# Module 4: Automatic Identification System Analysis Package (AISAP) Creating Projects and Areas of Interest (AOIs)

## http://ais-portal.usace.army.mil/
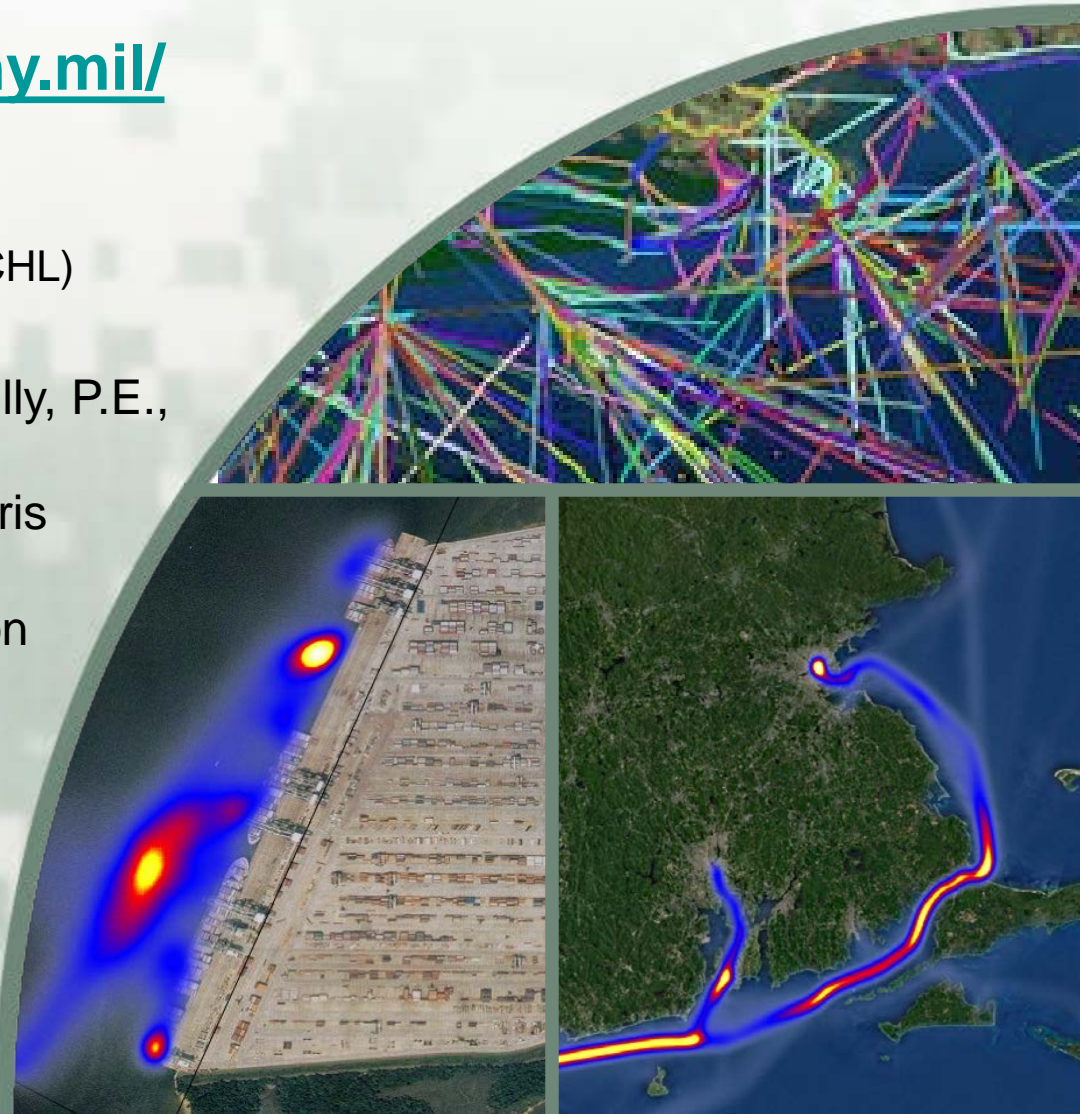
**K. Ned Mitchell, PhD**
Research Civil Engineer
ERDC Coastal & Hydraulics Laboratory (CHL)

**Team Members:**
Patricia DiJoseph, PhD, Brandan Scully, P.E., Brian Tetreault (ERDC-CHL)
Rich Akers, Irven Ingram, Rachel Norris (SAM-OPJ)
Susan Herrle, Steven Antrim, Shannon Langford (ARA, Inc.)

**AISAP User Workshop**
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# Projects Introduction

- Projects are accessed from the AISAP homepage at https://ais-portal.usace.army.mil/

- Projects are used to visualize and analyze AIS data that have been acquired via AISAP.

- A project can apply AIS data from more than one request and also from requests by any users (not just the requests you made). A request's data can be applied to multiple projects.

- If the user doesn't want all the AIS data associated with a request, such as just data from part of the time period or for a smaller geographic location, filters can be applied to limit the data included in the project.

- To create a new project, click on the green button.

- To go to one of your existing projects, use the drop down menu to select it.
  - Projects are listed in alphabetical order, first by projects you created, and then by projects other users shared with you. If you create a new project, the list will not re-alphabetize until you either refresh the screen or sign out and sign back into AISAP.



Existing Projects
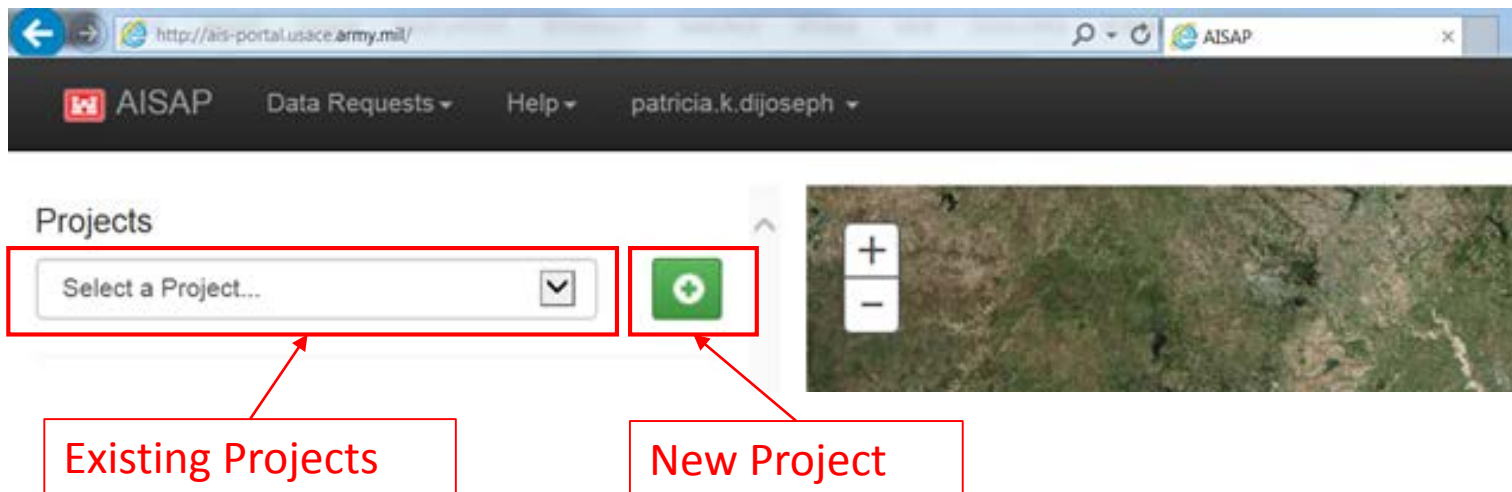
New Project

# New Project

- When you click the green button, a project called "New Project" is created.

- Change the name so that it is descriptive of your project.
  - Multiple projects can have the same name, so if you do not change the name, you will have multiple projected named "New Project".

- Add notes to provide any details you want on the project.

- Click on the save button to save the name and notes.
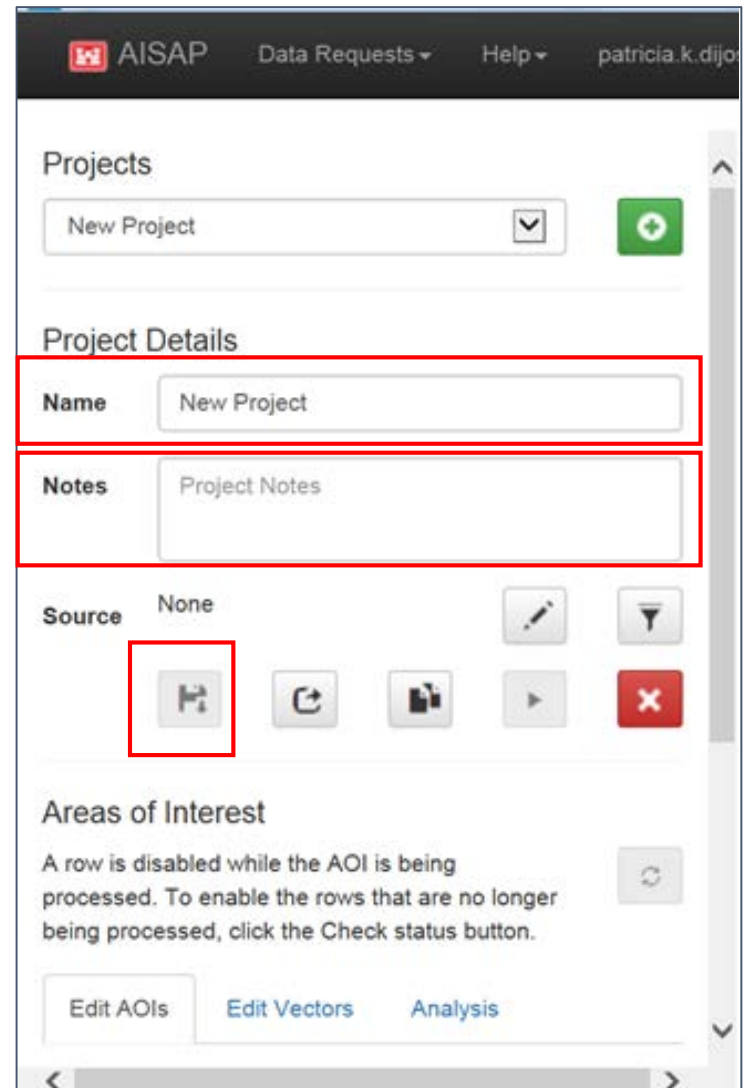
# Set the Project Data Source

- The project initially does not point to any of the AIS data requests.

- To set the source click on the Edit Data Source button.

- The Find Previous Request screen appears, as detailed on the following slides.
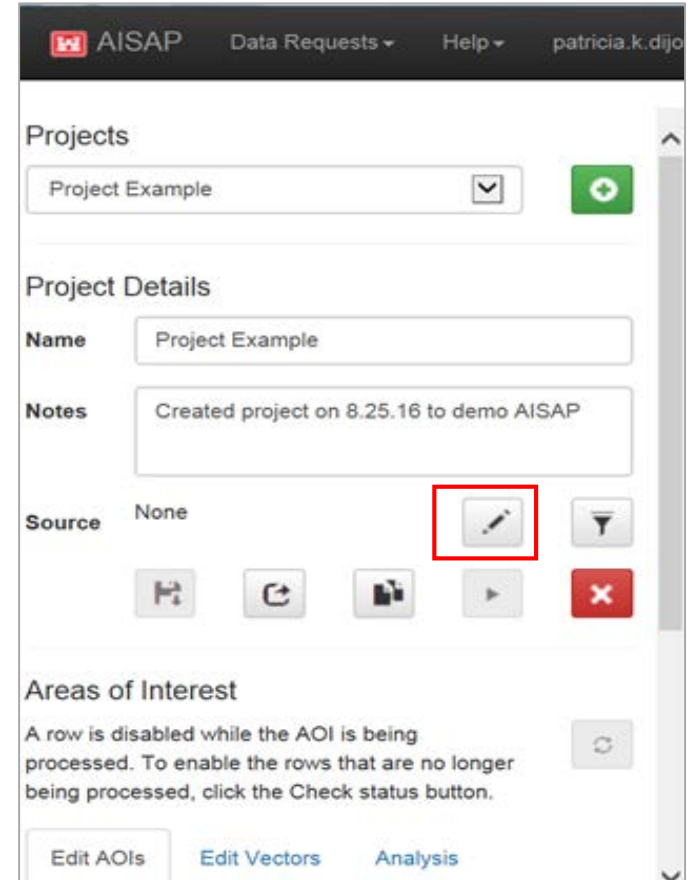
# Set the Project Data Source-Find Previous Requests

- Previous requests can be searched by any of the following criteria: geographic location, request ID, time period, submitter email, description, maximum number of records.
- Values for multiple fields can be entered.
- The email and description fields can accept partial values.
- Draw a geographic location (polygon) as follows:
    - Click on the Draw Area button,
    - Click on the map to add each vertex of the polygon,
    - Double click to close the area and finish.

# Set the Project Data Source-Find Previous Requests Continued

- Click Retrieve Data to display a list of requests that meet the criteria entered and to display the request on the map with gray boxes.
  - Darker boxes indicate more than one request for that location.
  - Clicking on each box shows a description for that request.
  - Click on the arrow at the top of each box to show the descriptions for the other requests for the location, if applicable.
  - Click on the magnify glass next to a request in the list to zoom to that request on the map.

# Set the Project Data Source Continued

- To set the data source for the project, check as many requests as desired from the Requests list .

- Then click Add.

- You will be returned to the Project page.

- The data from the requests will be accessible to the project and will be listed as the Source(s).

- To change the requests(s) or add more requests, repeat the process. Click Add for additional requests to your current selection, Replace to remove all the current requests and replace them your new selection(s), or hit Cancel to go back.

- When applying multiple requests, consider if they are for consecutive time periods, the same vessels, equal sampling rates, and/or if they cover the same geographic locations, and how that can or cannot affect the analysis results.
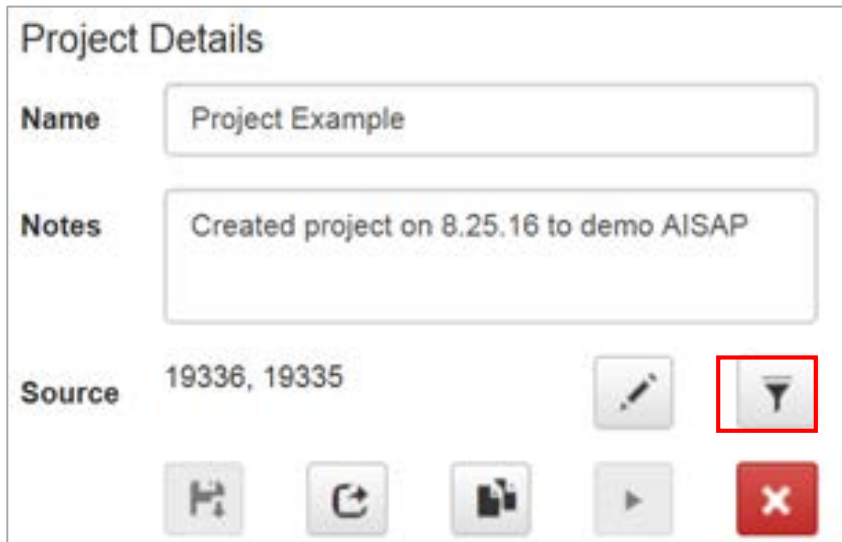
# Set Project Data Filters

- Filters provide a way to specify a smaller subset of a request's(s') data to be used in a project, such as by the following: time period, vessel characteristics, direction of travel, minimum vessel speed, vessel type, and MMSI.

- If the project is set to more than one request, than the filter is automatically applied to all of the requests.

- It is recommended that default filters be set for the project prior to creating AOIs. Once the project filters are set, they will be applied to any AOIs you create afterwards. Please note that changes to the project filters are not applied to existing AOIs, only to future AOIs.

- To set the default filters for a project, click the filter button.
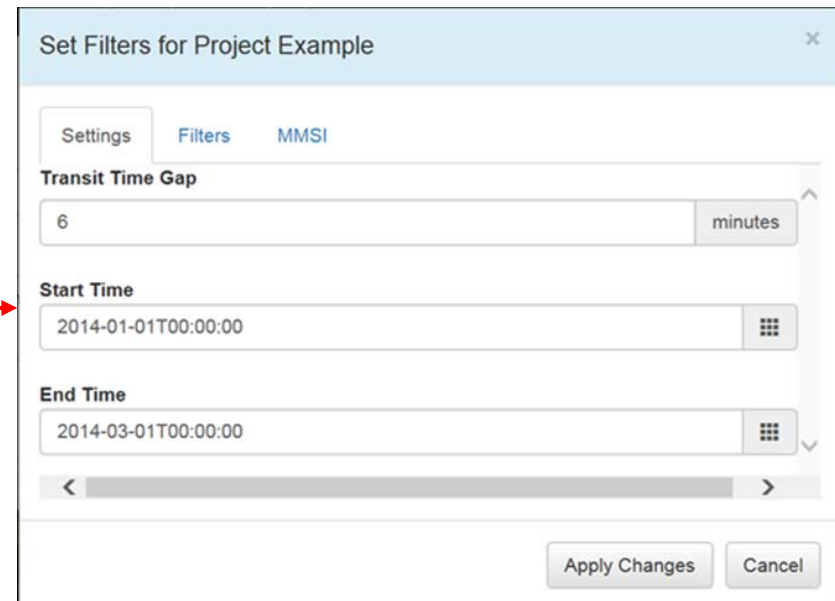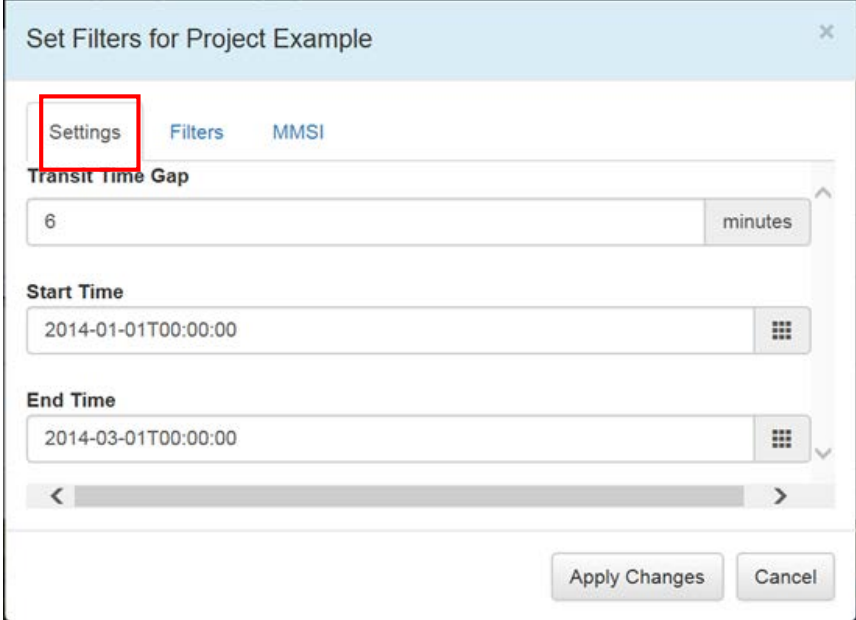
# Set Project Filters-Settings Tab

- Transit Time Gap: Maximum amount of time allowable between a vessel's two consecutive position reports in order for those two reports to be considered part of the same transit for a vessel.

- Time Period: Defines which position reports to include based on their timestamps.

# Set Project Filters-Filters Tab

- Draft, Beam, Length, Vessel Types: Defines which vessels' position reports to include based on their respective characteristics. Note these fields are usually static and manually entered.

- Specific Direction: Filter by inbound or outbound traffic. User can later draw an inbound vector on the map.

# Set Project Filters-MMSI Tab

- Defines which vessels' position reports to include based on their MMSI.

- Can create multiple filters for the MMSI.

- Will include MMSIs that match the expressions you created.
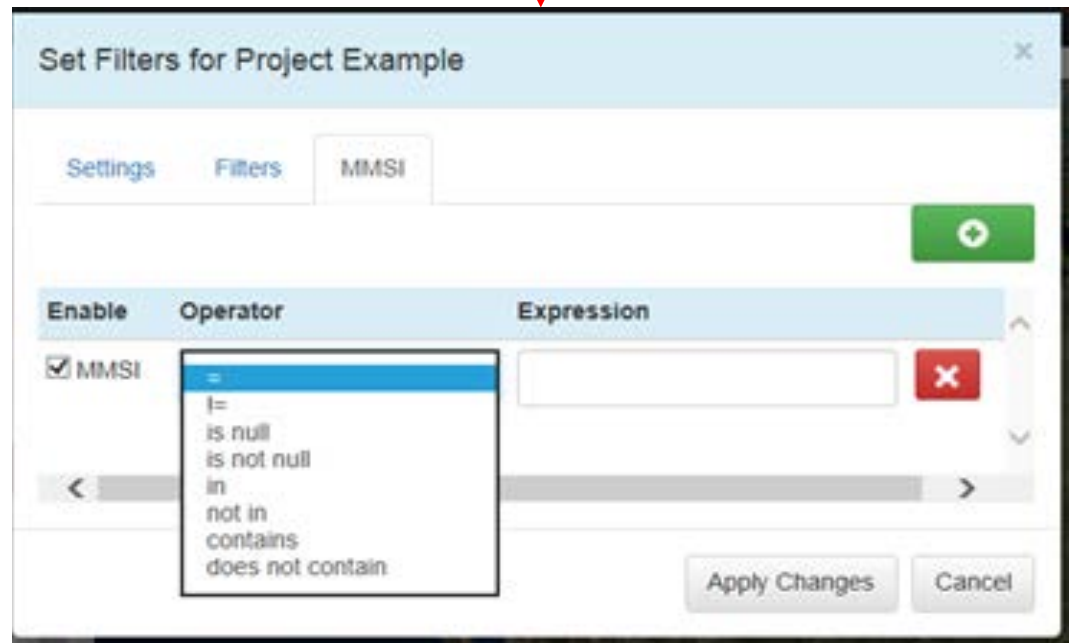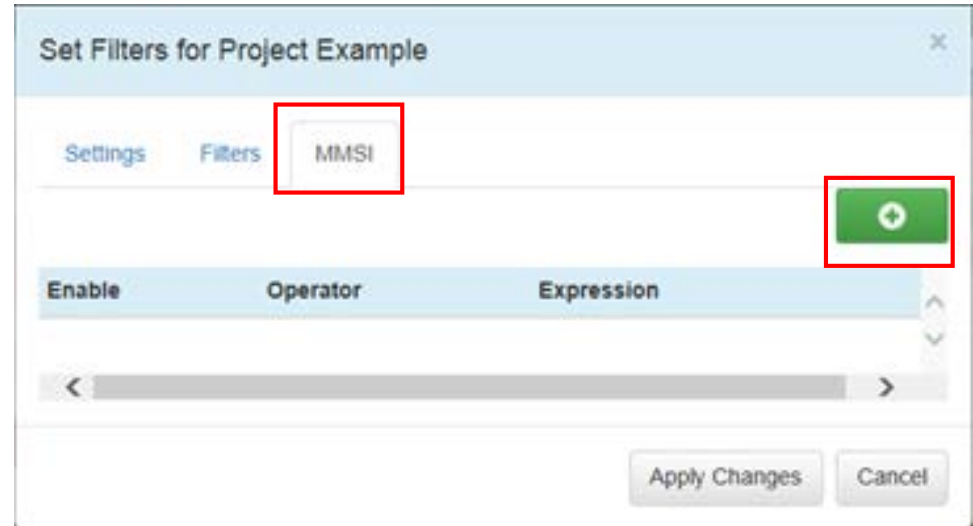
# Creating AOIs

- An AOI is a user defined geographic filter for the project source data.
- Create an AOI via importing a preexisting file or by drawing it on the map.
- Importing a preexisting file using any of the following methods:
  - Import a CSV file containing the coordinates for the shape.
  - Import an ESRI shapefile with its associated DBF file. The file must only contain one polygon.
  - Manually type the coordinates of the AOI and add and remove points.

# Creating AOIs Continued

- Drawing an AOI on the map:
  - Click the Add button.
  - On the map, click and release to set the first vertex.
  - Click and release to set each additional vertex.
  - Double-click to close the polygon and create the New AOI.

# Creating AOIs Continued

- The AOI will be listed on your screen under the Edit AOIs tab and will named "New AOI" by default.

- Change the name by editing the Name field. You must click the save button to save the new name.

- To zoom to a specific AOI on the map, click the zoom button.

- Adjust the shape of the AOI by clicking on the edit area of interest button next to the AOI.

- Copy the AOI to another project by clicking the copy symbol.

- Permanently delete an AOI from your project by clicking the delete button.



Name      ☑AOI

Example AOI

**Zoom**     **Edit area of interest**    **Copy**    **Delete**
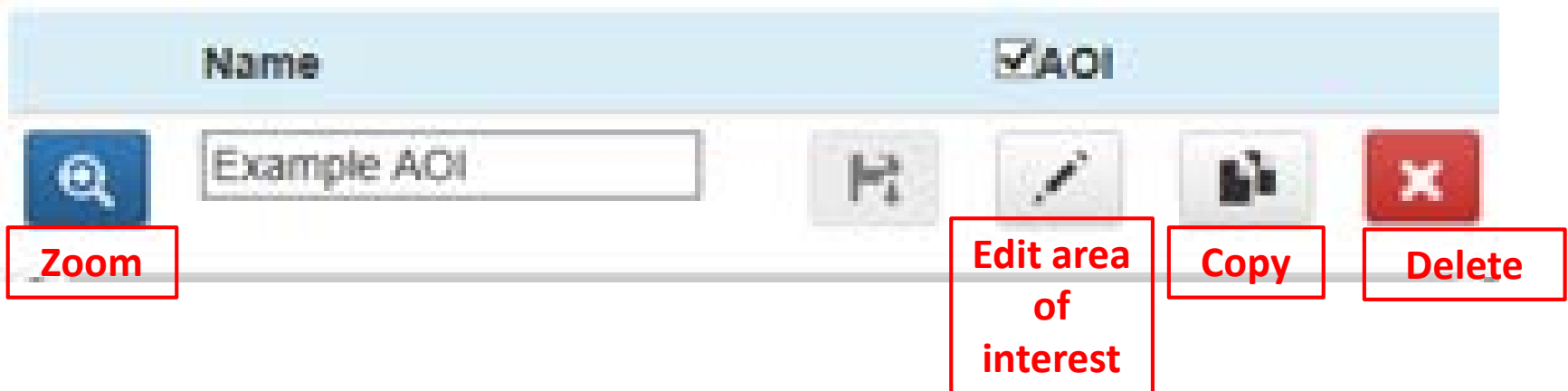
# Processing AOI Data

- Processing AOI data applies the filters to the project source data.
- If an AOI's row is yellow under the Analysis Tab in the Areas of Interest section, AIS data for that AOI has not yet been processed (e.g., the filter parameters have been chosen but the source data has not yet been filtered.
- Click the play button to begin processing the data for all AOIs in the project.
- The processing time depends on the amount of data.
- Processing will occur in the background.  The AOIs that are being processed will be disabled, but you may continue working on other projects and AOIs.
- To check the status of the processing, click the refresh button.
- Processing is complete once the AOI rows are no longer grayed out.
- Need to process again every time you change the requests or the filters.  The AOI rows will be yellow to notify you.
- Once AOIs are processed, AISAP can provide visualization and analysis results.
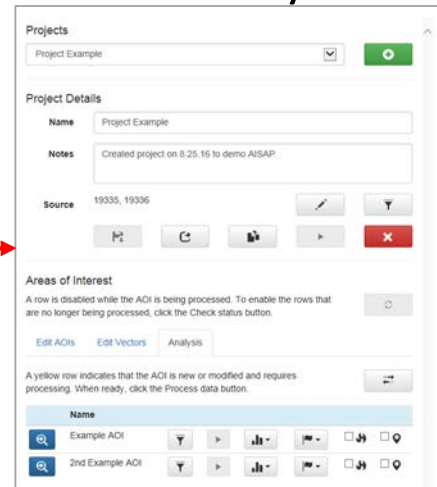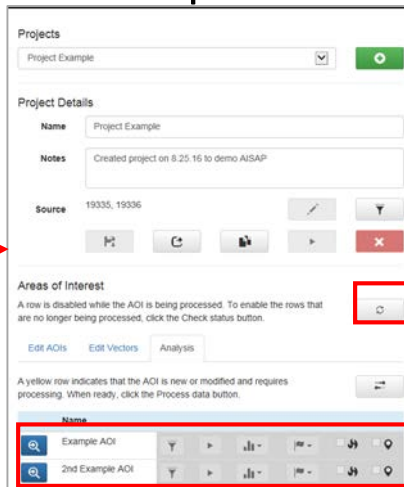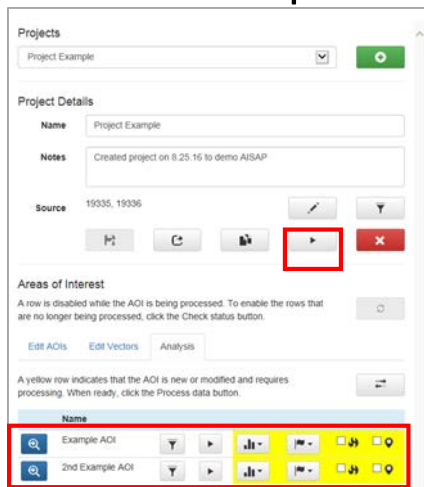
# Individual AOI Filters

- To adjust the filters for a particular AOI, click the filter button next to the AOI name.

- This is useful if you want to use different filters for each AOI.

- You will need to process the data for the AOI each time you change the filters – AISAP will notify you of this by turning that AOI's row yellow.

Areas of Interest

A row is disabled while the AOI is being processed. To enable the rows that are no longer being processed, click the Check status button.

Edit AOIs    Edit Vectors    Analysis

A yellow row indicates that the AOI is new or modified and requires processing. When ready, click the Process data button.

Name

Example AOI

**Filter**    **Process**

# Duplicating a Project

- Creates a copy of a project.

- Data source, filters, and AOIs are copied.

- However, processed data is not copied (will need to process AOIs again)

# Sharing a Project

Makes the project available to other AISAP users that you choose:

- Select the share button.

- Select the email address from the drop down menu of the user to share with, click Add.

- Choose their role:
    - Read only: cannot make any changes to your project.
    - Limited Read/Write: can change filters in your project but cannot change AOI shapes and cannot change source.
    - Full Read/Write: can make unrestricted changes to your project.

- Add any additional users and set their roles.

- Then click "Share".



Project Details

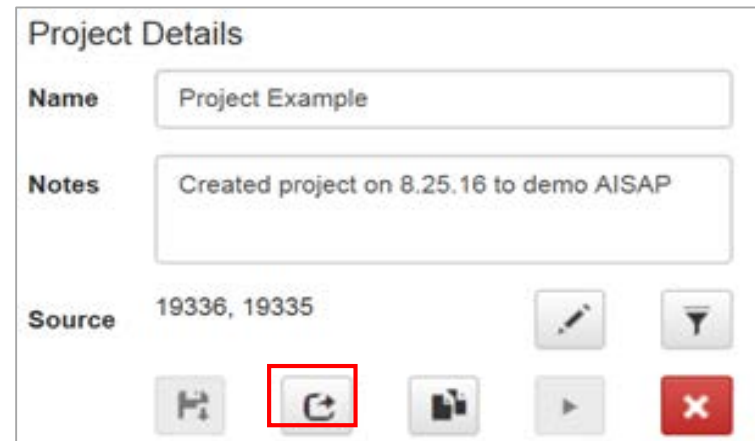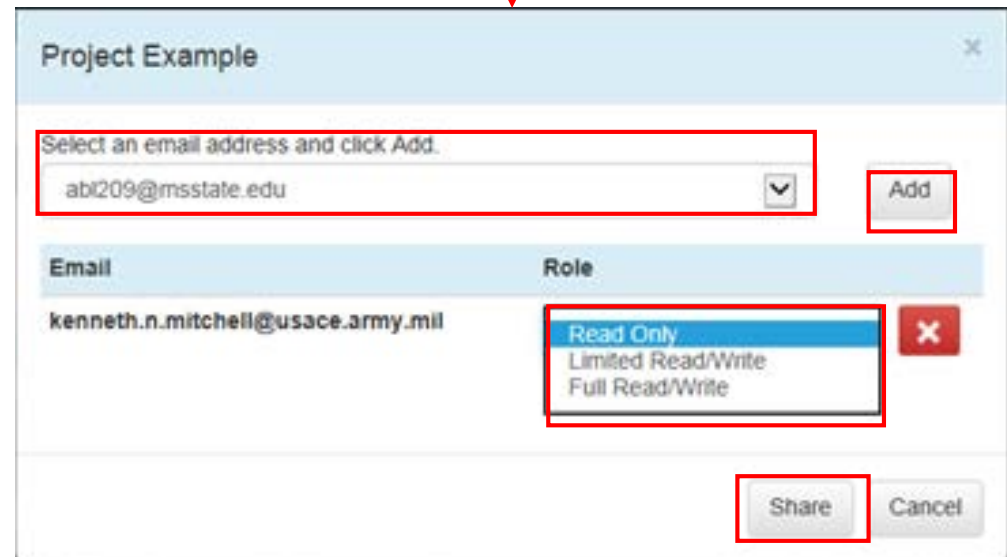| Name | Project Example |
| Notes | Created project on 8.25.16 to demo AISAP |
| Source | 19336, 19335 |



Project Example

Select an email address and click Add.

abl209@msstate.edu        Add

| Email | Role |
| kenneth.n.mitchell@usace.army.mil | Read Only |
| | Limited Read/Write |
| | Full Read/Write |

Share    Cancel

# Deleting a Project

- To delete a project, click the delete button.

- The project and all its AOIs will be removed permanently.