

- 500055 - Video Annotation DM
- 901221 - Midwater Time Series
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- 902002 - Fathomnet Detect and Classify
  - Started work on spinning up tooling for staff looking for tasks during the shutdown. There will be an opportunity to correct localizations in VARS. See <https://mbari.slack.com/archives/C01GU8N0ZKN>
  - Continuing work on the fathomnet website and REST services. We're getting closer!
  - Working on support services required by FathomNet (e.g. automated image validation and metadata extraction)
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office
  - 12/21-1/1 Vacation

## Week 50

- 500055 - Video Annotation DM

- Investigating issues that have been occurring with the automated registration. Bad things happen when file names have spaces (not web URL friendly) or duplicate videos are on M3 (registration tracks videos by checksum, duplicate videos put registrar in a loop where it keeps swapping video info between the two identical files)
- 901221 - Midwater Time Series
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- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Continuing work on the fathomnet website and REST services. We're getting close!
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office
  - 12/21-1/1 Vacation

## Week 49

- 500055 - Video Annotation DM
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
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- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - [FathomNet development](#) is still in [full swing](#). We hope to have it working and deployed by Dec 21st. We anticipate completing a paper on the same date. Wish us luck ;-)
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office
  - 12/21-1/1 Vacation

## Week 48

- 500055 - Video Annotation DM
  - In prep for upcoming 4K video, ran tests with HEVC and VP9 mezzanine video files for dives Doc Ricketts 1313 and Ventana 4313
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Continuing development of <http://fathomnet.org>. See <https://bitbucket.org/mbari/fathomnet>
  - Added support for inter-app messaging using <https://nats.io/>
  - Started work on app that listens for new image registration(via nats) and validates the images (e.g. verifies the URL is correct, extracts dimensions and checksum).  
<https://bitbucket.org/mbari/fathomnet-validator>
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office
  - 12/21-1/1 Vacation

## Week 47

- 500055 - Video Annotation DM

- Helping video lab explore options for serving video files to public
- Imported annotations from recent Mini ROV dives into the shore database. Working with Lonny and Kakani to sort out the dive number mess from them.
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Continuing work on [FathomNet web interface](#).
  - [Investigated issues](#) with wrong time zones for videos/annotations for a few dives. [Created a quick reporting tool](#) to help investigate issues in the future
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office

## Week 46

- 500055 - Video Annotation DM
  - Hardware encoder support for AV1 is being released. Starting discussion on codecs for working with 4K video.
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Continuing development of fathomnet web interface.
  - The evolving web interface is at <http://fathomnet.org>
- 902005 - VARS Annotation Assistance
- Overhead
  - Working with Kakani's group on integrating DeepPIV and stereo camera data into VARS.
- Out of Office
  - Attending [Scale by the Bay](#) on Thu and Fri

## Week 45

- 500055 - Video Annotation DM
- 901221 - Midwater Time Series
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- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Fathomnet public API is up and running for development. Latest docs at <http://fathomnet.org:8080/swagger-ui>
  - Working on Fathomnet web interface with <http://makemodel.co> <https://bitbucket.org/mbari/fathomnet>
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office
  - Worked ½ day on Tuesday

## Week 44

- 500055 - Video Annotation DM
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- 901602 - Data TAG: Addrss Eng Chng
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- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Created code for exporting data from VARS into FathomNet.
  - VARS images have had copyright info added and are now staged on atlas:/FathomNet and service via <https://fathomnet.org>. A subsample of VARS annotations have been loaded into the fathomnet database for testing and development purposes.
  - Still working through podman/SSL/CORS issues on the external server
  - Continue to work on REST API.
  - Continue to work with <http://makemodel.co> on user interface
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office

## Week 43

- 500055 - Video Annotation DM
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
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- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - External Fathomnet Server is now running at <https://fathomnet.org>. It's configured with SSL, and set up to proxy the fathomnet microservice. A prototype web UI for testing is deployed, but that is NOT the official UI we're working on.
  - Fathomnet API docs at <http://fathomnet.org:8080/swagger-ui>, <http://fathomnet.org:8080/rapidoc>, <http://fathomnet.org:8080/redoc>
  - <https://nats.io/> is running as a message system for fathomnet.
  - Working with [make and model](#) on [UI design](#)
  - [Developing application to sync image localizations from VARS to Fathomnet.](#)
  - [Adding API endpoints to support UI use cases.](#)
- 902005 - VARS Annotation Assistance
- Overhead
  - Brian was out on vacation last week
- Out of Office

## Week 42

- 500055 - Video Annotation DM
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- 902002 - Fathomnet Detect and Classify
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office
  - Oct 12-16

## Week 41

- 500055 - Video Annotation DM

- Along with the video lab, hashing out how to manage non-core video data in VARS. (For example, benthic lander camera, bioinspiration stereo cameras)
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Continue to work on [data model and REST services](#)
  - Continue to work with <https://www.makemodel.co/> on fathomnet web UI
  - Setting up external web server for FathomNet (<https://fathomnet.mbari.org>), database (on dione.mbari.org, and [nats server](#))
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office
  - Oct 12-16

## Week 40

- 500055 - Video Annotation DM
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- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office
  - Oct 12-16

## Week 39

- 500055 - Video Annotation DM
  - Working with video lab to handle annotations of organism parts (requested for ML-tracking project)
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Working with [Make&Model](#) to develop fathomnet web UI
  - Expanding database model to accommodate [growing use case list](#).
  - Implemented security using Firebase and JWT. Example project and docs are [here](#).
- 902005 - VARS Annotation Assistance
- Overhead
  - Continue to work with IS as they roll out upgrades to older linux VMs
  - Met with CSIRO to discuss MBARI's ML efforts.
  - Published a new docker image for running Polynote notebooks.  
<https://github.com/mbari-org/docker-polynote>
- Out of Office
  - Oct 12-16

## Week 38

- 500055 - Video Annotation DM

- [Added tools to generate reports](#) for all anomalies found in camera logs for dives. This tool is used to help identify problematic tapes before Iron Mountain begins the tape to video conversion of all MBARI tapes.
- [Completed migration of all apps from seaspray](#) to expanse and quasar.
- 901221 - Midwater Time Series
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- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Added the following features:
    - [Fast geo-located image search endpoints](#)
    - Uploads of bounding-box data now archives the original source files.
    - Working on [nats](#) integration for inter-app messaging.
  - Working on docker-compose stack
  - Still working on security. Current approach is [firebase](#) for authentication. Some user data, such as roles and expertise-rank, is stored in FathomNet. [Also adding API keys](#) to allow authentication without firebase so that users with API keys can access protected REST endpoints.
- 902005 - VARS Annotation Assistance
- Overhead
  - Working with Pat/IS on [migrating older docker installations](#) on linux VMs to docker-ce.
  - Meet with <https://innotescus.io>. They are developing an on-line annotation platform and are seeking guidance on improving the tool for scientific applications. They have requested samples of our video/images in order to set up a demo for MBARI.
  - Meeting with CSIRO today to discuss integrations of their ML work into VARS and FathomNet
- Out of Office
  - I took Tuesday (9/8) off.

## Week 37

- 500055 - Video Annotation DM
  - For the tape-to-video conversion, I'm continuing work and discussions on locating and dealing with timecode resets.
  - Completed migration of supporting apps from Seaspray to other VMs
- 901221 - Midwater Time Series
  - Helping Rob build queries for mining VARS data
- 901602 - Data TAG: Addrss Eng Chng
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- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Continue to work on figuring out security for web interface and API endpoints
- 902005 - VARS Annotation Assistance
- Overhead
  - Working with Pat to sort out issues with Docker that occurred during the most recent IS patch updates to the Linux systems/
- Out of Office
  - I took Tuesday (9/8) off.

## Week 36

- 500055 - Video Annotation DM
  - Completed migration of all support applications off of Seaspray to Expanse and Quasar

- Started prototyping a web based query app. Added additional APIs to the knowledgebase to support this.
- 901221 - Midwater Time Series
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- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Added authentication via Google's firebase
  - Created a web interface for FathomNet.
  - Working on supporting services for FathomNet (validating images submitted, archiving original uploads of bounding boxes, user management, additional download formats)
- 902005 - VARS Annotation Assistance
- Overhead
  - One of my laptops had a hard disk issue. I had to wipe the disk and reinstall the OS
  - Working with IS to resolve issues introduced by the latest round of server patches.
- Out of Office

## Week 35

- 500055 - Video Annotation DM
  - [Migrated all remaining supporting applications from](#) VARS to M3/VARS and moved them off seaspray.shore.mbari.org which is being retired in September. Docker apps were moved to expanse.shore.mbari.org. Non-docker apps were moved to quasar.shore.mbari.org.
  - As part of the tape-to-videofile migration, discussing with the video lab how to manage timecode resets and jumps that occur [mid-tape](#) or [during a dive](#).
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- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - [Deep dive into OAuth 2.0](#). Working out how to implement authentication and security for FathomNet. Wrote some prototypes against [Okta](#) and [Firebase Authentication](#).
  - Started work on a minimal UI to enable authentication.
  - FathomNet supports different taxa providers, currently [MBAR's VARS knowledgebase](#) and [WoRMs](#). Had discussions with WoRMs developers about adding additional REST API features to better support FathomNet's needs.
- 902005 - VARS Annotation Assistance
- Overhead
  - Involved in telepresence discussions. Met with Paull's group to discuss using VARS as part of telepresence.
  - [Attended eDSBS meeting](#)
- Out of Office

## Week 34

- 500055 - Video Annotation DM
  - Completing a port of software that supports various VARS tasks such as Samples database integration, framegrab deletion reports, and video file metadata synchronization from VARS to M3/VARS.
  - Migrated support tasks from the server seaspray to quasar and expanse.
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- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Researching OAuth and OpenID Connect
  - Migrated code for applying embargoes and image watermarks from the older VARS to M3/VARS.
  - Created executables for windows/linux/macOS for a VARS public query.
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office

## Week 33

- 500055 - Video Annotation DM
  - Getting VARS public query up and running
  - Updating public image watermarking code from VARS to newer M3/VARS system.
- 901221 - Midwater Time Series
  - Wrote some Matlab code for quicklook plots using local AUV log files. This will allow the midwater lab to troubleshoot data issues with the AUV while at sea.
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Studying up on OAuth 2.0 and OpenID Connect (... zzzzzzzz).
  - Investigating Otk, Auth0, Firebase, and <https://www.keycloak.org/>
- 902005 - VARS Annotation Assistance
- Overhead
  - Watching the virtual intern talks.
- Out of Office

## Week 32

- 500055 - Video Annotation DM
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Cranking away of [FathomNet development](#)
  - Deploying development snapshots. API docs at <http://quasar.shore.mbari.org:8888/swagger-ui> and <http://quasar.shore.mbari.org:8888/rapidoc>
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office

## Week 31

- 500055 - Video Annotation DM
  - Addressed a bottleneck (due to parallel processing of videos, checksum creation) in the video registrar.
  - Fixed misnamed videos from recent Mini ROV cruises.
- 901221 - Midwater Time Series
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- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify

- [FathomNet API](#) is now being written using [Micronaut](#).
  - API for CSV uploads and archiving of boundingbox/images is implemented
  - Swagger docs/ui are implemented
  - Testing using Docker/SQL Server container implemented
  - Docker compose stack (SQL Server/Kafka/Zookeeper) is implemented
  - Exploring authentication/user id management. ([Otk](#), [Auth0](#), [Firebase](#))
  - API access logging is implemented
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office

## Week 30

- 500055 - Video Annotation DM
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
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- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Working on read-view implementation of database. <https://bitbucket.org/mbari/fathomnet>
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office

## Week 29

- 500055 - Video Annotation DM
- 901221 - Midwater Time Series
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- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office

- ~~Jun 30 - Jul 1~~ [Vacation](#)



- Jul 13 - 17 Vacation

## Week 28

- 500055 - Video Annotation DM
- 901221 - Midwater Time Series

- 901602 - Data TAG: Addrss Eng Chng
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- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Working on REST API for ingesting bounding box information
  - Cleaned up externally loaded annotations. We've created a new `activity` in VARS named `localize` for annotations that are specifically for machine learning.
- 902005 - VARS Annotation Assistance
- Overhead
  - Providing proposal input
  - Providing feedback for 2020 telepresence work.
  - Working on telepresence support for annotations for the mini-ROV for an upcoming dive.
  - Working through courses on CQRS from [lightbend academy](#)
- Out of Office
  - ~~Jun 30 - Jul 1~~ [Vacation](#)



- Jul 13 - 17 Vacation

## Week 26

- 500055 - Video Annotation DM
  - Many bug fixes and feature releases this week in the microservices and vars-annotation.
- 901221 - Midwater Time Series
  - Running an analysis to look at variations between annotators for the same transects.
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Weekly meetings
  - Started some courses on implementing CQRS, which could be used to track change history in FathomNet.
- 902005 - VARS Annotation Assistance
- Overhead
  - Working with CSIRO to package VARS UI Apps with Oracle drivers. Oracle drivers do not play well with [jlink](#).
  - Virtual meeting with interns
- Out of Office
  - Jun 30 - Jul 3 [Vacation](#)

## Week 25

- 500055 - Video Annotation DM

- Continuing to add and improve features to M3/VARS needed to support ML workflows and the upcoming Iron Mountain videos from tapes.
- I released the following updates this week. The user apps can be downloaded from <http://m3.shore.mbari.org/apps/>
  - [Cthulhu 0.0.2](#)
  - vars-annotation [0.5.0](#) and [0.5.1](#)
  - [Annosaurus 0.7.0](#)
  - [Vampire-squid 0.3.0](#)
- In preparation for the Iron Mountain tape to video project, re-working the [automated video registration](#) with the following changes:
  - Improved video start time resolution from seconds to milliseconds
  - [Consolidating REST Client](#) code so that [I have reliable and well-tested libraries](#) for use with M3 applications.
- Providing advice to CSIRO on Dockerizing their VARS application builds.
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- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office
  - Jun 30 - Jul 3 [Vacation](#)

## Week 24

- 500055 - Video Annotation DM
  - Continue to work on Iron Mountain video ingest. The first test run showed we need better than second resolution for video start timestamps in order for tape annotations to align correctly with the video files. Modified the video registration to look at timestamp in filenames (up to millis resolution) then fall back to creation\_date atom (second resolution) in files.
    - <https://bitbucket.org/mbari/tapemigration>
  - Ironing out a few issues with video registration so that we can get framerate and the video codecs registered correctly. I was using Tika which did not get that info. The new pipeline uses ffmpeg and falls back to Tika if needed. Modified filenames to include milliseconds in timestamps.
    - <https://bitbucket.org/mbari/m3-registrar>
  - As part of the video ingest work, I'm consolidating Java code used by various projects to make REST calls to M3 microservices. Also removing hacks and cleaning up the video asset manager REST API.
    - <https://github.com/mbari-media-management/vampire-squid>
    - <https://github.com/mbari-media-management/vars-annotation>
  - Merged recent Mini ROV annotations into the main database.
    - <https://mbari1.atlassian.net/browse/M3-127>
  - Adding codesigning to various applications for Macs as [Gatekeep](#) flags non-signed apps as corrupted.
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- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
- 902005 - VARS Annotation Assistance
- Overhead
  - Fixed an issue with HURLS knowledgebase
- Out of Office

- Jun 30 - Jul 3 Vacation

## Week 23

- 500055 - Video Annotation DM
  - Completed first test run of ingesting videos ripped from MBARI tapes by Iron Mountain. <https://mbari1.atlassian.net/browse/M3-120> . Working on improving accuracy of start times for iron mountain videos.
  - Working on improvements and feature requests for VARS
    - <https://mbari1.atlassian.net/browse/M3-123>
    - <https://mbari1.atlassian.net/browse/M3-122>
    - <https://mbari1.atlassian.net/browse/M3-124>
    - <https://mbari1.atlassian.net/browse/M3-118>
    - <https://mbari1.atlassian.net/browse/M3-117>
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
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- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Reviewing teams's submission to NeurIPS 2020
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office

## Week 22

- 500055 - Video Annotation DM
  - Iron Mountain delivered a test batch of videos converted from some of MBARI's ROV tapes. Brian is working on software to process these videos and set the correct metadata and filenames. <https://bitbucket.org/mbari/tapemigration> . Part of this process also looks for timecode resets during a dive, which can cause problems with looking up some of the metadata.
  - Investigating methods to extract frame rates from video files as part of video registration. <https://bitbucket.org/mbari/m3-registrar>
- 901221 - Midwater Time Series
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- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office
  - May 29th - Daughter's HS graduation

## Week 21

- 500055 - Video Annotation DM
  - [Deleted "test" dive annotations from M3/VARS](#)
  - Added a [`seek to` keyboard shortcut](#) to vars-annotation
  - [Starting work on ingesting videos](#) from Iron mountain as part of migrating all tapes to video formats.
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling

- 902002 - Fathomnet Detect and Classify
  - [Added ingest of CSV files to fathomnet](#)
  - We have a requirement to track changes/change history of images and bounding boxes, so I'm working through that in the database design. <https://bitbucket.org/mbari/fathomnet>
  - Verified DeepPIV videos, 2015 videos are now integrated with M3
  - [Converted user stories to JIRA issues to allow progress tracking.](#)
- 902005 - VARS Annotation Assistance
  - Participated in demos for UCSC of our video annotation ecosystem
  - [Worked on verification of localized videos](#) that will be integrated into M3.
  - [Verified loaders of Pascal VOC localizations into M3/VARS](#)
- Overhead
- Out of Office

## Week 20

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- 901221 - Midwater Time Series
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- 902002 - Fathomnet Detect and Classify
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office

## Week 19

- 500055 - Video Annotation DM
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
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- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Working on an API for bounding box ingest and archiving <https://bitbucket.org/mbari/fathomnet>
- 902005 - VARS Annotation Assistance
  - Added documentation for registering video/image/annotation fro non-mbari videos at [https://mbari-media-management.github.io/docs/mbari/registration\\_ex1.html](https://mbari-media-management.github.io/docs/mbari/registration_ex1.html)
  - Working on Software Requirments Doc.
- Overhead
  - Continuing discussion with CSIRO on adapting localization tools for their M3/VARS system
  - Continuing providing technical guidance to HURL on replacing VARS server.
  - I grabbed my monitor and office chair from MBARI and am set up for `the duration` to work at home.
  - CSUMB Capstone students are winding down their project. They gave their last demo last week. They are now working on their presentations.
- Out of Office

## Week 18

- 500055 - Video Annotation DM
  - Adding docs for spinning up m3-microservice on sql-server
  - Working on improving support for postgresql
  - Responding to many internal/external support requests:
    - University of Hawaii - Assist their team with using VARS remotely

- CSIRO - Their team is looking at building their own deep-sea guide on their M3/VARS system.
- CVISIONAI - Assist with building and running M3/VARS
- Geomar - Requests for troubleshooting their VARS system
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Assisting Joost with migrating DeepPIV videos to M3
  - Ran tests on Kevin Barnards code that loads building boxes from RectLabel into VARS to verify that it's copacetic. <https://mbari1.atlassian.net/browse/VAA-30>
- 902005 - VARS Annotation Assistance
  - Working on [data model](#) and [system design](#).
- Overhead
  - Working through tutorials on [ZIO](#)
- Out of Office

## Week 17

- 500055 - Video Annotation DM
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
- 902005 - VARS Annotation Assistance
- Overhead
- Out of Office

## Week 16

- 500055 - Video Annotation DM
  - CSUMB students presented their ROV dive portal to the video lab
- 901221 - Midwater Time Series
  - Updated the [auv-rawdata-server microservice](#) and redeployed
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Thinking through [data server design](#) and [user stories](#)
- 902005 - VARS Annotation Assistance
  - [New release of VARS Annotation which supports localization on video](#)
  - [Packaged Cthulhu for Mac and Linux](#)
  - Added [docs for localizing on video](#)
- Overhead
  - Met with Diana LaScala-Gruenewald (New CenCOOS hire) to discuss exporting annotations to OBIS.
  - Studying up on functional [IO effects](#)
- Out of Office
  - April 17th. - Will be participating in [online Scala conference](#) on Saturday 18th instead

## Week 15

- 500055 - Video Annotation DM

- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
- 902005 - VARS Annotation Assistance
  - [First release of Cthulhu](#), a new video player that supports drawing bounding box annotations directly on videos. Video of it in action at <https://youtu.be/FKGuG8-UYC0>
  - Completed integration of Cthulhu with vars-annotation. [Prepping new release of vars-annotation](#).
- Overhead
  - Continue working with CSUMB capstone students on a dive/annotation/video/images data portal to quickly allow video lab staff to quickly view information about an ROV dive. They presented their work to the video lab on Wed.
- Out of Office
  - Apr 3 - 13: Vacation

## Week 14

- 500055 - Video Annotation DM
  - Packaged the applications listed below for Windows. They can be downloaded from <http://m3.shore.mbari.org/apps/>
    - vars-annotation
    - vars-query
    - jsharktopoda
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Worked on drafts of UI design for a FathomNet web interface.
- 902005 - VARS Annotation Assistance
  - Completed evaluation of the [cthulhu](#), a video player that supports annotation localization. Signed off as completed with external contractor.
  - Working on [integration of chullhu with vars-annotation](#).
- Overhead
  - Wrote a bit of Python to read Dorado AUV log files. See [readauvlog.py](#)
  - Continue meeting with CSUMB students who are making good progress on a dive overview web site.
  - Met w/ CenCOOS to discuss serving VARS annotations into OBIS
  - Meetings. OMG so many meetings.
- Out of Office
  - Apr 3 - 13: Vacation

## Week 13

- 500055 - Video Annotation DM
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
- 902005 - VARS Annotation Assistance
- Overhead

- Out of Office
  - Apr 3 - 13: Vacation

## Week 12

- 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](#)
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
- 902005 - VARS Annotation Assistance
- Overhead
  - Virtually meeting w/ CSUMB students today
  - Working through this book: [Scala with Cats](#)
- Out of Office
  - Apr 3 - 13: Vacation

## Week 11

- 500055 - Video Annotation DM
  - [Fixing issues](#) resulting from failed database replication on the Western Flyer.
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Updated [annosaurus to publish associations](#) (i.e. details about annotations) via ZeroMQ and deployed in on the MiniROV computer.
- 902005 - VARS Annotation Assistance
  - Testing Cthulhu, a new video player for localizing annotations
- Overhead
  - Met with CSUMB Capstone students working on a web interface for visualizing videos and annotations from a dive.
- Out of Office
  - Apr 3 - 13: Vacation

## Week 10

- 500055 - Video Annotation DM
  - Met with CSUMB capstone students to continue work on an integrated dive page.
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Presented user stories to FathomNet team, continues work on data modeling for search/archive/retrieval.
  - Modifying annotation service ([annosaurus](#)) to provide real-time notifications when associations are added or updated.
- 902005 - VARS Annotation Assistance

- Running tests on the video player cthulu, which can provide on-the-fly bounding box localizations on video. Integrates with VARS
- Started integration of localization communication library into VARS in prep for cthulu delivery.
- Overhead
- Out of Office
  - Apr 3 - 13: Vacation

## Week 9

- 500055 - Video Annotation DM
  - Met with CSUMB Capstone students
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Updated [FathomNet external repo doc](#) with User stories.
  - Started roughing out a data schema to meet user stories requirements.  
<https://bitbucket.org/mbari/fathomnet>
- 902005 - VARS Annotation Assistance
  - Created and implemented [a communication protocol for exchanging localization/bounding box information](#) between video player and external apps. <https://mbari1.atlassian.net/browse/VAA-17>
  - Documented a workflow and API calls for loading VOC localizations of downloaded VARS framegrabs into M3/VARS. <https://mbari1.atlassian.net/browse/VAA-30>
- Overhead
  - Attended external review talks and video lab demo
- Out of Office
  - Apr 3 - 13: Vacation

## Week 8

- 500055 - Video Annotation DM
- 901221 - Midwater Time Series
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
- 902005 - VARS Annotation Assistance
  - Participated in a group meeting to discuss "What are we going to build?"
  - Create library/protocol for communicating information about bounding box localizations between two remote applications (e.g. cthulu and vars-annotation). See <https://mbari1.atlassian.net/browse/VAA-17> and [vcr4j 4.3.0.jre11](#).
- Overhead
- Out of Office
  - Apr 3 - 13: Vacation

## Week 7

- 500055 - Video Annotation DM
  - [Tape annotation/framecapture](#) was restored and [released](#) to the video lab.
  - Worked on standardizing M3/VARS builds for different MBARI deployments.
- 901221 - Midwater Time Series
  - Investigated anomalies in midwater transect annotation data.

- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Completed integration of [ZeroMQ notifications when a new annotation is created](#) in support of Kakani's research.
  - Deployed updated [M3/VARS software](#) stack for the MiniROV
- 902005 - VARS Annotation Assistance
  - Working with external contractor on development of a video player that supports annotation localization (e.g. drawing bounding boxes.). Reviewed latest milestone delivery. Wrote additional acceptance tests. Working on UDP protocol for inter-app communication.
- Overhead
  - Met w/ CSUMB Capstone students to kick off a project.
  - Put together collaborators agreements for CSUMB Capstone students.
- Out of Office
  - Apr 3 - 13: Vacation

## Week 6

- 500055 - Video Annotation DM
  - To support Kakani's LCM tool, added ZeroMQ notifications to annosaurus so that external tools can be notified when an annotation is created or modified. See [M3-88](#) and [annosaurus 0.6.0](#)
  - Addressing JVM [crash when VARS Annotation made a framecapture](#). Turns out this was due to changes in how macOS handles secure access to cameras. A fix should be out shortly.
  - Addressing a bug in annosaurus when resolving existing annotations with a bogus time of `1970-0101T00:00:00Z`.
- 901221 - Midwater Time Series
  - Investigating data issues with midwater transects annotations. [M3-89](#), [M3-90](#), [M3-91](#).
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
  - Investigated methods to integrate localized labels of parts of organisms into existing annotations. [M3-87](#)
  - FathomNet kick off meeting
- 902005 - VARS Annotation Assistance
  - Continue to work with external contractor on a video player that supports annotation localization (i.e. draw and display bounding boxes around organisms in real-time)
  - Assembled basic automation tests for the video player. See [cthulu-phase1](#)
  - Published new release of [VCR4J](#) which patches issues that appeared while creating automation tests.
- Overhead
- Out of Office
  - Apr 3 - 13: Vacation

## Week 5

- 500055 - Video Annotation DM
  - [Work on syncing chief scientist info from EXPD with media information in M3.](#)
  - As part of the conversion of all tapes to digital video, the video lab needs to prioritize which tapes are to be transcoded. [Brian analyzed dives and tapes to verify that we had the correct metadata needed for all tape](#). Links: [Dive Analysis](#), [Tape Analysis](#)
  - Investigating why [framecapture from VARS Annotation is crashing when running on Java 11](#)

- 901221 - Midwater Time Series
  - [Investigation into global change request of annotations for Pilalidium to Earleria](#)
  - As part of IS's CentOS retirement, [Brian migrated the midwater-transects analysis apps from the server seaspray to expanse](#)
- 901602 - Data TAG: Addrss Eng Chng
- 901603 - Video TAG: Vis Ocean Chng
- 901618 - Pelagic-Benthic Coupling
- 902002 - Fathomnet Detect and Classify
- 902005 - VARS Annotation Assistance
  - Our external contractor, [Caprica Software](#), has delivered a first iteration of a video player that interacts with [VARS](#) (as an alternative to [Sharktopoda](#)). This version will eventually support interactive feature localization that is required to support machine learning (e.g. draw and display bounding boxes on video.) Brian is testing the software and writing acceptance tests based on the [phase 1 requirements](#).
  - Attended VAA kickoff meeting.
- Overhead
  - Brian submitted a capstone project to CSUMB for students to work on a project at MBARI.
- Out of Office
  - Apr 3 - 13: Vacation