

500055 - VARS, M3/RS, DSG

Week 51

1. Brian Schlining
 - a. Update VARS services on the R/V David Packard and Rachel Carson. Addressed migration issues on the RC related to the recent upgrade from CentOS 7 to Rock 8.
 - b. Working on consolidating various VARS orchestration projects in <https://github.com/mbari-org/vars-quickstart-mbari>. The orchestration requirements have evolved over the years and the older projects, such as <https://github.com/mbari-org/m3-microservices> (testing and ship use) and <https://github.com/mbari-org/m3-quickstart> (external use) have become difficult to update and maintain.
 - i. Deployed vars-quickstart-mbari on [gehenna](#) for testing. Deployed to David Packard.
 - c. Continue to work with Paul Rodgers on the [VARS Knowledgebase editor](#). Addressed [some issues](#) related to approving/rejecting changes by an administrator.
 - d. Fixes for the various VARS house keeping tasks that run on the new server Elrond.
 - e. Investigating migrating [VARS Annotation](#) to JDK 25. tl;dr avoid using [gradle](#) to build things if you can.

Week 48

1. Brian Schlining
 - a. Working on the [deep-sea guide](#).

Week 47

1. Brian Schlining
 - a. Rolled out the new VARS Query to MBARI

Week 45

1. Brian Schlining
 - a. Recent JDKs have changed the precision of timestamps depending on which OS you're running. (microseconds on Mac, nanoseconds on Linux) This has been causing issues with optimistic locking in database transactions. [Working on a fix for Oni](#), the VARS knowledgebase server.
 - b. Added features to vars-cli for [post-processing output from VARS Query](#).

- c. [Addressed issue with ML upload](#) triggered by the increasing variety of video file naming schemes.
- d. Addressed [a video lab request](#) to create mezzanine videos for a few i2MAP deployments.
- e. Added a tool to [vars-cli](#) to [reorganize videos](#) in the video asset manager, [vampire-squid](#).
- f. [Restructured how references are handled](#) in the VARS knowledgebase.
- g. [Fixed nfs/docker permissions issues with the NGINX docker container](#) on the new master server for M3, [m3-u.shore.mbari.org](#).
- h. Changed volume mounts for m3-u to use automounts. e.g:

```
--mount
type=bind,source=/mbari/M3,target=/opt/nginx/www/html/videos/M3,bind-propagation=rshared,readonly
```
- i. Updated the [nginx.conf](#) on m3-u to optimize video file serving. Then addressed a follow up where the improved video handling config was intercepting web calls meant for microservices.
- j. Some assistance to the video lab for [documenting the new VARS Query](#).

Week 44

1. Brian Schlining
 - a. Completed [migration of all servers from CentOS to ubuntu](#). The following servers have been shut down: m3, portal, nexus, quasar, singularity. Note that the new server [m3-u](#) has the CNAME [m3](#).
 - b. Held a short intro to markdown for the video lab so they can work on web docs for various projects. Scaffolded some [docs for the vars-query](#) to help them get started.
 - c. [Restructured how literature references are managed](#) in the VARS knowledgebase.
 - d. Updated the [VARS query](#) to handle large return sets (tested up to about 650,000 results in a single query so far). Added support for querying by observation timestamps. Added misc improvements.
 - e. [Flyway](#) (automated database migrations) deployed for [annosaurus](#), [vampire-squid](#), and [oni](#).
 - f. Added additional functionality to [vars-cli](#) for managing media
 - g. Clean up of [deployment code base](#)

Week 43

1. Kevin Barnard
 - a. Tweaked some settings in Donnager for video processing jobs
2. Brian Schlining
 - a. Completed [migration of VARS services](#) to new servers. Still a few pending items to complete related to SSL certs.
 - b. A number of updates to [vars-cli](#) (currently at v1.0.11). All support tasks are now being run using vars-cli.

- c. Added [flyway schema migration](#) to [annosaurus](#), [vampire-squid](#), and [oni](#) and deployed it.
- d. Updated the [vars-query](#) to handle returns from very large queries (tested up to 600,000 annotations returned in a query). This requires disabling some of the fancier features on-the-fly when the dataset gets above a certain size. Also [addressing various issues/feature requests](#) before our upcoming project update.

Week 42

1. Brian Schlining
 - a. New release of [Charybdis](#) that [fetches config info from Razi](#)
 - b. At IS' request, [replacing CentOS 7 servers with Ubuntu versions](#)
 - c. Completed [migration and registration](#) in the video asset manager of all 228,000 videos from Titan to Thalassa. There's a backlog of about 1200 4k videos that are still being processed (i.e. generating checksums)
 - d. Completed consolidation of various vars command line apps into [vars-cli](#). Released v1.0.2 with a number of util.
 - e. Updating a small library, [expd-java](#), I use for accessing the EXPD data for various tasks. [Publishing it to maven central](#) as it's used by other applications (all db info has been stripped out)
 - f. Working through some back end issues between the new knowledgebase editor app and the knowledgebase service, [oni](#).
 - g. "Emergency" requests to add new support for new platforms from [Cook Islands](#) and the Triton Cameras (deployed on LRAUV)

Week 40

1. Brian Schlining
 - a. Working on issues with the KB web service, Oni.
 - b. Working through the final stages of migrating media from Titan to Thalassa. We've identified some anomalies in the file migration and are sorting through it.
 - c. Added support for metadata refresh for media in [vars-cli](#),

Week 39

1. Brian Schlining
 - a. Finishing up the [vars cli tools](#). This combines all the various command line utilities used to support video archiving, annotations, ML support, etc into a single package to simplify support and distribution.
 - b. Added [code to restructure how references are stored in the knowledgebase](#). This work was done to support work by an external contractor on the new KB UI.
 - c. Working through [issues/requests](#) for the [new VARS Query](#).

Week 32

1. Brian Schlining

- a. Working with the video lab to resolve issues with the migration of the video archive from Titan to Thalassa.
<https://github.com/mbari-org/vars-feedback/issues/209>
- b. Updated [Pythia](#) to add support for manually specified thresholds for inference. Also throwing together a version (ultra-pythia) to use the ultralytics library directly.

Week 29

1. Brian Schlining
 - a. To simplify support for the numerous VARS apps and services. Brian is migrating to using auto-generated SDKs for the various microservices. Current SDKs are:
 - i. [Raziel-java-sdk](#) published [here](#).
 - ii. [Annosaurus-java-sdk](#) published [here](#).
 - iii. [Oni-java-sdk](#) published [here](#).
 - iv. [Vampire-squid-java-sdk](#) published [here](#).
 - b. VARS and ML support apps are now consolidated into <https://github.com/mbari-org/vars-cli> which uses the new SDKs mentioned above. Brian is in the process of rolling it out internally to replace the older support apps. Tracked at <https://github.com/mbari-org/vars-cli/pull/14>. Documentation is temporarily at <https://github.com/mbari-org/vars-cli/blob/issue/13/src/docs/index.md>
 - c. Worked with IS to resolve issues with the SSL certificate on the VARS testing and integration server <https://gehenna.shore.mbari.org/>.

Week 28

1. Brian Schlining
 - a. Restructuring [m3-support](#) and switching to auto-generated REST clients.
 - b. Adding [flyway](#) to the VARS services. This will allow database migrations to be automatically applied and make it easier to evolve services.
 - c. Created [raziel-java-sdk](#)

Week 27

1. Brian Schlining
 - a. investigating importing ML detections for Coral Cam images into VARS.
 - b. Upgrading M3 services to Hibernate 7
 - i. This upgrade requires minor tweaks to the database schemas. In order to avoid breaking external users databases, Brian is adding [flyway migrations](#) to the M3 services to automate database migration to new versions.

Week 26

1. Brian Schlining

- a. VARS and [associated microservices](#) updated and installed on new machines on the David Packard and Rachel Carson.

Week 25

1. Brian Schlining
 - a. Working on VARS installation on David Packard as well as updates to Rachel Carson
 - b. Changes/updates to [Oni](#) for KB development.

Week 24

1. Brian Schlining
 - a. Updates to [Oni](#) to support [Kb](#) development

Week 23

1. Brian Schlining
 - a. Updates to [Oni](#) and [m3-quickstart](#) to support the [Knowledgebase UI](#) development.
 - b. Security updates to and new releases of [Annosaurus](#), [Beholder](#), [Oni](#), [Panoptes](#), [Raziel](#), and [Vampire-squid](#)

Week 20

1. Brian Schlining
 - a. Fixes to Oni to support the new knowledgebase webapp development
 - b. Manual registration of videos while waiting for the titan to thalass migration to complete. (Once that's done we can turn on the automated registration again)

Week 19

1. Kevin Barnard
 - a. Scoped VARS vector database, helped write project abstract
2. Brian Schlining
 - a. Updates to [beholder](#) to address a [vars-gridview issue](#)
 - b. Added a [simple annotation loader](#) and generated a large annotation data set for Paul Rogers to add to his database for testing against the [new kb app](#).
 - c. General support for registering ROV and Pisicovre videos during the titan to thalassa transition.
 - d. Created a [java SDK](#) for working with [Oni](#) ([VARS KB API](#)).
 - e. New releases of [oni-java-sdk](#), [annosaurus-java-sdk](#), and [vampire-squid-java-sdk](#).
 - f. New release of [m3-merge](#) using the above SDKs.

Week 16

1. Brian Schlining
 - a. Generate [updated knowledgebase for use with m3-quickstart](#), stripping out account info and embargoed info. Needed for Paul's testing and development of the new kb UI.
 - b. [Fixed bug in Oni](#) that allowed the creation of cyclic relations in the phylogeny tree.
 - c. Ongoing migration of videos from Titan to Thalassa

Week 15

1. Brian Schlining
 - a. Ongoing work with Neil to [migrate videos from titan to thalassa](#). Mezzanine and project files are all migrated. Working through the master files in batches. This is expected to continue for about 2 months.
 - b. Disabled video file registrations until the migration has been completed.
 - c. Misc changes for the videolab's ML import tools.
 - d. Updated Mini ROV computers before their arctic deployment. Fixed very broken docker installations. (due to a Docker bug)
 - e. Working on a new database dump of the VARS knowledgebase for the [m3-quickstart](#) project. (Basically, dump the public version of the KB, strip some info, convert from SQL Server to PostgreSQL)
 - f. Fixes to oni to support Pauls KB UI development

Week 14

1. Duane Edgington
 - a. Clean up of AWS accounts 902005_dev (development & test) and 902005_vaa (production) per request of Kyra/video lab. 902005_vaa transitioned to 670000_dev (our group AWS sandbox), and 902005_dev purged to near zero cost.
2. Brian Schlining
 - a. Support for the upcoming Mini ROV's trip to the arctic.
 - b. Updates to ML visualization software
 - c. Working with IS as we migrate all videos from titan to thalassa

Week 13

1. Brian Schlining
 - a. Continuing to work with Neil and the video lab to plan a smooooooth migration of video data from titan to thalassa.

Week 12

1. Brian Schlining

- a. Updating VARS support apps [to include the new Thalassa data appliance](#).
- b. Reviewed intern applications.
- c. New release of [Pythia](#)
- d. Updated [Oni](#) with new endpoints to support the new [kb](#) interface

Week 11

1. Brian Schlining
 - a. Security updates to [Pythia](#). V0.1.3 was released

Week 10

1. Brian Schlining
 - a. Found and fixed a bug in the m3-quickstart's [vars_media_update_starttime.py](#) script (reported by OSU). Also updated [vampire-squid](#) and released a new version, 1.1.0.
 - b. Meeting w/ Sebastian Rodriguez to discuss management of Falkor Too images and video from Giancarlo's dives.
 - c. Meeting w/ Kevin Barnard to discuss unified handling of bounding box and related metadata across various annotation applications.
 - d. Script for bulk deleting annotations with localizations (for questionable ML loads)
 - e. Updates to the [vampire-squid-java-sdk](#). Pushed a new release, 0.0.4, to maven central.

Week 9

1. Brian Schlining
 - a. [Fixed frame capture in VARS Annotation](#)
 - b. Fixed issues with the nightly venus to foggy database refresh.
 - c. Added support for [skimmer](#), a ROI server for images, to the VARS configuration server, [raziel](#). Added integration and proxy support for skimmer to both the production, <https://m3.shore.mbari.org/>, and testing server, <https://gehenna.shore.mbari.org/>.
 - d. Updates to docker services to reduce log chatter. It was slowly filling up disk space on several servers.
 - e. Added a [new endpoint](#) to [annosaurus](#) for very fast querying of large data sets.

Week 8

1. Brian Schlining
 - a. Frame-capture is not working on new Macs in the video lab. There's been a number of factors involved: change to SSH, much larger 4k images sizes, and changes to Mac App security sandbox in recent updates. Still working on a fix. Tracked at [mbari-org/vars-feedback#167](#).
 - b. Updates to the knowledge base web service, Oni, to support Paul Rogers work on the knowledge base management app. See [mbari-org/oni#9](#), [mbari-org/kb#10](#)

- c. [Updated code](#) that ingests machine learning proposals to VARS to filter out tracks that contain less than a user specified number of events.
- d. Fixed issue with some image mime-types in the VARS database.
- e. Some testing services are hanging the nightly refresh of the testing databases from production. Working with IS to schedule around that.
- f. Fixes to [M3 support](#) to handle recent changes to infrastructure.

Week 6

- 1. Brian Schlining
 - a. Released [a windows build of VARS Annotation 2.2.0](#)
 - b. Doing an investigation on providing direct links to different views in a single-view web app behind a proxy.
 - c. Released [vampire-squid-java-sdk](#), a Java SDK for interacting with [MBARI's video asset manager](#). This will be useful in a number of existing projects.

Week 5

- 1. Brian Schlining
 - a. Added support for compression to Raziel, Oni, Annosaurus, and Vampire-squid to help speed up web apps.
 - b. [Raziel auth is now case sensitive](#)
 - c. [Changes to Oni](#) to support the new Knowledgebase web app that Paul Rogers is working on.