

500055 - VARS, M3/RS, DSG

Week 28

1. Brian Schlining
 - a. Addressed [issues when localizing annotations using VARS Annotation and Sharktopoda](#).
 - b. New releases:
 - i. <https://github.com/mbari-org/vars-annotation/releases/tag/2.4.1>
 - ii. <https://github.com/mbari-org/vcr4j/releases/tag/5.3.6> ([maven central](#))
 - iii. <https://github.com/mbari-org/commons> ([Java maven central](#), [Scala maven central](#))
 - c. Added [symmetric encryption to Raziel](#) to support storage of shared login credentials locally. A user supplies credentials to Raziel, and if valid, Raziel returns an encrypted file that can be saved locally and submitted as login credentials by other apps. Deployed to [gehenna](#) and [m3](#).

Week 27

1. Brian Schlining
 - a. [Reworked gehenna.shore.mbari.org's](#) SSL certificate to align with IS's [new recommendations](#).

Week 24

1. Brian Schlining
 - a. Working on MidSEC presentation
 - b. Deployed [new Deep-sea Guide internally](#) and [externally](#).
 - c. Work in prep for releasing the [new external Deep-sea Guide](#)
 - d. [Addressed video labs request](#) for a method to download large image queries from the VARS Query. Due to browser limitations, [wrote a command line tool](#).
 - e. New release of VARS Annotation ([v2.4.0](#)). This addresses issues with framecapture on very fast computers, misc bugs, and adds features requested by Steve Haddock for at-sea annotation.
 - f. Wrote a python script for Steve Haddock to scrape framegrabs from the VARS [server](#) while at sea.
 - g. Worked with Nancy on 2027 Video Annotation DM proposal
 - h. Fixed issues with framecapture on the David Packard prior to Steve's cruise.
 - i. Investigate issues with merging Mini ROV nav/ctd for dives 116-128.

- j. Updates to the public VARS orchestration project, [vars-quickstart-public](#), in preparation for MidSEC.

Week 23

1. Brian Schlining
 - a. Working on a presentation for [MidSEC](#).
 - b. Updates to [vars-quickstart-public](#) in preparation for MidSEC.
 - c. Updates to [pythia-python](#) so it can be used behind a shared proxy.
 - d. Updated the VARS stack on the R/V David Packard
 - e. Updated the [external embargo SQL for annotations](#) in prep for releasing the [new Deep-sea Guide](#) (DSG) externally. Working through the details of migrating the external DSG from [ione.mbari.org](#) to [calypso.mbari.org](#).

Week 21

1. Brian Schlining
 - a. Working on [MidSEC](#) presentation

Week 20

1. Brian Schlining
 - a. Many, many improvements to the [new Deep-sea Guide](#) (in-development): <https://gehenna.shore.mbari.org/dsg/#/>
 - b. Created the [VARS Video Browser](#); a web app for easily viewing videos in a dive. Example: <https://m3.shore.mbari.org/videobrowser/?name=Doc+Ricketts+1234>
 - c. [Add improvement](#) to VARS Query allowing downloads to include the major taxa groups in separate columns.
 - d. [Automated clean up of references](#) in the VARS Knowledgebase

Week 19

1. Brian Schlining
 - a. [Added a new automated task](#) to adjust the media start time and duration for all real-time media.

Week 14

1. Brian Schlining
 - a. Sleuthing [out issue in new kb editor](#) that only occurred in production, not in dev mode.
 - b. [Migrate Mini ROV annotations](#) into shore system
 - c. [Upgrade the Mini ROV annotation system](#) to the latest and greatest.

- d. Added MBARI specific regions to our marine-regions service. These are used in the [VARS Query](#) and [new DSG](#). Users can just type **MBARI** in the search box to filter for regions that are most relevant to MBARI research.

Week 13

1. Kevin Barnard
 - a. Overhauled VARS Localize internals
 - b. Integrated SAM 3 with VARS Localize
2. Brian Schlining
 - a. New release of [VARS Annotation](#) to address some JavaFX version bugs.
 - b. A number of quality-of-life improvements to the in-development DSG <https://gehenna.shore.mbari.org/dsg>. Also support for on-demand depth and time histograms:
<https://gehenna.shore.mbari.org/dsg/#/plots/concept/Pandalus%20platyce ros/Monterey%20Bay%20Region>
 - c. Added an event bus to VARS to publish CRUD notifications to [nats](#).

Week 12

1. Brian Schlining
 - a. Work on the [new DSG](#) to add various data plots.
 - b. Ported [Charbydis](#) from [Helidon](#) to Quarkus and deployed. All VARS services are now either based on [Tapir](#) or Quarkus to simplify maintenance.
 - c. Updated Raziell to handle Charybdis' new health endpoint format.
 - d. Added support for admins to make direct SQL calls easily, without requiring users to install additional tooling, in [vars-quickstart-public](#) (VARS orchestration project)
 - e. Wrote a new [grafana dashboard](#) to improve performance monitoring of core services. This was needed to ensure moving the carbon flux annotations to the current VARS system was not impacting the video labs.
 - f. Updated [pythia](#) to the latest ultralytics version and deployed the video labs latest yolo v26 model. (See [Demo UI](#))
 - g. Updates to the [VARS Query](#)
 - h. More change in VARS Annotation to accommodate changes in mac app codesigning.

Week 10

1. Brian Schlining
 - a. Updates to the VARS_KB database and [Oni](#) to support the [new Knowledgebase editor](#) app. Added additional [accepted taxa-levels](#) to Oni
 - b. Fixed issues ([#295](#), [#296](#)) with Media in the VARS_KB database.

- c. Added Annotated images pages to the new Deep-sea Guide. Users can toggle between “select” images and random images in the upper-right corner.
<https://gehenna.shore.mbari.org/dsg/#/annotated/images/concept/Pandalus%20platyceros>
- d. Added the “Browse Taxonomy” feature to the new Deep-sea Guide:
<https://gehenna.shore.mbari.org/dsg/#/browsetree/concept/object>
- e. [Beholder](#) is a service for grabbing images from videos on demand. It gets hammered by some apps like [vars-gridview](#). Made improvements to the [cache](#) to remove potential performance issues.
- f. VARS Query now allows users to add a concept hierarchy to each annotation in the search results when they are saved. ([#13](#))
- g. The recent update to [search.mbari.org](#) introduced another issue with framegrabs for the video lab that was addressed ([#299](#)).
- h. Working on adding support to [vars-quickstart-public](#) to generate Let's Encrypt SSL certificates.
- i. The latest macOS (Tahoe 26.3) introduced changes to Apple's code signing requirements. Updated builds of [vars-annotation](#), [jsharktopoda](#), and [mondrian](#) to the latest requirements.

Week 9

- 1. Brian Schlining
 - a. Update to [Oni](#) to allow additional taxonomic levels as requested by the video lab.
 - b. Improvements to bulk editing in [VARS Annotation](#)
 - c. Updates to the [VARS Query](#). The *save results to TSV* action was using the first JSON record in the results to build the column headers, but annotations are sparse data and sometimes the first record was missing fields that were present in other records. This could result in columns, like salinity, not being included in the results.
 - d. Started a draft revision of MBARI's [public VARS website](#) which is incredibly out of date.

Week 8

- 1. Brian Schlining
 - a. A number of [VARS Annotation releases](#) were published. [This was a major overhaul under-the-hood](#) as well as to the build system. As such, there were a few follow ups to address newly introduced bugs. This also [addresses a long-standing issue when moving large numbers of annotations](#) to different dives or media.
 - b. Updates to the [vars knowledgebase editor](#) deployed
 - c. Setting up scheduled [task to convert 4k/HEVC videos to HD/H264 proxies](#) (to support web viewing of 4k videos across different browsers)

- d. Added [docs for support tasks](#) that are run using vars-cli
- e. New release of [Sharktopoda](#) to address issues on Mac Tahoe
- f. New maintenance release of [jsharkopoda](#)
- g. Updates to panoptes and nginx configuration to handle 4k framegrabs. The latest framegrabs can weigh in at 40MB.
- h. Worked with IS to address issues with migration of framegrabs from atlas to thalassa.
- i. Added new support functions to vars-cli for managing media

Week 7

- 1. Brian Schlining
 - a. The video lab is working on cleaning up data from VERY old dives (originally annotated in VICKI). There's been a number of tasks to help them out:
 - i. New features and updates were made in [vars-cli](#), [oni-java-sdk](#), [annosaurus-java-sdk](#), [vampire-squid-java-sdk](#), [annosaurus](#), and [VARS Annotation](#) to support their tasks
 - ii. Updates to VARS Annotation for moving annotations to different media.
 - b. Major [New release of VARS Annotation \(v2.3.1\)](#) for Mac/Win
 - c. Upgraded [jsharktopoda](#) to latest JavaFX/JDK version and pushed new release for Mac/Win

Week 6

- 1. Brian Schlining
 - a. Major [updates to the VARS Annotation build](#).
 - i. Updates to [Oni](#) and [Vampire-squid](#) to support new features in the VARS Annotation.
 - b. Update to external embargo SQL for public annotation data.
 - c. Updates to service monitoring ([prometheus](#) and [grafana](#))
 - d. Updates to Oni to support the KB Editor app
 - e. More fixes to external services running in read-only mode.

Week 5

- 1. Brian Schlining
 - a. Fixes for [Oni](#). [mbari-org/kb#15](#), [mbari-org/kb#16](#)
 - b. The server, [ione.mbari.org](#) which runs the external Deep-sea Guide, is slated for retirement (it runs CentOS). [Spun up a new VARS stack](#), [query](#), and the [in-development DSG](#) on ione's replacement, [calypso.mbari.org](#). Changes in this migration include moving the database from the server diene to rhea, updating the embargo SQL, and adding support for calypso to [vars-quickstart-mbari](#).

- c. Updates to [annosaurus](#), [vampire-squid](#), and [oni](#) so that they can run in read-only mode (for deployment to support the external query and Deep-sea Guide).
- d. Updated the [vars-cli](#) with [vars_anno_configure-jdbc](#) and [vars_expd_configure-jdbc](#) commands needed for locally storing database credentials used for some operations such as merging annotation with ship data.
- e. Ported [pythia](#) from java to python ([pythia-python](#)) in order to take advantage of [ultralytics](#). Pythia is a web service for running ML inference on images. [UI](#), [API](#)
- f. Updating the build for [vars-annotation](#) and integrating auto-generated SDKs to replace bespoke web service clients

Week 4

- 1. Brian Schlining
 - a. [Investigate issues with merging Mini ROV annotations with navigation and CTD](#)
 - b. Added [change-password](#) command to the [vars-cli](#)
 - c. Adding [code to standardize bounding box JSON](#) that's generated by the various tools.
 - d. Various fixes to the [oni-java-sdk](#) and [annosaurus-java-sdk](#)
 - e. Published first "official" release of the knowledgebase editor for the video lab to use.

Week 3

- 1. Brian Schlining
 - a. [Major new release of Mondrian](#), an image annotation app.
 - b. Added [NOT LIKE query](#) to [annosaurus](#) to support [gridview](#).
 - c. Meeting with Kris Walz and Neil Conner to close out the titan to thalassa migration of all MBARI videos.
 - d. Now that the VARS system includes web applications ([query](#), [kb editor](#)), the microservices need to be put behind a proxy with an SSL certificate. Created [vars-quickstart-public](#) to simplify creating a VARS stack with SSL for non-MBARI labs. This project is based off of [vars-quickstart-mbari](#) which is used at MBARI to run VARS on the ships.

Week 2

- 1. Brian Schlining
 - a. Updates to [annosuarus-java-sdk](#), [oni-java-sdk](#), [raziel-java-sdk](#), and [vampire-squid-java-sdk](#) to make them compatible with Java's module system so that they can be used in [Mondrian](#).