IRIS 3

Userguide

Getting Started

What is IRIS?, logging in, app layout etc

Modules

Accessing modules within the application

Dashboards

Accessing dashboards within the application

Risk Manager

Setting up and viewing risk bars

FAQs

1. Can I load my own data into IRIS?

> You can add custom shapes using the `Drawing Tool` and temporary map markers using the`Map Marker Tool`but to prevent unwanted changes for all users any data additions should come through your key IRIS contact or project manager to the IRIS team

2. I've forgotten my login details, how can I reset them?

> On the IRIS Login page select `Forgotten Password`. Follow the link sent to your email and enter a new password. It will then be redirected to the login page for you to login with the new password.

3. I'm an offshore client representative and I've been given a Vysus GPS Tracker. How do I set this up?

> Refer to the`Vysus Tracker Walkthrough` and contact the`IRIS`team with any queries

4. Can third party weather forecasts be added to IRIS?

> Yes, if a service has been purchased from a provider like StormGeo, MetOffice or MeteoGroup we can most likely feed the data directly into our `Metocean Module`. Alternatively if only PDFs are provided we can automatically place them in the documentation, alongside DPRs in the `Activities Module`. Contact the `IRIS`team to get this set up.

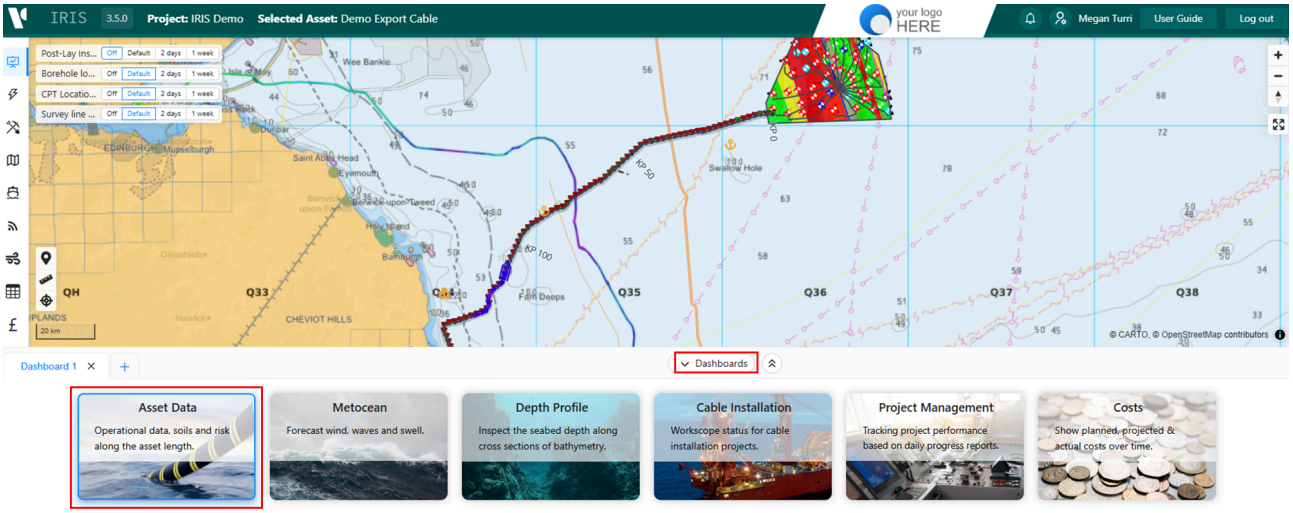
IRIS KP and time Based Asset Data Dashboard

Everything in IRIS is linked to an **Asset**. This could be any combination of cables, pipelines or sites whether planned or installed. The **Asset Data Dashboard** provides a way of visualising data related to assets on a time or KP basis in graphs and charts.

Typically live raw data is fed directly into IRIS from an onboard vessel system or our proprietary V-Node system, for associated vehicles such as subsea trenchers or ROVs.

By having the raw data supplied live, issues experienced during operations can be monitored effectively and future faults can be traced back. IRIS can also consume data manually or post data-cleanse as required.

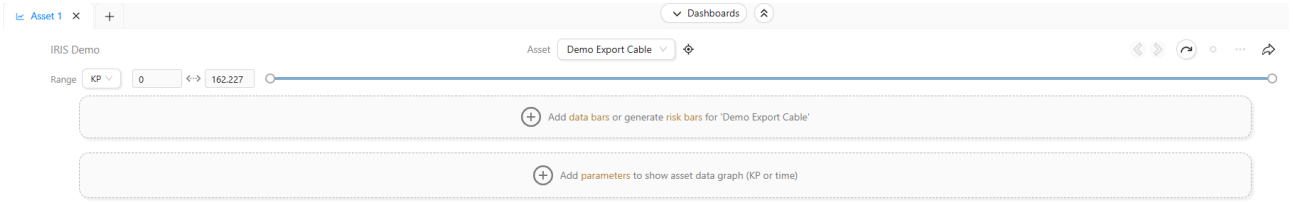
The dashboard can be accessed by clicking the **Dashboard** button at the bottom centre of the screen and selecting the tablet.



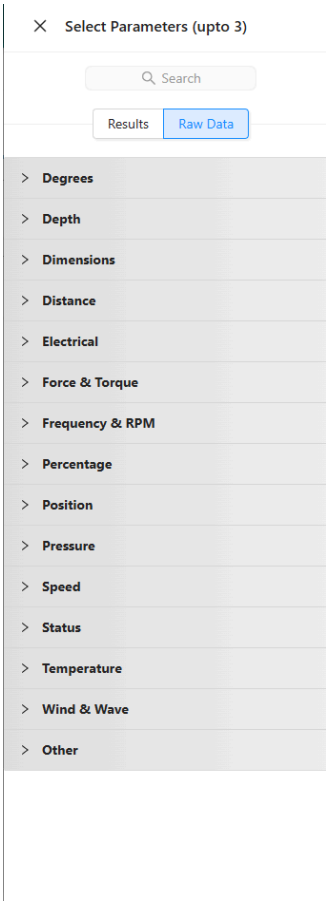
Adding Graph Data

To add data select the **Asset** in the drop-down at the top of the dashboard or through the **Assets Module**. Then select the range type from **KP**, **Time (UTC)** or **Live**.

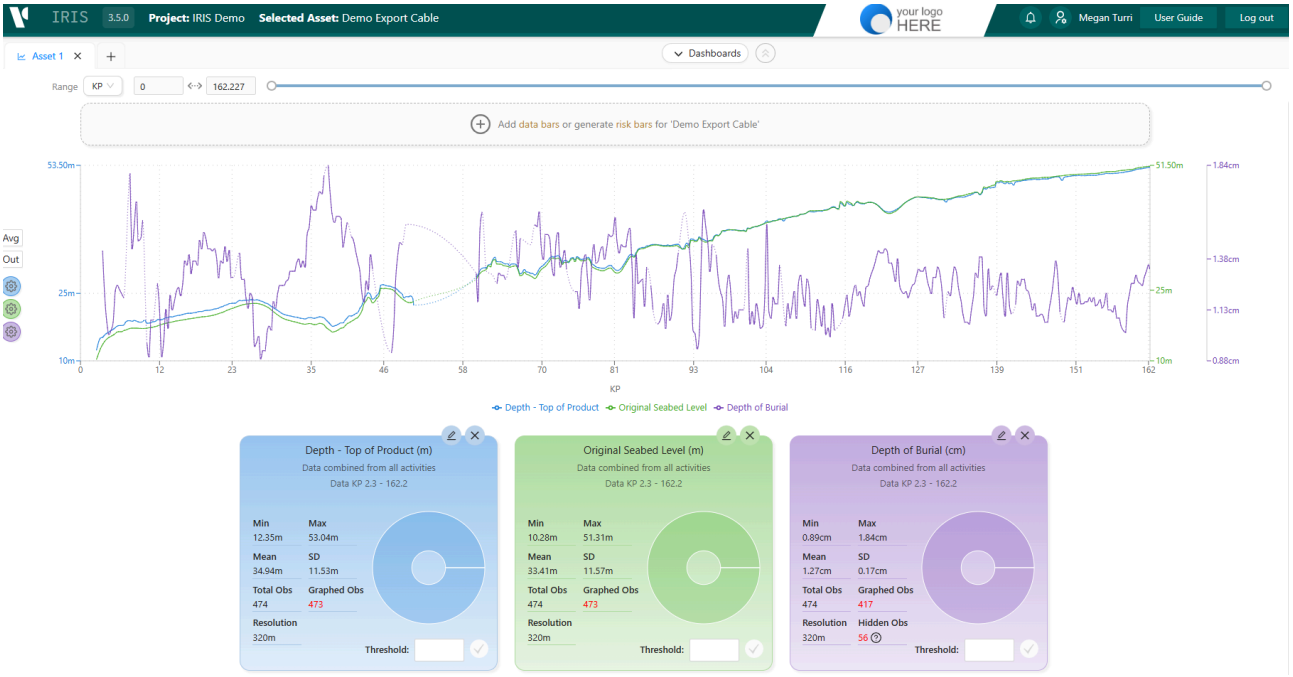
Selecting the 'Add Parameters to how Asset Data' will open a panel to the right, where data is listed you can step through the options including results or raw data to find the relevant parameters before clicking **Add**.



First select the **Results** (Processed and cleaned data e.g. Burial data) or **Raw Data** (Raw data feeds directly from subsea vehicles)tabs. You can drill down into parameters to specify which activity or vehicle the data comes from. Up to three parameters can be added before clicking **Save** to return to the dashboard.

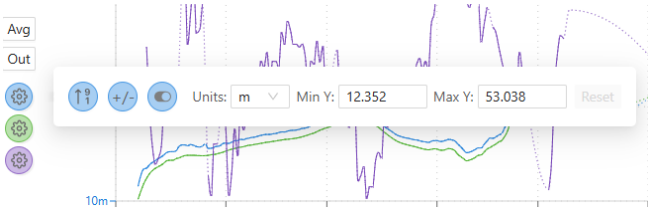


Once loaded, each parameter is represented by a different colour in the graph and a tile beneath showing key **statistics**. A parameter can be quickly toggled on and off by clicking the coloured name under the graph. On each dataset, **thresholds** can be set to display percentages above and below the set value in the pie chart, with this also shown as a dashed line on the graph.



Graph Controls

To the left of the line graph there are a few way to modify how the data is displayed.



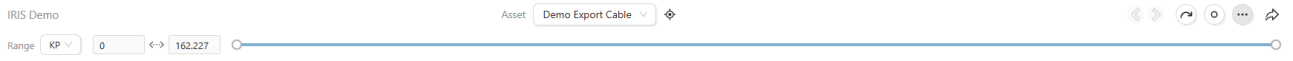
The **`coloured cogs`** allow you to flip the Y axis, align the units if more than one parameter matches and change the unit i.e. from metres to feet.

Above these you have **`Plot Type`** where you can choose from min, average and max

The **`Out`** button beneath allows you to remove noise in the data by removing outliers using different standard deviations.

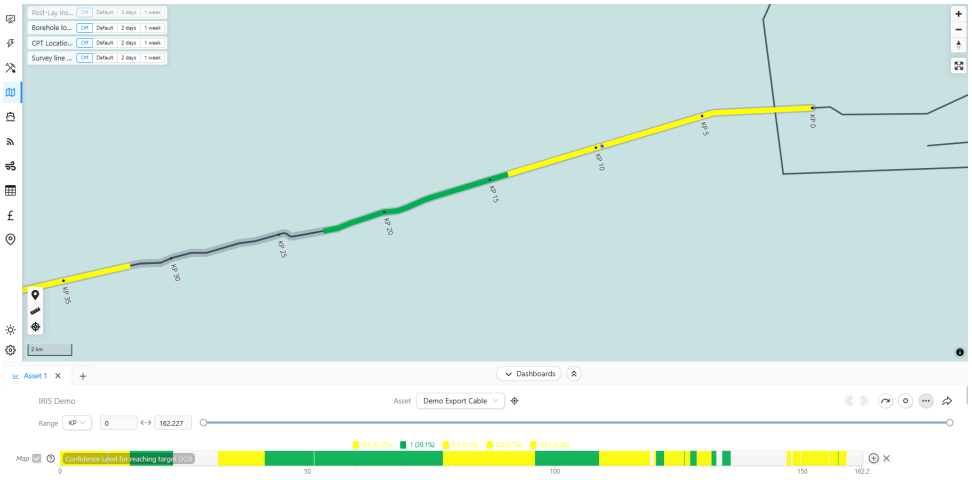
Further controls can be found above the graph. From the left, there is a KP range selector and bar when the range type is KP and date-time selectors for when the range is time based.

The controls on the right allow you to nudge the KP left or right, reverse the X axis, show/hide data points and join/un-join gaps in the data.



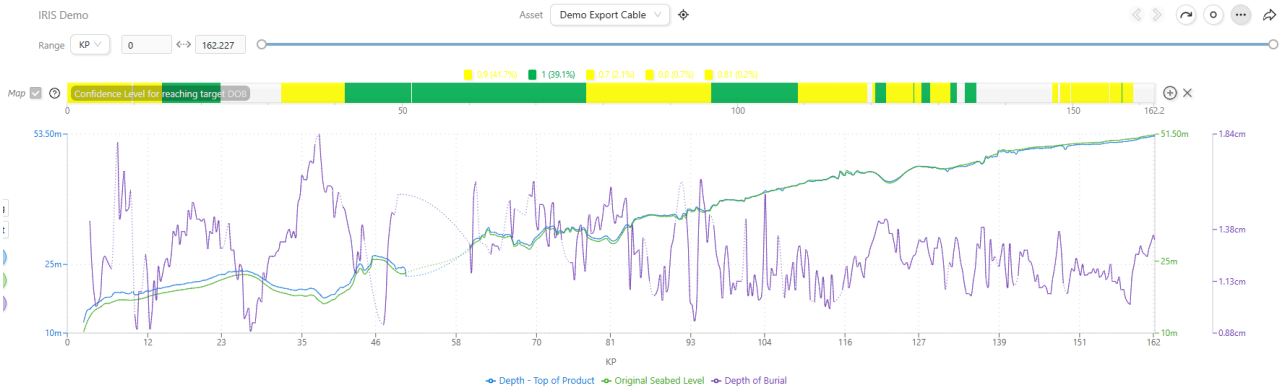
Data Bars

For linear assets like cables or pipelines you can add a data bar to the top of the graph and equally display the colour coding along the asset on the map. These data bars can be generated from data in `Burial Assessment Studies (BAS)`, `Survey Data` such as pipeline/cable status e.g. Exposures and spans or from user generated risk bars in the `Risk Manager`.



To access the `Data Bars` select the `Add Databars for Asset` or the + sign next to an existing databar. A list of the available data will show in the right side panel. the data can be selected through the checkbox to the right, the legend can be viewed by clicking the arrow to the left as well as selecting the data to include.

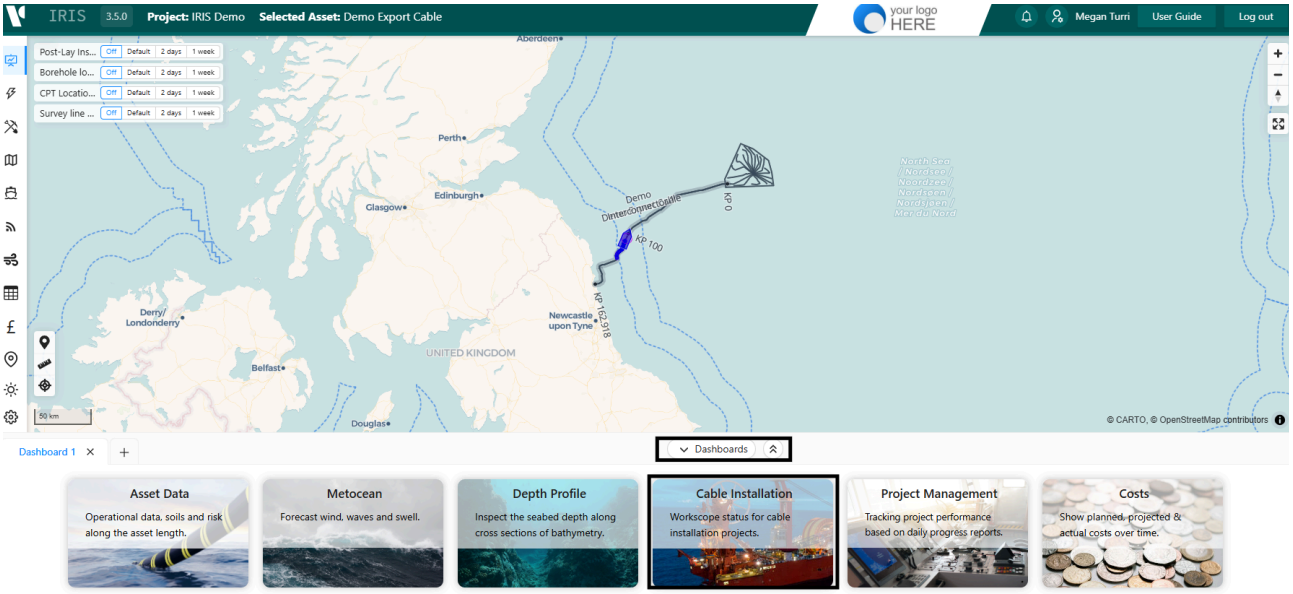
On the left of the `Data Bar` there is a checkbox to display it in the map window and a `?` icon to show the legend.



Cable Installation Progress Dashboard

The Cable Installation allows multiple activity groups that may take place within a cable installation project to be tracked. The data is pulled from the workscope data from data entry module.

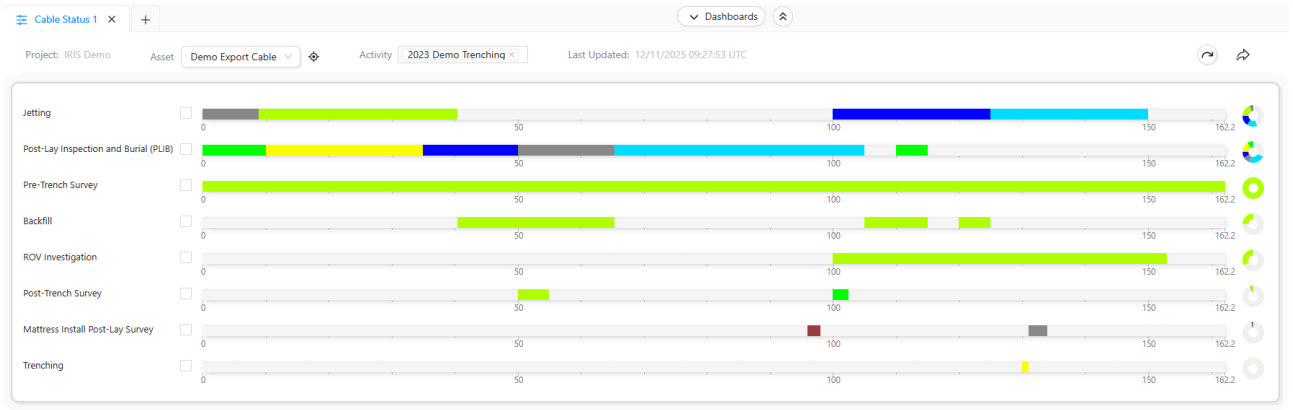
The dashboard can be accessed through the dashboard expander at the bottom of the screen and then selecting the fourth tab.



From the initial view, an asset and associated activity can be selected before a selection of progress bars are produced showing the activity across multiple categories of work that may be completed across the selected asset. The data can be collected across multiple activities within an activity group.

The Categories for the progress bars are:

- Jetting
- Post-Lay Inspection and Burial (PLIB)
- Pre-trenching Survey
- Backfill
- ROV Investigation
- Post-Trench Survey
- Mattress Install Post-Lay Survey



Each category is tracked against the KP range of the Selected asset, whether this be the entirety of the cable route or a small section. At the end of each progress bar is a progress pie chart which will show the percentage complete for the selected category.

By default the progress bars will run from 0 - max KP from left to right, however this may not follow the cable path and so it can be flipped by using the arrow symbol in the top right of the view. Next to this sits the export function which will allow a user to export both the chart or data in multiple formats.

Each category can be viewed on the map by selecting the tick box at the beginning of the progress bar. Additional information on each section can be viewed by hovering over sections of the progress bar. Any greyed out sections indicate where no data is present, whilst a light grey sections will indicate where an activity is planned but has not yet commenced. Any coloured section is a complete action however, may be confirmed or not confirmed. A red section will be for where a certain activity is not applicable.

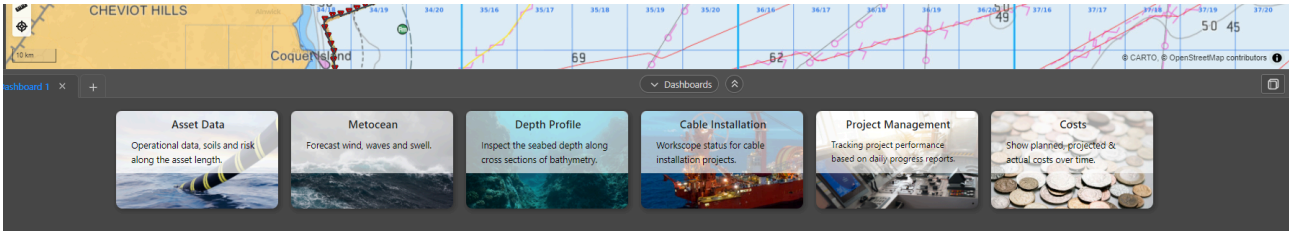
When hovering over the progress bars the KP location will be highlighted within the map view through a red icon on the asset.

Offshore Activity Cost Tracking Dashboard

The `Cost` dashboard allows for a visual representation of the variety of costs and budgets across an activity or within a specific time frame.

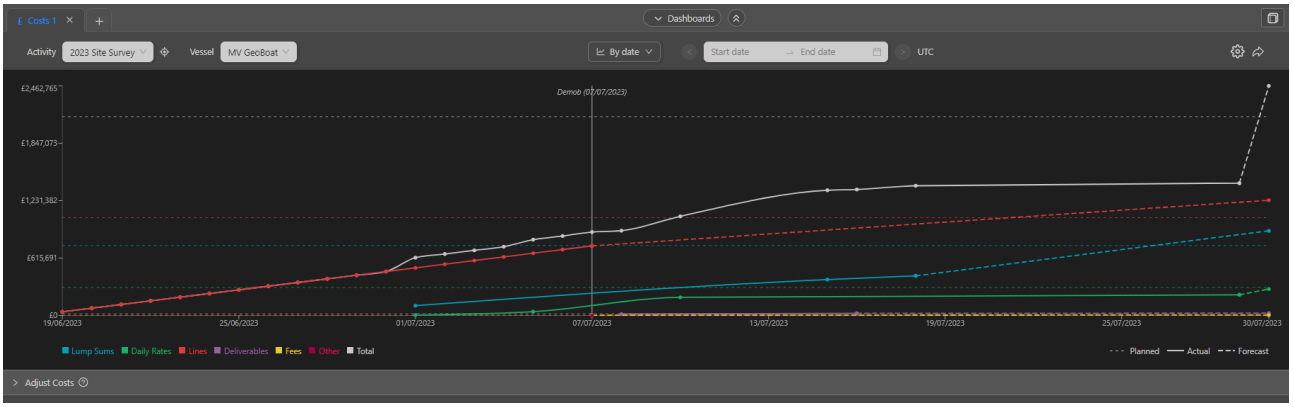
The data for an activity is fed into the `Costs` module by the Project Managers or other users and will be specific to a vessel. When filled in consistently the budget and running costs can be tracked in real time through the DPR codes added within the `Data Entry` module by Offshore representatives.

The dashboard can be accessed by clicking the `Expand` button at the bottom centre of the screen and selecting the tablet.



Once an Activity and Vessel have been selected using the drop down selectors in the upper-left corner, the initial figure shown in the dashboard is the line chart showing `By Date` costs along the project timescale. The chart will default to represent the entire time frame of the activity, with the end date set to the current date. This can however be altered to a specific date length using the dropdown calenders or entered manually into the text box located at the top of the dashboard page.

Following the setup of the the cost module, the chart is separated by category: Lump sum, Daily Rates, Workscope, Deliverables, Fees, Other and Total.



The chart also allows for the split between Planned, Actual and Forecasted data. The `Actual` data, which can be collated from DPR's and data entry, is represented as a solid line and stops at either the end of the date range or today's date if the project is active.

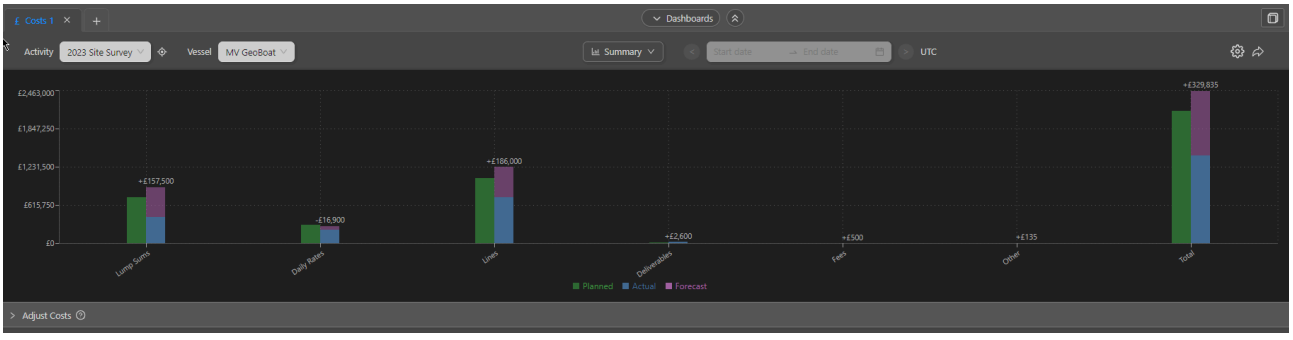
A thick dashed line will continue from the `Actual` line, representing the `Forecasted` data for the remaining time left in the project.

The `Planned` data which is inputted initially by the project manager is represented by a thin dashed line, coloured to align with the previously mentioned categories.

A text window with statistics will show `Actual` and `Total` when hovering over a specific date. The Chart can be customized to only show specific categories by unselect the layers (will then be grey in the legend). The same can be done to show the Planned, Active and Forecasted data separately.

The settings cog in the top-right hand corner also allows for you to edit the chart. The automatic end date can alternatively be set to either the activity end date, todays date or a preselected date. The planned costs will automatically show as horizontal lines, however they can be changed here to increase overtime. The Unit rates are set to begin on the activity start date but can be set to used the hours that are booked within the DPRs and should have ben inputted in the data entry section.

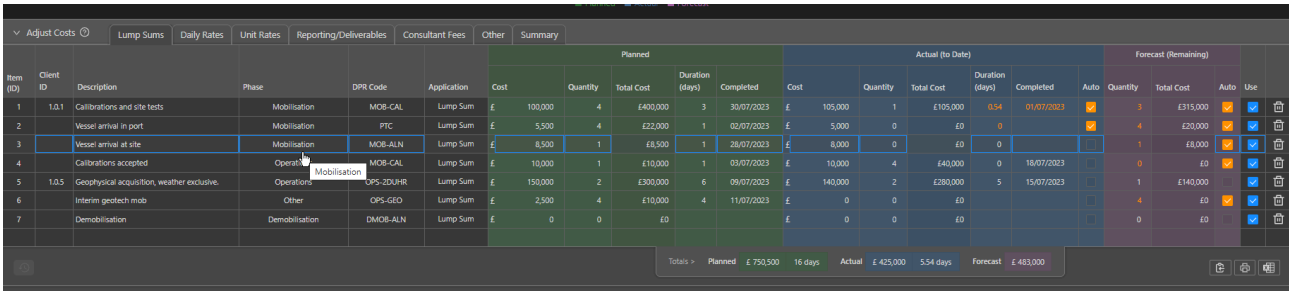
The Chart window can be changed to show a `Summary` of the Cost data using the drop down selector at the top of the window.



This represents the same data through a bar chart with the categories along the X axis and is separated by colour for the Planned, Actual and Forecasted data.

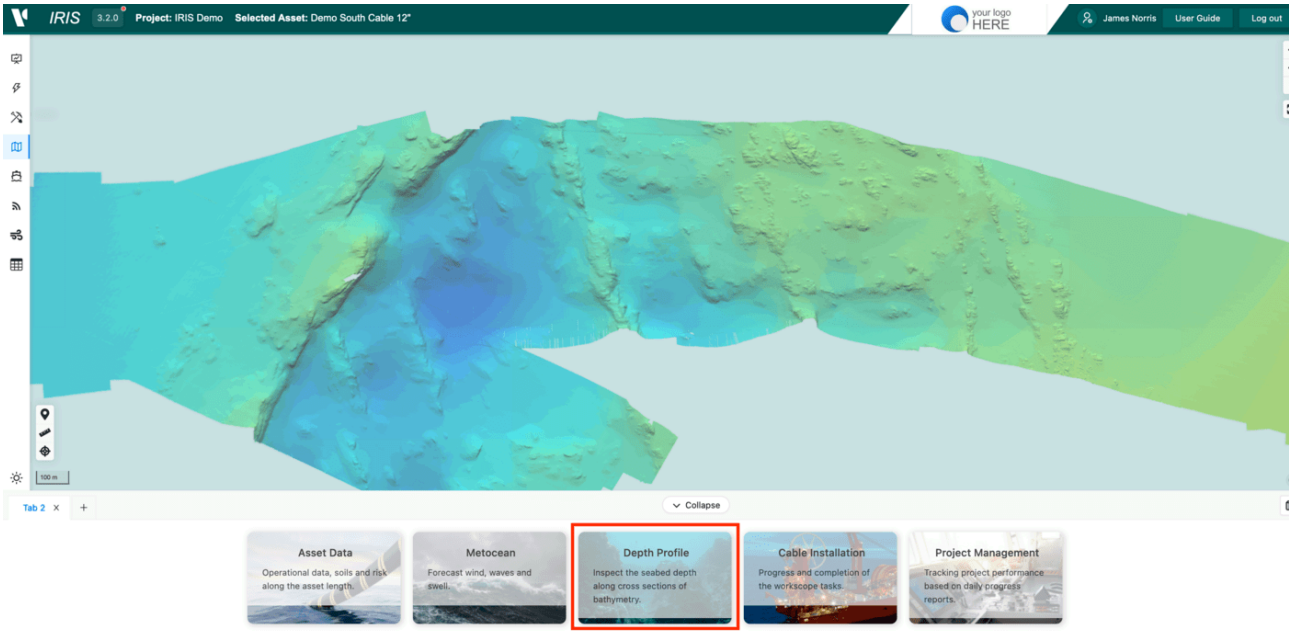
Both Figures can be exported in multiple formats using the arrow icon in the upper-right hand corner of the dashboard.

Costs can be edited under the `Adjust costs` tab. This brings up a table identical to those from the `Cost` module, sectioned with: Lump Sum, Daily Rates, Unit Rates, Reporting/Documenting, Consulting Fees, Other, Summary.


Adjust Costs
Lump Sums
Daily Rates
Unit Rates
Reporting/Deliverables
Consultant Fees
Other
Summary
Planned
Actual (to Date)
Forecast (Remaining)
Item (ID)
Client ID
Description
Phase
DPR Code
Application
Cost
Quantity
Total Cost
Duration (days)
Completed
Auto
Use
1 1.0.1 Calibrations and site tests Mobilisation MOB-CAL Lump Sum £ 100,000 4 £400,000 3 30/07/2023 £ 105,000 1 £105,000 0.54 01/07/2023 3 £315,000
2 Vessel arrival in port Mobilisation PTC Lump Sum £ 5,500 4 £22,000 1 02/07/2023 £ 5,000 0 £0 0 4 £20,000
3 Vessel arrival at site Mobilisation MOB-ALN Lump Sum £ 8,500 1 £8,500 1 28/07/2023 £ 8,000 0 £0 0 1 £8,000
4 Calibrations accepted Operations MOB-CAL Lump Sum £ 10,000 1 £10,000 1 03/07/2023 £ 10,000 4 £40,000 0 18/07/2023 0 £0
5 1.0.5 Geophysical acquisition, weather exclusive. Operations OPS-2DUHR Lump Sum £ 150,000 2 £300,000 6 09/07/2023 £ 140,000 2 £280,000 5 15/07/2023 1 £140,000
6 Interim geotech mob Other OPS-GEO Lump Sum £ 2,500 4 £10,000 4 11/07/2023 £ 0 0 £0 4 £0
7 Demobilisation Demobilisation DMOB-ALN Lump Sum £ 0 0 £0 £ 0 0 £0 0 £0
Mobilisation
Totals > Planned £ 750,500 16 days Actual £ 425,000 5.54 days Forecast £ 483,000

Depth Profile Dashboard

The depth profile dashboard allows bathymetry profiles to be created along a created line or as cross sections stepped along a pipeline or cable `Asset`. Two overlaid bathymetry datasets can be compared to see sediment movement between surveys.

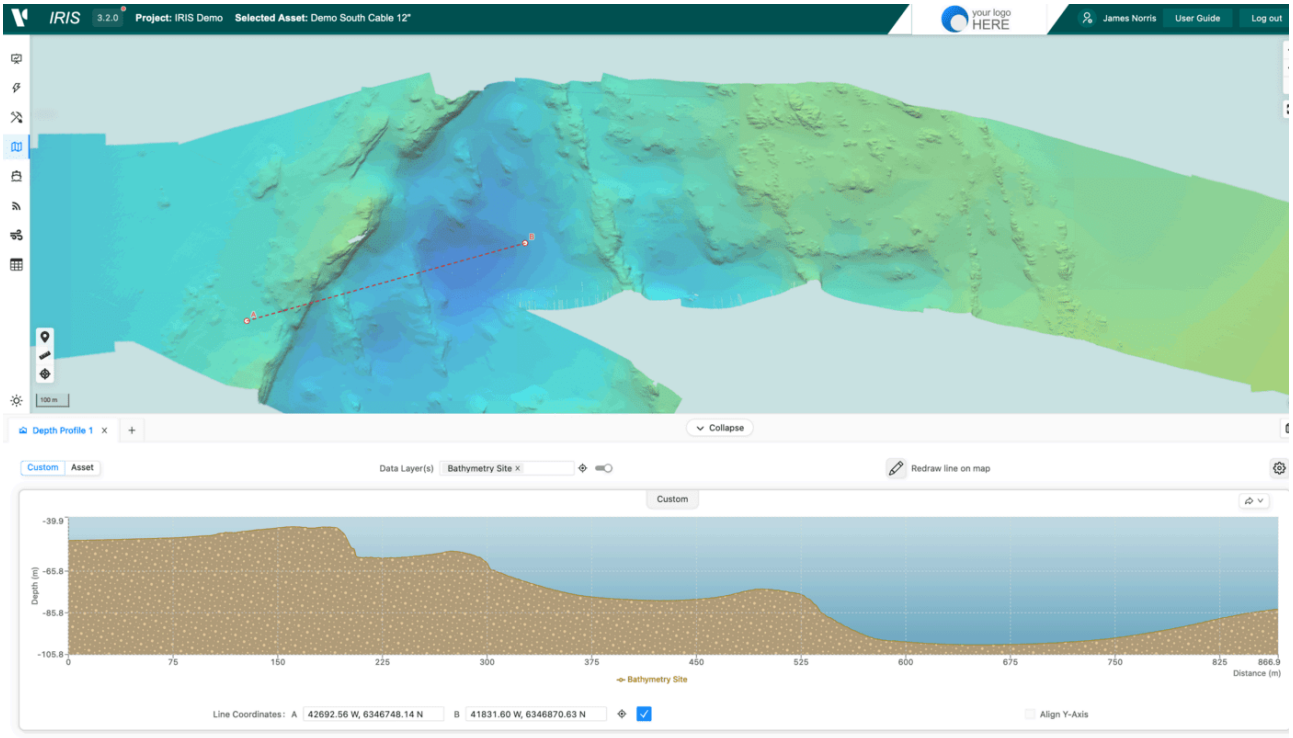


Custom Profile

To create a profile along a custom generated line:

1. select the `custom` tab.
2. Choose bathymetry data layer(s).
3. Click the pencil and draw a line using two clicks on the map window

The profile is displayed and difference is shown if two layers are selected and exist on that section of the map. The `settings cog` on the top right of the dashboard allows you to offset the first dataset if there is a noticeable difference in survey calibrations.

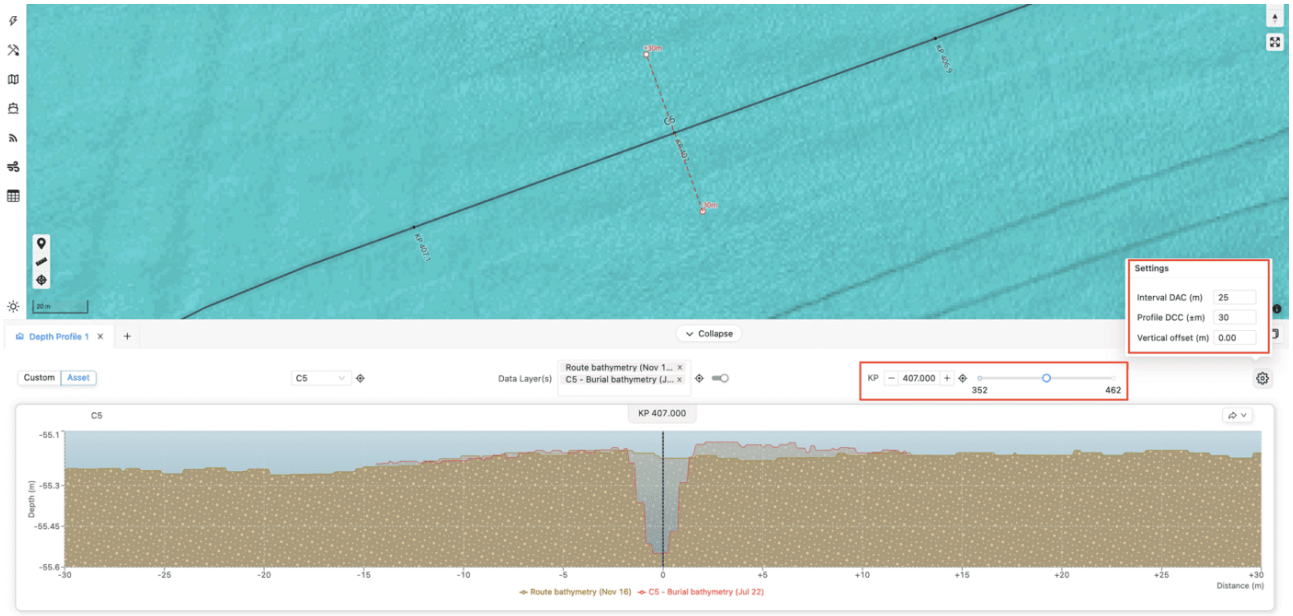


The line co-ordinates can be adjusted by setting co-ordinates at the bottom of the graph or by clicking the pencil again.

Asset Cross Profiles

To create a cross-profile along a pipeline or cable asset:

1. select the `Asset` tab and subsequently the asset from the list drop down.
2. Choose bathymetry data layer(s).
3. Select the KP value along the route.
4. Change the settings using the `cog wheel`:
    - Interval DAC (m) - The step interval along the KP route to do cross profiles
    - Profle DCC (+-m) - The width of the cross profile.
    - Vertical offset (m) - The value to align the two bathymetry datasets



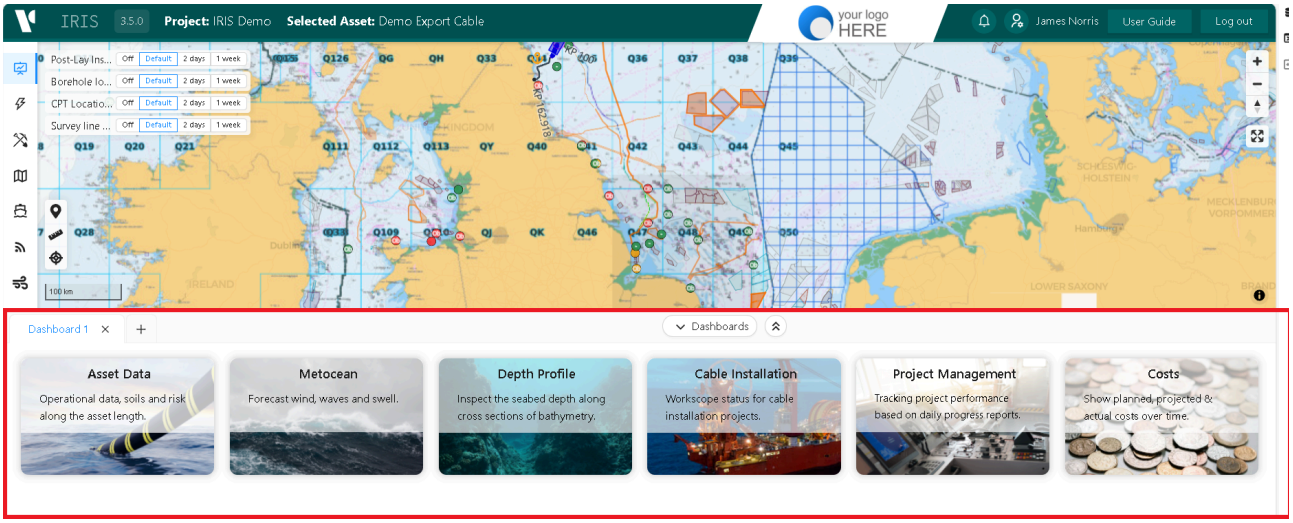
To move forward and back along the KP route at the set interval, click the `+` and `-` buttons either side of the KP value. The `zoom to` icons can be used to zoom to either the whole dataset or the current KP.

As with other dashboards to export the data or the chart as an image select the `Export` button on the top right of the graph.

IRIS Dashboards

The bar along the bottom of the screen can be expanded to show dashboards. This is generally where you can see **`results`**, **`graphing`** and **`analysis`** of data and export to **`reports`**. When you relaunch an IRIS project the previously opened tabs will remain until mnaually closed. To **`rename`** a tab **`double click`** the tab name, to quickly close a tab **`mouse wheel click`** the tab name.

If a tablet is greyed out it's either not applicable to the current project or your usergroup doesn't have the required **`permissions`** to access it. Contact the IRIS team with any queries.

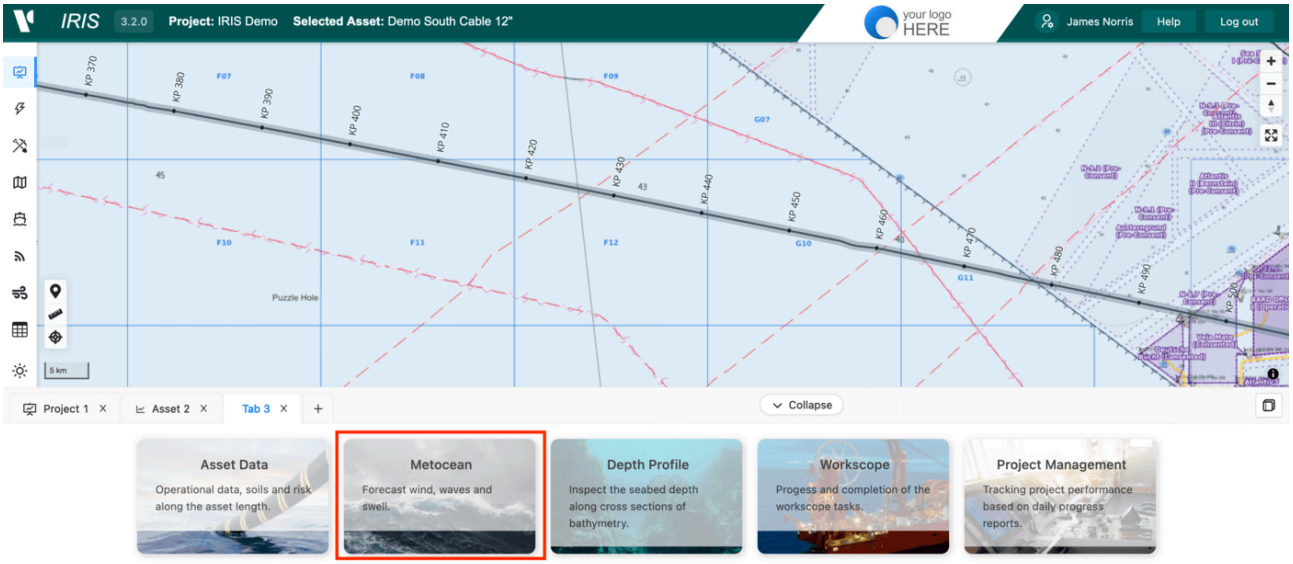


Select from the below to list to find out more about each **`dashboard`**.

1. **`Asset Data Dashboard`** - Graphing and databar of time or KP based data along an asset
2. **`Metocean Dashboard`** - Graphing of forecast and hindcast weather data
3. **`Depth Profile Dashboard`** - Create depth profiles along a line or asset
4. **`Cable Installation Dashboard`** - Tracking project activities within cable installation projects
5. **`Project Management Dashboard`** - Graphing and reporting of project activity, HSE and work scope progress
6. **`Costs Dashboard`** - Graphing and reporting of planned, actual and forecasted project budget and running costs

Metocean Dashboard

The `Metocean` dashboard can be accessed by clicking `Dashboard` at the bottom centre of the screen and clicking the second tablet. This dashboard allows configuration and display of `global forecast models`, `observation buoys`, `tidal gauges` and `project forecasts` from a variety of sources including `NOAA` and `EU Copernicus`.



In the dashboard select the `Location` pin then and click a point of interest on the map. The forecast automatically displays and the dates can be adjusted using the date selectors on the right.

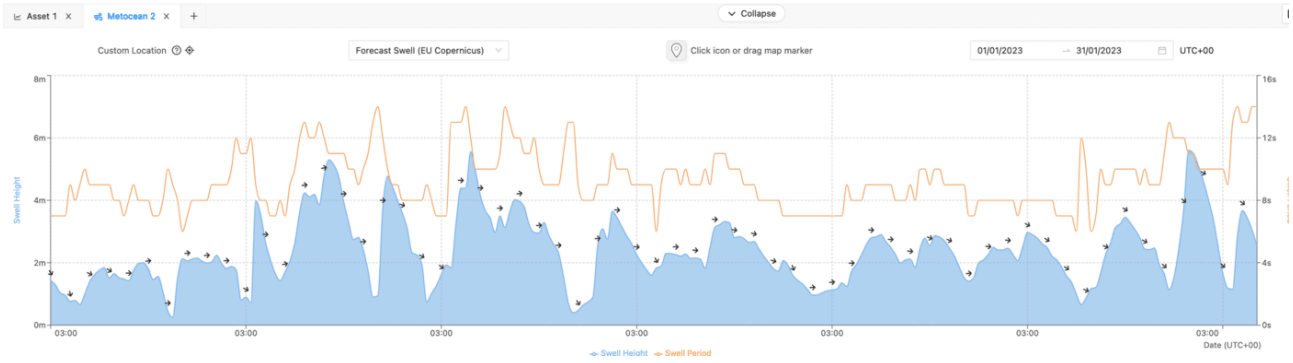
Specific project forecasts can be accessed to show the same data when in the dashboard. For this select the forecast location of interest, small green circles and the graph will set to this location.

Please note selecting anything over 2 months will take a significant amount of time. The data goes back to 2016.

The available data is grouped into three types which can be selected from the drop down list:

- Forecast Wind - Including wind speed and direction (`NCEP-GFS` (https://www.pacioos.hawaii.edu/metadata/ncep_global.html)).

- Forecast Wave - Including Maximum wave height, significant wave height, wave period and wave direction (`EU Copernicus` (https://datastore.cls.fr/catalogues/eu-copernicus-marine-service-global-waves-analysis-and-forecast/)).
- Forecast Swell - Including significant swell height, swell period and swell direction (`EU Copernicus` (https://datastore.cls.fr/catalogues/eu-copernicus-marine-service-global-waves-analysis-and-forecast/)).
- Forecast current - Including current speed and direction (`EU Copernicus` (https://datastore.cls.fr/catalogues/eu-copernicus-marine-service-global-waves-analysis-and-forecast/)).



With each dataset a chart will be produced showing the variables selected for the selected date range, with the legend running along the bottom.

For selected variables (wind, current and wave), a data bar is present showing the portions of time working within a working vessel tolerance and a transit vessel tolerance. The tolerances will originally be set under the vessels tab however they can be edited through the settings cog at the beginning of the data bar.

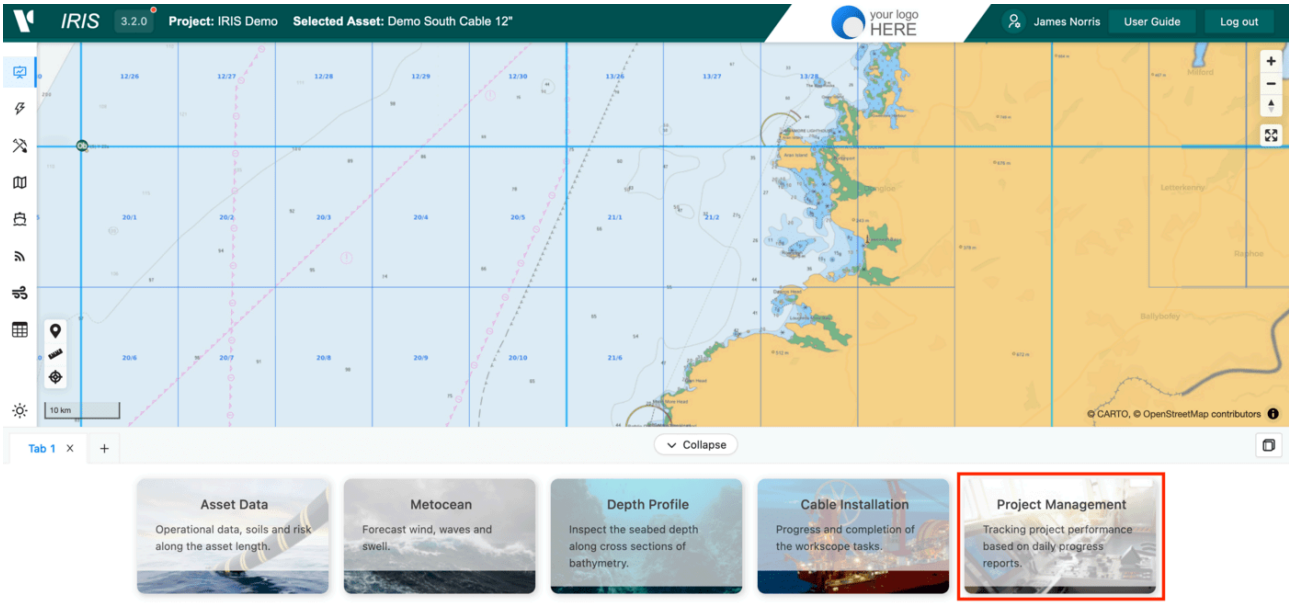
If the time frame selected falls within an activity, an additional data bar can be added to show the dpr activities. For this select the DPR activities tab and select the appropriate activity and vessel then press okay. This will only show when the time frame is the same as the activity so you may need to check this.

These figures cannot be edited but can be exported using the export function as wither a chart or the raw data and will be viewable and interactive within the OCR report.

IRIS Project Management Dashboard

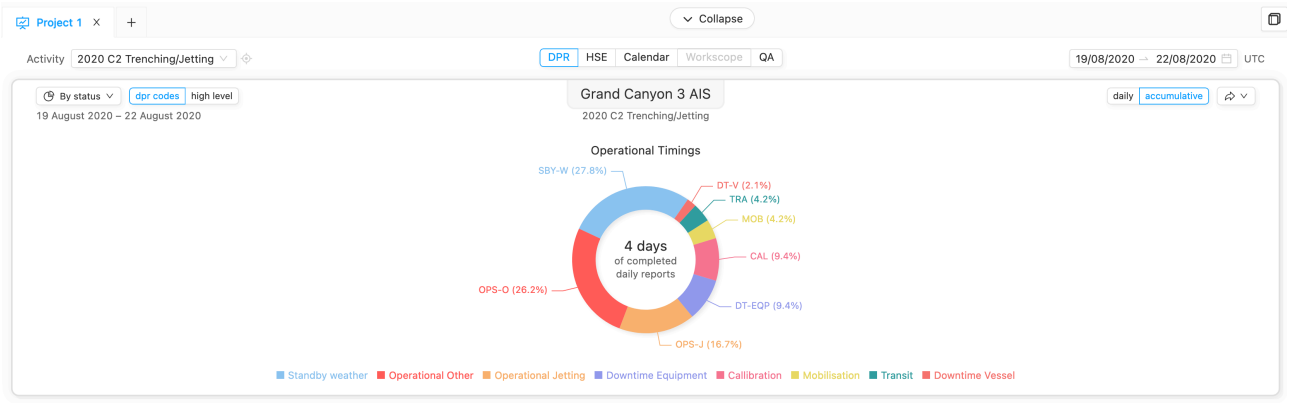
Data collected in the `Data Entry Module` populates the `Project Management` dashboard which is used to analyse the performance of the project Contractor, its vessels, assets and equipment for each offshore activity.

To access the project management dashboard, click the `Dashboard` button at the bottom centre of the screen and select the Project Management tab.



Once in simply select the `Activity` from the drop down list on the right and cycle between the different elements in the top centre:

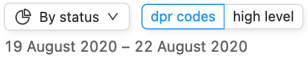
- DPR (Daily Progress Reports)
- HSE (Health, Safety & Environment)
- Calendar
- Work Scope
- QA (Quality Assurance) which contains the OCR register, Incident log, Observations and the final OCR Report.



The dates automatically match the entered information but can be restricted to show a period of choice e.g. the last week. There are several ways to configure the display. On the left you can change the graph to one of the following:

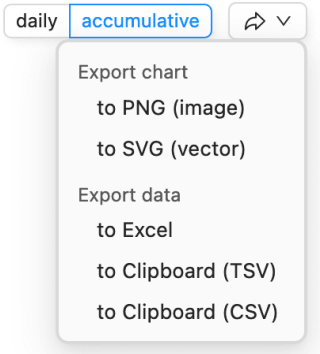
- By status
- By Date as a bar graph
- By date as a line chart
- Table view (For Work Scopes)

Also DPR activities can be grouped into high level codes or contractor DPR codes:



On the graph you can deselect individual items by clicking them in the legend.

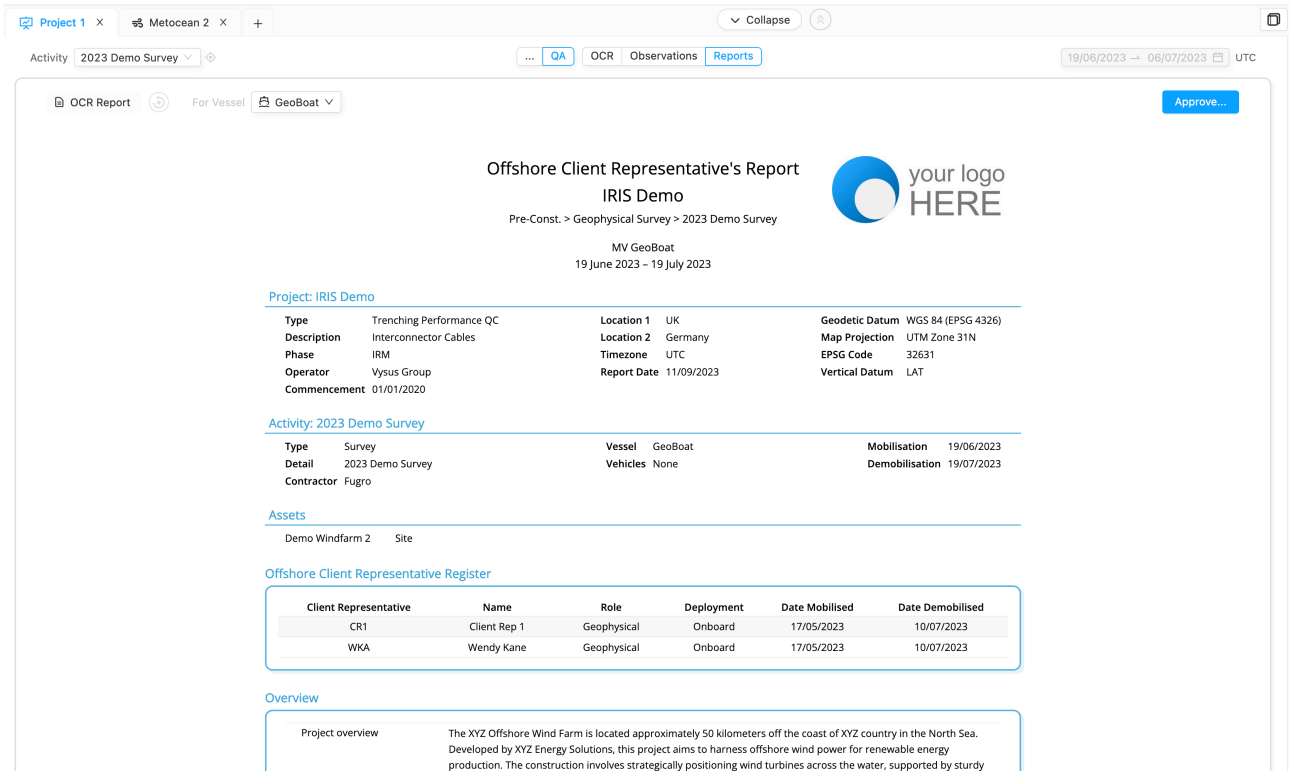
On the right of the graph you can toggle the data between a `Daily` and `Accumulative` view or export to images, spreadsheets or the clipboard:



When a health and safety `Incident` is logged offshore by the client representative, a record of this is shown in 2 areas. As a layer in `project layers` under `HSE` or in the project management module in the `QA > Incidents` tab. The layers shows colour coding based on status and risk level.

When an activity is coming to an end, IRIS has the ability to build the final Offshore Client Rep (OCR) report pulling all the data and map view together in a easily configurable way. This can be accessed from the `Reports` tab of QA section and will include all the data

inputted from the rep, project details and statistics, metocean and any relevant images which will be stored in IRIS and can be exported as a PDF.



Getting Started

IRIS Technical Support

Technical support is provided by the IRIS / Geospatial Team based in Vysus Group's Survey & GeoEngineering office in Bristol.

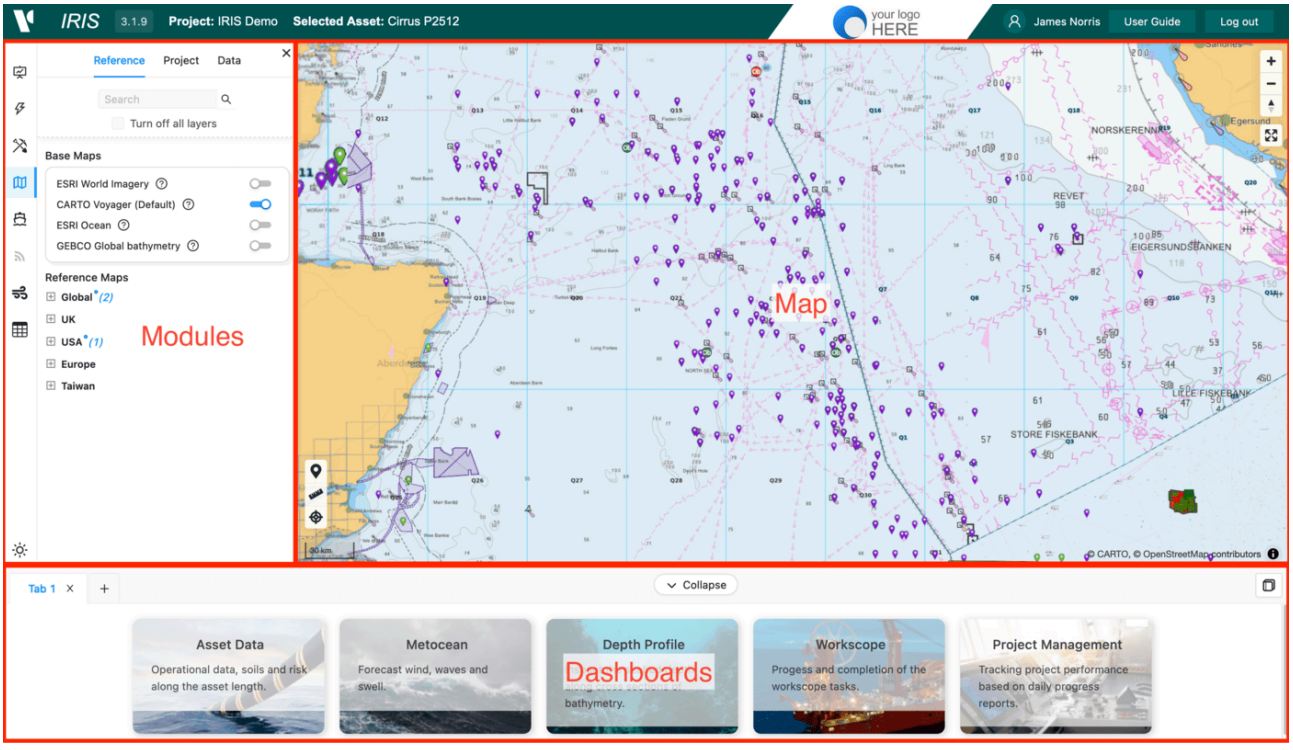
General support is available through the IRIS User Guide (within the web application), including **FAQs**, and also by phone and email. Email is the most efficient approach to addressing issues or queries.

- IRIS.Support@VysusGroup.com
- Out of hours contact number : M +44 (0) 7595 650611

IRIS Layout

Once loaded to the browser, the IRIS project website consists of three primary areas, or work spaces. These are :

- Maps
- Modules
- Dashboards



Driven by selections made within the Activities and Data modules, the `Map` window, presents a multi-layered GIS-style interface which presents mapping data, associated meta data and links to other data types such as documents, images and spreadsheets.

`Modules` allow users to input, access and configure data that resides within the IRIS environment. A user will have access to the standard set of modules, together with additional relevant modules based upon the permissions associated with the assigned user credentials. Available modules include :

- Projects
- Assets
- Activities
- Data
- Vessels
- Live Data Feeds

- Metocean
- Data entry
- Cost
- Points of Interest

`Dashboards` provide for further visualisation, assessment and analysis of IRIS datasets through the production of graphs, reports and data exports. Available dashboards include :

- Asset Data
- Metocean
- Depth Profiles
- Cable Installation
- Project Management
- Costs

`Dashboards` are accessed in one of two ways. Primarily, selecting the `Dashboard` expand button beneath the main map window to reveal the available Dashboards. You can drag the window vertically to provide more space for your dashboard of selected the double arrow icon to expand to full screen. Simply click of the your required Dashboard to initiate it. Occasionally you will find that a dashboard may become immediately initiated directly from a selection or option from within an associated module.

Where applicable, intuitive interaction between the 3 work spaces allows the user to use the prism of the web map to further support the visualisation of data being addressed within modules and dashboards.

Light / dark mode

BY default, IRIS starts with a white background across the majority of the map, dashboard and module space. IF you prefer a black background, simply toggle the moon / sun icon at the bottom of the `Modules` vertical bar

IRIS version number

The IRIS build version number is shown on the top left hand side of the IRIS work space window. The current major release of IRIS is IRIS 3, represented by the first numeral. The following two numbers represent major and minor code releases. A history of related

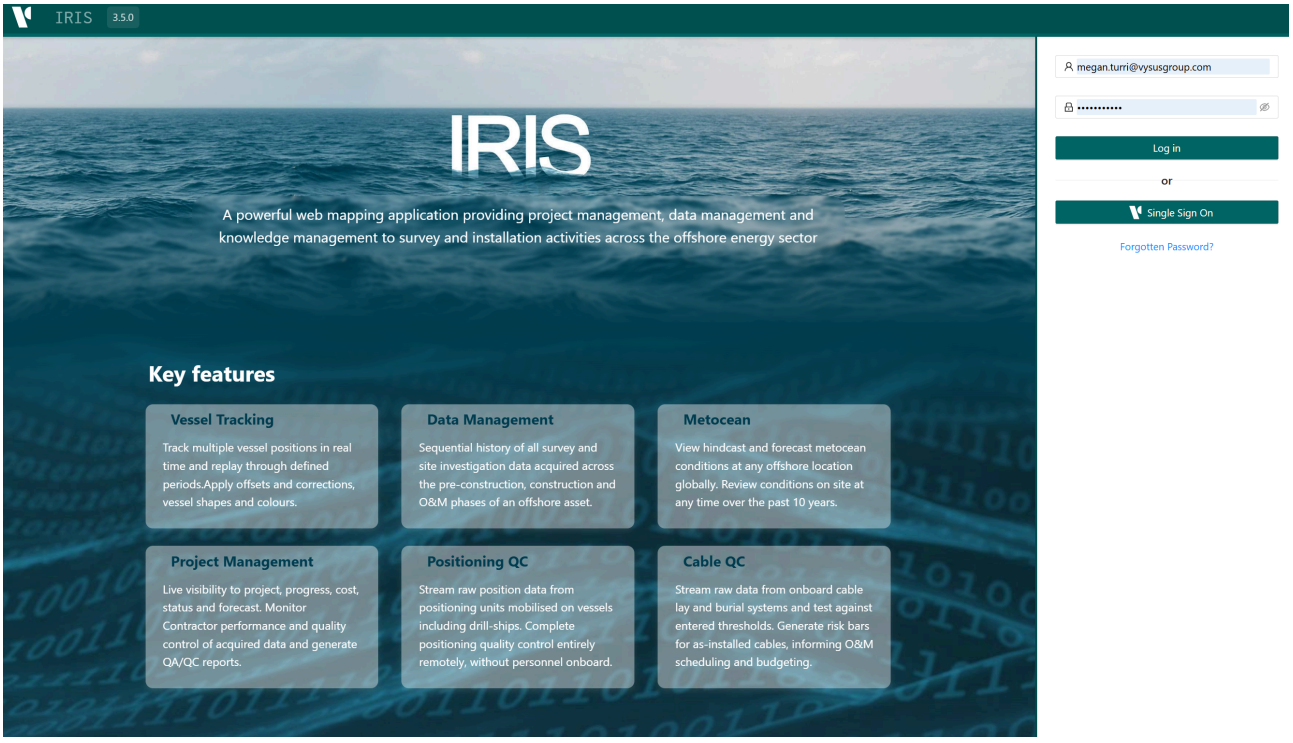
features, functionality and system maintenance is provided within the IRIS user guide. Additionally, when a new version of IRIS is released, the user is notified at the next login process.

Accessing the IRIS platform

IRIS account

IRIS is a secure environment which requires fully authenticated user credentials to gain access. Users can ONLY access IRIS project sites to which they have been approved by both their COMPANY and Vysus Group. Users will be informed by email by the IRIS support team of their username and initial password. The username will be the user's normal email address.

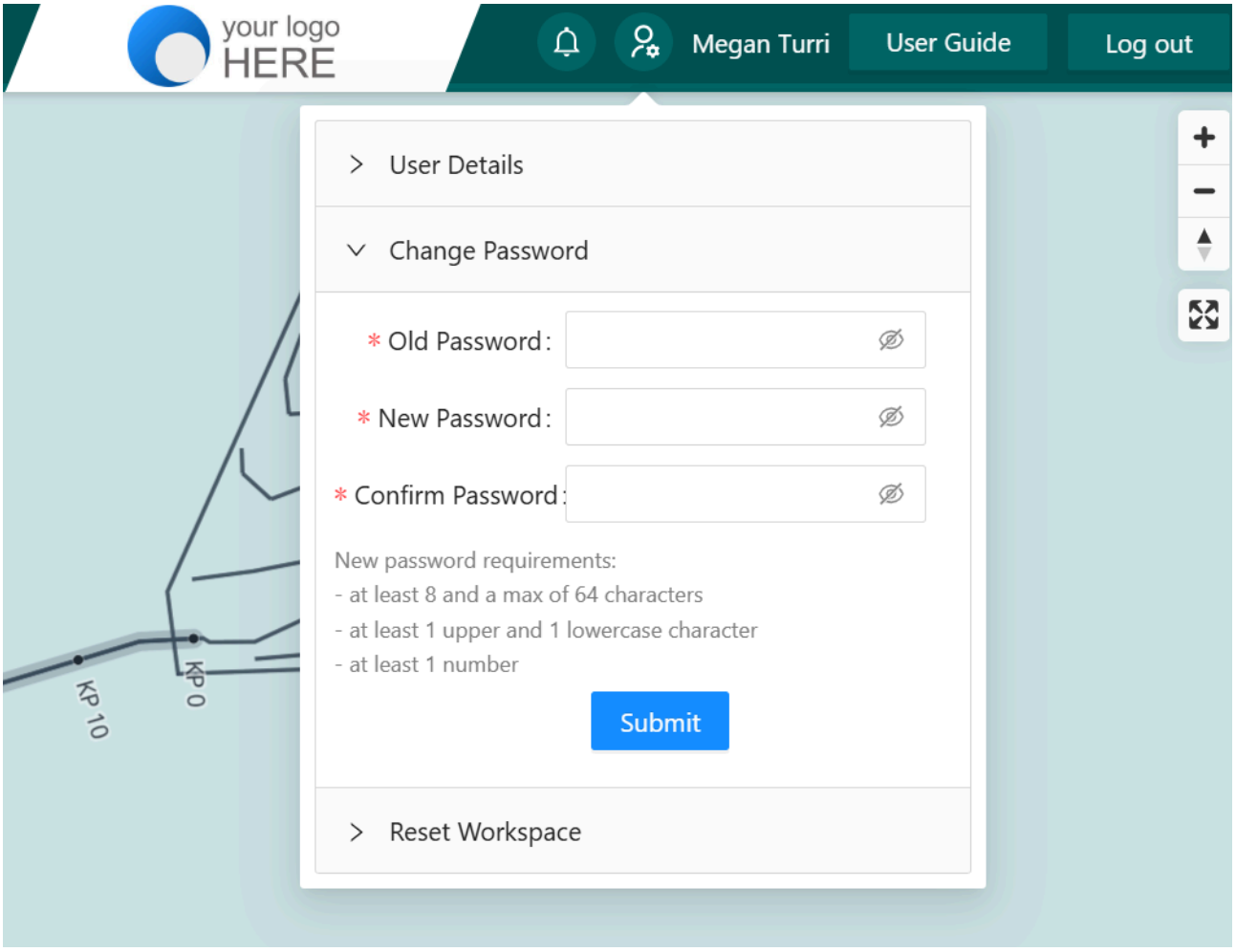
Once received, the user shall enter the provided credentials through the login portal as shown below:



If a user attempt to login and the account has expired, a screen will present saying so. In this instance , contact IRIS support.

Changing Password

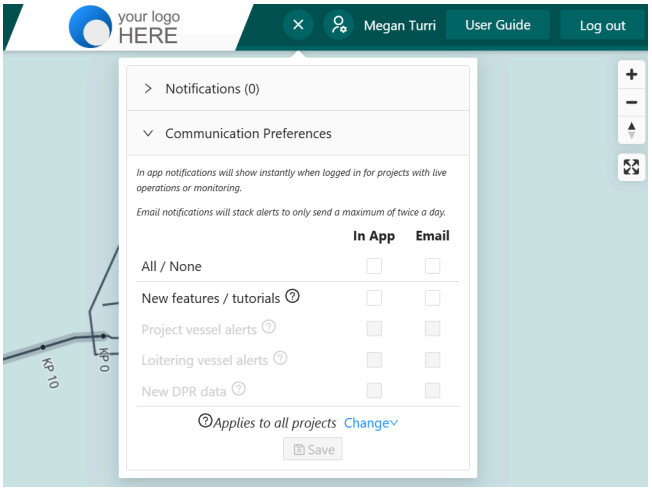
You can subsequently change your password at any time by clicking your username in the top right hand corner and expanding the `Change Password` tab.



Notifications and Communication preferences

IRIS has the ability to send notification either through the site or through email. These notification can include new features or tutorial, project vessel alerts, loitering vessel alerts and new DPR data.

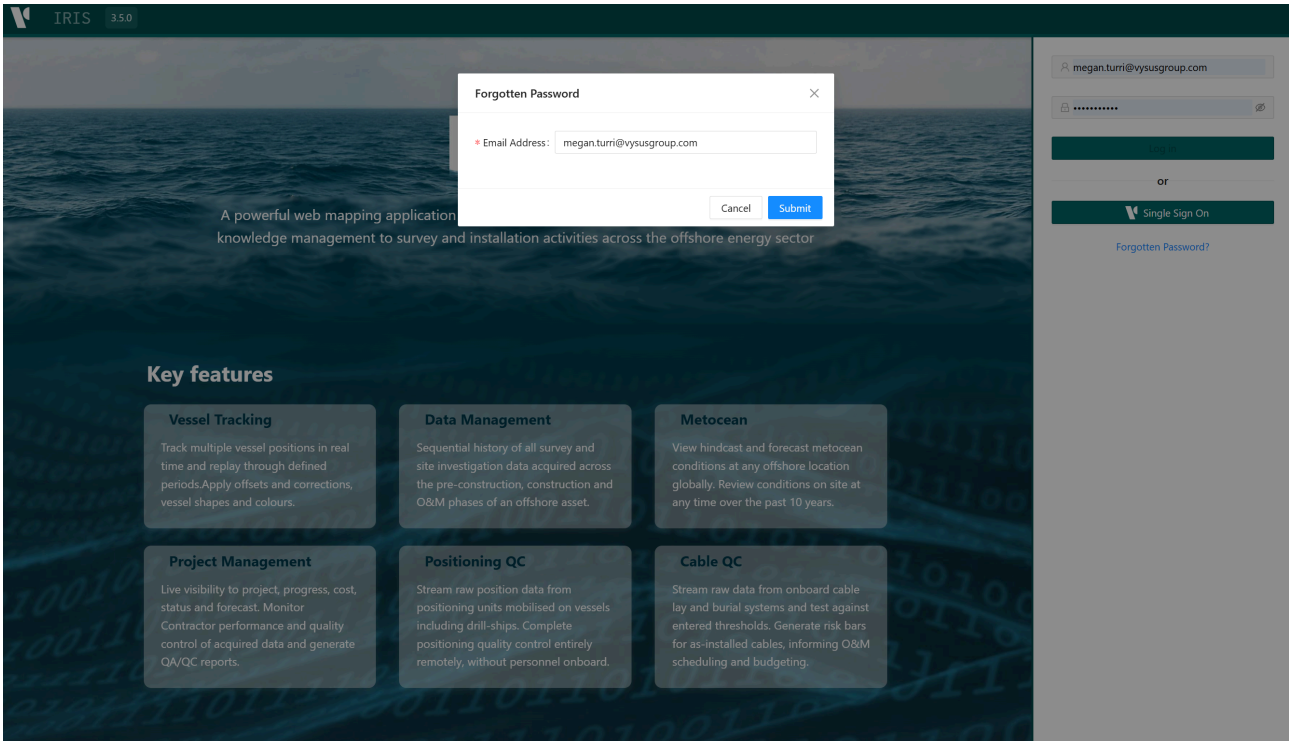
Clicking the notification icon will bring up a list of current notifications as well as a users communication preferences. Here you can update how you receive notifications for the selected project as well as applies those preferences to all project that you have access to.



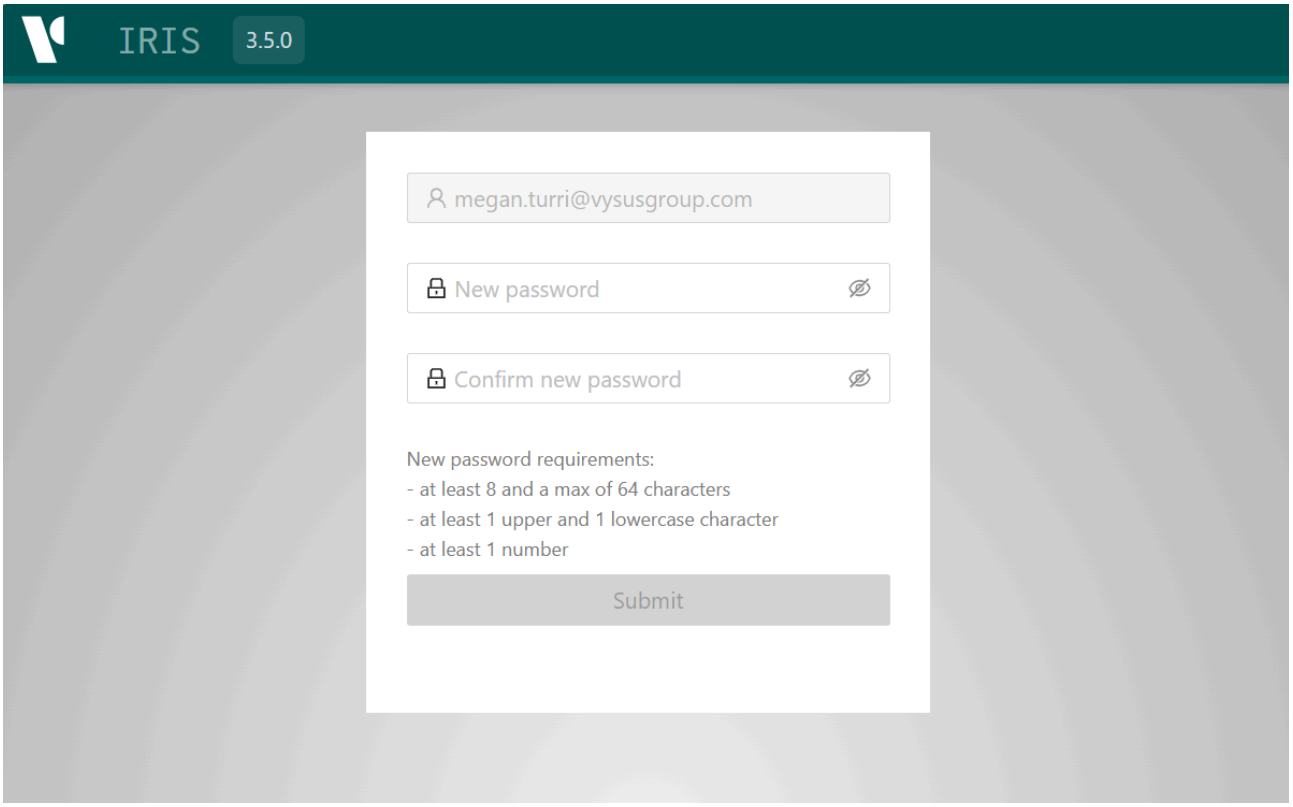
This feature is continuing to develop with the potential for more notification types as well as custom data alerts on live data in the future.

Forgotten / Lost Password

If you have forgotten or lost your password, you can select the 'Forgotten Password' link at the login page. This will create a popup to select an email address to send a rest link too.

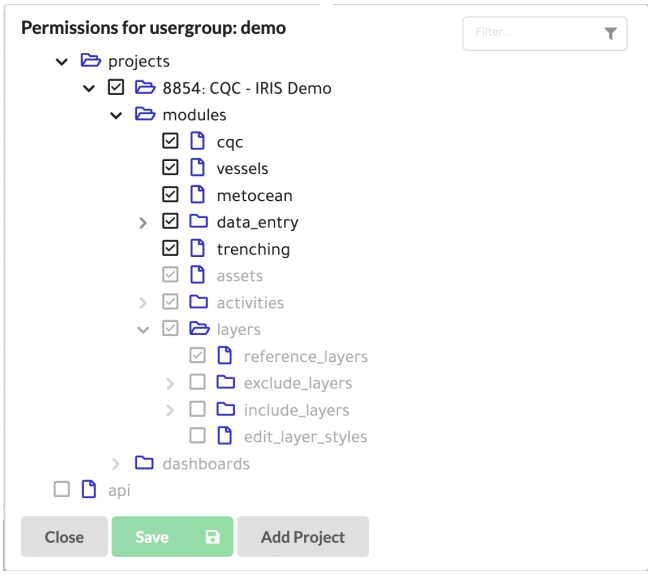


The link will direct the user to a secure page to set a new password, before directing back to the login page.



IRIS Permissions

IRIS incorporates a comprehensive permissions structure that allows or restricts access to various project sites, functionality, features and data. This capability restricts user access to unsubscribed modules and dashboards and is also used to control access to specific or sensitive projects, data and information. The assigned permissions are tied to a user's login credentials. An IRIS Account Manager will be assigned within each CLIENT organisation who will confirm to the IRIS support team, the permissions profile to be applied to each user. Any request for such permission changes must be made to the Client's IRIS Account Manager who will review, approve and request that the permissions profile is amended. A schematic of how the permissions are applied is shown below:



Vysus Group Single Sign-On

Employees of Vysus Group can click the `Single Sign On` button which uses issued Vysus Group credentials, instead of requiring the entry of a second set. All other account, password and permissions requirements are the same as for CLIENT users. Access to IRIS sites can only be approved by the relevant Survey & GeoEngineering Project Manager with, where applicable, further approval from the Client's IRIS Account Manager.

Logging Out

Once completed with IRIS, please click the `Log Out` button on the top right hand side of the IRIS work space window. Regularly logging out is good practice and ensures that newly released updates are loaded at the next login. The majority of IRIS user configurations are cached and maintained within memory on the local machine or device. However please note that currently configurations from default may not survive a full device power cycle.

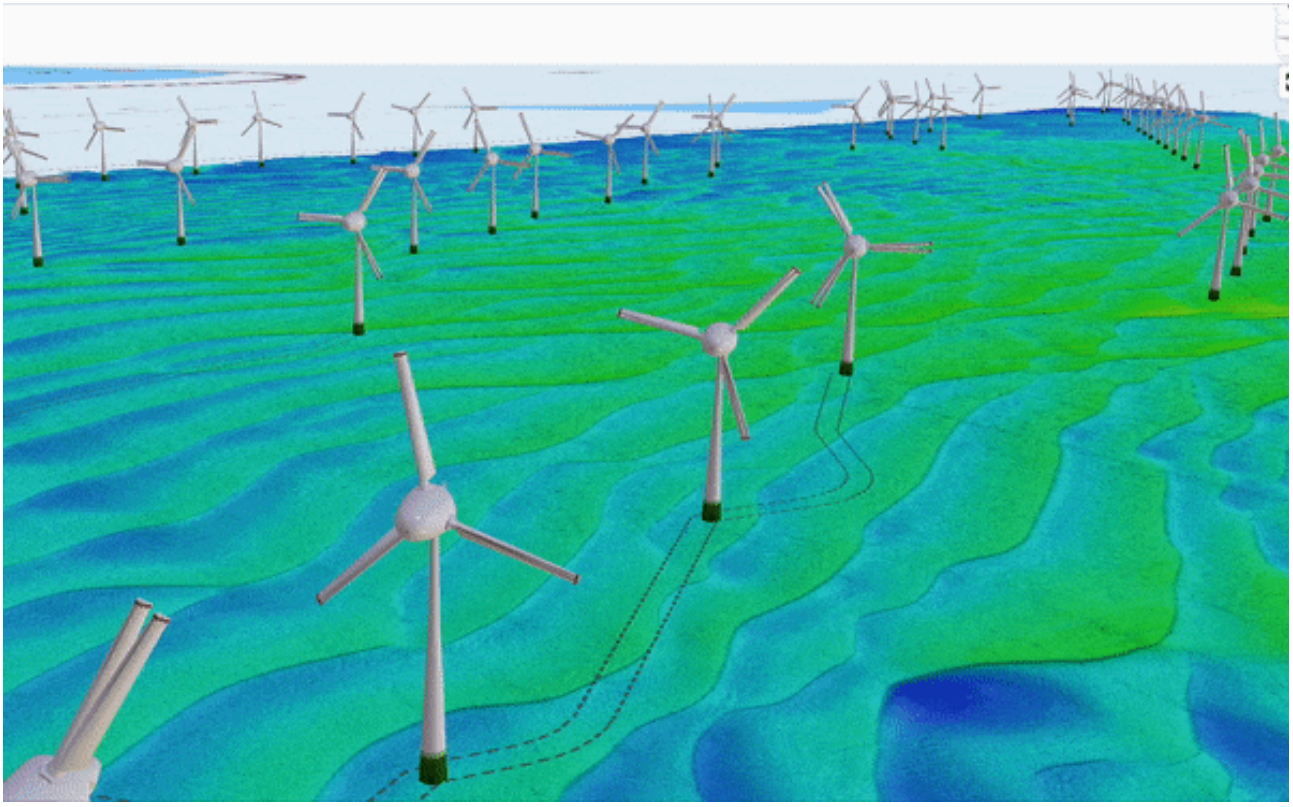
IRIS Overview

Built upon a visually rich platform of intuitive web mapping, IRIS is a web application designed to simultaneously support project management and data management as applied to offshore development projects within the energy and submarine cable sector sectors.

Fully developed and maintained by Vysus Group's Survey & Engineering Division, IRIS is typically used where offshore surveys, site investigations, installations operations and subsea inspections are undertaken throughout the life of an offshore development or asset.

The following project types are supported by IRIS:

- Offshore wind farms and export cable developments
- Submarine interconnector and fibreoptic cable installations
- Oil and gas field developments
- Subsea inspection, operations & maintenance
- Offshore construction actvities
- Drillship, semi submersible and jack up positioning QC



The overriding objective of IRIS is to ensure that the value of expensively acquired information, survey and inspection data and operational lessons learnt is fully maximized and never lost.

IRIS allows a Project Manager to achieve the closest visibility to the progress and status of an offshore operation or activity, to assess performance and to inform future projects or similar activities.

Through the life of an asset, from the initial seabed survey through subsequent installation, commissioning, operations and final decommissioning, a wealth of data and information is acquired by survey or is otherwise available. IRIS provides automated pathways to efficiently store this valuable data and information at source, directly to a secure cloud, ensuring it is forever readily accessible to intuitively support future assessment, interpretation and analysis, either within IRIS itself or third-party applications.

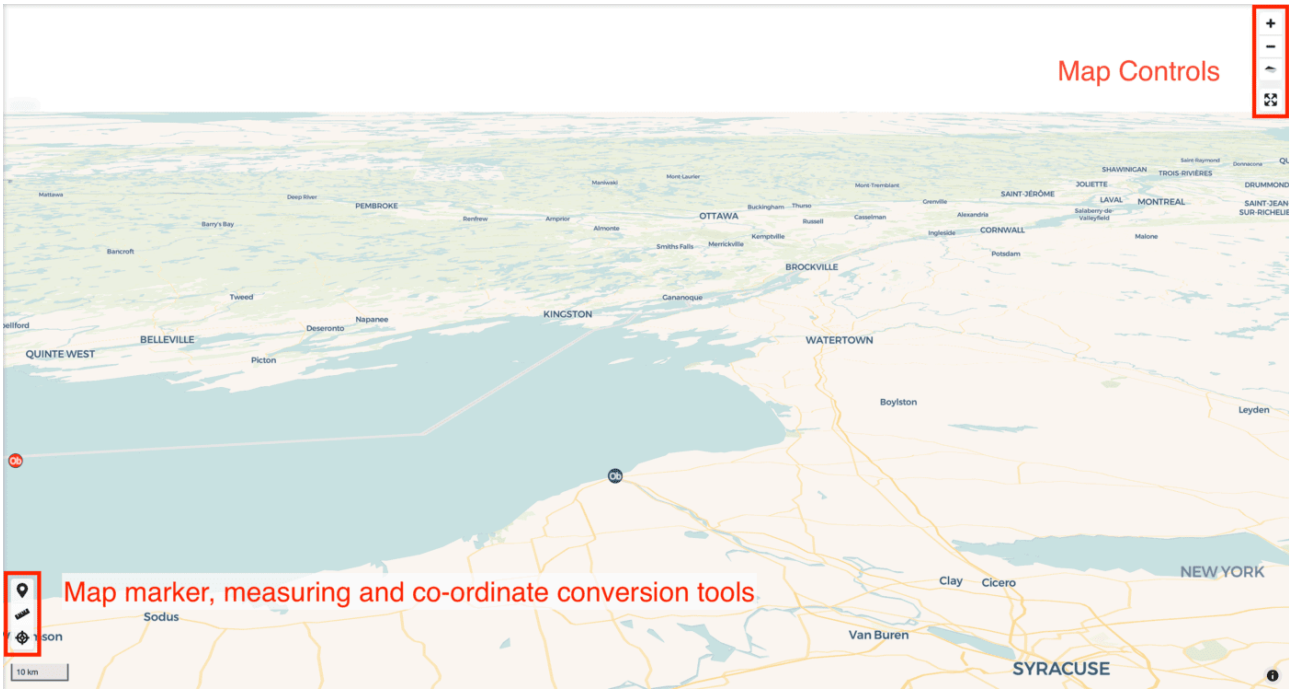
With this information users can assess the performance of deployed vessels, vehicles and survey equipment, assess the conditions of the seabed and determine and visualise risk as applied to as-installed cables or pipelines. In the event of arising faults or reported exposure or damage to the asset, all available data accumulated over time is immediately available to support the assessment of the issue and any related intervention.

The IRIS website consists of a number of `Modules` and `Dashboards` that allow users to navigate through various web maps, data and project information and to access the features and functionality linked to their user credentials.

Using the map window

Overview

The map window can be navigated with `left click + drag` or using `keyboard arrows`. To zoom in or out use the `scroll wheel`, the `+` and `-` map controls or `shift + click and drag` to zoom to a certain area. Map orientation can be adjusted using `right click + drag` and reset using the `north arrow` map control button. The map can also be made full screen using the `full screen` map control button.

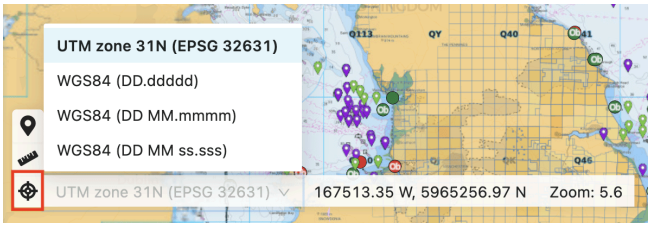


Clicking on project and some reference map features brings up a popup with feature attribute information. From here you can also `switch off` the layer using the toggle.

Show Coordinates Tool

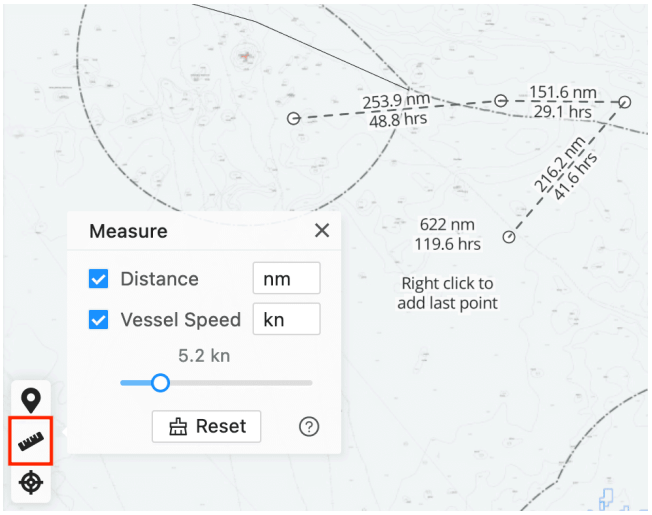
Click to expand this tool and show the coordinates of the mouse pointer position. This will have options to switch between assigned project coordinate reference systems and the `World Geodetic System 1984 (WGS84)` in various formats e.g. `Decimal degrees` or `degrees,minutes & seconds`. This may be useful for translating individual coordinates.

You can also right click on the map to show co-ordinates of the current location.



Measure Tool

Click the `ruler` icon to expand the `Measure` tool. This allows to measure distance and time based between points. First tick the options, then select the `units` and if measuring time enter a `vessel speed` value. Once configured click points on the map and use `right click` to finish or minimize the `Measure` tool. Use the `Reset` button to start a new route.



Drawing Tools

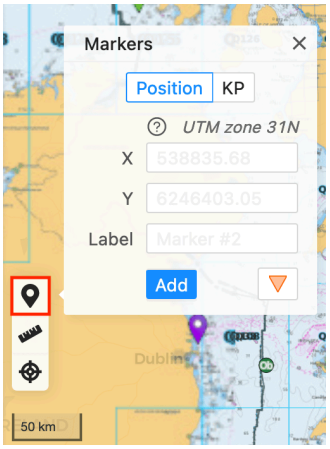
In the bottom left of the map, `drawing tools` can be opened and closed by clicking the `pencil` icon. Hover over each icon to see what shape they create. You can add a lebel before drawing by typing in the box. You can view the data in a table by clicking the `table` icon and download it by clicking `download` to get a geojson which can be used in GIS software.

To edit shapes e.g. adjusting nodes or moving objects, click the `mouse pointer` icon.

Adding Map Markers

Temporary map markers can be created using `map pin` icon. These could be placed manually on the map, specified by `Kilometer Point (KP)` along the current selected cable or pipeline `Asset` or by typing the coordinate values. You can switch between coordinate systems at any point by using the `Show Coordinates` tool. This may be useful for translating individual coordinates.

Please note that these only persist in a single `IRIS` session and will not be viewable by other users. To add a permanent layer contact the IRIS team.



Project Activities Module

Any offshore energy `Project` consists of many data-harvesting `Activities` through its life cycle from design and development, through construction, operation and finally into decommissioning.

The IRIS `Activities` module is designed to be a sequential record of all of these individual `activities`, providing efficient access to project information, data and performance and quality information. In this way, data will never be 'lost' and future planned surveys can be checked and optimised against existing data. In the event of future offshore interventions, for example a submarine cable repair, the sequencing and performance of related installation activities is quickly established. Similarly `Lessons Learnt` and recommendations are forever available for subsequent assessment.

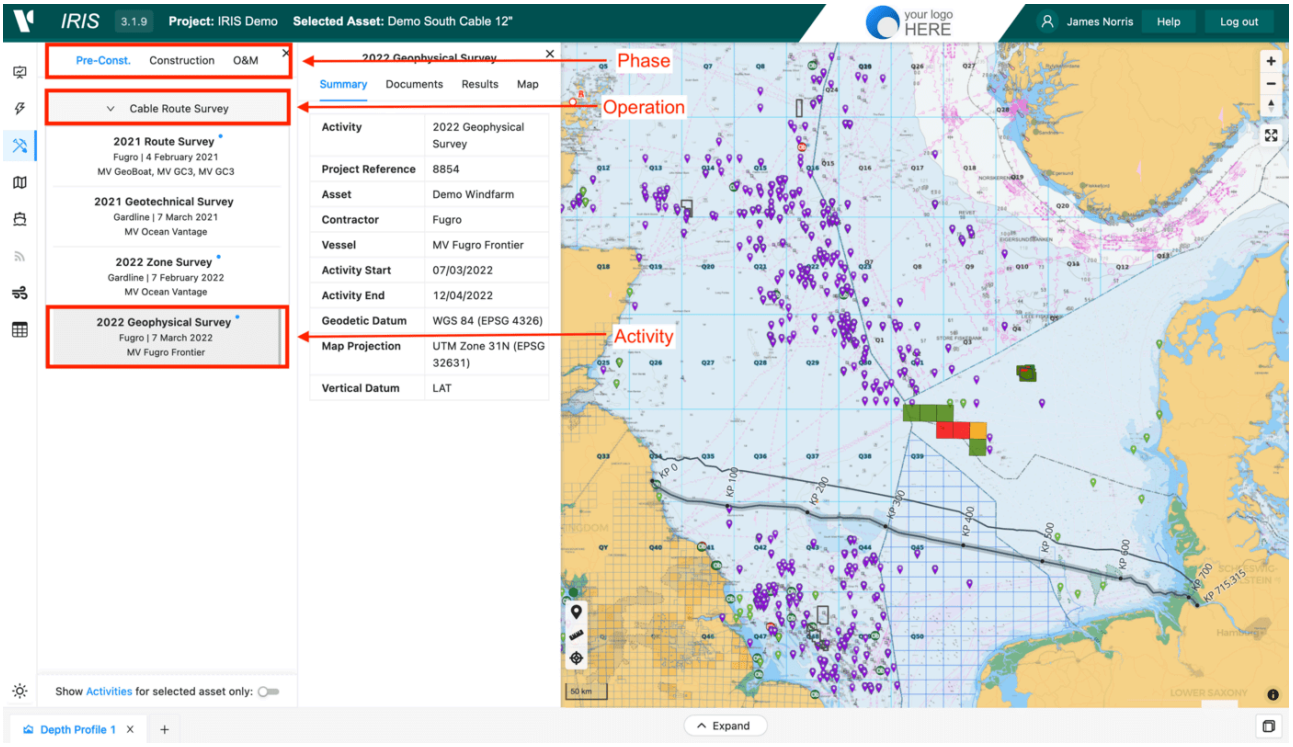
For a single `Project`, such as an OWF development, interconnector cable installation or oil and gas field development, the `Activities` module holds data and information from multiple `Activities` representing geophysical surveys, geotechnical site investigations, offshore construction, subsea rock installations and subsea inspection.

IRIS is structured such that all `Activities` are captured in a time sequential manner, making all project information and data efficient to find and access.

At the highest level, `Activities` are categorised by the `Project Phase` in which they fall, of which there are 3 defined:

- Pre-Construction (includes rig moves)
- Construction
- Operations & Maintenance (IRM)

Within each `Phase`, a number of operational groups `(Operations)` are defined and within each `Operation`, various `Activities` are undertaken.

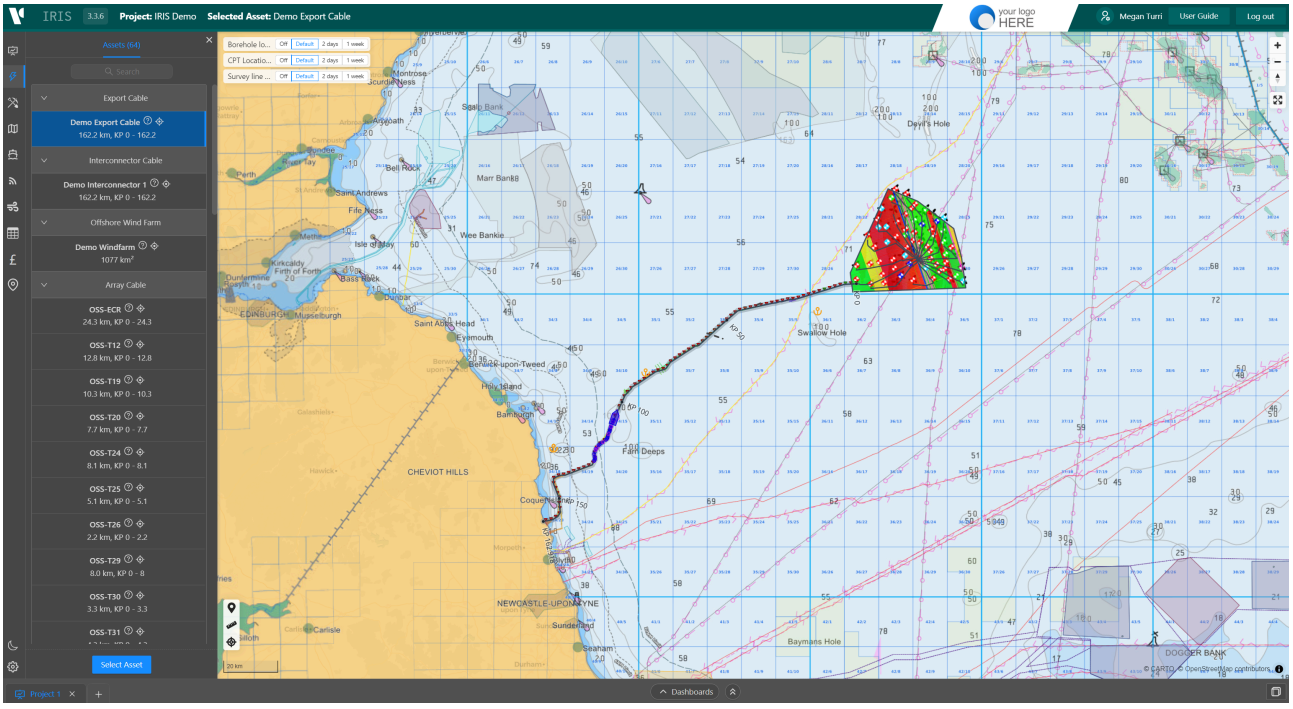


When an `Activity` is first selected, a `Details` pane is presented providing access to 4 panels:

- `Summary` panel - details high level information about the `Activity` including Type, Name, Geodesy, Contractor, Vessels and key dates
- `Documents` panel - contains `Activity` operational documentation including Daily Progress Reports (DPRs), mobilization, HSE and OCR reports
- `Results` panel - provides access to survey reports, charts, core logs, photos, vide, listings etc.
- `Map` panel - provides access to mapping data layers e.g. workscope elements, bathymetry, seabed features etc.

Project assets module

Everything in IRIS is linked to an `Asset`. This could be any combination of cables, pipelines or sites whether planned or installed. This module allows you to explore the asset details, zoom to or select an `Asset`.

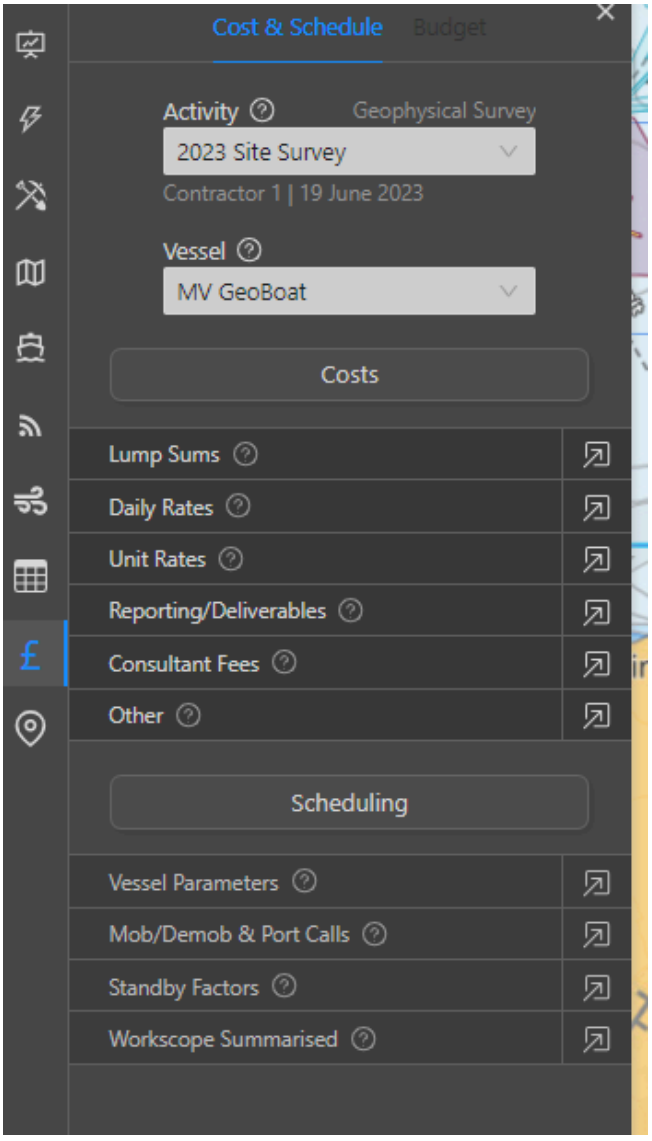


With an `Asset` selected you can go to the `Activities Module` to filter only related `Activities`, view related raw data and results in the `Asset Data Dashboard` or generate risk profiles in the `Risk Manager`.

Activity cost tracking module

The IRIS `Cost` module is used by Project Managers and is design to help when calculating and visualizing the daily cost or cost to date associated with an `Activity`, as well as estimating the remaining costs of the `Activity` to completion.

The 'Cost and Scheduling' module is accessed using the Currency tab and the portal will appear in the left hand section of the screen.



Within the module an `Activity` and a `Vessel` are selected before values can be added. This allows for cost tracking across an multiple activities and vessels at any one time.

The costs associated with the activity are separated in to Cost Categories: *Lump Sum, Daily Rates, Unit Rates, Reporting and Deliverables, Consultant Fees, Other* and *Summary*. These allow for all costs associated with an activity to be accounted for and allows for better tracking of running costs.

To access the tables associated with the Cost Categories, press the box arrow symbol next to the category necessary. Once expanded you can move through the categories using the tabs along the top of the table.

Each table is separated into 4 sections: Client information, Planned, Actual (to date) and Forecast (Remaining). `Planned` section is the proposed budget that has been allocated prior to the jobs start date and will be filled in by the Project Manager. `Actual (to Date)` is the 'running costs' reported throughout the project. These can be input manually or can be automated (orange tick box) in which the data will be extracted from the `Data Entry` section completed by the client reps using the DPR codes provided. The `Forecast (Remaining)` is then calculated as the `Planned` budget minus the `Actual`. These again can be automated using the orange tick boxes at the end of the Actual and Forecasted data and layers can be excluded from the totals if needed.

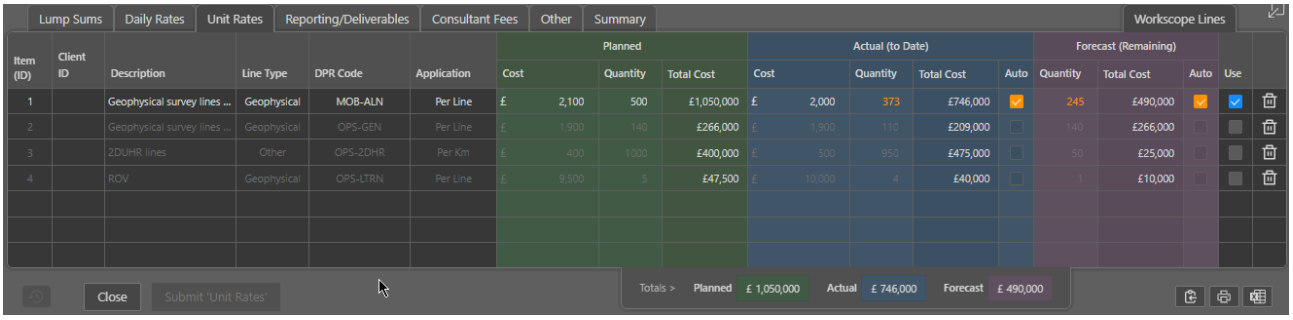
Lump Sum

This is where individual values of all applicable lump sums or singular payments can be added. They may refer to a specific phases of an activity such as Mobilization, Demobilization or Operations and can be allocated a Client ID, phase and DPR code. Within the `Planned` data section, the Cost and Quantity values need to be imputed for each row to allow for a total cost to be calculated. This section also allows for the proposed duration and completion date to be added. The `Actual` data section allows for the changes in proposed Costs and Quantity to be added and a Actual Total cost to be calculated. The Duration and Completion Date can be added manually or can be Automated, and collected from the `Data Entry` module. The `Forecast` section included the remaining Quantity to be entered and a Total Remaining Cost to be calculated. This again can be automated to use the data from the `Data Entry` module and the table.

Daily Rates

In this table any continued rates associated with operational activities typical for data acquisition and are often linked to DPR codes, Vessel mode and a Client ID. Within the `Planned` data section, the Cost and Quantity values need to be imputed for each row to allow for a total cost to be calculated. The proposed duration and completion date are also needed in order to compare to the `Actual` data. The `Actual` and `Forecasted` follow the same layout as the Lump Sum table and can be partially automated using the data provided within the Data Entry module.

Unit Rates



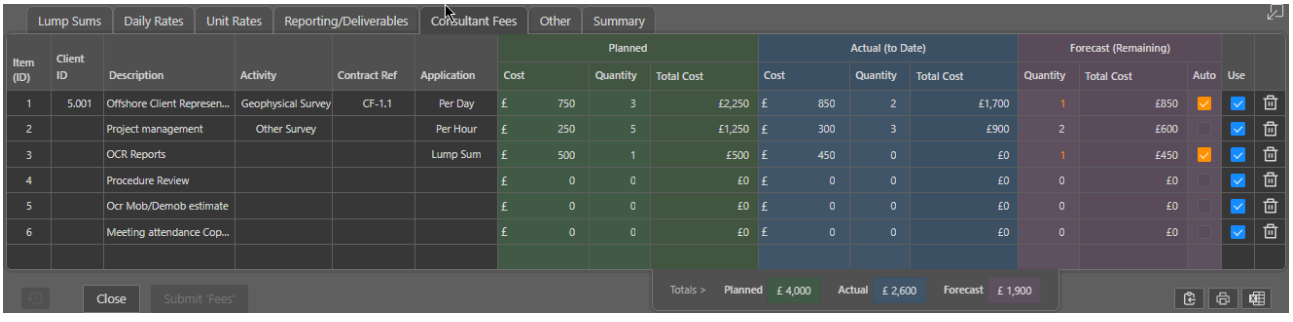
This refers to specified rates associated with individual items of the workscope for data acquisition such as lines, locations, zones or routes. The table is dependent on the workscope type of the `Activity` selected and will be shown through the tabs on the upper right of the table. If an activity includes multiple workscope, then multiple tables are created and can be tabbed through using the tabs in the right-hand corner of the table. Each row can be allocated a Client ID, Description, the Type and a DPR code as well as an Application such as Per Hour or Per Day. Within the `Planned` section, the Cost and

Quantity is added to calculate the Proposed Total Cost. This is then replicated across the `Actual` and `Forecasted` data in a similar way to previous categories. This section doesn't require any dates to be allocated.

Reporting/Documenting

This table allows for the inclusion of the costs associated with reporting, interpretation, processing and deliverables. This section doesn't include DPR codes and instead can be allocated to an Activity with a Contract Reference, an Application and a Description. Within the `Planned` data, the Cost and Quantity is filled in to produce a Proposed Total Cost. An additional column is Completion, which tracks the number of days this need post demobilization. This layout is repeated within the `Actual` data and this cannot be automated, as this workscope is regularly completed post data collection an is not included in the Data Entry module. The `Forecasted` section can be Automated and will calculate the remaining quantity and Total cost from the data provided within the table.

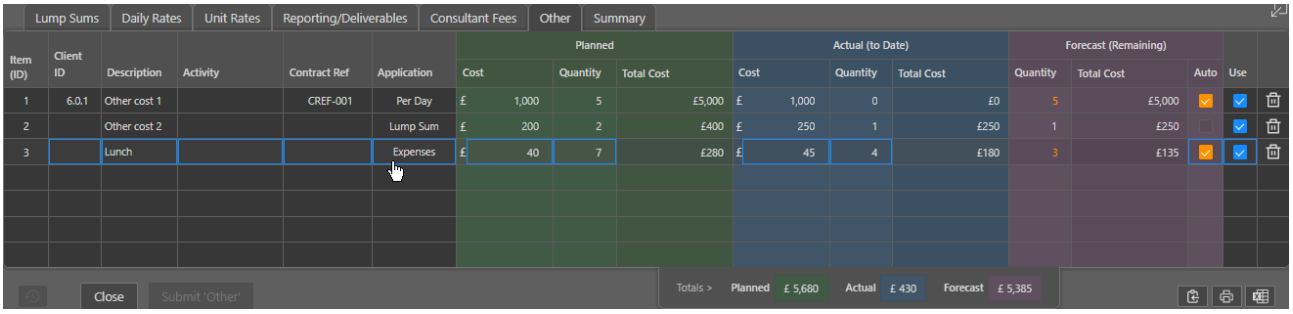
Consultant Fees



This allows for the inclusion of costs associated with the employment of OCRs and third-party project management. A row will contain a Description of the cost, the Client ID, the Activity and the Application (lump sum, per Day etc.). Across the `Planned`, `Actual` and

`Forecasted` sections, only the Cost and the Quantity is needed and Cannot be Automated apart from the `Forecasted` data. This will calculated the remaining difference between the provided `Planned` and `Actual` data.

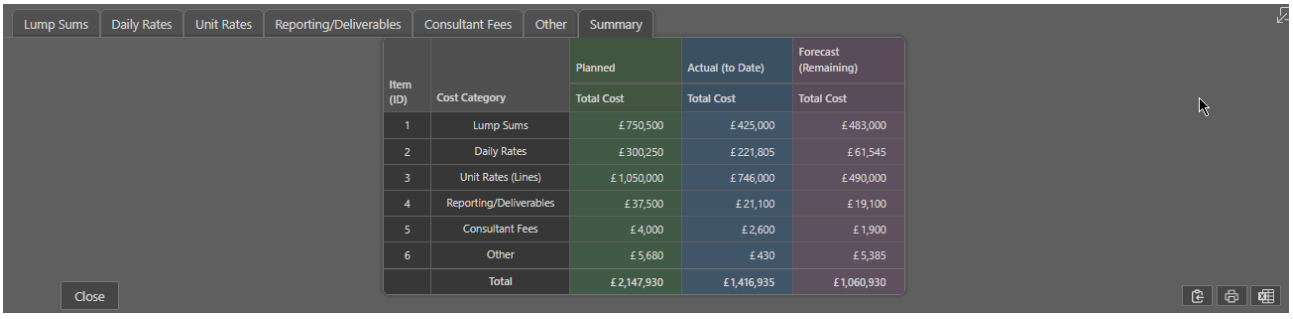
Other



Here any additional costs for items mot previously described can be added and will follow the layout for Consultation fees as described above.

Once a section has been filled in, it needs to be submitted using the blue button at the bottom of the table.

Summary



The final Summary tab of the Costs table shows the inputted planned budget, the Actual running costs and the estimated remaining forecast for each Cost Category as well as in total.

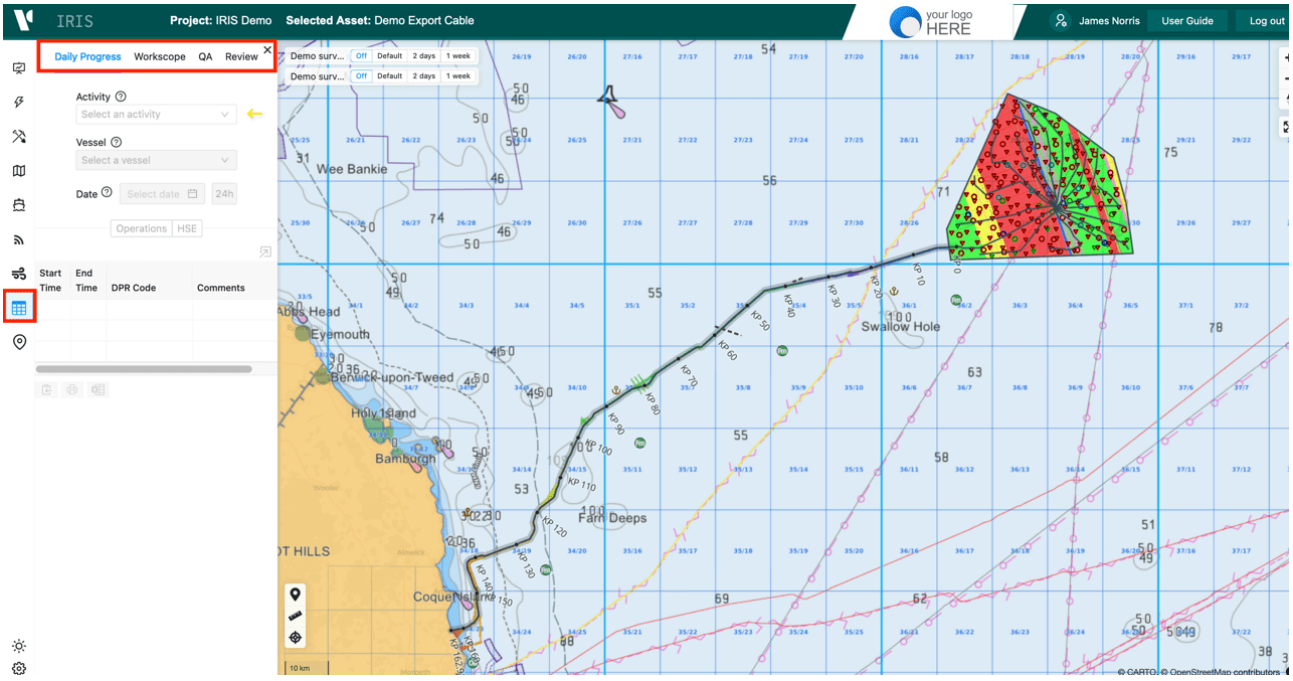
All of the tables can be copied or exported in an excel format for further analysis.

Client representative data entry

The `Data Entry` module is used by Project Managers and Offshore Client Representatives to regularly input relevant data and information, allowing IRIS to provide optimal visibility to project progress, status and forecast. The input data may also be subsequently used to analyse the performance of the contractor's vessels, vehicles and equipment within the `Project Management Dashboard`, and to ensure that entered lessons learnt are truly learnt and readily available during future procurement and evaluation exercises.

Whilst there may be a small element of replication with other other onboard reporting processes, this approach allows valuable data to be immediately and permanently stored in a structured database allowing for efficient visualisation, assessment and analysis both during the live operation and subsequently. By collating similar data across multiple projects, trends, recurring issues and lessons learnt can be identified, constructively informing subsequent operations and future projects.

The Data Entry module is accessed using the `Table` Icon. Data can be entered as often as desired necessary or as requested by the project manager. Whilst the DPR data is typically entered once per day, after the formal issue of the vessel `Daily Progress Report (DPR)`, the `Work Scope` status data can be updated multiple times during the day or night. The overhead of such data entry update is relatively light and IRIS can be updated very quickly.



The initial Data Entry portal appears in the left hand section of the screen. The primary Data Entry areas are as follows:

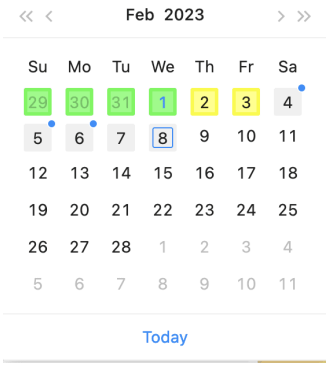
- Daily Progress
- Work Scope
- Quality Assurance
- Review

Daily Progress

This section is for the loading of `Operations` and `HSE` data. The data is essentially copied from the agreed DPR. Note that where the data is already in CSV or TSV form it can be imported (See below). Data within PDF or Excel DPR formats will require to be manually entered. The DPR data should be entered as soon as possible after the release of the DPR onboard.

To enter DPR data:

- Select the correct `Activity` from the drop down list for the project
- Select the Vessel from the drop down list of vessel assigned to the `Activity`
- Select the required date for DPR data entry

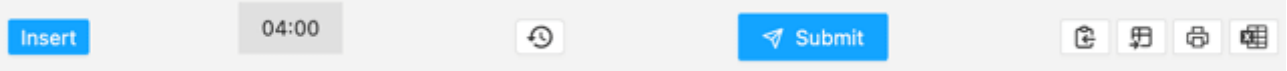


The colours on the date picker reflect the status of the DPR data entry for each day:

- Dates in `green` have the full 24 hours of DPR data entry submitted and have been 'confirmed' as complete. However note they can still be edited if errors require correcting, and will then need re-confirming.
- Dates in `yellow` are either partially or fully completed, but in the latter case have not been `confirmed` yet.
- Dates in `grey with a blue dot` highlight that there is a DPR PDF available, received within IRIS, but no data entry has been submitted as yet.

A summary of the DPR data entry status for the selected day is now displayed. Note that there is a toggle between `Operations` and `HSE` data.

For both `Operations` and `HSE` tabs, the summary form can now be expanded to allow for DPR data entry, review and editing, using the `Expand` icon. Data entries made will initially only be cached within the user's web browser, and are only submitted to the IRIS database when the user clicks the `submit` button. For all data entry forms, a number of tools may be utilised from the bottom of each window as follows:

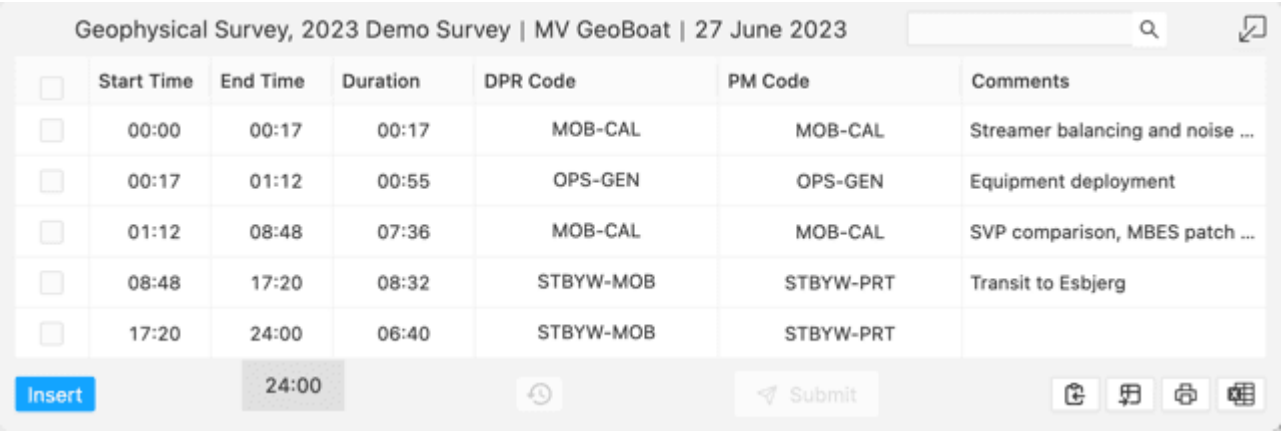


- Insert or delete a row of data
- Reset any changes made
- Copy the table to the clipboard
- Import an existing table - CSV (comma separated values) or TSV (tabbed separated values)
- Send the form to the printer or PDF
- Export the form to Excel

Operations

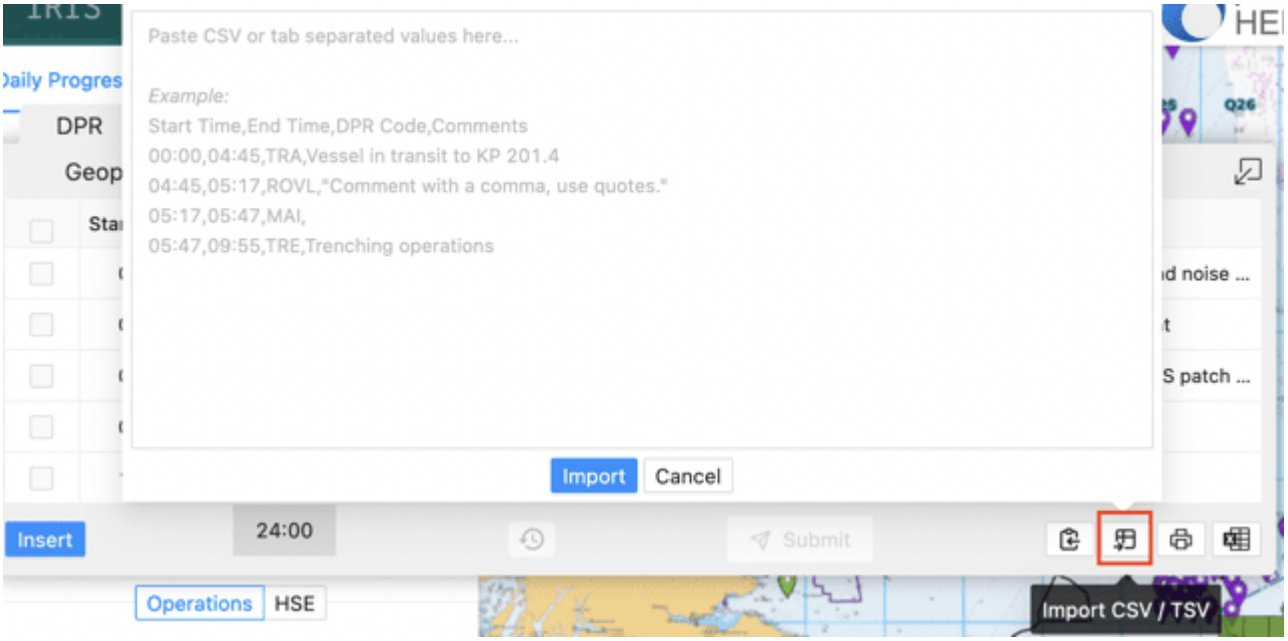
Using the formal DPR issued by the vessel, sequentially enter the DPR operational codes and time limits that apply throughout the day. The agreed DPR codes for the project vessel will be pre-configured by the IRIS team and are selected from a drop down list in the form. If there are any discrepancies identified, please notify the IRIS team as soon as possible. For each row of data the duration between stop and start time is calculated automatically. Please also add any brief and relevant comments associated with each identified time period. A number of automated checks will be applied to ensure that the time sequencing and totals are correct.

In some instances, the data will be pre-populated by our IRIS PDF scraper tools once the PDF has been inserted. In this case, please thoroughly check the information entered is correct before submitting and confirming the report.



You will also notice a `PM Code` column in the form. The PM (`Project Management`) code represents a mapping of the project-specific codes onto a standard set of DPR codes, allowing comparison and analysis across different projects and vessels. The PM Code mapping is pre-configured by the IRIS team or the Vysus Project Manager, and generally should not be editable offshore.

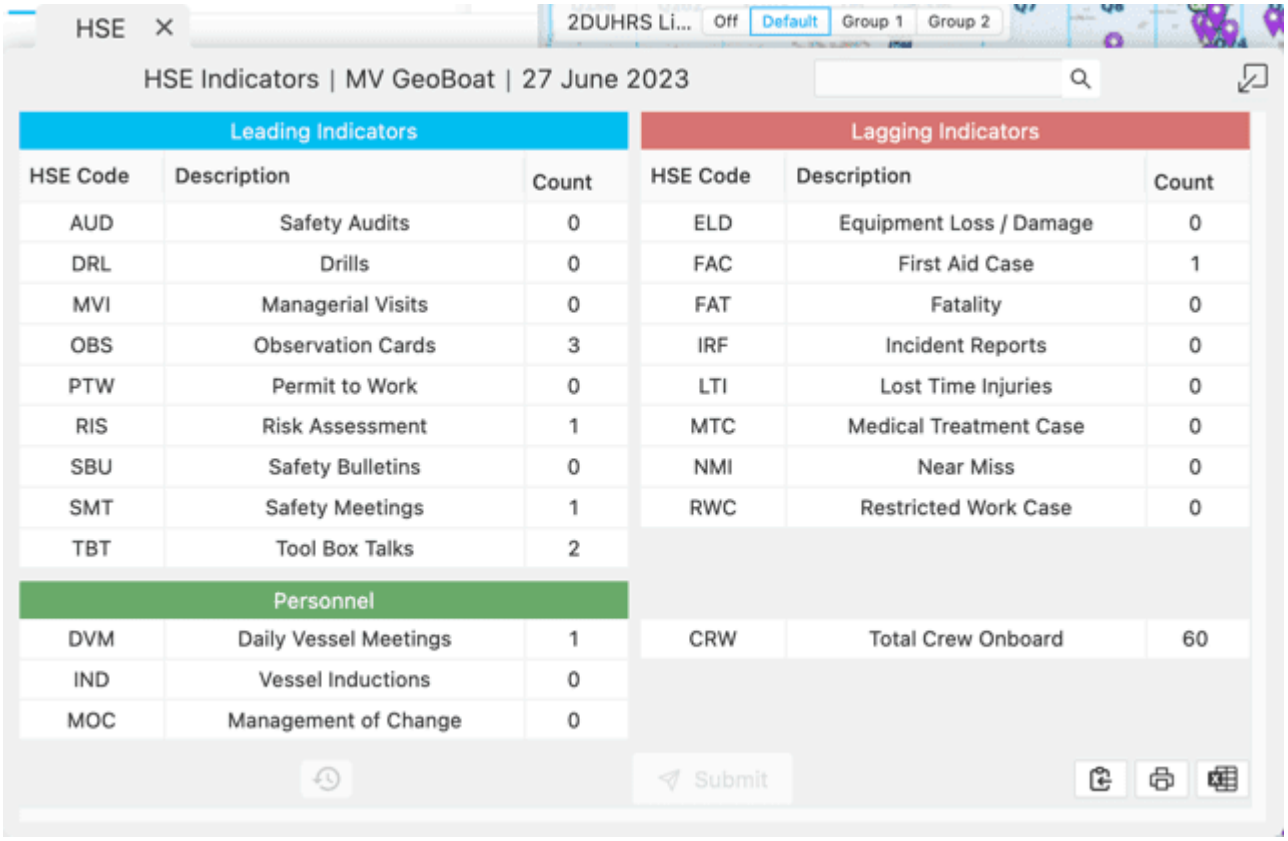
You can also import the data from excel using the `Import` button. Just make sure the headers and data format are pasted matching the data example provided:



On completion of the necessary data entries, press `Submit` to update the IRIS database.

HSE

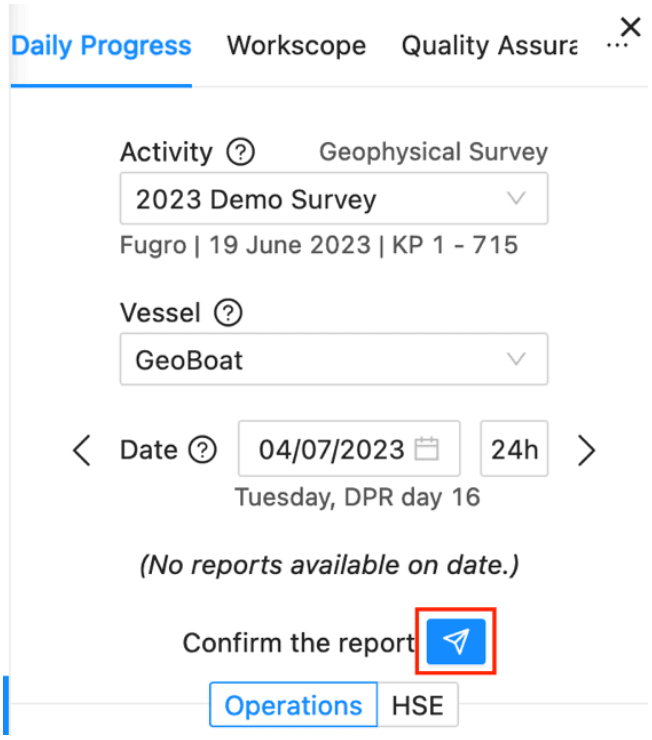
Please add the HSE performance indicators for each DPR day. The 'leading' and 'lagging' indicators presented are a standard set as defined by IMCA. Please use your judgement to interpret and map any project-specific HSE indicators, that the Contractor is using, onto this standard set of categories. Again, this might be pre-populated by our scraper so please check thoroughly.



On completion of the necessary data entries, press `Submit` to update the IRIS database.

Confirming the DPR Report

Once both `Operations` and `HSE` data for the required DPR day are fully entered, you may 'Confirm' the report by clicking `confirm`. This will be greyed out if any conditions haven't been met such as there not being 24 hours of time or any data entered into HSE. Once clicked, this will turn the date in the date selector `green`.



Work Scope

This section is for updating the status of the various pre-defined `Work Scope` elements. The `Work Scope` status is not specifically linked to the DPR and should be quickly updated throughout the day so that an accurate snapshot of work scope status is at all times available to the project manager, client and other approved shoreside IRIS users.

The `Work Scope` quantities and types are pre-configured by the IRIS team. Any new `Work Scope` elements that arise offshore, for example a new survey line or CPT location, should be sent to the IRIS team who will quickly update the database for you.

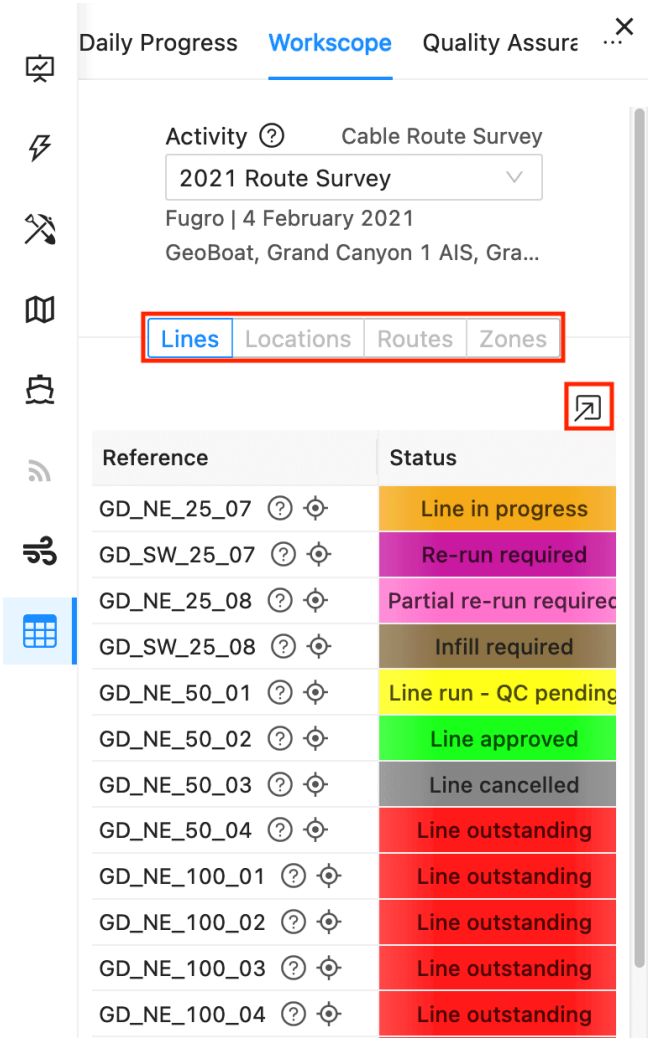
`Work Scope` elements are categorised within 4 defined types :

- `Lines` - e.g. survey lines, including those undertaken on route surveys
- `Locations` - e.g. boreholes, CPTs, environmental sample locations, drilling locations
- `Zones` - defined survey areas that are reported by overall status rather than individual lines, eg jack up clearance, boulder clearance
- `Routes` - generally used where KP is the primary status progress indicator e.g. cable lay, cable trenching, pipeline inspection

A project `Activity` may have `Work Scope` elements for 1 or more of the 4 defined types.

Click on the `Work Scope` tab and select the relevant `Activity` in the normal way. Note that there is no place to enter the vessel name . This is because an `Activity Work Scope` may be completed by more than one vessel, as defined within the `Activity` configuration. The assigned vessel for an individual `Work Scope` element is therefore captured within each `Work Scope` status form.

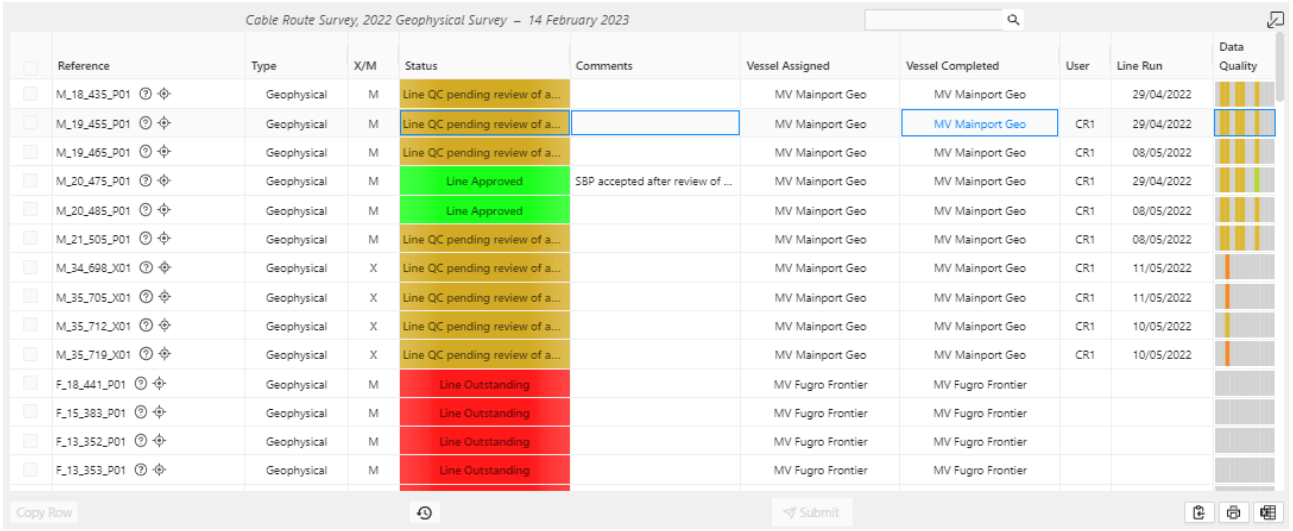
A summary of the `Work Scope` status is now displayed. In the following example the only `Work Scope` type available is `Lines` Expand the form for data entry by clicking the `Expand` icon.



The full work scope status is now displayed with full granularity down to the individual line, location or cable route.

Work Scope - Lines

Each pre-defined survey `line` is listed. Associated information shows the line name, type, coordinates and main line/cross line (M/X) classification. A bullseye icon allows the users to zoom to the line on the map.



For each `line`, the OCR should maintain a regular update of the following information:

- Status - Update the `status` of the line from the options within the drop down list
- Comments - Add appropriate comments with respect to the `line` or the survey of it
- Vessel Completed - Add the name of the vessel that completed the `line`, from the drop down list options
- Date - Enter the date that the `line` was first run, and then on any subsequent `status` change
- Data Quality:

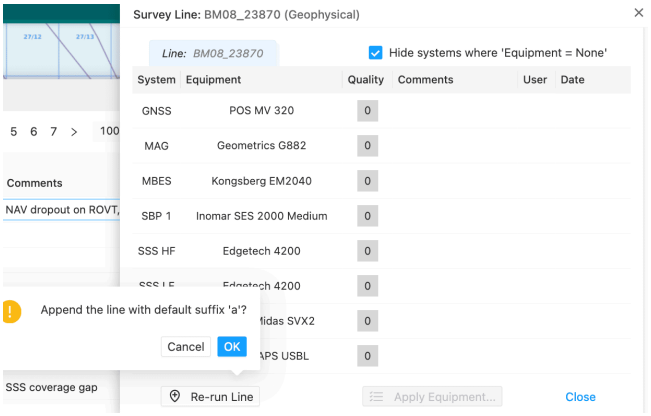
This section allows you to estimate and enter quality levels of the various `Equipment` and sensors used on the `line`. In this way issues and trends across multiple lines can be readily identified.

To do this, click within the column containing the graphic of vertical bars. Each bar represents one of the `Equipment` instruments and the colour of each bar represents the quality assigned.

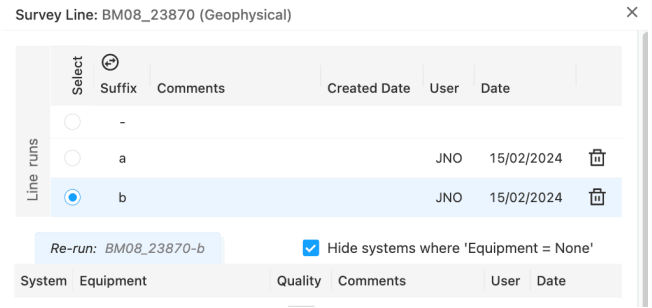
For each System listed, confirm the **`Equipment`** type being used, enter the quality of the data (0-5), and add any comments. The **`User`** and **`Date`** columns are auto populated.

Once the **`Equipment`** details have been entered for one line, they can be applied to ALL lines by clicking **`Apply Equipment`**

In this section you can also do re-runs by clicking the button on the bottom left:



This will create a new record with a new equipment quality tab. This means you can use the radio button to update the quality and date for each run.



To change the `Suffix` from the default `A, B, C...` select the button above the `Suffix` column.

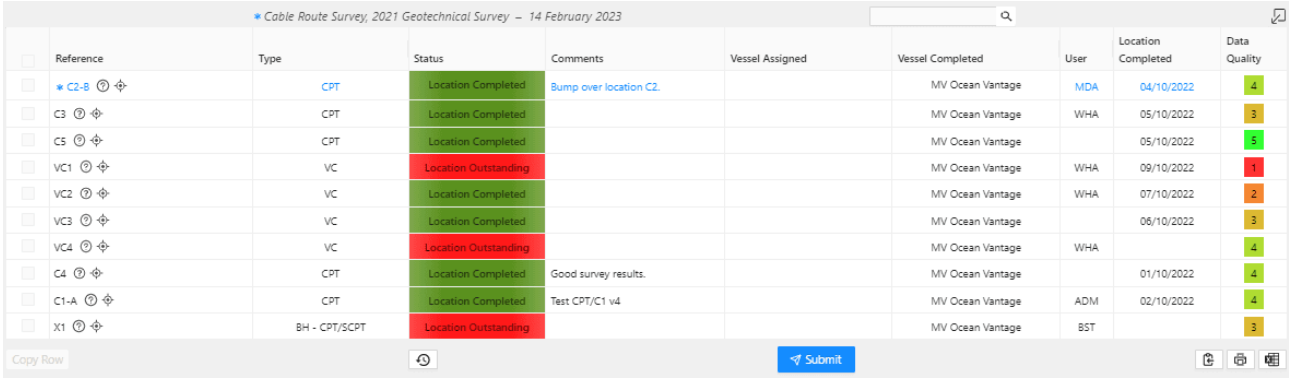
For `Infills` please agree with the IRIS team and the project manager how to record these. It might be preferable to add Re-run lines in once a week or at the end as a seperate layer.

Save Changes

Once you have completed your data entries, click the `Submit` button at the foot of the primary form. The data can be subsequently edited and updated in the same manner as described above.

Work Scope - Locations

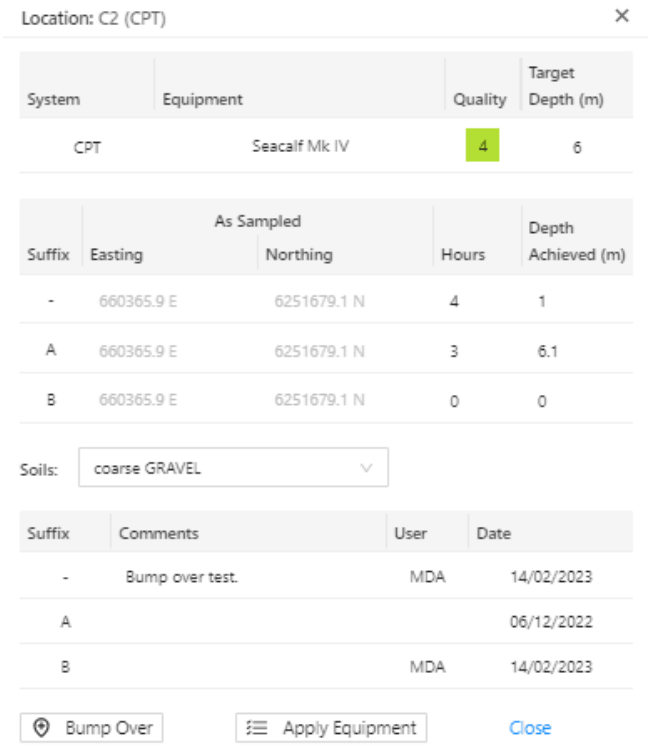
Each pre-defined `location` is listed. Associated information shows the location name, type, coordinates and, where applicable, target depth. A bullseye icon allows the user to zoom to the location on the map.



For each `location`, the OCR should maintain a regular update of the following information:

- Status - Update the `status` of the `location` from the options within the drop down list.
- Comments - Add appropriate comments with respect to the `location` or the operations associated with it.
- Vessel Completed - Add the name of the vessel that completed the `location`, from the drop down list options.
- Date - Enter the date that the `location` was first commenced, and then on any subequent `status` change
- Data Quality:

This section allows you to estimate and enter the quality level of the overall performance on the `location`. To do this, click within the column containing the quality number. This initiates a new pop up form that describes the operational performance on the location.



In the first section, enter the equipment type from the drop down list and the assessed data quality for the work completed on the location.

In the second section, enter the as-completed coordinates for the location, the number of hours of work undertaken on this location, and the penetration or depth achieved on the sample or operation. Also please enter your best assessment of soils type for the `location`.

Where a 'bump over' is required to re-position the location, click the **`Bump Over`** button. This creates a replication of some of the data entry fields that should be similarly completed as described above. Each new **`Bump Over`** location is suffixed A, B, C etc

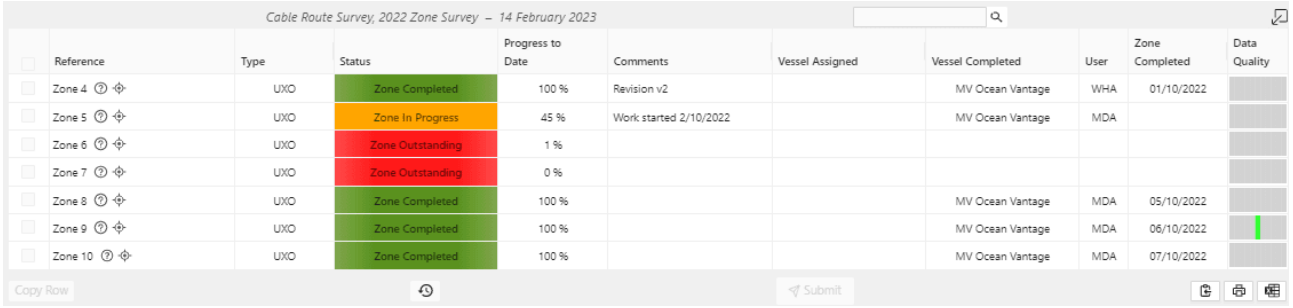
Once the **`Equipment`** details have been entered for one location, this can be applied to ALL locations by clicking **`Apply Equipment`**

Save Changes

Once you have completed your data entries, click the **`Submit`** button at the foot of the primary form. The data can be subsequently edited and updated in the same manner as described above.

Work Scope - Zones

Each pre-defined `zone` is listed. Associated information shows the zone name and type. A bullseye icon allows the users to zoom to the zone on the map.



For each `zone`, the OCR should maintain a regular update of the following information:

- Status - Update the `Status` of the `zone` from the options within the drop down list
- Progress - enter the progress to date of Work on the `zone`. `0% = zone uncommenced, 100% = zone completed`
- Comments - Add appropriate comments with respect to the `zone` or the survey of it
- Vessel Completed - Add the name of the vessel that completed the `zone`, from the drop down list options
- Date - Update the date each time the `Status` changes or the `Progress %` is updated.
- Data Quality:

This section allows you to estimate and enter quality levels of the various `Equipment` and sensors used on the `zone`. Note this is the same data entry mechanism as described for Work Scope type `Lines`. In this way issues and trends across multiple zones can be readily identified.

For each System listed, confirm the `Equipment` type being used, enter the quality of the data (0-5), and add any comments. The `User` and `Date` columns are auto populated. Once the `Equipment` details have been entered for one line, they can be applied to ALL lines by clicking `Apply Equipment`

Save Changes

Once you have completed your data entries, click the `Submit` button at the foot of the primary form. The data can be subsequently edited and updated in the same manner as described above

Work Scope - Routes

Each pre-defined `route` is listed. A `route` may be associated with a single cable or pipeline or multiple array cables. Select the required `route` and click the Expand button to load the data entry form.

As you will see, Work Scope performance data entry for routes is a little different from the other Work Scope types. Fundamentally it is related to the different Tasks performed on the route within user defined KP ranges.

The Work Scope on each route will typically comprise of a number of `Tasks`. e.g.

- PLGR
- Pre-lay survey
- Cable lay
- Cable burial
- Cable protection
- As-built survey

For the selected `route`, the OCR should maintain a regular update of the following information:

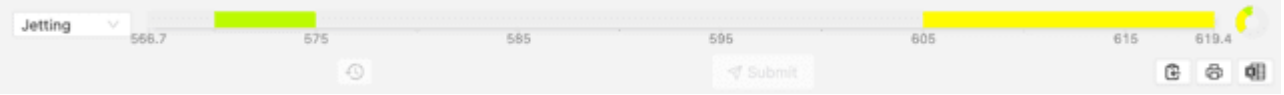
- Task - select from the pre-populated list of `Tasks`
- Vessel - select the vessel that undertook the `Task` from within the drop down list
- Vehicle - select the vehicle deployed from the vessel that undertook the `Task`, e.g. trencher, jetter, ROV,NONE
- KP range - enter the applicable KP range that was undertaken
- Pass - enter the `Pass` number, if two or more passes were undertaken. E.g. to get the cable down to depth
- Status - update the `Status` of the `Task` from the options within the drop down list
- Comments - Add appropriate comments with respect to the `Task`

- Date - Update the date each time the `Status` changes

> Please note:
>
> 1. Existing rows may be edited when there is a change of status
> 2. Do not change the Task on an existing row, add a new row
> 3. A new row should be added when a new KP range is introduced, or a different Vessel or vehicle is introduced to an existing Task/KP Range
> 4. The rows should be entered time sequentially as the Work is done

Progress Display

As a visual check on the data entries, a horizontal bar representing the entire route RPL is shown at the bottom of the form. Select the `Task` from the drop-down list and the graphic will present the `Task Status` of each 1m of the entire route.



Save Changes

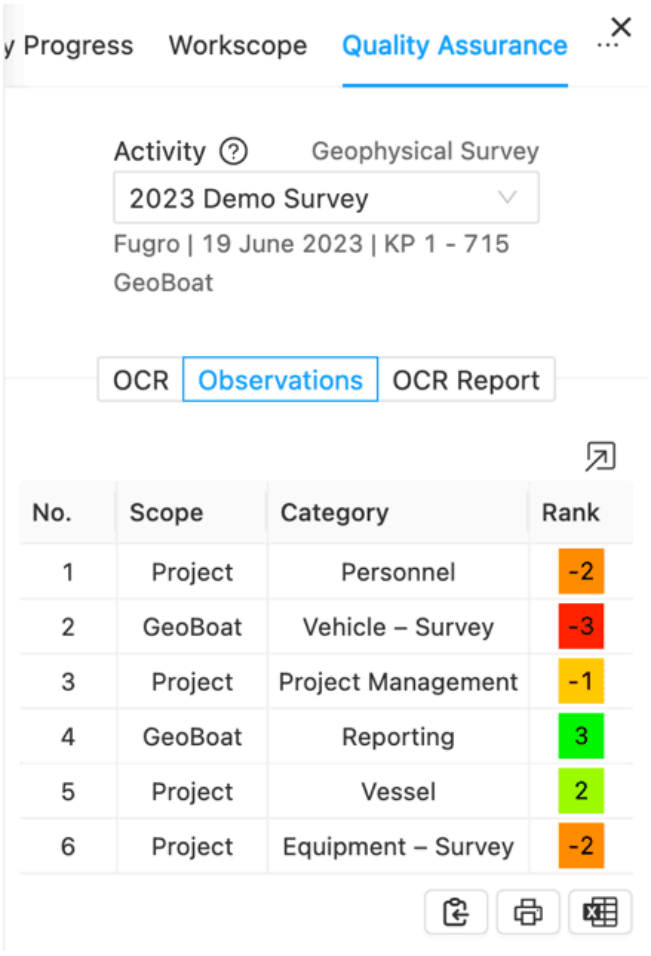
Once you have completed your data entries, click the `Submit` button at the foot of the primary form. The data can be subsequently edited and updated in the same manner as described above.

Quality Assurance

The final Data Entry point is `Quality Assurance'. This section covers three areas:

- Incidents - Health and safety incident logging tool.
- Observations - General observations about different aspects of the job by the client representative.
- OCR Report - a portal for entering performance and quality commentary that will form part of the auto-generated OCR Report

When clicked, and the `Activity` is selected, the following summary appears.



Toggle between `Incidents`, `Observations` and `OCR Report` as required.

Quality Assurance - Incidents

When a health and safety `Incident` is logged offshore, a record of this can be stored in IRIS. Like other tools the default co-ordinates can be changed from project easting and northing to latitude and longitude by first changing the `Co-ordinate system` in the bottom left of the map window. When the correct co-ordinates are entered the incident log will appear as triangle locations in a map layer (With a page refresh).

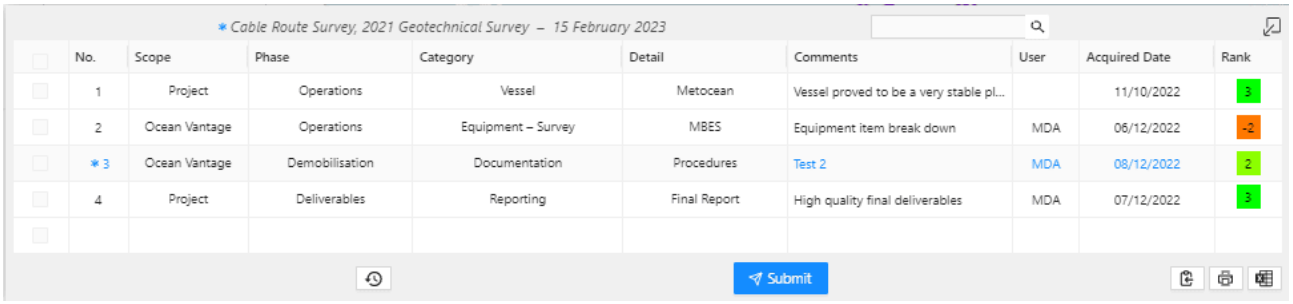
Please fill out all fields but please don't use full names in `Person Involved` or `Responsible Person` column. Either refer to initials, positions or teams. Attach relevant images and throughout the job please update the status e.g. `Open, In Progress, Closed`

Like other inputs you can import most of the data via excel. Please first use the `Export to Excel` button (bottom right) to get the right format out, then use that format to fill out the spreadsheet and paste in cleanly using the `Import from CSV` button (bottom right). Images will need to be attached manually.

This table will automatically show in the client rep end of job `OCR Report`.

Quality Assurance - Observations

`Observations` are entered for an `Activity` and may be associated with any assigned vessel to that `Activity`, or where applicable more widely, at the project level. The following graphic shows an example of a `Observations` form.



`Observations` are both positive and negative and OCR's are encouraged to capture a number of `Observations` on each Activity covering all aspects. The process incorporates a high degree of classification and categorisation which will help us more easily analyse lessons learnt on single and multiple projects undertaken by the same Contractor, vessel, equipment etc. We typically classify a `-3` rank as a `Lesson Learnt` whilst every other rank is subjective to each representative.

To add a new `Observations`, select a new row and make selections and enter data as follows:

- Scope - does this observation apply to one of the vessels on the `Activity` or to the project in general ? Select accordingly.
- Phase - select the applicable `Activity` phase that the observation is relevant to
- Category - further select from a pre-populated list of categories
- Detail - further granularity based upon the category selected
- Comments - add your comments describing the observation
- Rank - assess the importance of the observation within a range of `-3 (lesson learnt)` to `+3 (very positive)`.

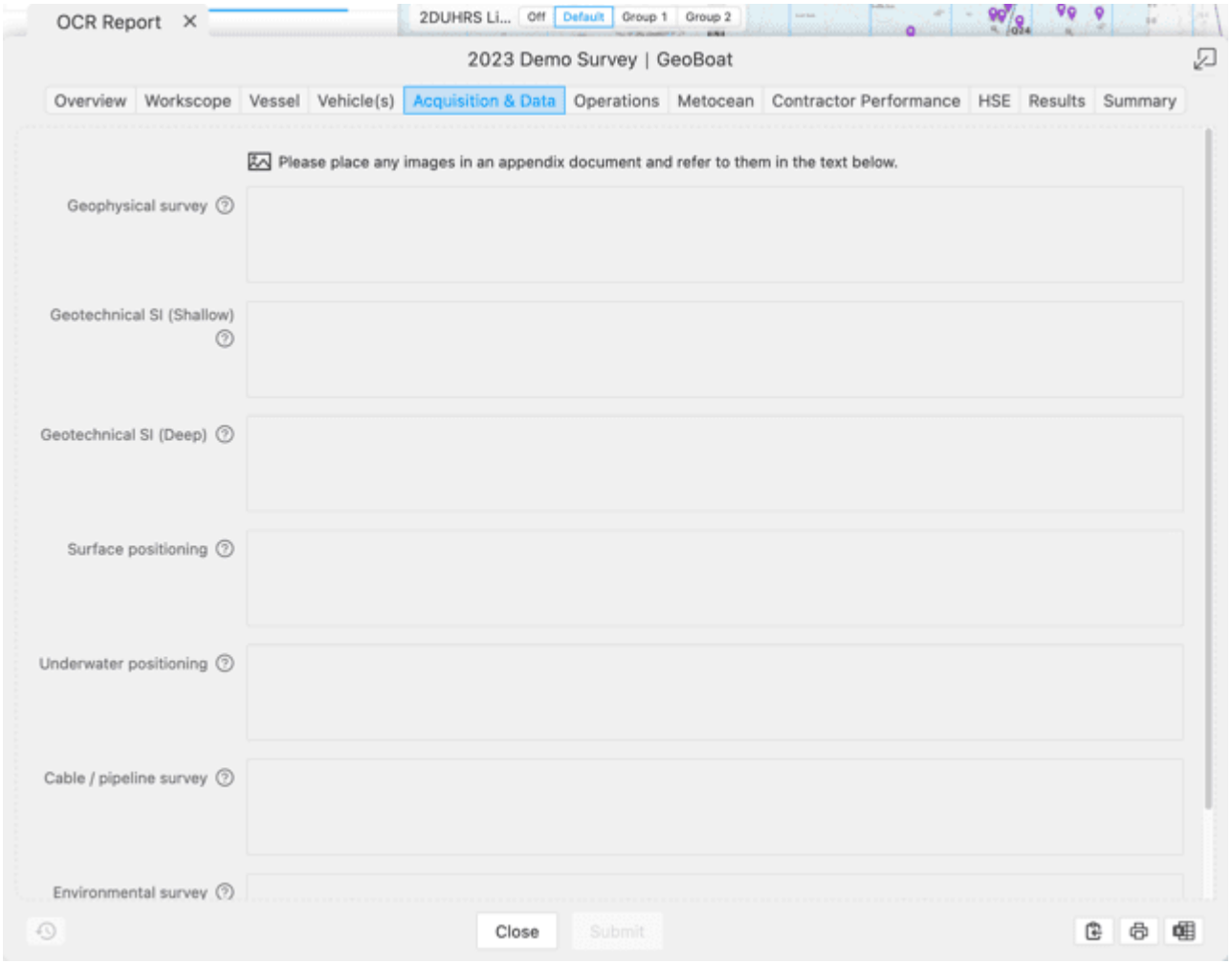
Note that all `Observations` can be sorted by clicking in the appropriate column headers. The table can be exported to printer, Excel or the clipboard. Note also that the `Observations` table will become incorporated within the auto-generated OCR report.

Save Changes

Once you have completed your data entries, click the `Submit` button at the foot of the form. The data can be subsequently edited and updated in the same manner as described above

Quality Assurance - OCR Report

The `OCR report` section allows for a report to be built by pulling data from the `Activity` and `Work Scope` data and supplementing this with additional text and comments relating to various aspects of the operation. We encourage you to fill this out throughout the activity to reduce time at the end of the job creating the final report. Edits can be made to sections already submitted at a later date.



The `OCR Report` contains multiple tabs or sub-sections, breaking down the information that can be included. These tabs are:

- Overview - overview of the project and associated activities, company documentation and briefings
- Work Scope - summary and description of work scope and completeness

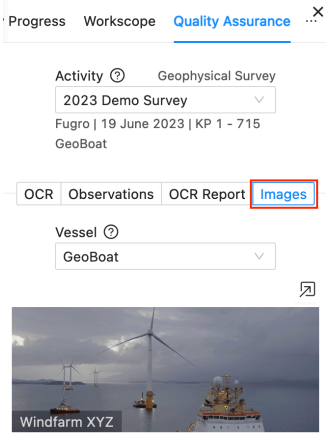
- Vessels - details of vessel, performance notes and suitability
- Vehicle(S) - Details of vehicles, performance notes and suitability
- Acquisition & Data - details of current surveys including: Geophysical, Geotechnical SI (Shallow/deep), Surface positioning, Underwater positioning, Cable/pipeline and Environmental survey.
- Operations - details of mobilisation, operations, fishing liaison, port calls, permits, field reports and demobilisation
- Metocean - descriptions of the conditions experienced such as weather forecasts
- Contractor performance - information surrounding the teams, support and documentation of contractors
- HSE - details of HSE methods put in place as well as documentation of incidents/events and marine mammal assessments
- Results - summary of the preliminary result, lab testing and final report recommendations
- Summary - record of any finding or recommendations regarding the performance of the contractor, the Company and any final conclusions

Not all section within the `OCR Report` have to be completed if they are irrelevant or unavailable but it is advised to put an `N/A` in each of those boxes to show it hasn't been missed. Those that are left empty will show up in the report but these can be removed during submission of the final report.

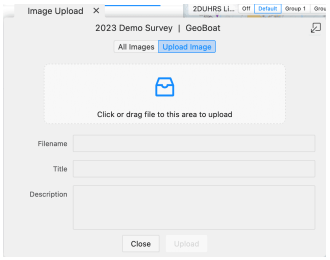
When entering text into the space provided, they will continue to expand with no limits in word count, however formatting may be lost if copy text from an different software (e.g. Microsoft Word) so be aware when using bullet points, subtitles or formatted text (**Bold**, *Italics* or Underlined).

Images

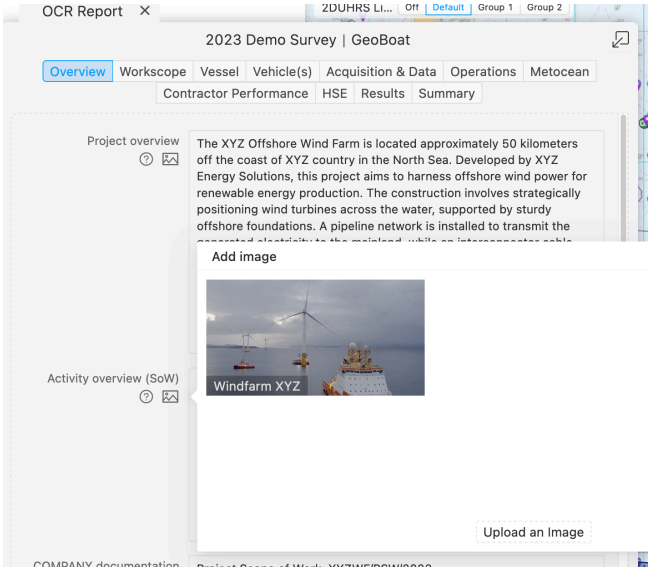
Images can be included within the `OCR Report` under the `Images` tab.



Within this tab a `.png` or `.jpeg` image files can be selected or imported on with `File Name`, `Title` and `Description` text boxes that can be filled out.



Once the initial image is added to the `Images` tab, these can be linked to the relevant section within the `OCR Report` tab. Beside each text box within the form there is a small photo icon which allows a photo to be selected. This will then will be referenced within the selected text box.



The image will then be added at the end of each sub-sections (described above) of the `OCR Report`. Each image will only appear automatically within the report ONCE, priorities by the order of sub-sections. This means that if an image us referenced in multiple sections of the `OCR Report` form it will only appear in the first sections. If additional images are needed they can be added manually when editing the final report within the `Reports` section in the `Quality Assurance` tab within the `Project Management` dashboard.

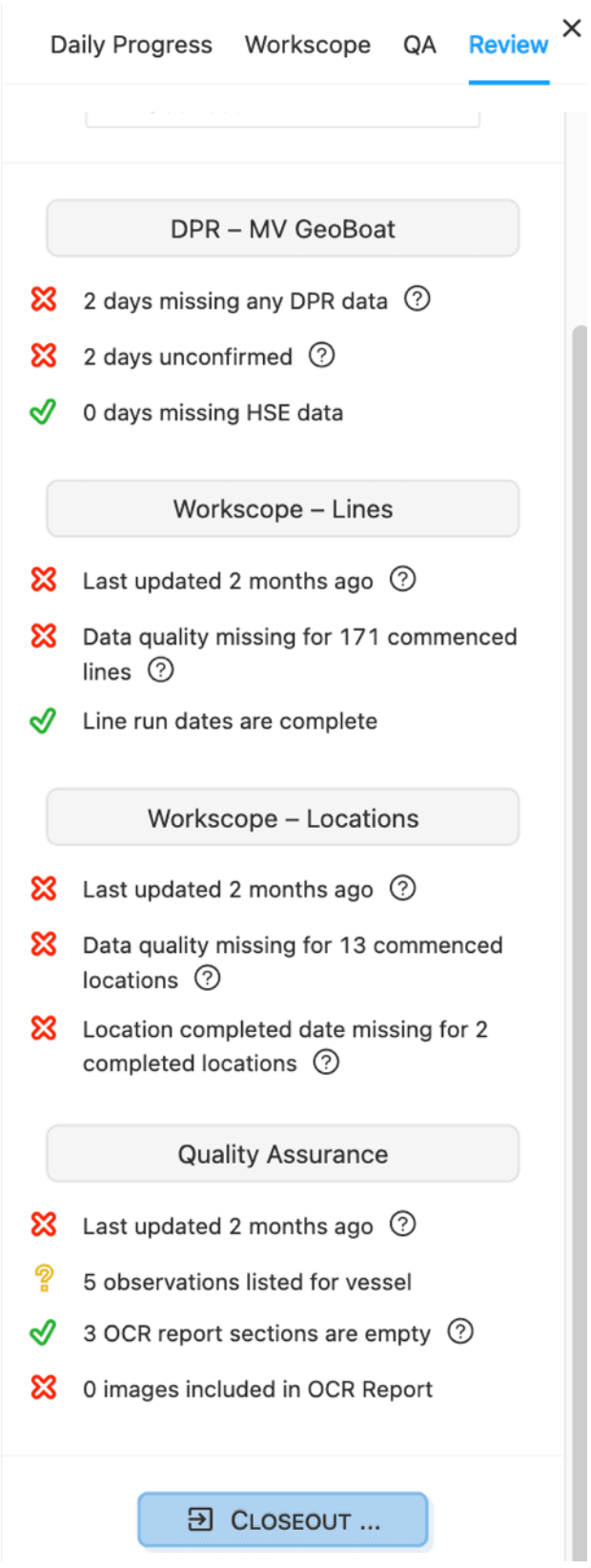
Save changes

To save the changes you have made, click `Submit` button at the foot of the form. The text will then be formatted and combined with project data to produce a `OCR Report` that can be viewed under `reports` in the `Quality Assurance` tab within the `Project Management` dashboard and exported as a PDF.

Review

This section provides visual feedback that allows a user or project manager to check `Data Entry` input to ensure everything is up to date and no parts are missing.

Simply select `Activity` and `Vessel` from the available drop downs to see status and info for each `Data Entry` section. Under each heading there will be a few checks which show a cross, question mark or tick based on predetermined validation rules along with a `?` hover which provides more detail.



Typically this will include checks like:

- Is there any missing DPR information?
- When was something last updated?
- How many sections have been filled out?

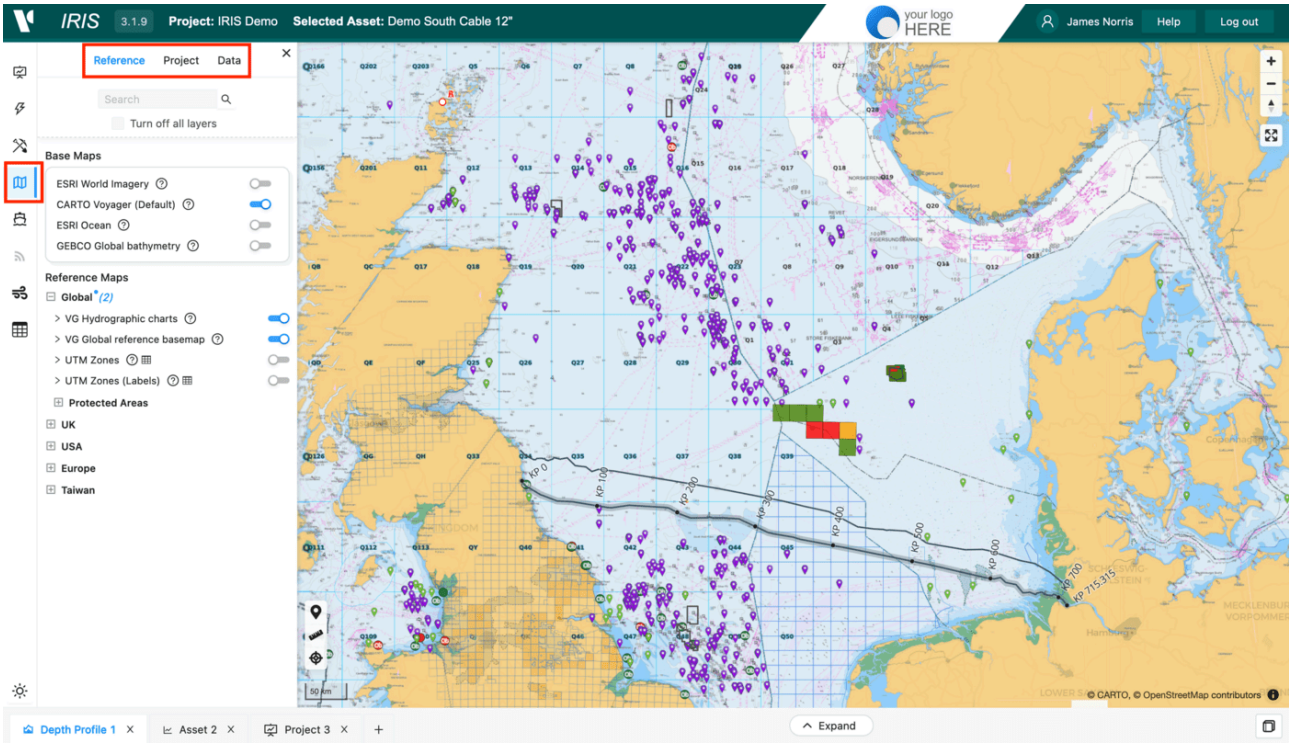
This should aid and remind users of the various elements to update within the `Data Entry` module. Project Managers will have the ability to close out the activity from this page which will disable `Data Entry` for that activity and apply an end date.

Map data module

The `Data` module provides a focussed way to view and configure map layers. Unlike the `Activities Module` module where layers are organised by `Activity` and other related documentation can be accessed, the `Data` module organizes map layers by data `type`.

The layers are organised into three tabs:

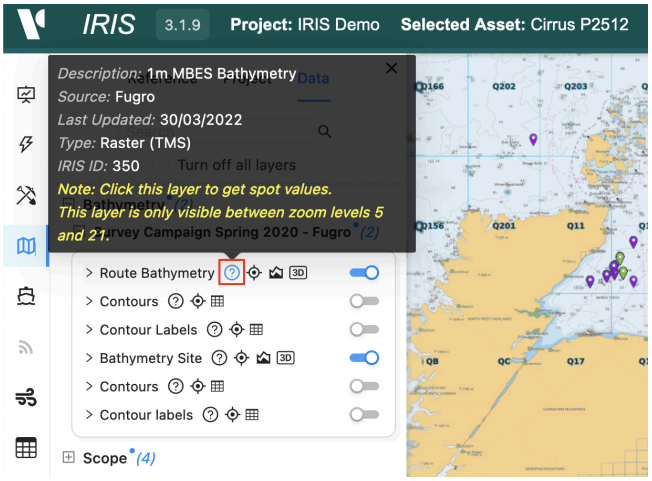
- `Reference` - This holds standard regional datasets and basemap layers used across all projects.
- `Project` - This includes reference layers related to the project including `Assets` and other area designations.
- `Data` - This holds any resulting data from offshore `Activities` including bathymetry and seabed features.



Layer Functions

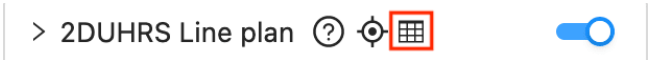
For each layer there is an `on/off` toggle and expanding the layer reveals a transparency adjustment slider and a layer `legend`. Additionally, there are a number of available buttons depending on layer type. These include:

1. An `Information` button which includes data type, source, description and when the layer was last updated.

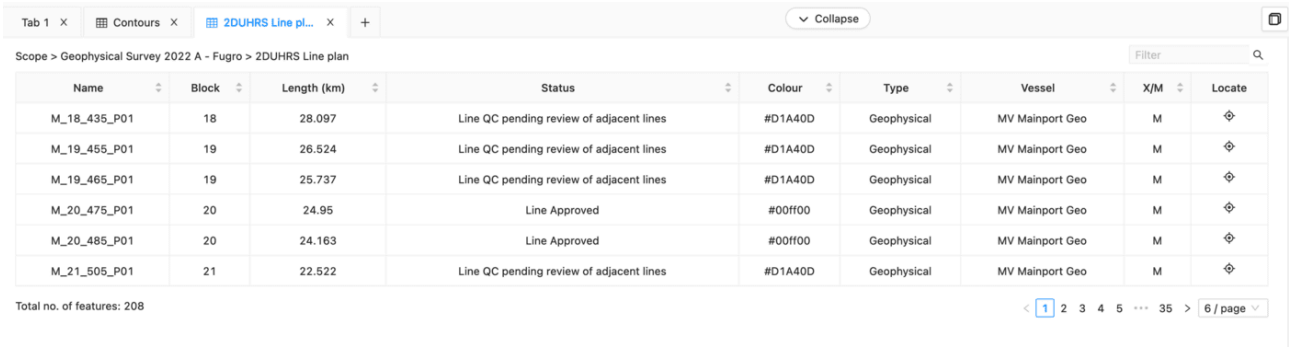


2. A `Zoom to layer bounds` button which zooms the map to the full extent of a layer.

3. A `View attribute table` button for vector layers i.e. points, lines polygon layers.



This opens up the table in the `Dashboard` section. From here the the data can be inspected on a feature level, allowing searching of specific attributes, zooming to individual features or downloading of log files.

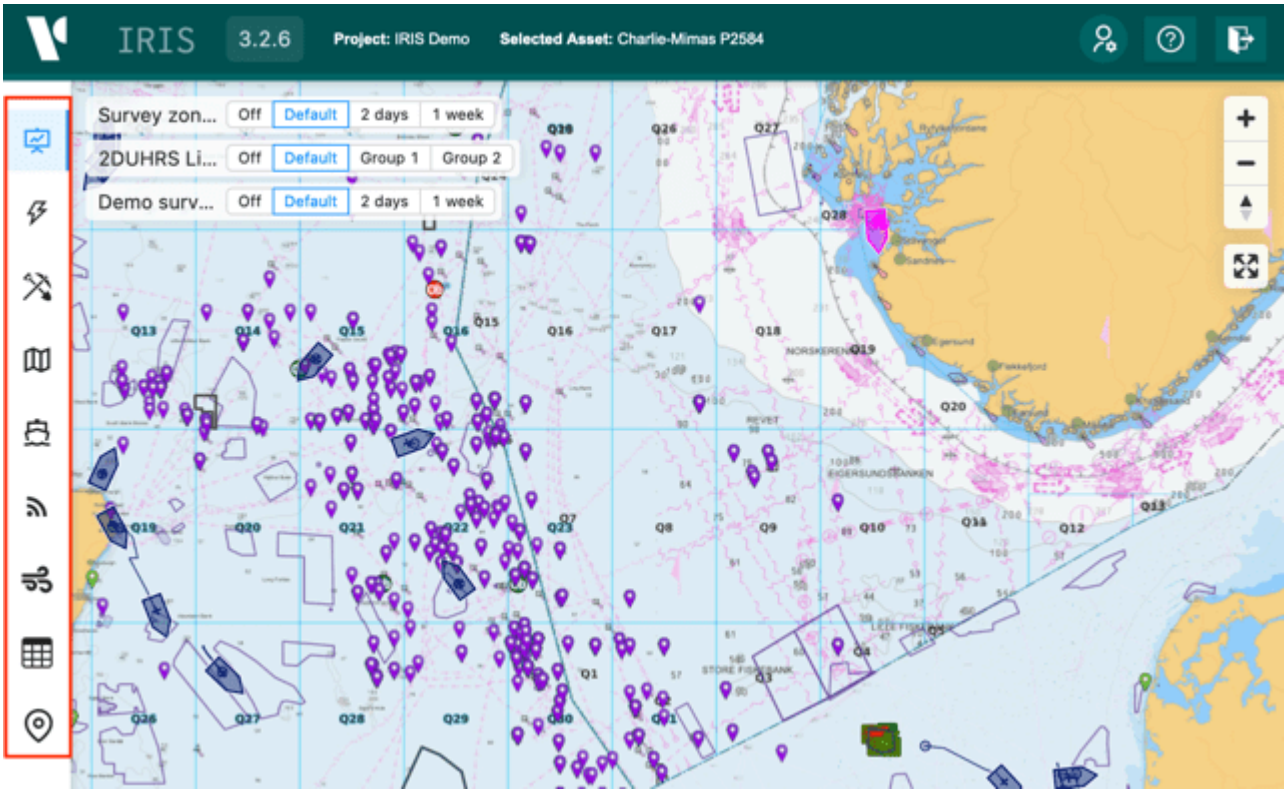


4. A `Show bathymetry profile` button for bathymetry or terrain layers, which opens up the `Depth Profile Dashboard` and allows you to create cross sections of the dataset along a line or `Asset` and compare bathy datasets.

IRIS's module pane

Icons on the toolbar to the left hand side of the IRIS portal provide access to the primary application modules. Modules represent broad primary functionality within the IRIS application and allow access to data and information, site configuration and selection of options, and user ability to enter data to the IRIS database. If an icon is greyed out, this is because it's either not applicable to the selected project or your usergroup doesn't have the required `permissions` to access it.

Please contact the IRIS team with any queries.



Select from the following list to find out more about each `module`.

1. `Projects Module` - Select project from those available
2. `Assets Module` - Select relevant infrastructure assets within the project
3. `Activities Module` - Sequential organisation of all offshore project activities
4. `Data Module` - Select data layers for display on the map
5. `Vessels Module` - Real-time and replay of vessel positions
6. `Telemetry Module` - Digital data streaming from offshore vessels
7. `Metocean Module` - Maps and plots of forecast and hindcast global metocean data
8. `Data Entry Module` - Offshore project performance and status data entry
9. `Cost and Scheduling Module` - Project budget and cost tracking data entry

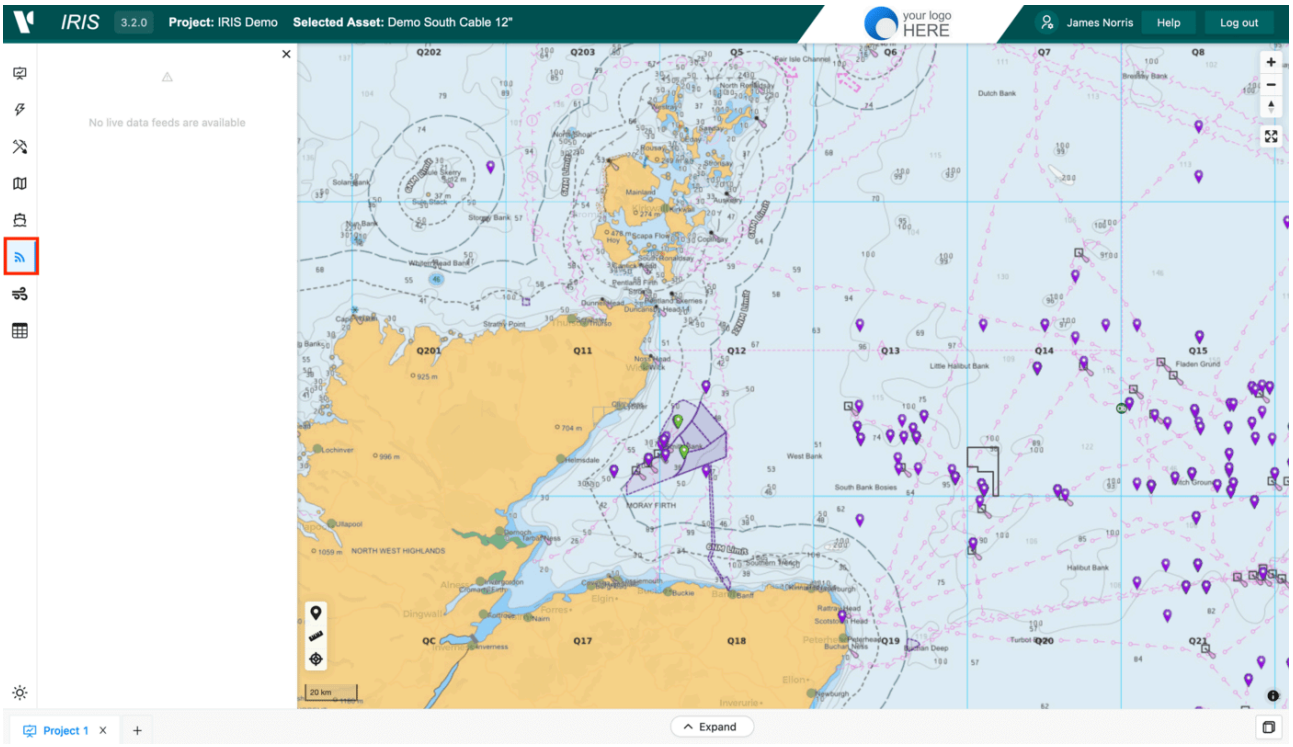
0. `Points of Interest Module` - User editable location or line based map layers

Live vessel and subsea vehicle live data feeds

During offshore campaigns IRIS can be set up to receive live data from various on-board vessel systems. Typically these include:

- Trenching systems
- Cable lay systems
- Vessel sensors
- Metocean measurements

The current status of the systems and their latest message can be viewed in the Live Data Feeds module which can be found by clicking the 'RadioWave' button in the module list.

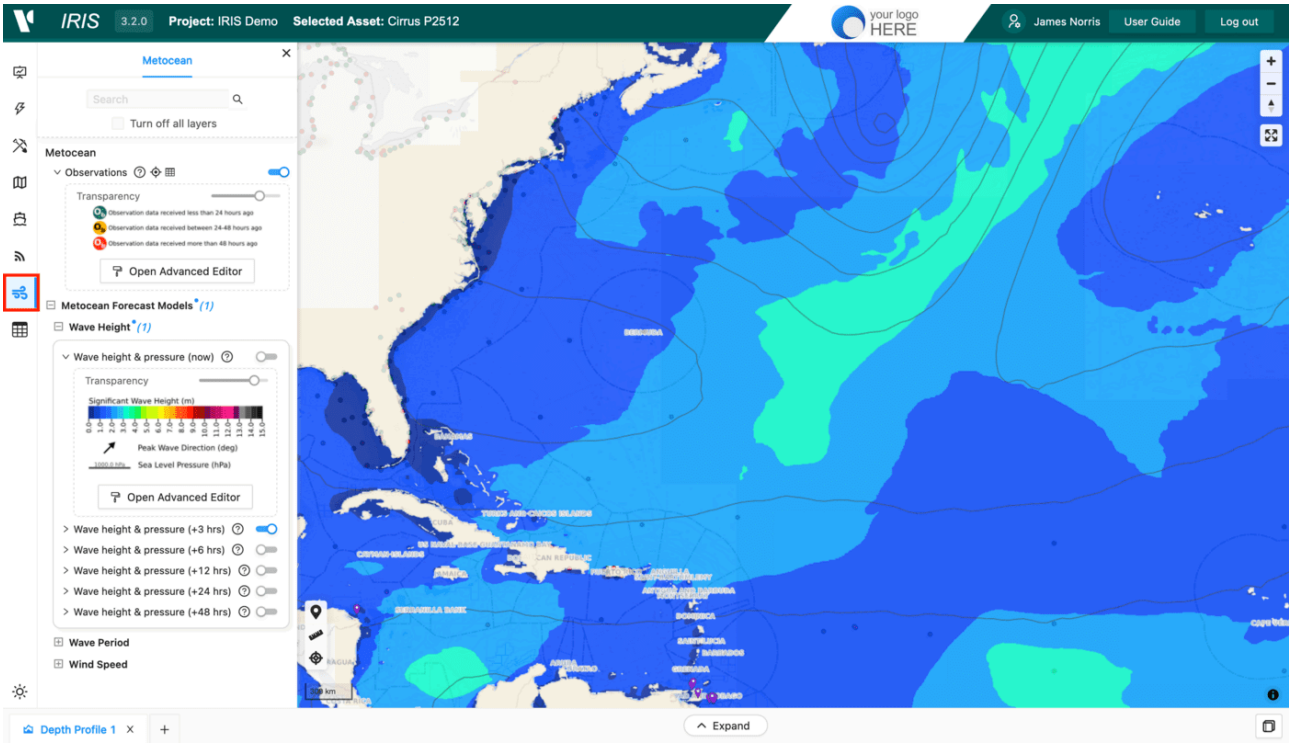


All the data being logged can be further analysed and graphed on KP and Time based charts in the`Asset Data Dashboard`.

Forecast and hindcast weather data

The `Metocean` module can be accessed using the `wind` icon on the left hand pane. This module allow configuration and display of `global forecast models`, `observation buoys`, `tidal gauges` and `project forecasts` from a variety of sources including `NOAA` (https://www.pacioos.hawaii.edu/metadata/ncep_global.html) and `EU Copernicus` (https://datastore.cls.fr/catalogues/eu-copernicus-marine-service-global-waves-analysis-and-forecast/) .

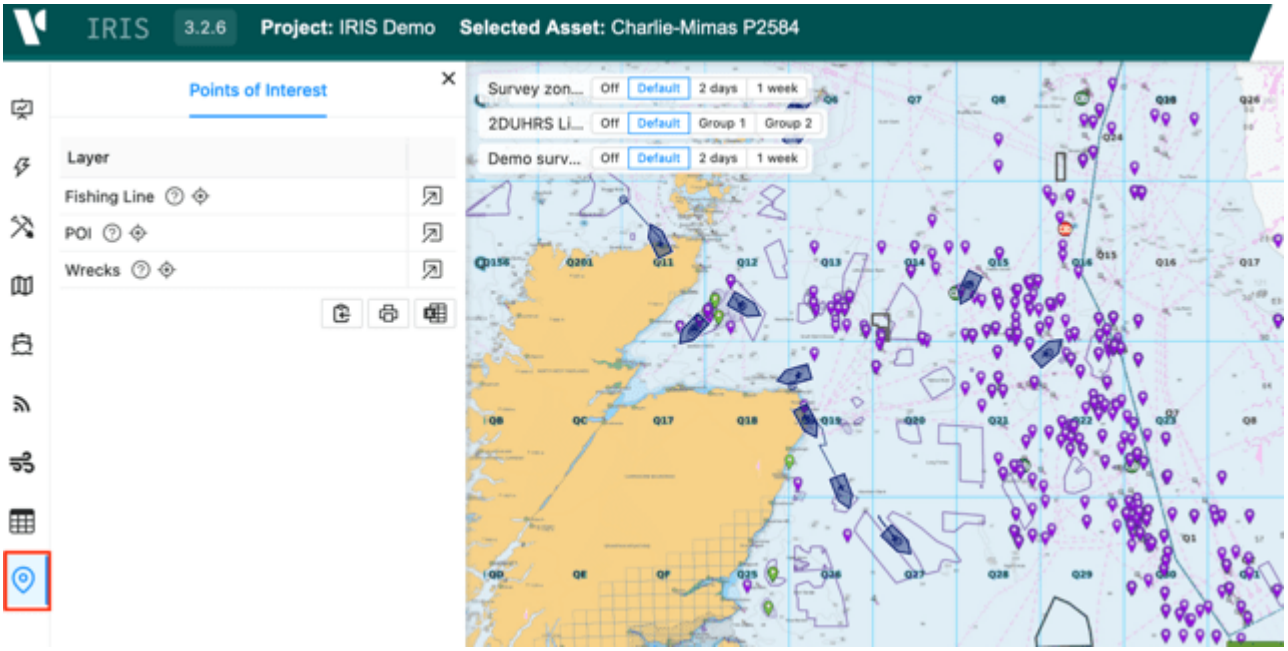
On request, project or vessel specific forecasts can be configured from sources like `MetOffice`, `StormGeo` and `MeteoGroup`. Contact the `IRIS` team to arrange this.



The forecasts are updated every few hours and can be switched on using the `toggle` button. forecasts and hindcast data back to 2016 can be viewed in graph form for a specific location using the `Metocean Dashboard`.

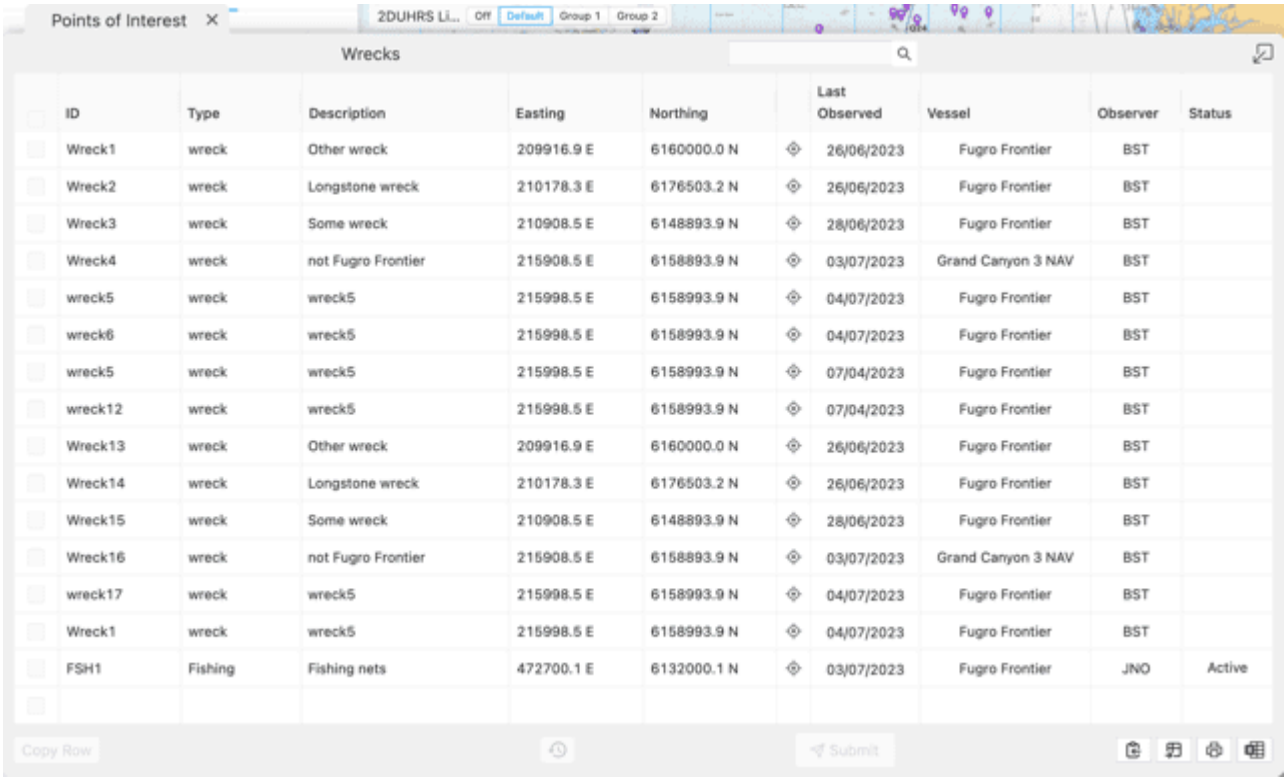
Plotting points of interest

The Points of Interest (POI) module allows specific users to enter `location` or `line` co-ordinates into a table which populates certain visible layers on the map. The IRIS Support team can configure layers as required. For example a Fishing Gear Point and Line table might be required for FLOs to fill in on a daily basis or a list of priority investigations zones could be marked on the map.



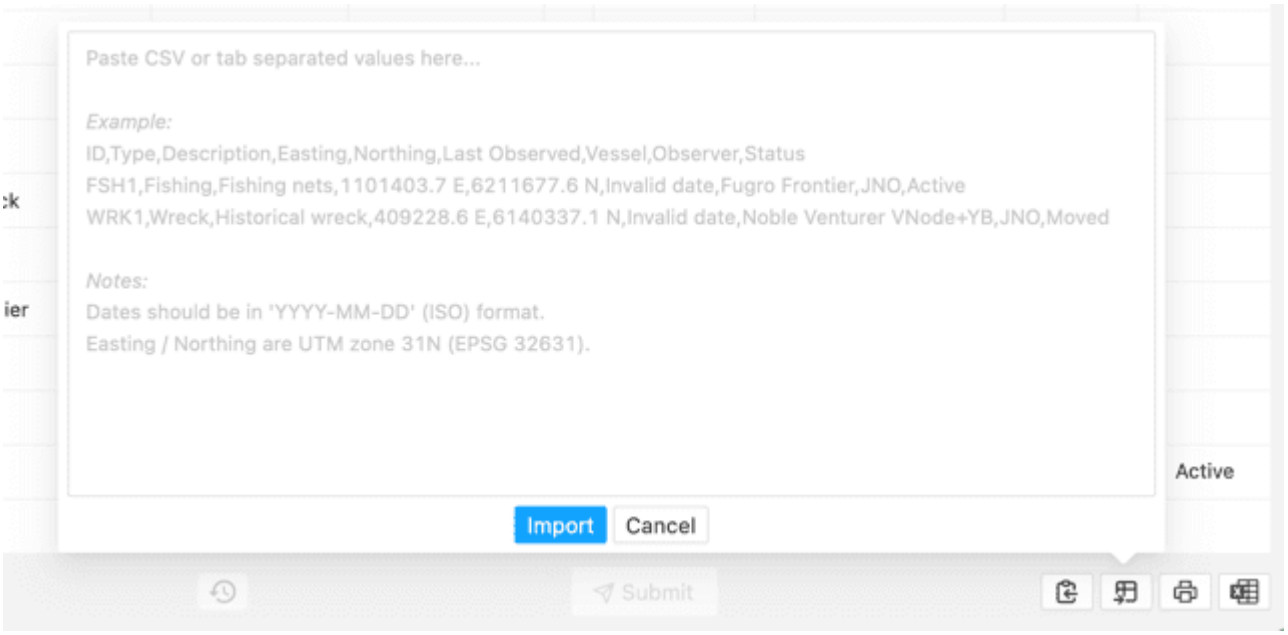
These layers will appear as read-only in the `Data Entry Module` and on the map and visible to all users.

To add new data click to expand the relevant layer. This will expand a table like below:

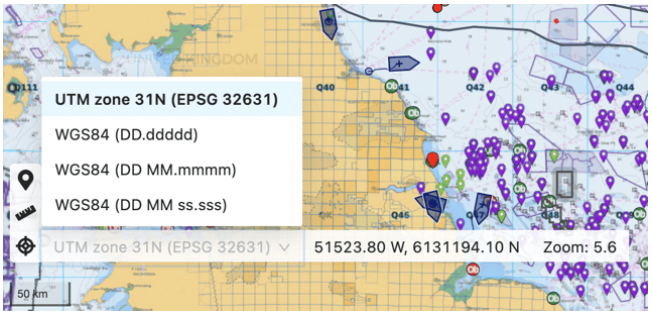


You can either enter locations manually by filling in all the columns for a single row or by importing from a spreadsheet using the buttons in the bottom right of the window:

When importing make sure the column headers and data match what is provided in the example. For points an X and Y co-ordinate is required. For lines a start and end X and Y is required.

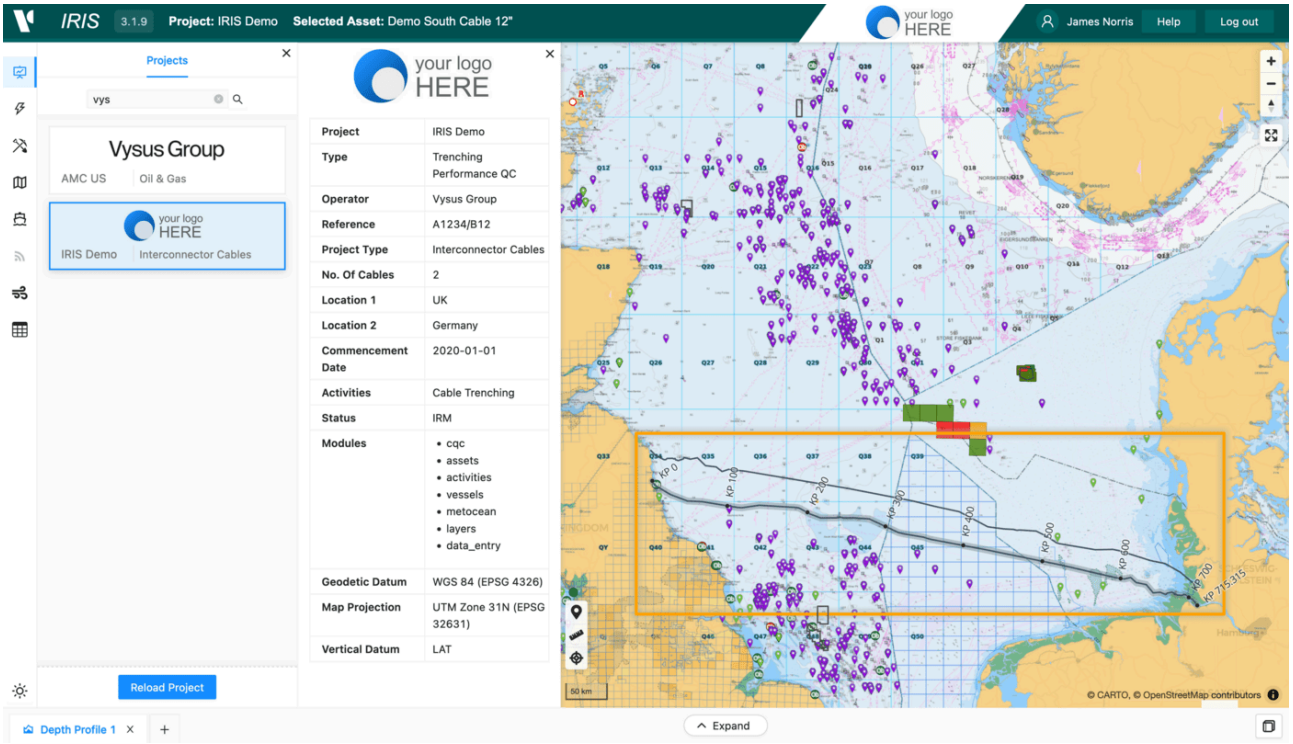


If you want to work with `latitude` and `longitude` instead of the project co-ordinate system, you can change between systems using `Tools` in the bottom left of the map window:



Loading a project

The first module on the left hand pane, lists all projects a user has access too. When you click on each project more details about the project appear along with a highlighted box on the map which shows the project extent. When selected click `Load Project` to launch and gain access to other modules and dashboards.



If at any point you wish to refresh/reset the project, open this module and click `Reload Project`.

Vessel Tracking

The `Vessels` module can be accessed using the vessel icon on the left-hand pane. This can be used to view and configure everything about vessels/vehicles within the current project. These may include survey, guard and fishing vessels, onshore teams, subsea ROVs/Trenchers etc.

Sources

IRIS can retrieve positional data from a variety of sources including but not limited to:

- Terrestrial or Satellite AIS from an online provider either as individual vessels or area feeds (`AIS`).
- Project vessel navigation systems (`NAV`).
- Vysus Group's handheld `Iridium GPS Tracker` (`TRK`) (a.k.a, Yellowbrick or Bluebrick).
- Vysus Group's onboard V-Node system (`NAV`).
- API services and UDP/TCP port messages.

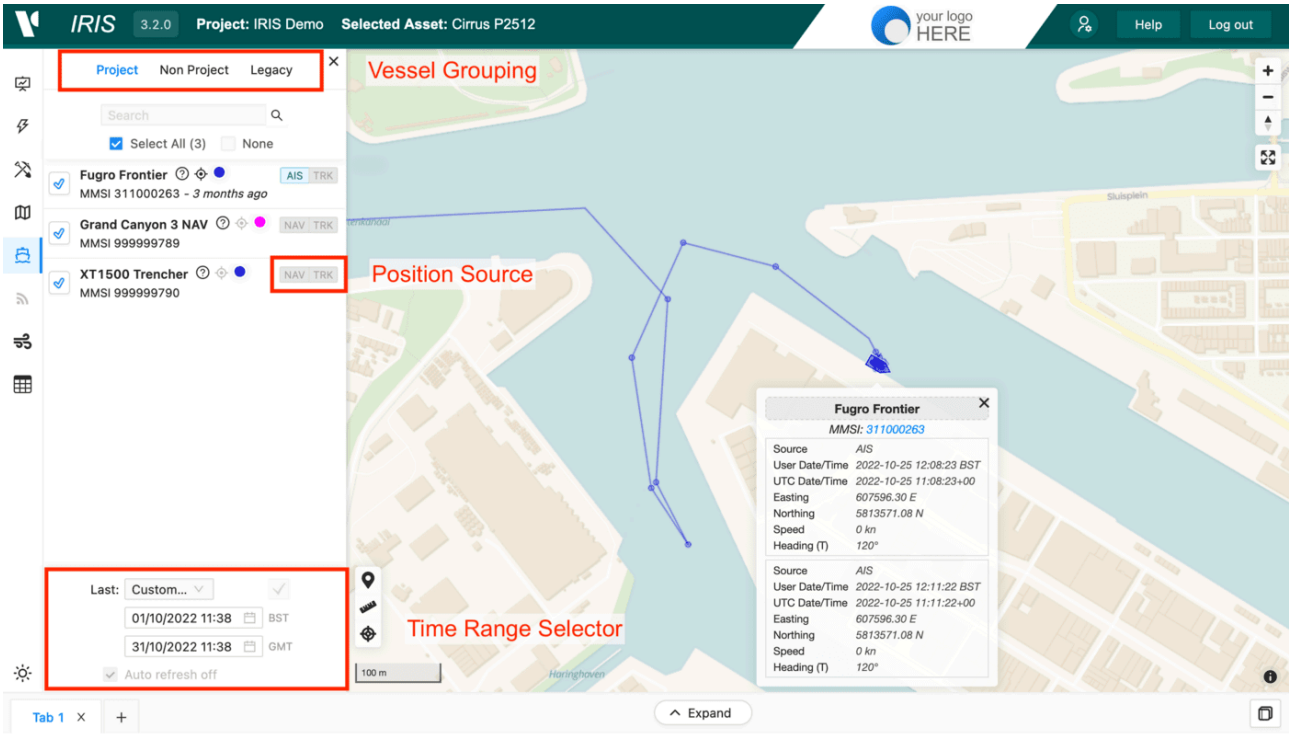
For more information and to get new vessels tracked contact the IRIS team

Layout

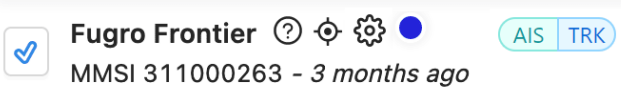
The top tabs group the vessels by status:

- Project - Any vessels related to the project
- Non Project - Vessels working in the vicinity but not related to the project
- Legacy - Older vessels that used to work on the project
- Other - Nearby vessels, usually recieved via AIS or an area feed.

Vessels are then listed in Groups by type e.g. fishing, survey, guard etc.

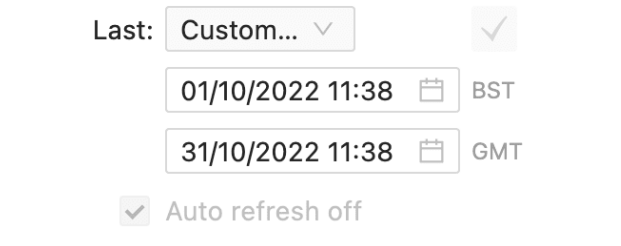


Each vessel has a number of buttons. From left to right:



- `Tick/Cross` - Enable disable vessel
- `Question Mark` - Information on the current vessel
- `Locate` - Zoom to vessel location
- `Settings Cog` - Vessel settings and configuration
- `Colour Picker` - Temporarily change vessel colour
- `Source Toggle` - Toggle between position sources if available. This can include AIS/TRK/NAV

At the bottom of the module you have the time range selector. This has some quick predefined options e.g. last 24 hours or you can set a start and end date to look at historical vessel tracks. If there are a lot of vessels enabled in a project try not to select more than a month of data or turn off other vessels.



On the map you can click each node along a vessel track to show a `popup` window detailing the position details which include source, UTC and local time, easting, northings, speed and heading.

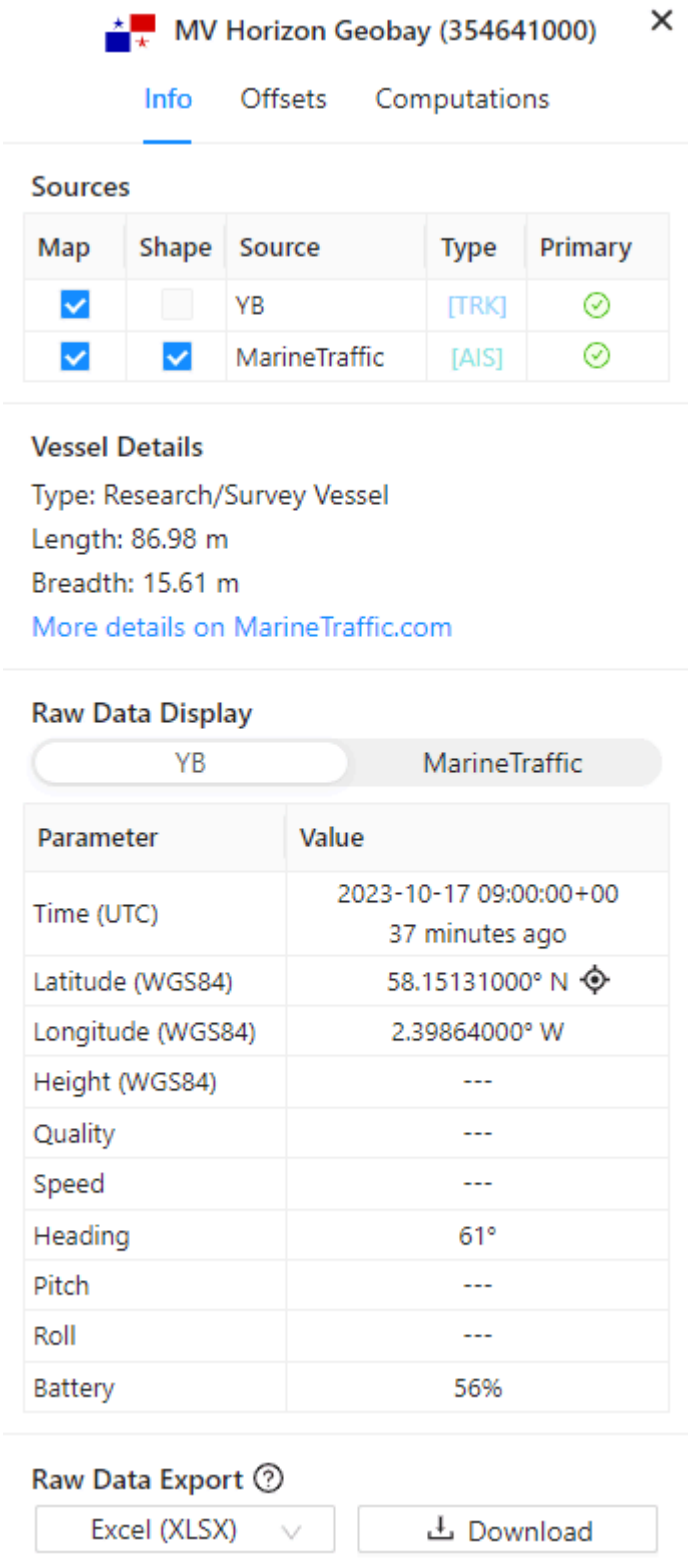
Typically the `TRK` is configured to provide hourly location updates. `NAV` positions should be up to 2 minutes apart and `AIS` up to 5 minutes apart. Invariably, positions transmissions can stop for a number of reasons e.g. Vessel out of `AIS` range, `TRK` device battery dead, onboard `NAV` systems restarted and feed not back online. This is why it is best practise to use multiple sources. If you suspect a problem with one of the feeds contact the IRIS team.

Vessel Settings and Configuration

The vessel settings and configuration panel will be available for specific projects and vessels and may have up to 3 tabs:

- Info
- Offsets
- Computations

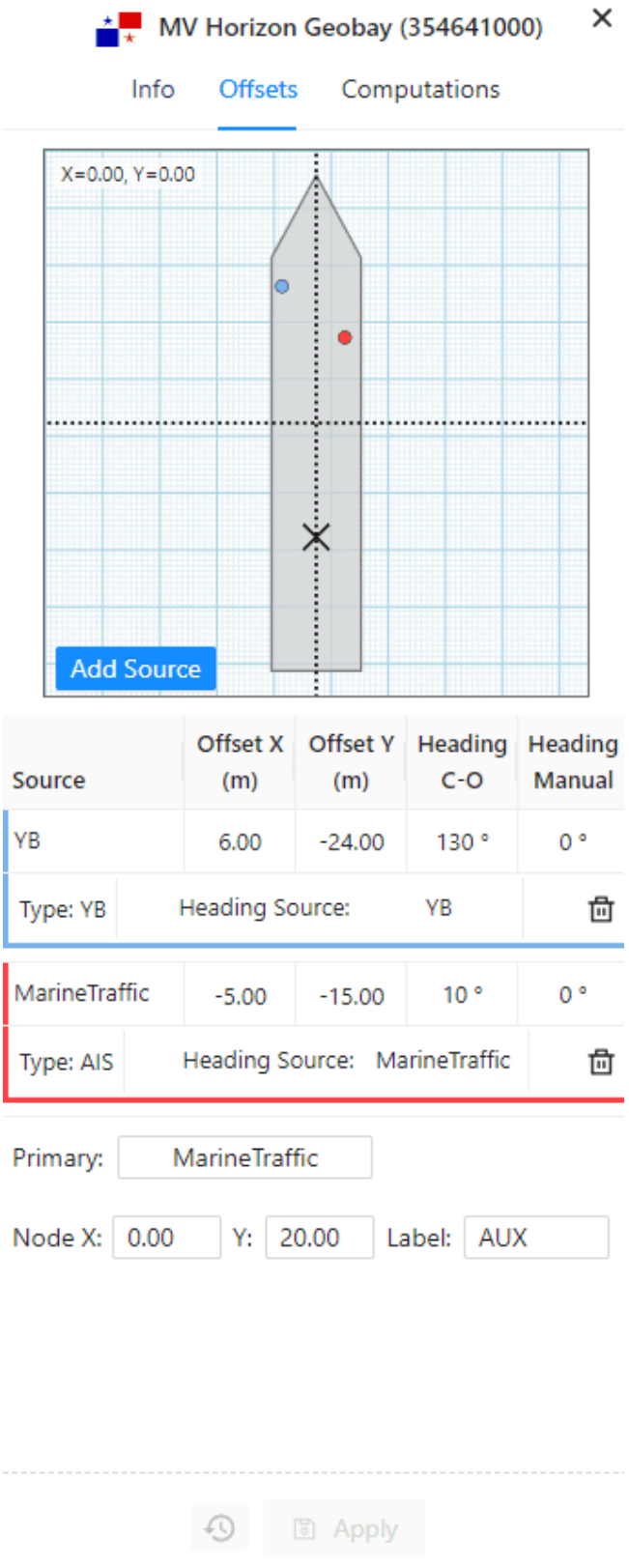
Info



Here you will see the sources used to track this vessel, you can enable/disable each source to view a specific source if needed.

This tab also contains the raw data display where you can see the raw infomation for each source as receieved by IRIS. You can also download all raw data for the selected time frame in CSV, XLSX or GeoJSON formats. Note: MarineTraffic exports are disabled.

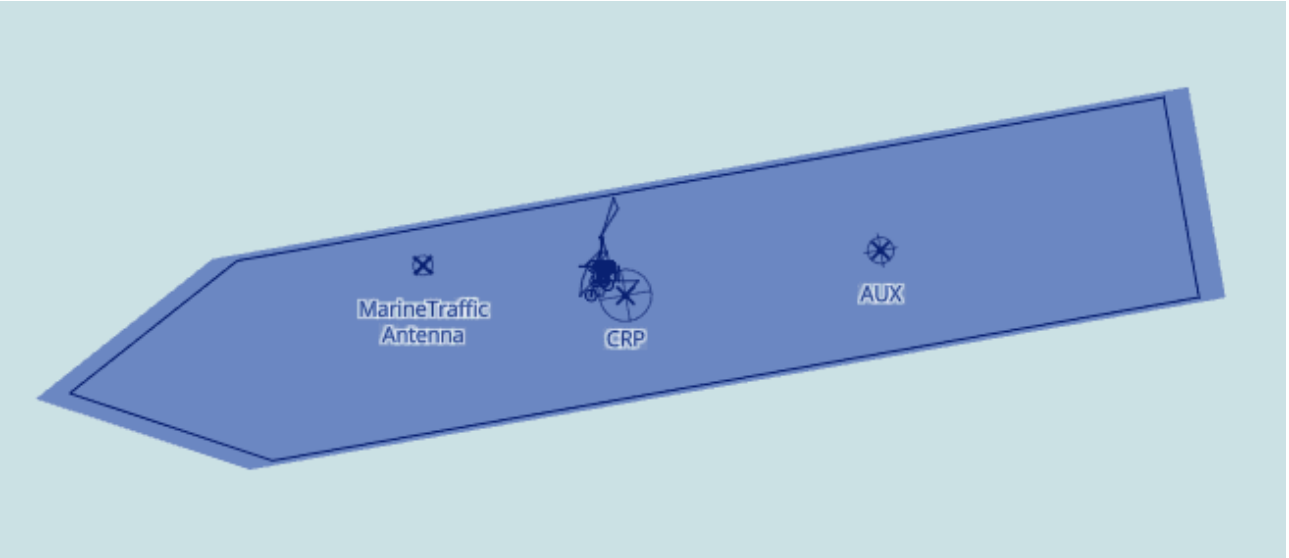
Offsets


MV Horizon Geobay (354641000)
Info
Offsets
Computations
X=0.00, Y=0.00
Add Source
Source
Offset X (m)
Offset Y (m)
Heading C-O
Heading Manual
YB
6.00
-24.00
130 °
0 °
Type: YB
Heading Source:
YB
MarineTraffic
-5.00
-15.00
10 °
0 °
Type: AIS
Heading Source:
MarineTraffic
Primary:
MarineTraffic
Node X:
0.00
Y:
20.00
Label:
AUX
Apply

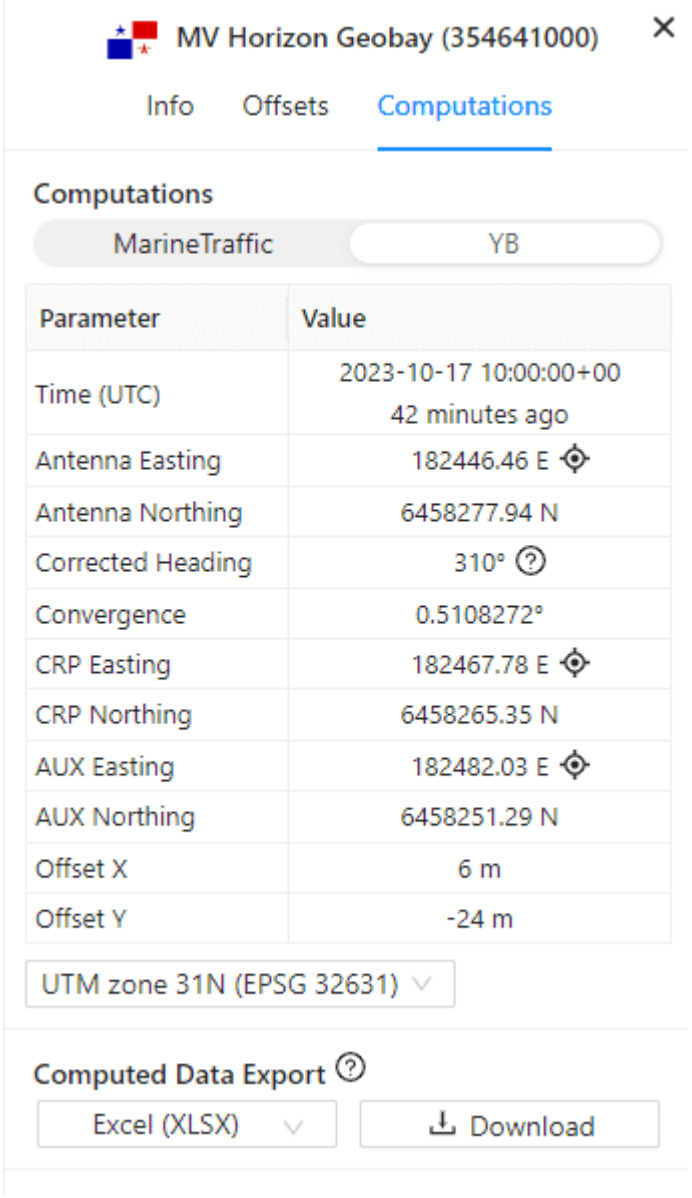
This tab allows you to set the offsets for each source in relation to the CRP (dashed crosshairs). You can also specify any heading corrections or set a manual heading value if needed.

If the node X and Y are set, it will appear on the chart as a black X.

If offsets/node are applied they will then appear on the vessel shape on the map



Computations



The computations tab shows the latest calculated position for each source based on the applied offsets, convergenge and heading correction. The coordinates can be displayed in WGS84 lat/lng or the project UTM zone. All computed positions can be exported for the selected time range in both lat/lng and easting/northing.

IRIS Release Notes

Below you will find new features added with each release and developments planned for the next.

v3.5.2 16/04/2026

Features

- Raw parameter data export via activities panel

Improvements

- Highlight vessel tracks on map when hovering over vessel list
- Improved grouping of vessels in vessels panel
- Filter vessel list by source (AISStream, YB etc)

v3.5.1 13/03/2026

Features

- Collapse all layers/groups button in layers module.
- Databars can now be created for 1 asset and reused on related assets e.g Create for 1 array cable or parent asset and reuse for all other cables in array.
- Show histogram of data distribution on asset dashboard.

Improvements

- When switching between array cable assets on parameter dashboard the currently selected parameters, databars and riskbars will be remembered where available.
- Parameter data can be split by pass (if captured in raw data feeds) on graph and in stats panel.
- Risk Bars can be built for 1 or more specific passes.

Bugfixes

- Various bugfixes

v3.5.0 15/12/2025

Features

- New Risk Manager / Risk bar configuration
- In app & email notifications
- Configurable notification preferences
- OTPS tides added to Metocean dashboard
- Added unit layers (MSL and mLAT) to depth dashboard

Improvements

- Various styling improvements
- Improved layer filtering
- Meotcean dashboard
- Depth dashboard - support polylines, improved styling
- Asset live dashboard - added more time ranges: Last 30 mins/1/6/12/24 hours

Bugfixes

- Various bugfixes

v3.4.0 31/07/2025

Features

- Zoom to and align asset to map window
- Export metocean databar values
- New homepage / login screen

Improvements

- Databar legends
- Asset dashboard graph (various)
- Asset dashboard parameter selection
- Map tooltips
- Export asset dashboard to svg/png
- Hide survey status toggle on map when activity is closed out
- Workscope routes

- Layers panel styling

Bugfixes

- Various bug fixes

v3.3.9 10/06/2025

Features

- New asset dashboard / parameter selector

Improvements

- Asset dashboard - various improvements including performance
- Reset password option on login page

Bugfixes

- Various bug fixes

v3.3.8 22/04/2025

Improvements

- Minimum weather window for metocean dashboard
- Metocean date picker / select DPR activity date ranges (start, end, ongoing)
- POI table
- Tooltips

Bugfixes

- Various bug fixes

v3.3.7 13/02/2025

Features

- Vessel working tolerance and DPR databars added to metocean dashboard

Improvements

- Allow multiple databars on assets dashboard
- Data and risk bar selection now via slide out panel
- Asset dashboard styling
- Vessel image in settings panel
- Metocean datepicker
- Added current dataset to Metocean dashboard

v3.3.6 06/11/2024

Improvements

- Remember layer visibility status between sessions
- Various styling changes
- Include range and bearing in computed data export
- Map tile performance

Bugfixes

- DPR / documents sometimes not loading
- Metocean dashboard source not being restored on logout/login
- Handling of unknown vessel flags

v3.3.5 12/08/2024

Features

- Cost Dashboard

Improvements

- Various styling changes
- Remember layer visibilty status between sessions

v3.3.4 01/07/2024

Features

- Jump to Project Management dashboard from data entry

Improvements

- Icon styling
- Ungroup features in popup
- OCR Report
  - Various styling and performance improvements
  - Show bumpovers only option in workscope graphs
  - Readjust graph X range when categories turned on/off
- Route dashboard
- Option to remove previously generated OCR report PDFs
- Show newly generated PDF in modal after completion
- Added new vessel sources and shortened raw/computed data tab names for improved readability
- Most recent Ops & Phase tab is selected by default

Bugfixes

- Target depth in workscope data QC was not always updating
- Metocean graphs not showing in OCR report
- Feature tables not opening or showing duplicates
- Layer filters and opacity settings not updating all features correctly

v3.3.3 26/04/2024

Features

- Support MarineTraffic satellite positions (where available)

Improvements

- Metocean dashboard / graphs
- Image upload / OCR Report
- Full timestamp in vessel tooltip
- Total workscope line length calculation now based on project CRS/EPSG

Bugfixes

- Locate button in feature table not working
- SysOps toggle button state not updating
- Various styling fixes

v3.3.2 22/03/2024

Features

- Selectable timezone for Metocean graphs

Improvements

- Map feature symbology / styles
- Metocean graph & tooltip styling
- Feature table improvements
- Improved "clickability" of line layers

Bugfixes

- Graph timestamps not displaying correctly
- DPR data not showing in OCR report
- Various styling fixes

v3.3.1 22/02/2024

Improvements

- Metocean layers
- Layer legends

Bugfixes

- Map popup doesn't always open
- Data bars not being listed correctly
- Some workscope data fails to load

v3.3.0 15/02/2024

Features

- Added vessel filter to create a tab of "Flagged” vessels
- All geojson layers can now be filtered on table field values

- `Review and Closeout Section` added to data entry module to allow users to see what needs updating
- New SVG icons

Improvements

- Workscope module
- Metocean tooltips improved for Observation/Forecast locations.
- Updated third-party software packages.
- General performance improvements.

Bug Fixes

- Duplicate workscope data locking dat entry

v3.2.9 14/11/2023

Improvements

- Workscope
  - Data quality now separated for each re-run
  - Can now change name of a re-run
  - New search by column feature
  - New group column for improved searching
  - Pagination now at top of window for easier searching
- OCR reports
  - Formatting options
  - Improved print layout

Bugfixes

- Workscope bumpovers not changing colour
- Asset databar bugs
- Copy and paste workscope rows

v3.2.8 03/11/2023

Improvements

- Project and vessel tracks are quicker to load
- Close all dashboards button
- User can edit bumpover suffix

Bugfixes

- Typing in a KP value for graph range would sometimes reset to start/end of KP range
- Data bars were slow to load
- TSV / Tab separated data / data copied from Excel was not imported correctly
- Resetting pending workscope changes now resets layer colours on map

v3.2.7 16/10/2023

Features

- Allow multiple vessel sources per track
- Position QC panel
  - See vessel sources and details
  - Raw data display incl. export
  - Set vessel offsets
  - Computations display incl. export
- OCR Report
  - Image upload

Improvements

- Heading corrections are now shown in tooltip (if applicable)
- Improved PDF viewer

Bugfixes

- Measure tool

v3.2.6 17/08/2023

Improvements

- Only apply equipment to lines/etc with the same vessel

Bugfixes

- Cable layers disappeared after switching basemap

v3.2.5.1 14/07/2023

Features

- Posmet calls are now cached for faster loading

Improvements

- POI module can now be set up for input of lines (start/end coordinate pairs)
- OCR Report

v3.2.5 06/07/2023

Features

- POI module - user can input coordinates and other details about points of interest

v3.2.4.1 27/06/2023

Improvements

- Fallback to WebGL1 if WebGL2 is not supported (maplibre-gl-js v3.1.0)

Bugfixes

- Timezone on PM dashboard

v3.2.4 15/06/2023

Features

- OCR Report (Accessed via Project Management Dashboard > QA > Reports)

Improvements

- More efficient loading of raster layers

Bugfixes

- Various minor bug fixes

v3.2.3.2 30/05/2023

Improvements

- Observations & Recommendations QA entries

Bugfixes

- Some legends were not showing

v3.2.3.1 23/05/2023

Features

- Route work scopes now warn of conflicting entries on submission

Improvements

- Improved SSO login process (opens in new tab)

Bugfixes

- Route work scopes

v3.2.3 15/05/2023

Features

- Can now apply column filters to map data via layer control
- Download some layers as GeoJSON

Improvements

- Survey layer SIMOPS forecast / toggle buttons are now fully in sync with any changes made via legend
- Bump over support
- OCR Report / Register
- OCR Questions

Bugfixes

- Various minor bug fixes

v3.2.2 24/03/2023

Features

- Rep Register for OCR Report
- Added export to CSV/PNG etc for Asset/Metocean/Cable Installation dashboards

Improvements

- OCR Report
- Styling improvements (rounder tabs etc)
- Data Quality dialog in Data Entry module (hide unused equipment etc)
- Timezone and date locale (DD-MM-YYYY vs MM-DD-YYYY etc) settings used throughout reports etc
- Parameters are remembered/pre-selected when switching between assets. i.e switching between array cables etc.

Bugfixes

- Various minor bug fixes

v3.2.1 21/02/2023

Features

- IRIS userguide released
- Work Scope and lessons learnt tables now viewable in `Project Management Dashboard`
- Route work scope dashboard created in the `Project Management Dashboard`
- Release notes for each release now shown on startup
- Improved filtering of anomalies on `Asset Data Dashboard` using min and max values

Improvements

- Projects now grouped based on status (e.g. operational, active or dormant)
- More details added into project and activity detail panes
- Dashboards now independent of selected asset so they no longer reset when asset changed

Bugfixes

- Various minor bug fixes

v3.2.0 26/01/2023

Features

- Can select a soil type for work scope locations in DataQC section
- User can now `Change their password` by clicking the user icon next to their name.
- Additional DPR HSE data input and charting
- `Depth Profile Dashboard`:
  - Can compare 2 enabled raster datasets
  - Can now select an asset & KP and then generate a cross profile. User can then step along the asset generating cross profiles.
  - Can apply a vertical offset to the first dataset when comparing depths of 2 datasets
- Added Reset Workspace option to user profile menu (Clears all local storage/user settings for selected project/workspace)

Improvements

- Click borehole barchart in PM dashboard to zoom to map location (hover to highlight)
- Can now control if Non-Project vessels show by default

Bugfixes

- Error when fetching non-project vessels after session has expired

v3.1.9 05/12/2022

Features

- `Project Management Dashboard`

Improvements

- Show AIS status in vessel popup. e.g Under way, at anchor, moored etc (Source: MarineTraffic call)
- Layer legend and Project Management work scope piecharts are now linked so toggling items on/off will now update legend, map and piechart

- Show tooltips over phase, operation & activity names in activities tab. e.g "Project Phase"
- Better resizing of navbar elements for various window sizes
- Added link to Userguide docs

Bugfixes

- Popups on Non-project vessels didn't always work.
- Asset layers were not having their filters reapplied after being swicthed off and back on again (due to changes made for filtering by legend items)

v3.1.8 14/11/2022

Features

- Filter map layers by clicking legend items on/off (in `Data Module`). Also shows counts for each feature in legend
- Right click to get map coordinates
- Show eye symbol in layer list if layer is switched on but not visible due to min/max zoom config
- Configure layer tooltip within IRIS
- Added enhanced dashboard permission controls

Improvements

- Min/max zoom sliders combined into 1 which shows current map zoom level
- Show map zoom level in coordinate tool
- `Measure Tool`:
  - Right click to draw last point and collapse tool
  - Convert to minutes if duration is less than 1 hour
  - Hide decimal places if distance > 500, show thousands separator
  - Display instructions on hover
- Middle click on tab name to close dashboard without confirmation prompt
- DepthProfile tool now shows the red line as you are drawing it

Bugfixes

- Some modules were not showing in properties on project selection panel (if enabled by default permissions)

v3.1.7 26/10/2022

Features

- adding ?reset to URL clears local storage
- If piechart has grouped small slices into `Other` group, then you can hover over legend item to see what the `Other` group contains
- Highlight invalid `type` or `xm` values in work scope entries

Improvements

- More specific error messages when user is unauthorised/token expired
- Add XM column to line work scope table (indicates cross or main line)
- Custom Metocean markers now have a tooltip showing the dashboard name they belong to

Bugfixes

- auto focus on popup when entering comments/text on DPR entries
- DPR graphs were labeling dates incorrectly if requested start date was before the vessels start date/
- Firefox was scrolling entire page down to white space underneath dashboard when using scrollIntoView()/
- High level DPR piechart was not grouping all hours correctly.
- Switching from a thematic or column based style to a simple based style didn't update json when using colour picker.
- Geometry type wasn't being reflected in layer legend. e.g all features looked like lines instead of polygon or symbol.
- Duplicate layer appeared in layers panel when adding a stroke or label style
- Yellow Brick positions (with new props col) were being identified as OTH instead of TRK
- `depthTarget` and `tolerance` columns were not coming through from db into work scope/dataQC entry.

v3.1.6 28/09/2022

Features

- Store and replay dashboard options/settings

- Show blue dot in DPR data entry calendar if a PDF is available
- Allow side by side viewing of DPR PDF and data entry table

Improvements

- When entering DPR times the dropdown will scroll down to the last entered time
- Show next/prev day buttons on Daily Reports viewer within Ops/Phases module
- Zoom to geojson bounds if bounds are not set in DB.
- Import/export tables to TSV (Tab separated) as well as CSV.
- More notifications when data entry actions encounter an error.
- Better handing of expired/renewed tokens especially between multiple sessions/browser tabs
- Various styling tweaks to layers module

Bugfixes

- Historic vessel tracks now show even if intial map load had no vessels (previously would only show last known position and no tracks)
- Ensure code mapping option is available when enabled (was an issue with it only showing if a work scope was enabled)
- Prevent crashing of code mapping modal when no default contractor codes are found
- Allow dashes in Contractor names and VG Codes.

v3.1.5 06/09/2022

Features

- Introduction of PM dashboard
- Configure DPR->PM code mappings
- If no DPR->PM code mappings are entered, user can import contractors default codes

Improvements

- Notify user that 24 hour session has expired
- Loading spinner when submitting work scope entries
- new time picker allows 24:00

Bugfixes

- measure tool sometimes broke when switching basemaps (missing symbols)
- allow BH and CPT types in work scope entries
- dashboard permissions were not working

v3.1.4 26/07/2022

Features

- Can set multiple styles per layer (poylgon, stroke, label etc)
- Check local build version against latest version on server to prompt user about a new version (i.e refresh page)
- Conflict handling when user's cached work scope entries will overwrite newer version already in db

Improvements

- Only modified work scope entries are submitted and recorded in DB to improve both front/back end performance
- Show db name on project list, iris layer id on work scope tables

v3.1.3 18/05/2022

Features

- Added UTM Zones reference layer
- Metocean tidal predictions (Global Marine)
- Work Scope dashboard
- Check local build version against latest version on server to prompt user about a new version (i.e refresh page)
- Conflict handling when users cached work scope entries will overwrite newer version in db

Improvements

- Data/risk bars now have better labels and gradient styling
- Download button in PDF viewer modal
- Can now click metocean locations to open the dashboard
- Work Scope entries

v3.1.2 09/05/2022

Features

- Print/export data entry tables to PDF
- Routes work scope data entry

Improvements

- Default styling improvements
- Zoom to asset buttons on asset selector and on parameter dashboard
- Added minzoom styling option to hide layer when zoomed out.
- Notes cell in data entry is now a popup input

Bugfixes

- Added missing EPSG 32629
- Various items did not have a dark theme

v3.1.1 14/04/2022

Features

- Show Yellow Brick and ID and battery level in tooltip
- Zones work scope enabled with progress percentage
- Can copy/paste work scope rows (lines and zones only)
- Can now use/share generic work scope statuses across multiple activities like you can with equipment lists.
- Map layer toggle in map onclick popup
- Work Scope locations now have bumpover option
- Added Lessons Learnt to QA data entry tab

Improvements

- Better formatting of E/N coordinate decimal places in feature popups/live feed module/feature table
- Various tweaks to dark theme to make some text/icons more visible

Bugfixes

- Users initials now included when logging in via SSO
- Laggy measure tool in Firefox

v3.1.0 18/03/2022

Features

- Assets
  - Can now be polygons (Asset selection will show area in km2 if populated in db instead of length/start kp etc)
  - Appear in Data panel (under Project)
  - Line styles can be set in Data panel
  - Assets are now grouped by type in Assets and Data panels
- Measure tool now shows a preview (including distance) of the next line segment before clicking
- Can now have multiple CRS per project (e.g Suncable)
- Vector layers now have tooltips (uses wfs_tooltip col, or if null, displays layer name)
- Added observation sites to metocean module and graphs to dashboard
- View or download PDF reports
- Data Entry module
  - DPR
  - Work Scope
  - QA (in progress)
- Dynamic legend based on mbStyle (e.g when icon-color or icon-image is set using a match expression)

Improvements

- Advanced ColorPicker is now populated by layer style if thematic/column values used.
- Doesn't call getFeatureInfo if click is outside of all layer bounds

Bugfixes

- couldn't turn off text-field on point layers in Advanced Editor
- prevent selecting KP range when non-linear asset is selected
- ColorPicker would initially show the labels colour instead of the features colour

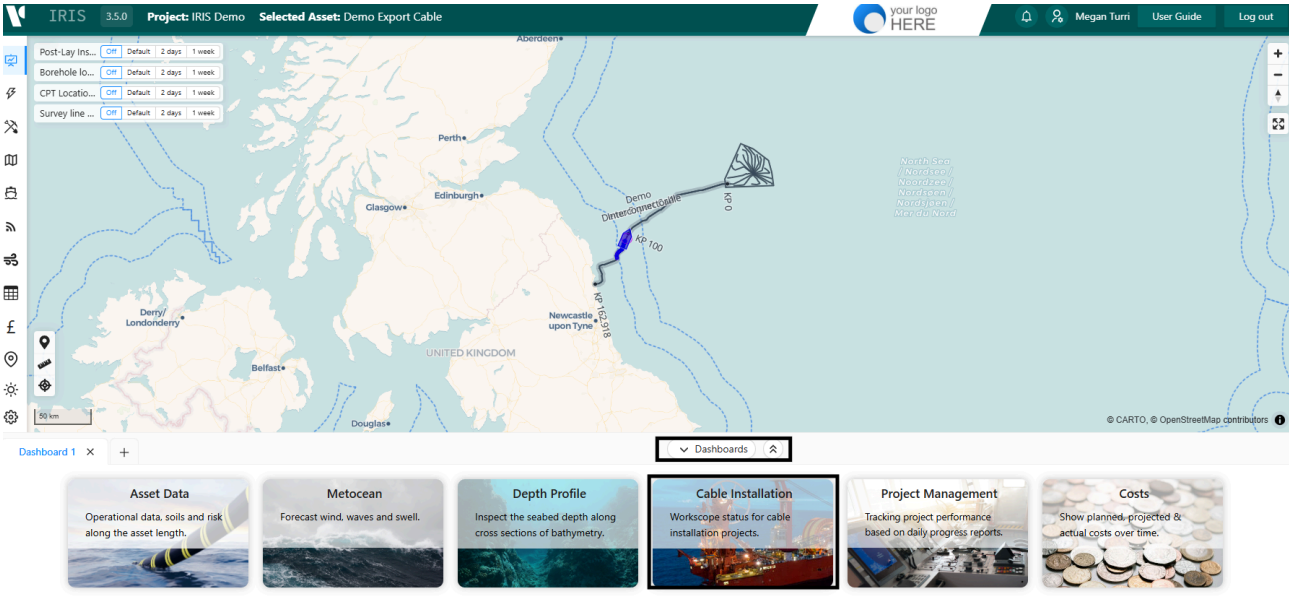
Subsea Cable and Pipeline Risk Manager

The Risk manager allows you to generate and visualise risk bar for linear assets using raw and supplied results data to assess and compare th risk along each feature for a defined KP range. These can also be weighted and combined into a single risk profile for display on the `Asset Data Dashboard` and on the `Map Window`.

The overall aim is to identify and combine risk factors such as depth of burial, exposures, spikes in vehicle sensors and dense fishing areas to understand where faults may arise or why faults have occurred. This can help plan target areas for protective works.

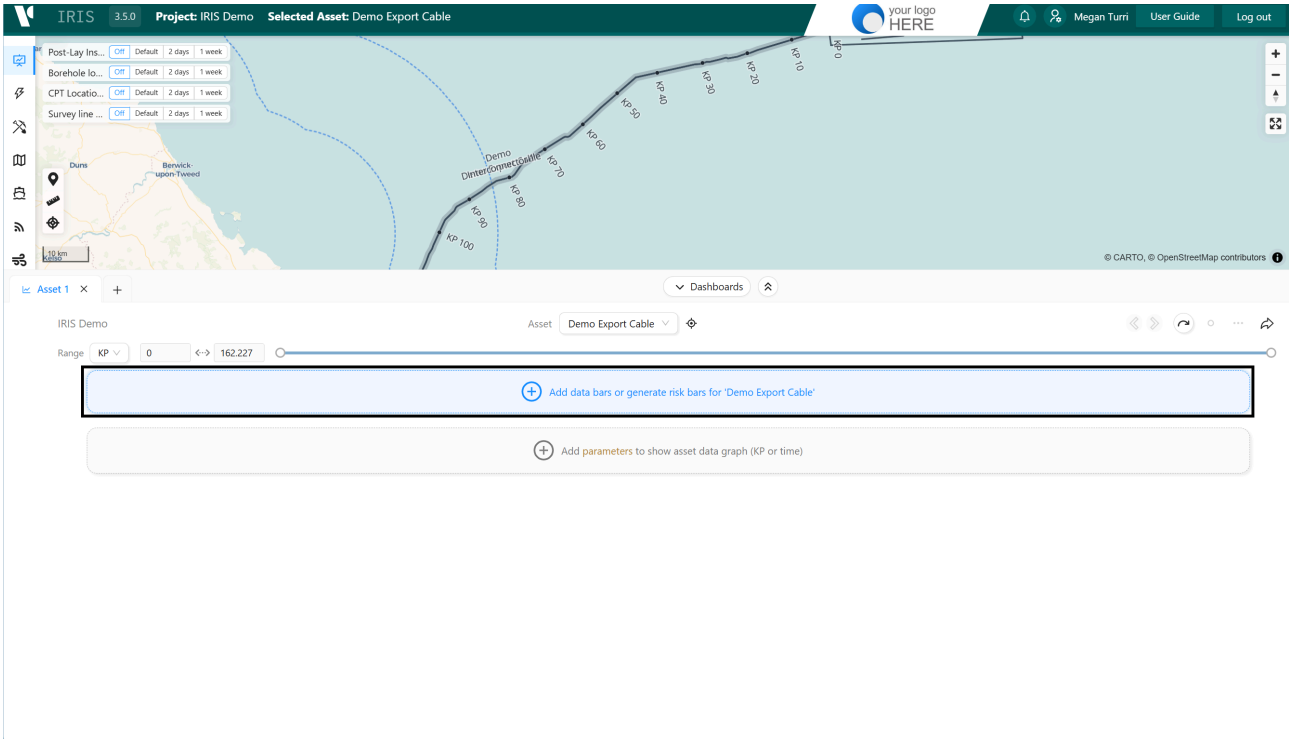
Creating a Risk Bar

The Risk manager is located within the `Asset Data Dashboard` which can be access through the dashboard tablet selector at the bottom of the window.

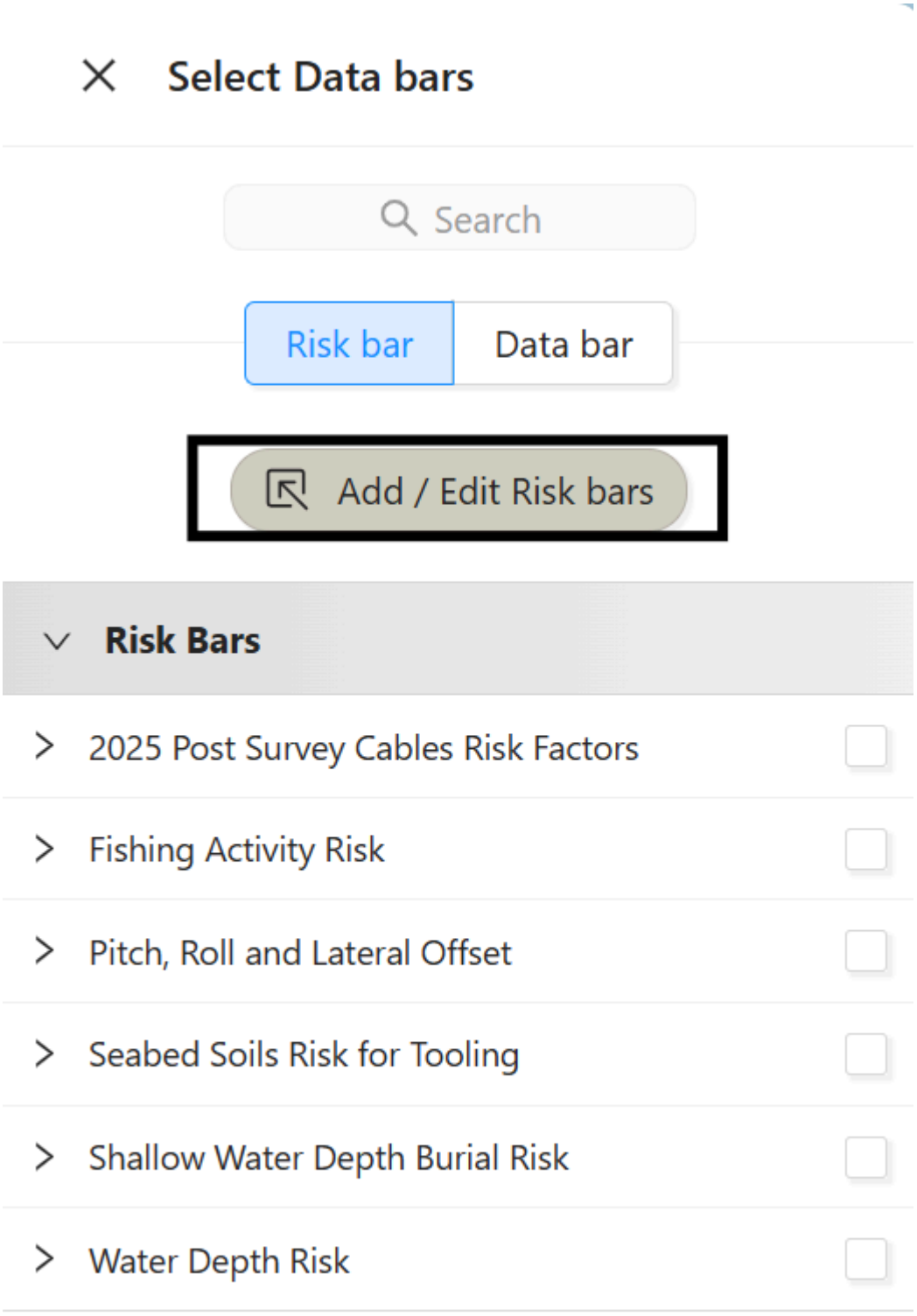


To add data select the `Asset` in the drop-down at the top of the dashboard or through the `Assets Module`, before changing the KP range if needed.

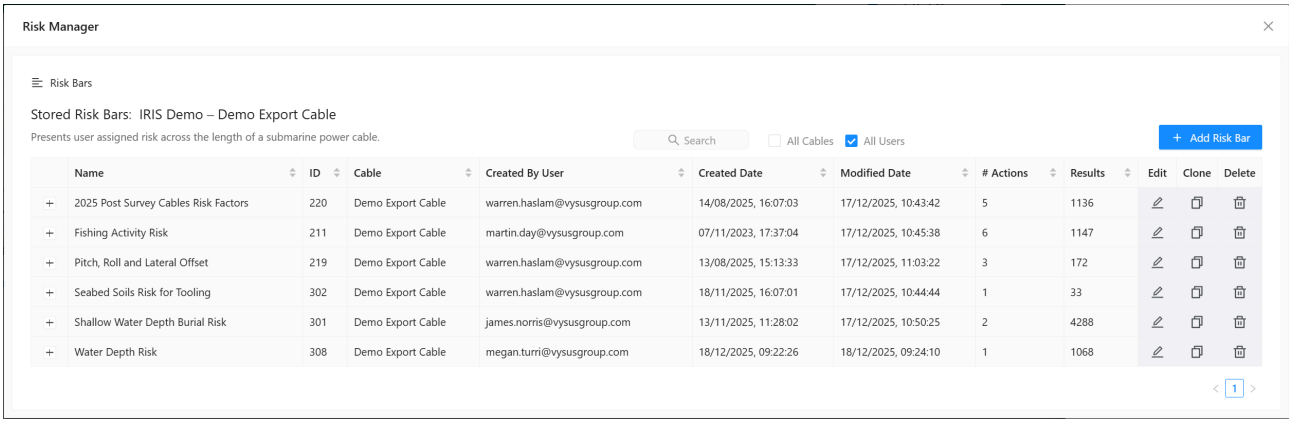
Select the `Add Databars for Asset` and select the `Risk bar` tab. This will show the previously generated risk bars for the selected asset within the project.



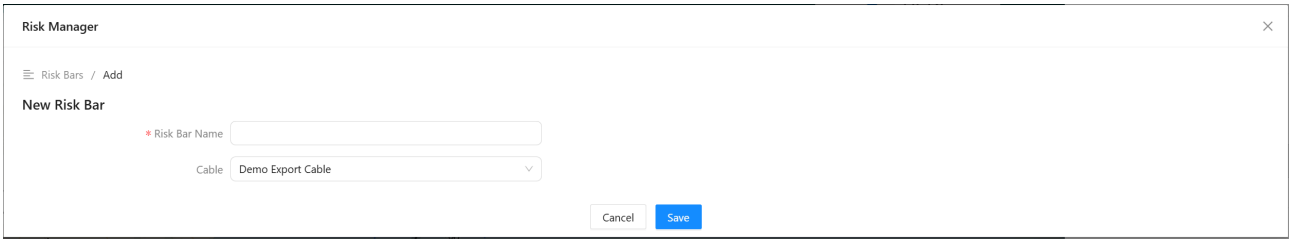
Select the **`Add/Edit Risk bars`** at the top of the list will bring up the risk manager table. This table shows a basic amount of information for each risk bar and allows users to edit, clone and delete an individual risk bar with the functions on the right.



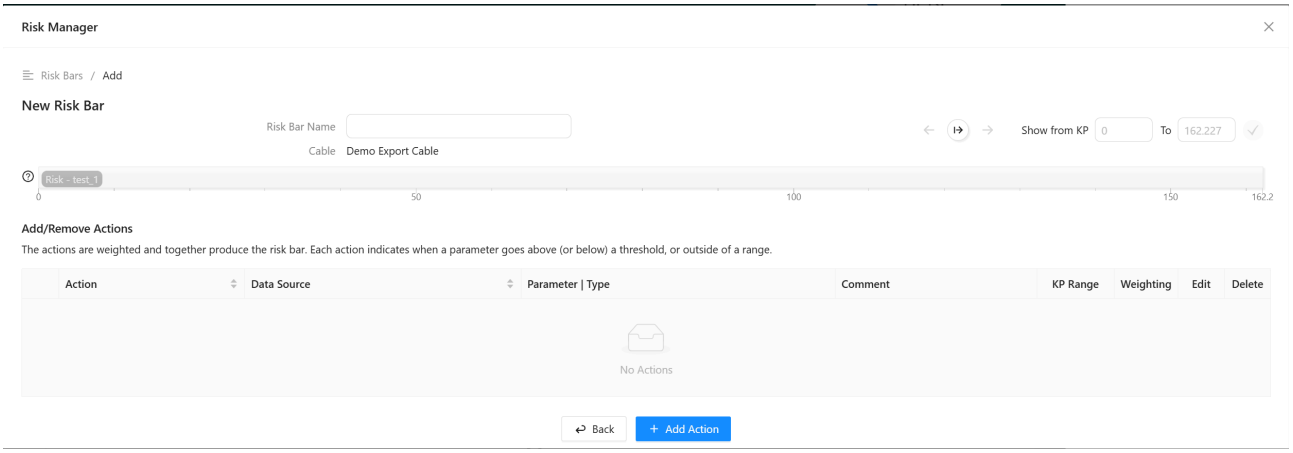
The risk bar manager table shows all previously created risk bars for the currently selected `Asset`. You can also see risk bars generated by other users in your usergroup by checking the `All user` tickbox or similarly for all other `Assets`.



To generate a new risk bar, select the `+ Add risk bar` button. This will open a new view which will allow you to change the selected asset if needed and name the risk bars.

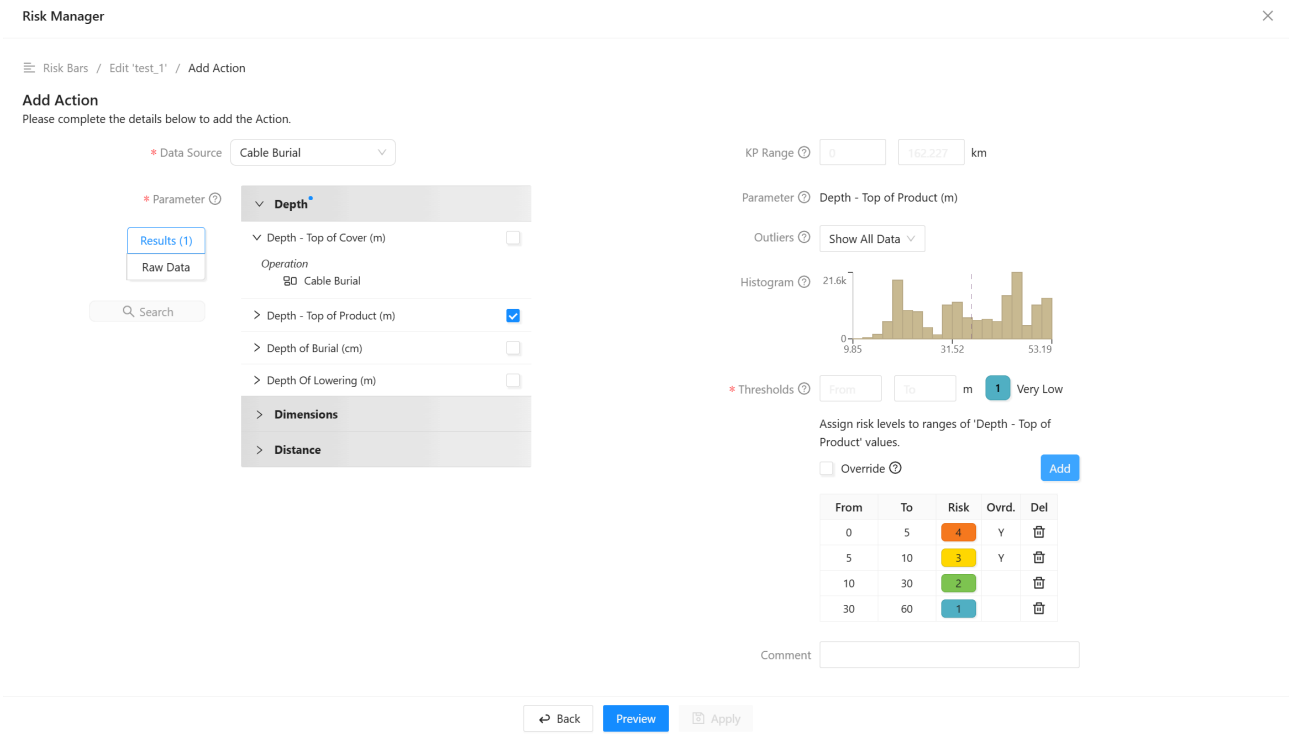


Clicking save will show a blank risk bar.

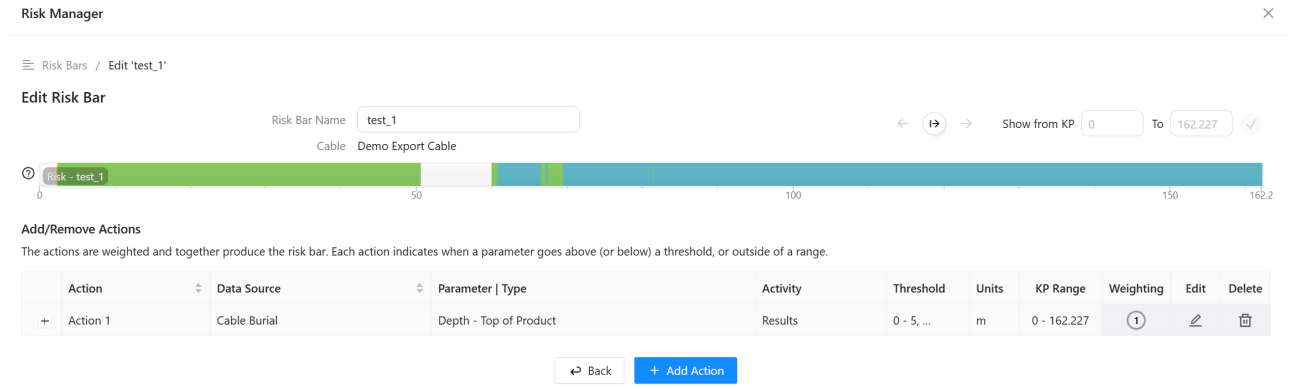


The next step is to `Add Action` and select the data from a variety of sources such as survey work, cable burial, defined data bars or an option for manual entry. Selecting the checkbox to the left of the data and alter the range or remove outliers if necessary. You can then assign risk values to defined thresholds within the selected data using the small table before applying.

Select the `Override` button first, if you want a particular data threshold to override any other risk levels added as actions e.g. if this particular threshold holds the highest importance and you don't want it averaged out by other factors.



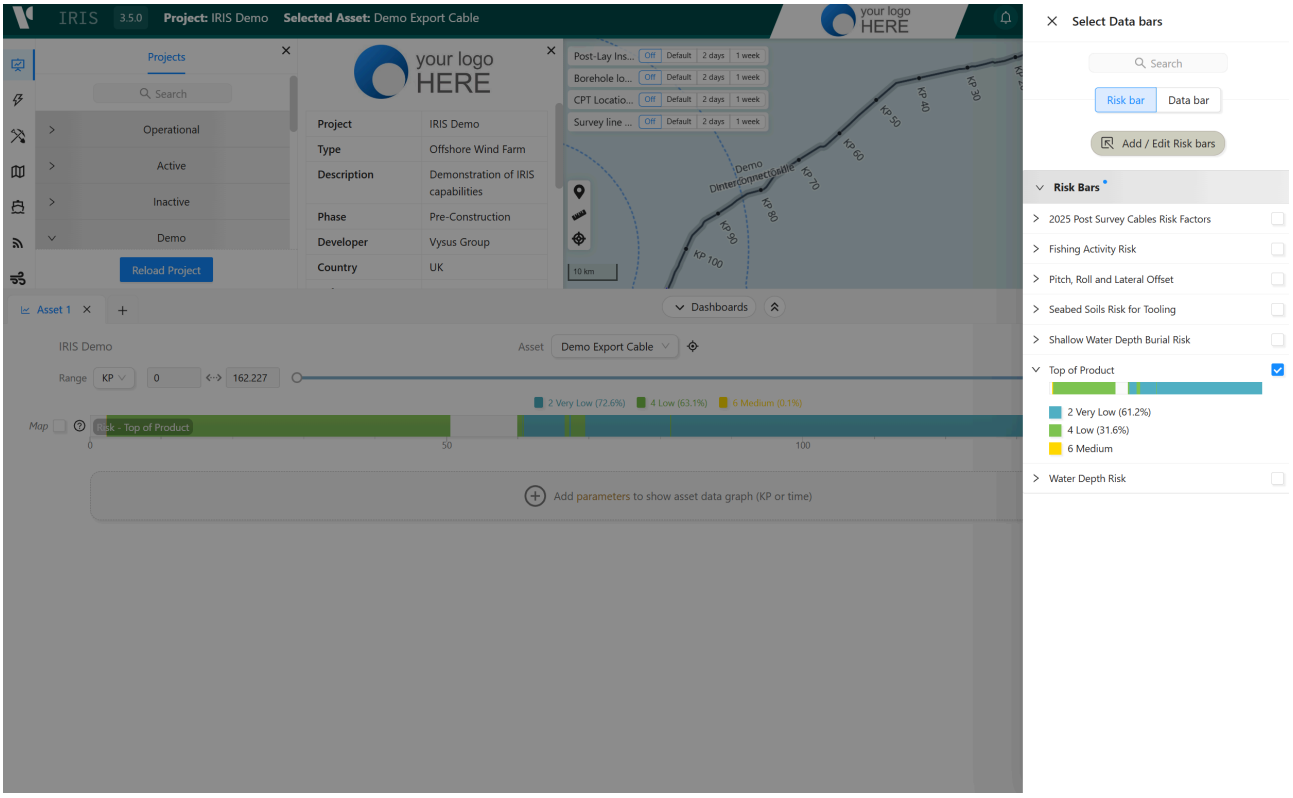
Returning to the table, each action of teh risk bar is assigned a weighting which can be changed in the weighting column. Additional actions can be added in the same way.



Adding a Risk Bar

The risk bar is created and saved within the previous table. It can be added to the asset dashboard in the same way as data bars. It will appear at the top of the parameter graph, aligning with the selected KP range.

The risk bar can also be added to the map view with the small checkbox to the left.


IRIS
3.5.0
Project: IRIS Demo
Selected Asset: Demo Export Cable
your logo HERE
Projects
Search
Operational
Active
Inactive
Demo
Reload Project
your logo HERE
Project
IRIS Demo
Type
Offshore Wind Farm
Description
Demonstration of IRIS capabilities
Phase
Pre-Construction
Developer
Vysus Group
Country
UK
Post-Lay Ins...
Borehole lo...
CPT Locatio...
Survey line ...
Off
Default
2 days
1 week
KP 30
KP 40
KP 50
KP 60
KP 70
KP 80
KP 90
KP 100
Demo Interconnector Cable
10 km
Asset 1
Dashboards
IRIS Demo
Asset
Demo Export Cable
Range
KP
0
162.227
2 Very Low (72.6%)
4 Low (63.1%)
6 Medium (0.1%)
Map
Risk - Top of Product
0
50
100
Add parameters to show asset data graph (KP or time)
Select Data bars
Search
Risk bar
Data bar
Add / Edit Risk bars
Risk Bars
2025 Post Survey Cables Risk Factors
Fishing Activity Risk
Pitch, Roll and Lateral Offset
Seabed Soils Risk for Tooling
Shallow Water Depth Burial Risk
Top of Product
2 Very Low (61.2%)
4 Low (31.6%)
6 Medium
Water Depth Risk

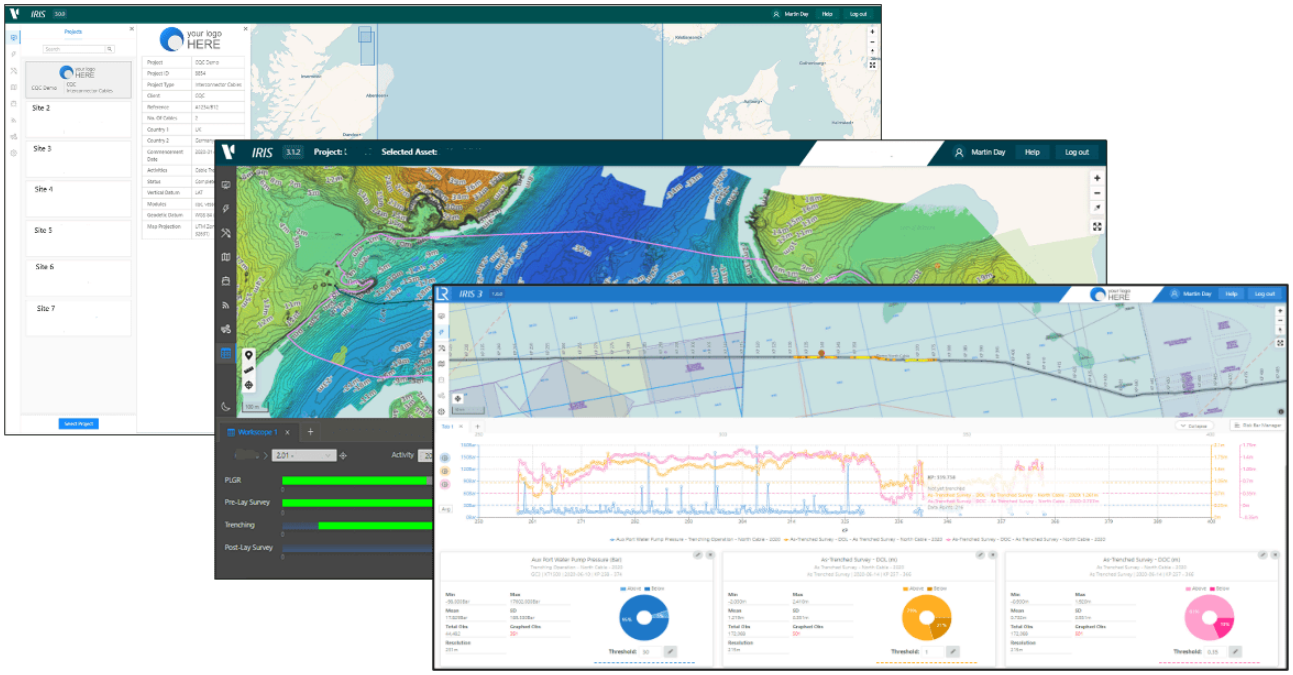
Client Resprentative Guidance on using IRIS

What is IRIS

Designed for the offshore energy and cable sectors, IRIS 3 is the newly released version of our successful IRIS mapping and project management web application used widely in the offshore industry over the past 8 years. IRIS 3 is focused upon offshore survey, construction and subsea inspection projects and associated data and uses the latest web mapping frameworks and secure cloud delivery platforms.

IRIS 3 allows clients to bring all projects, project phases and project data into a single portal for visualisation, assessment and analysis. The IRIS 3 CableQC module allows for the management of cable data and the determination and visualisation of assessed risk along the length of the cable.

For more info see the page `What is IRIS`.



IRIS Project Performance Objectives

A fundamental objective for Vysus Group is to capture offshore project performance data as the project progresses, in a way that puts structured data and information directly into a database server.

By doing this, through the prism of a web map platform we can:

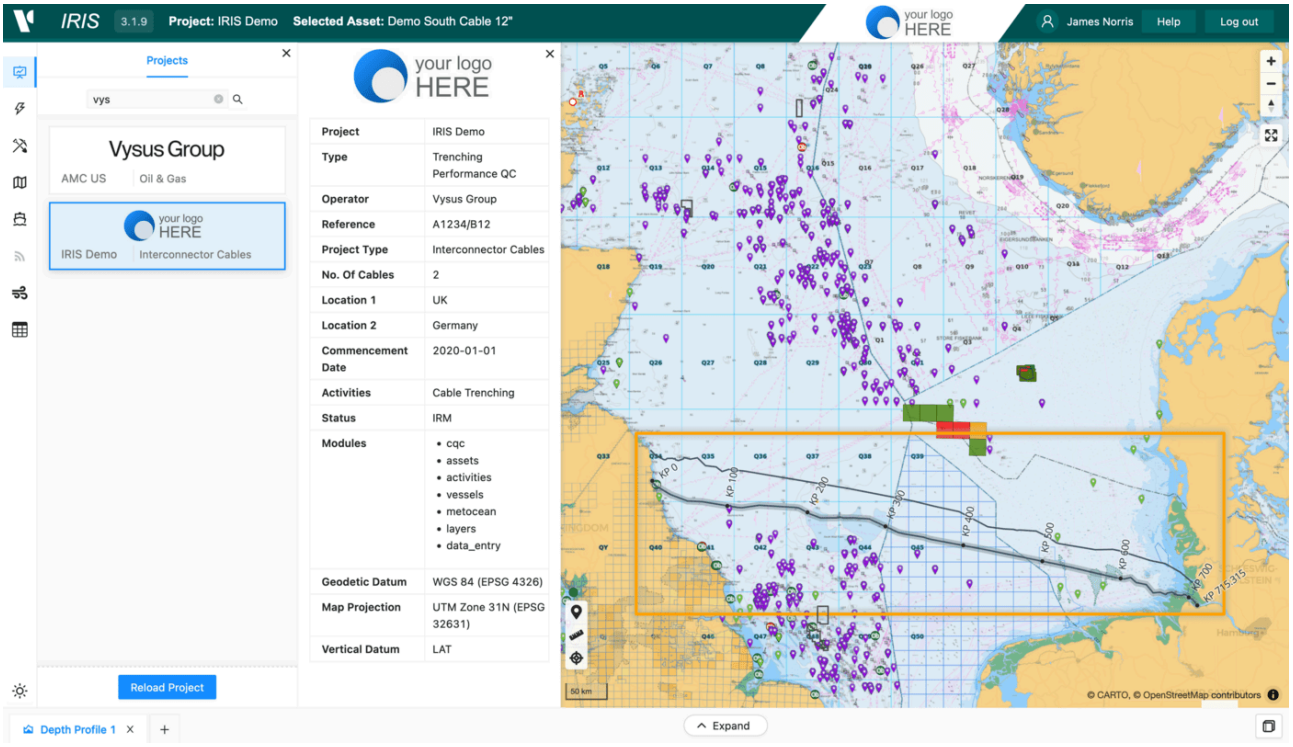
- Achieve the closest 24/7 visibility to project progress, status and forecast for our Project Managers our Clients and their Stakeholders, supporting efficient decision making associated with the work scopes, schedules and budgets
- Deploy tools and analysis to identify issues, trends and performance indicators for individual contractors, vessels and equipment across single and multiple projects.
- Auto generate weekly or monthly project progress and outlook reports
- Auto-generate consistent OCR reports
- Maximize the significant value of 'Observations' in a way that can be readily recalled, analysed and grouped across multiple projects

Getting Started

Access the IRIS site at the following web address https://iris3.iris.vysusgroup.com (https://iris3.iris.vysusgroup.com) and log in to the IRIS site using your pre-issued username and password. Once logged in there is a comprehensive user guide accessible from the right hand side of the top bar:

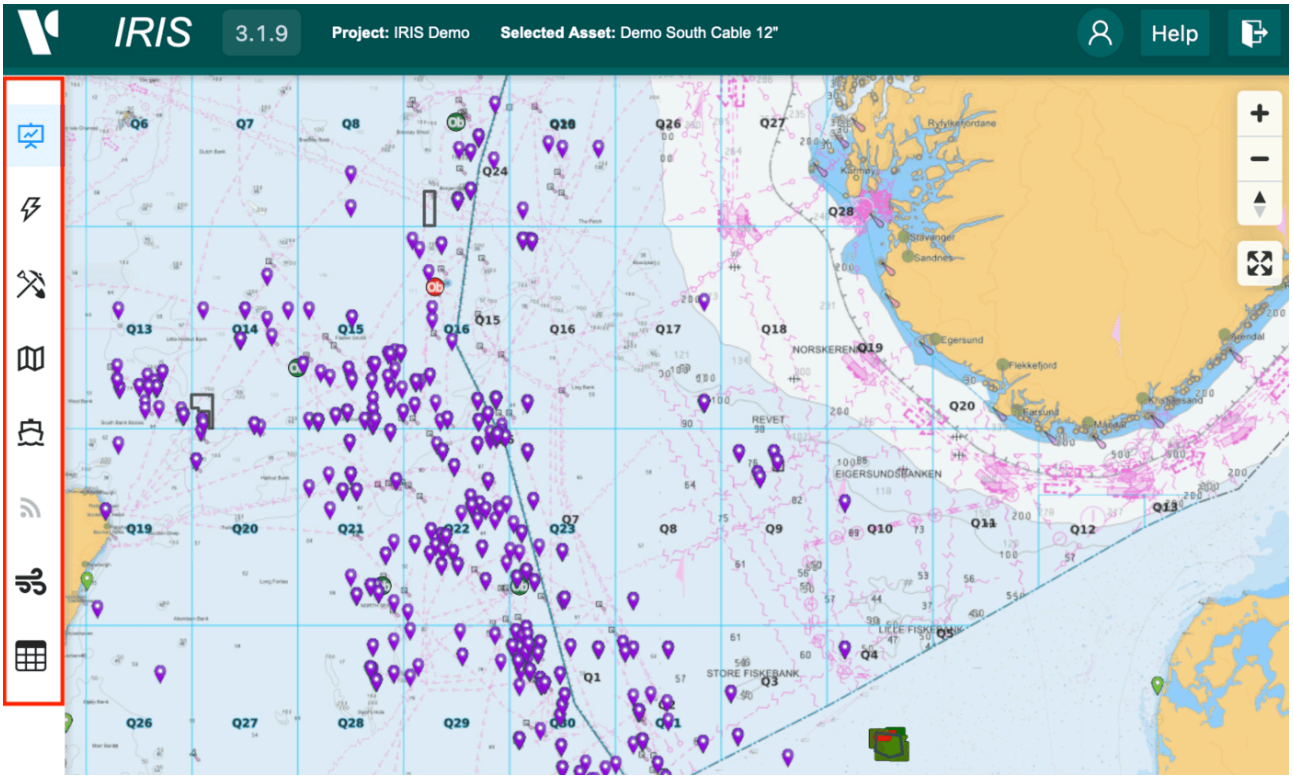
Your permissions profile will be restricted to your client's current project to which you are deployed.

Use the Project Selector icon to select the project from within the `Operational` tab. Click `Load Project` to display the project.



Accessing Features and Functionality of IRIS

The IRIS 3 application is structured around currently 9 primary modules, accessed via the icons within the vertical bar on the left side of the portal.



The philosophy, features and functionality of IRIS 3 are fully described within the rest of the Userguide and modules through the links below:

1. Projects Module - Select project from those available
2. Assets Module - Select relevant infrastructure assets within the project
3. Activities Module - Sequential organisation of all offshore project activities
4. Data Module - Select data layers for display on the map
5. Vessels Module - Real-time and replay of vessel positions
6. Telemetry Module - Digital data streaming from offshore vessels
7. Metocean Module - Maps and plots of forecast and hindcast global metocean data
8. Data Entry Module - Offshore project performance and status data entry

The remainder of this walkthrough describes the data entry requirements of the OCR primarily through the Data Entry Module.

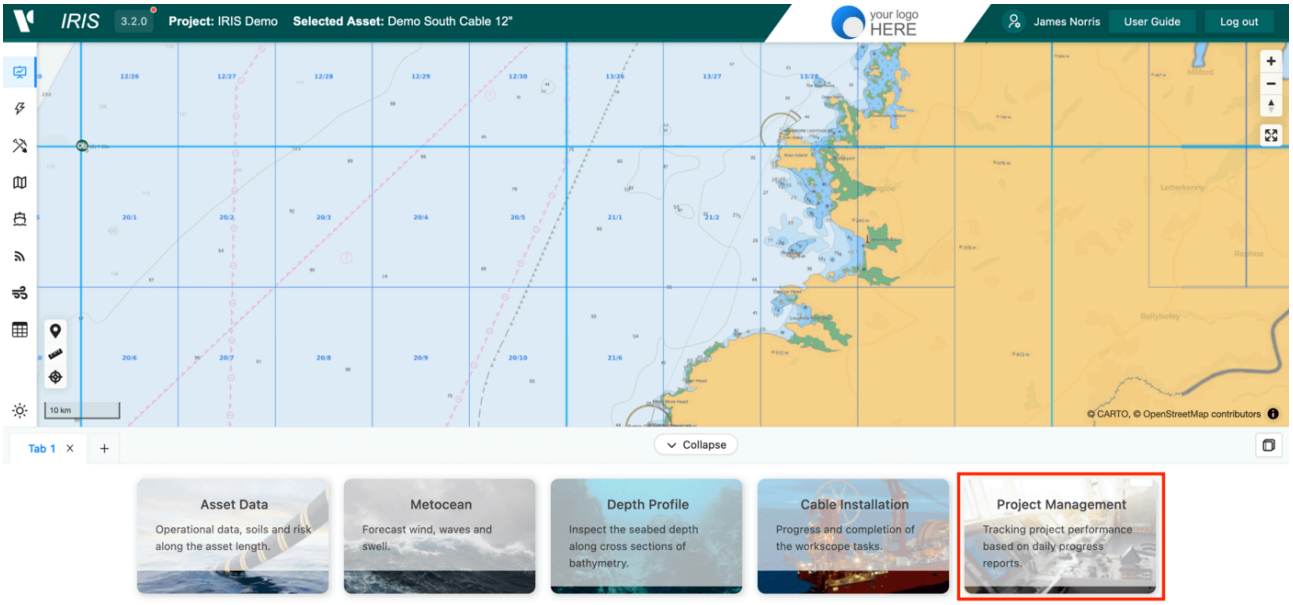
Project Management Module - Data Entry

There are 4 Data Entry areas for completion by the OCR:

- DPR Data
- Observations
- Work Scope Status
- OCR Report Questionnaire

For detailed information and user guidance on entering data, please refer to the Data Entry Module.

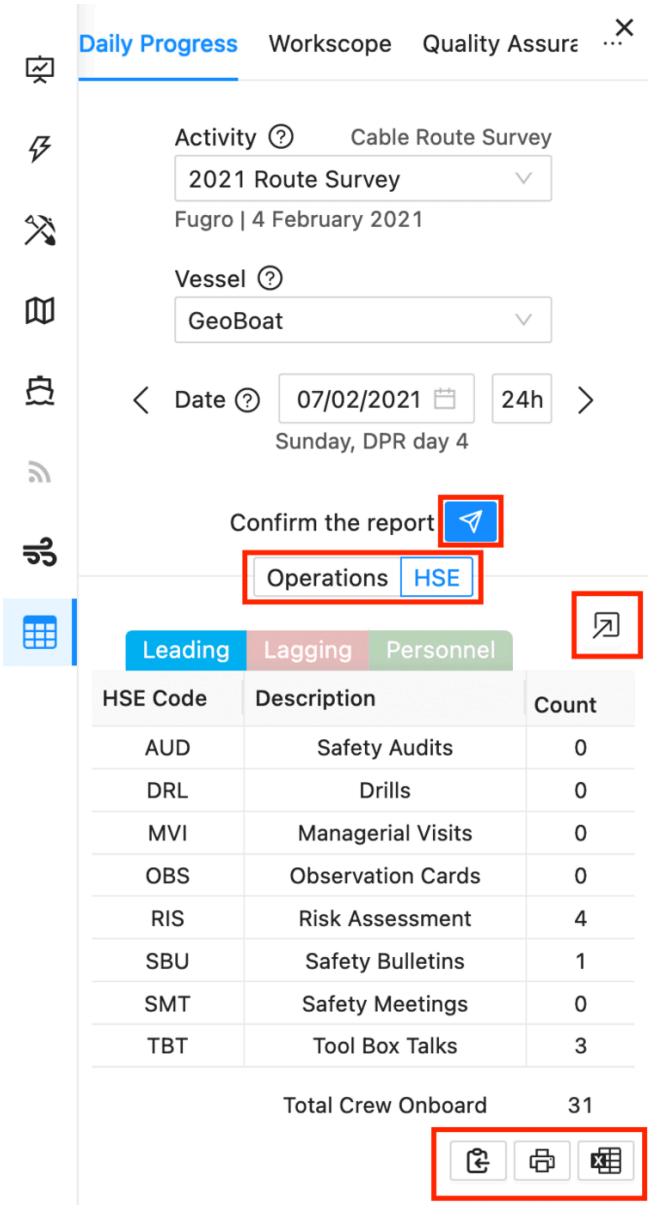
Note that only OCRs and the Project Manager have assigned permissions to access the Data Entry module. This is not available to all other IRIS site users. However, all users are able to see the data entries and associated graphics within the Project Management Dashboard accessed at the bottom of the portal.



Data Entry - DPR Information

Typically this will be copied straight from the agreed and issued DPR and consists of `Operations` and `HSE` data. Ideally, this information should be enter as soon as possible after the DPR is issued onboard.

Select the `Daily Progress` tab, the `Vessel Activity`, the `Vessel Name` and the `DPR Date`. Expand the form and enter the DPR Data.



Note that data already in a CSV or TSV format can be imported, whereas data in a PDF or Excel DPR format will need to be entered manually. This can be done using the 'Import csv/tsv' button at the bottom of the form.

Operations

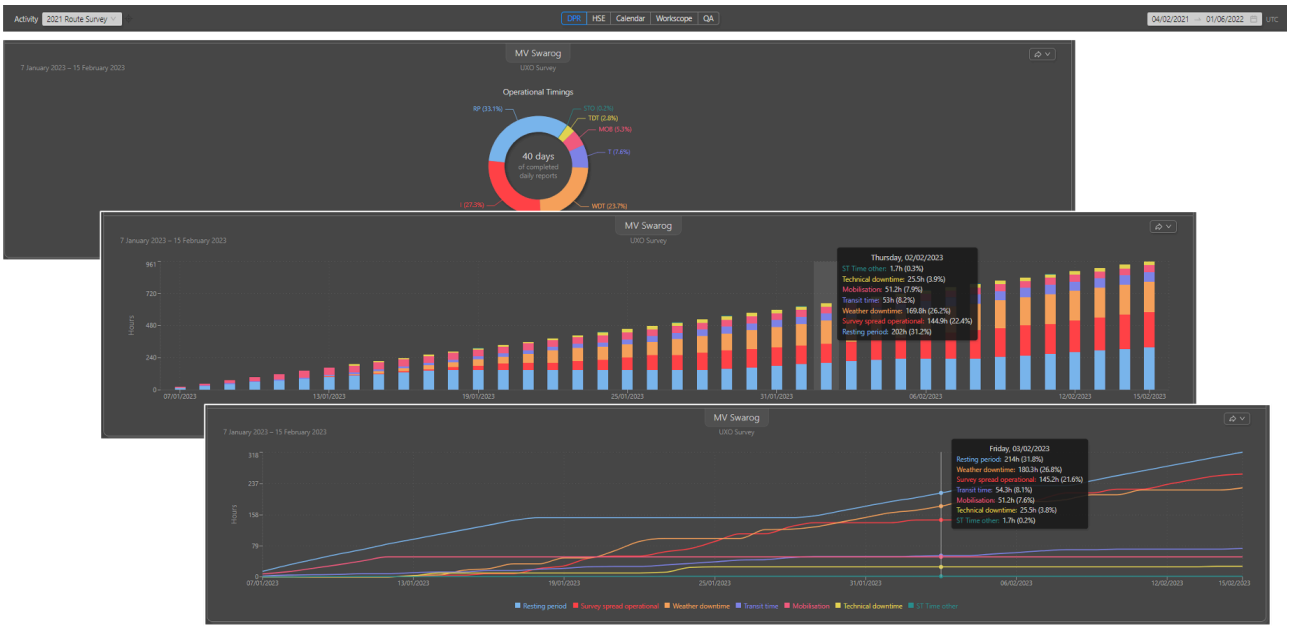
- The DPR Codes will be pre-populated for your selection
- Enter the time and the code in the usual manner and any relevant comments. If you have a single code split into several consecutive blocks in the DPR you can group them into a single entry.

HSE

- The HSE codes are based upon an **IMCA** documented standard of lagging and leading indicators e being used by the **Contractor**, please use best judgement to map onto the IRIS HSE codes.
- Make sure you enter a value for **Total Crew Onboard** for the DPR day to be confirmed.

Once both of these sections have been completed click **confirm** to save the changes and confirm the daily progress, turning the date selector **green**. This will be greyed out if a section is incomplete such as the time not adding up to 24 hours.

For more detailed information and user guidance on entering DPR data, please refer to the **Data Entry Module** page. The resulting data can be displayed and queried in the **Project Management Dashboard** as seen below:



Data Entry - Work scope

The work scope status is not specifically linked to the DPRs and needs to be updated separately. A work scope is categorised into 4 defined types: **Lines**, **Locations**, **Zones** and **Routes**. Surveys may consisting of elements from 1 or more of the 4 types, and the respective tabs will be available to be filled in.

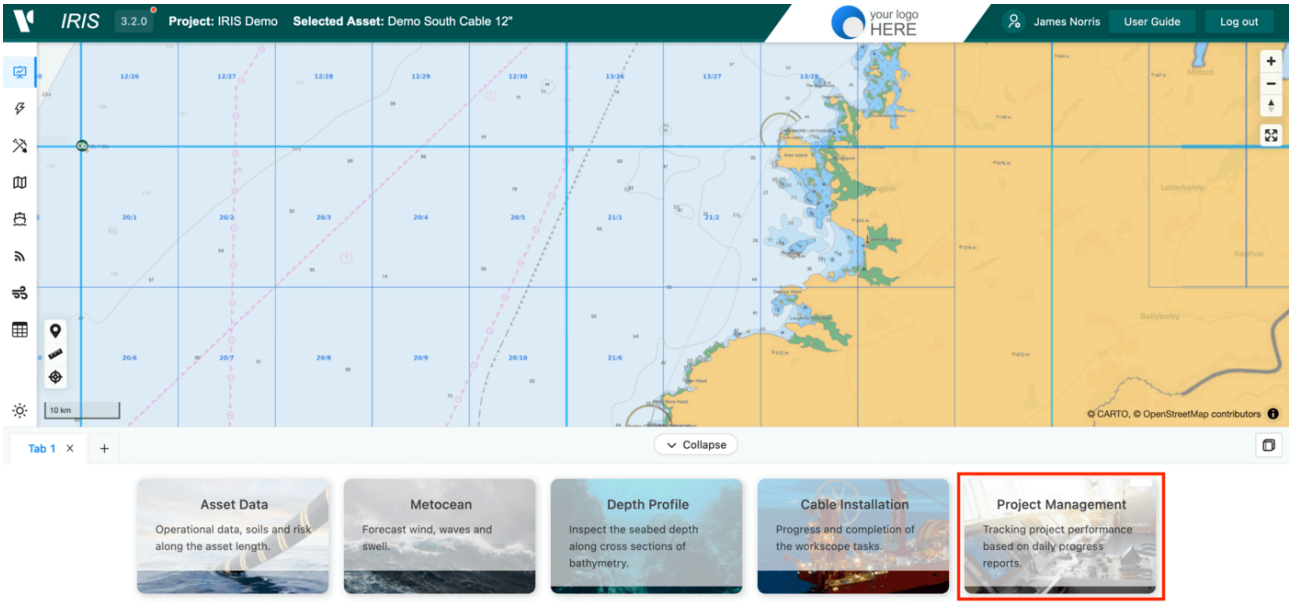
Select the **Work scope** tab, select the relevant **Activity** and expand the relevant data entry form. The full work scope status is now displayed with full granularity down to the individual line, location or cable route.

Each work scope will require slightly different information, however a regular update for the following information is needed for all:

- Status - Update the `status` of the line from the options within the drop down list
- Comments - Add appropriate comments with respect to the work scope type or tasks associated with the survey of it.
- Vessel completed - Add the name of the vessel that completed the line/location/zone or task from the drop down list
- Date - Enter the data the line/location/zone or task started, and then on any subsequent `status` changes for zones or tasks
- Data Quality - Select the equipment type from the drop down list and enter a rating (0-5) for the performance and quality of the equipment, with either positive or negative comments relating to rating. The `User` and `date` columns are auto populated and then can be applied to the whole work scope using `Apply Equipment`.

Additional information is needed for a `Route` work scope as these will comprise of multiple `Tasks`. This can include: information on vehicles, the number of passes completed and the KP range which updated the progress display bar.

For more detailed information and user guidance on updating the workscope, please refer to the `Data Entry Module` page. The resulting data can be displayed and queried in the `Project Management Dashboard` as seen below:



Save Changes

Once you have completed your data entries, click the `Submit` button at the foot of the primary form. The data can be subsequently edited and updated in the same manner as described above.

Data Entry - Quality Assurance

The quality assurance tab is where you can submit your observations of the state of operations onboard the vessel. This includes Lessons learnt, A standard questionnaire and a rep register.

Quality Assurance - Incidents

When a health and safety `Incident` is logged offshore, a record of this can be stored in IRIS. Like other tools the default co-ordinates can be changed from project easting and northing to latitude and longitude by first changing the `Co-ordinate system` in the bottom left of the map window. When the correct co-ordinates are entered the incident log will appear as triangle locations in a map layer (With a page refresh).

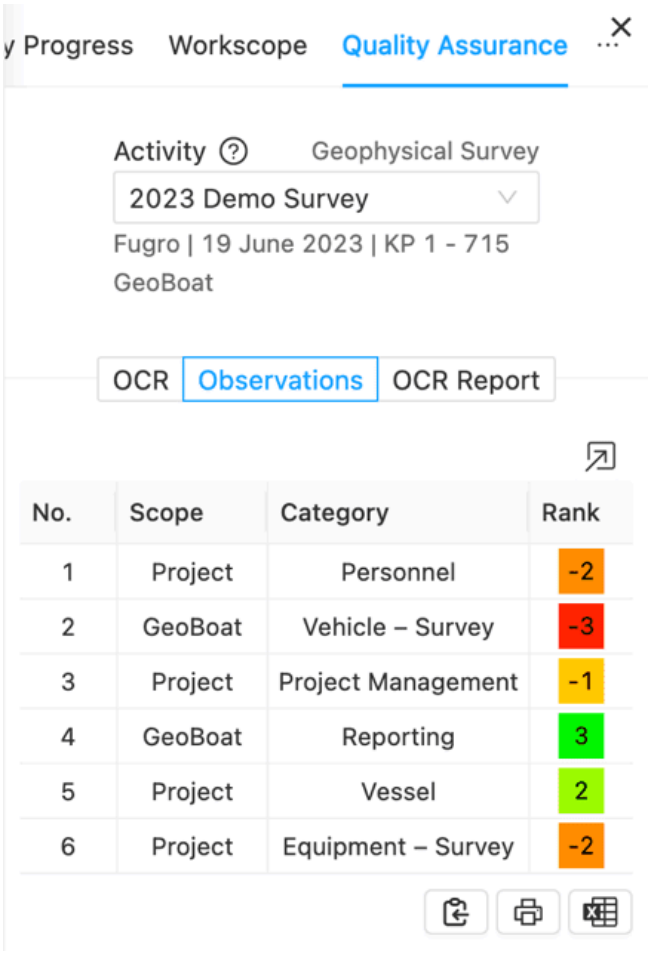
Please fill out all fields but please don't use full names in `Person Involved` or `Responsible Person` column. Either refer to initials, positions or teams. Attach relevant images and throughout the job please update the status e.g. `Open, In Progress, Closed`

Like other inputs you can import most of the data via excel. Please first use the `Export to Excel` button (bottom right) to get the right format out, then use that format to fill out the spreadsheet and paste in cleanly using the `Import from CSV` button (bottom right). Images will need to be attached manually.

This table will automatically show in the client rep end of job `OCR Report`.

Observations

A primary objective of IRIS 3 is to record Observations within a mechanism that makes them readily subject to analysis and accessible at all stages of future projects from procurement, readiness and execution. Observations are therefore categorised through drop down options. They may also apply to a single vessel or the wiser project.It is encouraged to capture a number of `Observations` covering all aspects of an `Activity`.



Select the `Quality Assurance` tab, the `Vessel Activity` and the `Observations` toggle. Expand the form and fill out each field in a row. `Observations` are both positive and negative comments relating to different aspects of survey activities such as work of communications, contractors, vessel or equipment ranked at `3 or bellow`. To add an observation, the following data is needed:

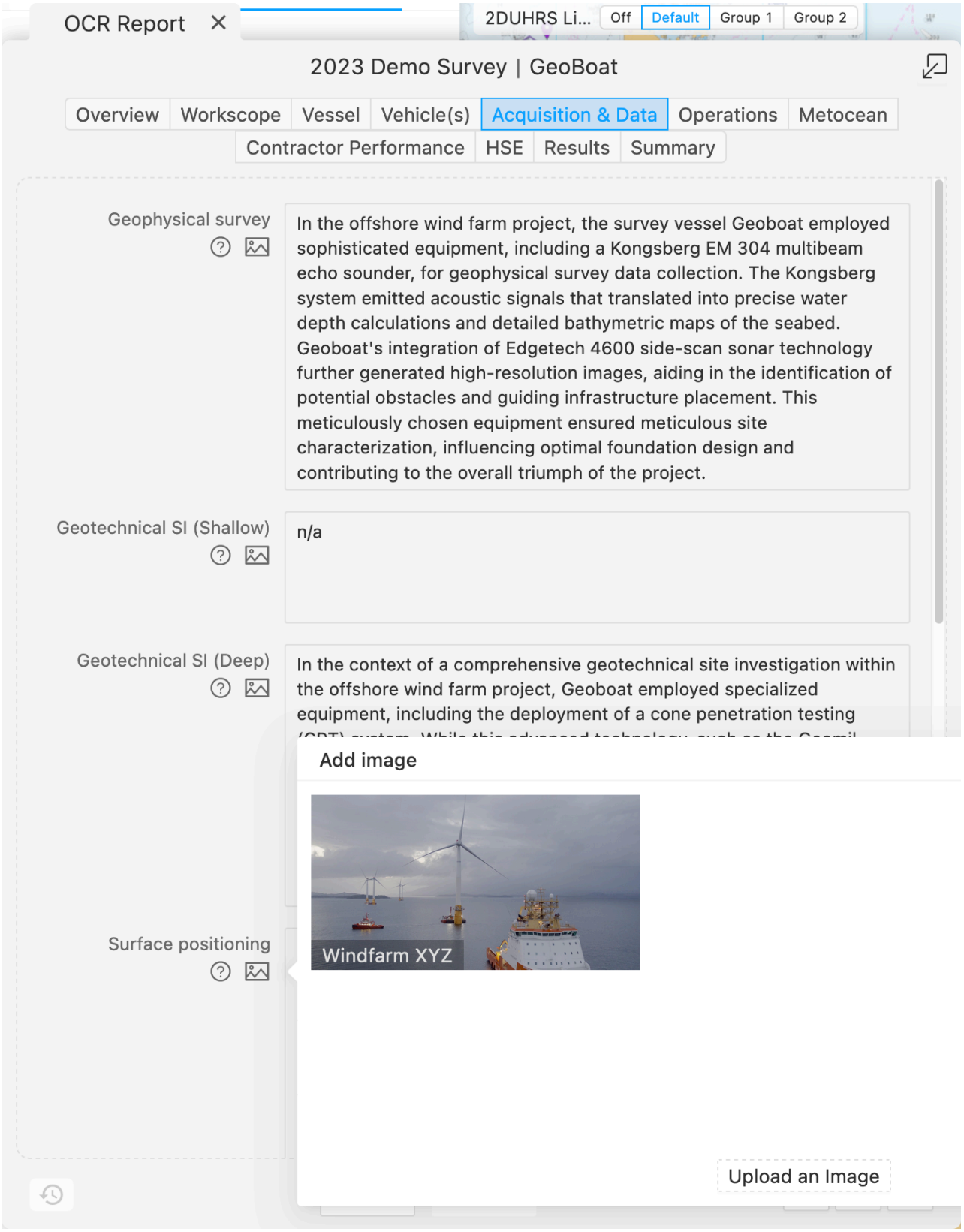
- Scope - does this observation apply to one of the vessels on the `Activity` or to the project in general ? Select accordingly.
- Phase - select the applicable `Activity` phase that the observation is relevant to
- Category - further select from a pre-populated list of categories
- Detail - further granularity based upon the category selected
- Comments - add your comments describing the observation
- Rank - assess the importance of the observation within a range of `-3 (lesson learnt)` to `+3 (very positive)`.

Once you have completed your data entries, click the `Submit` button at the foot of the form. The data can be subsequently edited and updated in the same manner as described above

For detailed information and user guidance on entering quality assurance data see the `Quality Assurance` section on data entry.

OCR Report

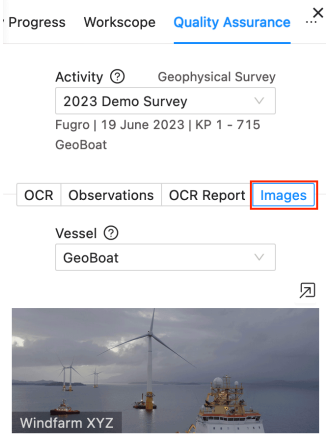
The `OCR report` section allows for a report to be built by pulling data from the `Activity` and `Work Scope` data and supplementing this with additional text and comments relating to various aspects of the operation. We encourage you to fill this out throughout the activity to reduce time at the end of the job creating the final report. Edits can be made to sections already submitted at a later date.



Toggle through each of the tabs that break down the relevant information that is included, and enter the relevant comments into each text box. The form can be expanded (top-right) and the text boxes will continue to expand with no limit on the word count. Formatting may be lost if copy text from an different software (e.g. Microsoft Word) so be aware when using bullet points, subtitles or formatted text (**Bold**, *Italics* or Underlined).

Not all sections within the `OCR Report` will be relevant to the `Activity` so place a `N/A` within these text boxes to show it hasn't been missed and can be removed during the submission of the final report. Once complete, click `Submit` and the text will be formatted and combined with the project data.

Images can now be added through the `Image` tab.



In this a file can be loaded in through the file explorer, with text boxes for the `file name`, `title` and `description` of the image.

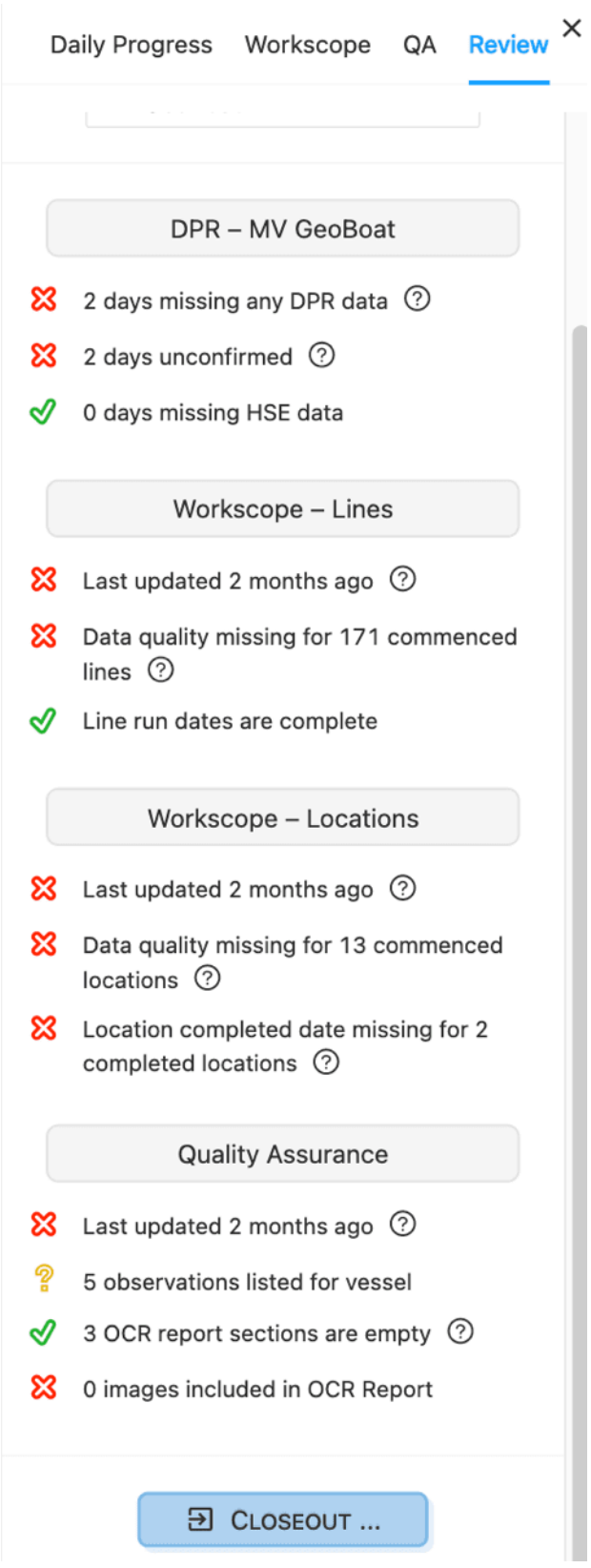
Images can then be linked to a specific location within the `OCR Report` form though the small image icon beside each text box. The image will then be referenced within the selected text box, but will appear at the end of each sub-section of the `OCR Report`.

For detailed information and user guidance on entering OCR Report data see the `OCR Report` section on the data entry.

Review

This section provides visual feedback that allows a user or project manager to check `Data Entry` input to ensure everything is up to date and no parts are missing.

Simply select `Activity` and `Vessel` from the available drop downs to see status and info for each `Data Entry` section. Under each heading there will be a few checks which show a cross, question mark or tick based on predetermined validation rules along with a `?` hover which provides more detail.



Typically this will include checks like:

- Is there any missing DPR information?
- When was something last updated?
- How many sections have been filled out?

This should aid and remind you of the various elements to update within the `Data Entry` module. Project Managers will have the ability to close out the activity from this page which will disable `Data Entry` for that activity and apply an end date.

Activity Completion

The IRIS support team will always be on hand to assist with data updates or any queries. It is really important that everything is updated on a daily basis to provide maximum value to the client and a near realtime understanding of what is happening offshore. Once all the data is filled in and you are ready to close out contact the team and they will publish a completed OCR report which will include all the information entered along with project information and metocean graphing. If you boarded with a Vysus tracking device please make sure this is demobbed with you unless the work is continuing.

IRIS Walkthroughs

Below is a selection of guides for specific use cases.

1. Client Representative Walkthrough
2. Vysus Handheld Tracker Setup

IRIS Handheld Iridium Tracker Installation Guide

S&G supplies its Client Representatives with global tracking units intended to be operated onboard supported vessels. The units measure GPS positions which are telemetered in real time via Iridium to IRIS, nominally every hour. Position accuracy is generally better than ±5m. The IRIS team can configure most things remotely once initial setup is complete.

Applicable Devices

- YB Tracking ‘Yellow brick’ (V3 MKII or MKIII)
- Rock Seven ‘Rockstar’

Kit Contents

- 1 x tracker device
- 1 x pelicase
- 1 x international USB charger
- 1 x USB A to mini B cable
- 1 x mounting pouch
- 1 x secondary retention strap

Installation & Operation

1. Verify kit contents & unit NOT ACTIVE prior to departure from home – top up battery to 100%
2. Request permission and agree installation location with vessel crew – aim for low risk non-PPE / permit area preferably with limited obstruction.
3. Perform and document risk assessment for installation – using VG SafeSTART TRA, or vessel based equivalent
4. ACTIVATE unit – hold down ok to start
5. Click ok to enter main menu
6. Scroll down and enter tracking menu
7. Ensure status is set to ‘on’
8. Ignore manual report function
9. Ignore history function
0. Ensure report freq set to 1hr (standard VG default, hz configurable remotely as required)
1. Ignore burst settings
2. Ensure activity sense is off
3. Come out of tracking menu – ignore all other sub menus
4. Click left arrow back to home screen
5. Install unit – ensure secondary retention fitted (measure mounting offsets as required)
6. Check unit (using up arrow) until a successful position transmission can be verified
7. Notify IRIS support by email that unit is installed & operational (relay any offsets as required)
8. Perform project - monitor battery status daily and consult with IRIS support if drops below 50%
9. Complete TRA to recover the unit
0. Request permission to recover the unit from vessel crew
1. Recover unit
2. Enter main menu
3. Scroll all the way down to deactivation
4. Are you sure?
5. Click ok
6. Screen says NOT ACTIVE
7. Pack unit away (there is no actual power off switch – it just goes to sleep itself when deactivated)

8. Confirm all items present and correct as per kit contents, ensure unit NOT ACTIVE prior to travel
9. Confirm unit demob / forwarding instructions with Vysus Group