

901809 - Deep Sea Bioinspiration

Week 29

1. Paul Roberts
 - a. Triton deployment planning
 - b. Galene camera testing
 - c. Monocular midwater tracking

Week 28

1. Akshay Hinduja
 - a. Continue supporting triton deployments
 - b. Implement new syslog capabilities to understand vehicle behavior during dives.
2. Paul Roberts
 - a. Triton58 LRAUV deployment

Week 27

1. Akshay Hinduja
 - a. Improvements to the integrated backseat app for tritoncam, mainly in the detector node.
 - b. Push updates to triton and getting it ready for deployment.
2. Denis Klimov
 - a. Looking at the Interface Can issues which leaks occasionally for no apparent reason.
3. Brian Schlining
 - a. Follow-up with NCEI regarding FathomNet's archive data submission.

Week 26

1. Akshay Hinduja
 - a. Integration of new backseat app on test bench
 - b. Improvements in configs for easier operator control
 - c. Install deployable version on Triton backseat

Week 25

1. Akshay Hinduja
 - a. Triton deployments and TritonCAM dev
 - b. Setup new backseat app from collaborators on Triton, failed to work
 - c. Debug on test bench while being on support for Triton 57 deployment,

Week 24

1. Akshay Hinduja
 - a. Setup pipeline to convert Triton lcmlogs to hevc using gpu encoding.
Might have to think about on device/share conversion as it copies files over network and back to convert which is the main bottleneck.
 - b. Prepare for next weeks deployment, get new detection/backseat module tested and installed on Triton backseat.
2. Brian Schlining
 - a. Reviewed Kevin B's [pull request for worms-server](#). Added a fix for recent changes to the worms data format.

Week 23

1. Paul Roberts
 - a. Triton 56 deployment
 - b. Scuba EyeRIS tank testing

Week 22

1. Akshay Hinduja
 - a. Triton setup for deployable AI, improvements to comms between detection and backseat helper modules
 - b. Improvements to logging for lcm
 - c. Modifications to start scripts, and testing

Week 21

1. Akshay Hinduja
 - a. Meetings
 - b. Improved lcm mjpeg support, modified helper scripts to accept mjpeg lcm messages
 - c. Give ~20Mbps write saving allowing about ~23hrs per TB
 - d. Fix INFO and FAULT bugs in communications of triton-detection to Irauv-backseat-helper
2. Brian Schlining
 - a. Writing loader to migrate [full coverage annotations from VARS to FathomNet](#)

Week 20

1. Akshay Hinduja
 - a. TritonCAM improvements and backseat computer back up creation
 - b. Intern meeting
 - c. Deployable AI meeting
 - d. Dev meeting

2. Brian Schlining
 - a. [Submitted the first archive package of FathomNet data to NCEI.](#)

Week 19

1. Akshay Hinduja
 - a. Lab meeting
 - b. Resume setup of backup orin for Deployable AI
2. Brian Schlining
 - a. [Preparing archival package of FathomNet data](#) to submit to NCEI for long-term archiving. The package is a CSV dump of a subset of the database, a DDL to recreate a mini-fathomnet, and a script to rebuild a mini-database from the package contents.

Week 18

1. Akshay Hinduja
 - a. LRAUV-DSBI meeting
 - b. Setup Orin clone for TritonCAM. Working well.
 - c. Testing archival code to find delete bug seen in deployed version, but none found
 - d. Made improvements and bugfixes
 - e. Wrote lcm logger to use instead of image saving and archival.
 - f. Push some updates to Triton and test

Week 17

1. Akshay Hinduja
 - a. TritonCAM backseat computer backup system being prepared
 - b. Also making a new version with latest deepstream version with intent to update all eventually

Week 16

1. Akshay Hinduja
 - a. Debug archiving issue with tritonCAM. Seems to delete everything which should not be happening.
 - b. Setup test bench to run on desk and observe behaviours.

Week 15

1. Akshay Hinduja
 - a. TritonCAM, triton-detection and lrauv-backseat communication debugging.
 - i. "Important" messages relay frames processed, but inexplicably don't relay counts

- ii. Would need to setup pipeline to test offline and offshore
- b. DeepPIV support for setting up pipeline on lab computers, and meeting with CVision

Week 14

1. Akshay Hinduja
 - a. Bug fixes on TritonCAM
 - b. Added new information logging for frames processed per camera to get understanding of how the cameras worked and basic settings after each run
 - c. New Irauv-backseat-helper branch for sending INFO and FAULT syslogs to improve logging on dash to understand if systems are working properly at comms events
 - d. Modifications to triton-detection to send frame counts to backseat helper.
 - e. Troubleshooting camera connection issues with Paul
2. Paul Roberts
 - a. Triton camera troubleshooting
 - b. Deployment planning and coordination for Deployable AI

Week 13

1. Akshay Hinduja
 - a. Meeting with Brian from CVision to go over final changes as this stage of collaboration ends
2. Paul Roberts
 - a. Triton 52 deployment

Week 12

1. Akshay Hinduja
 - a. Review of latest version pushed to oceanshot repo by CVision
 - b. Attend meetings for deployable AI/LRAUV work with Bioinspiration lab + Ivan's lab
2. Brian Schlining
 - a. Fixes to external Oni (kb server) to support FathomNet.

Week 11

1. Akshay Hinduja
 - a. Meeting with CVision, get upto speed on current status

Week 8

1. Brian Schlining
 - a. Investigated some quirks with the FathomNet-NCEI pipeline.

Week 7

1. Paul Roberts
 - a. Falkor (too) Cruise preparations
 - b. Raytrix software support

Week 6

1. Akshay Hinduja
 - a. Tie up meetings with CVision to end first stage
 - b. Verify and demo deliverables from contractors
 - c. Found areas for improvements on intermediary outputs to help modularize efforts to pickup from the middle.
 - d. Asynchronous meetings with BiL team to discuss next steps in March
2. Paul Roberts
 - a. OSM2026 preparations
 - b. Raytrix project support
 - c. UWA multiview system support

Week 5

1. Akshay Hinduja
 - a. Meetings for lab, deepPIV and dev
 - b. Testing Sam3 for deepPIV image segmentation
 - c. Looking at using pre-available masks as prompts to segment similar organism scans
 - d. Go through CVision implementation
2. Paul Roberts
 - a. Triton camera overview
 - b. OSM meeting prep
 - c. Scuba-EyeRIS build

Week 4

1. Akshay Hinduja
 - a. OceanShot Bigelow Meetings
 - b. Prepare tool to use SAM3 for segmentation with presegmented image prompts
2. Paul Roberts
 - a. Scuba-EyeRIS build
 - b. Raytrix software contract
 - c. UWA support
3. Brian Schlining
 - a. Fixed issues with merging branches from the VARS knowledgebase with WoRMS data in the [worms-server](#)

Week 3

1. Akshay Hinduja
 - a. Set up and run NNInteractive in Slicer 3D to determine suitability of the method for segmentation tasks
 - b. Conclusion is that it can be great manual segmentation tool as long as binary masks are good.
 - c. Look at SAM3 suitability towards segmentation
2. Paul Roberts
 - a. ScubaEyeRIS assembly and testing
 - b. ScubaEyeRIS pendant controller design

Week 2

1. Akshay Hinduja
 - a. Meeting with CVision, Joost and Emily to track progress for DeepPIV pipeline automation
 - b. Look at NNInteractive plugin in Slicer, tryout with deepPIV data
2. Paul Roberts
 - a. Scuba-EyeRIS assembly and testing