Cloud Fleet Manager

MANUAL

CFM MRV & IMO DCS

hanseaticsoft

A member of the Lloyd's Register group

2022-03-07
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Table of Contents

1. About This Guide 4
2. Initial Setup 5
3. General Features 6
3.1. Export Bunker Abstracts 7
3.2. Export Log Abstracts 8
3.3. Export to XML format 9
3.4. Export IMO DCS 11
4. Dashboard 14
5. Monitoring Plans 15
5.1. Create Monitoring Plans 16
5.2. Copy Monitoring Plans 17
6. Vessels 19
6.1. Reports 19
6.1.1. Edit Reports 22
6.1.2. Reopen Reports 24
6.1.3. Delete Reports 25
6.2. Timeline 26
7. Reports 27
7.1. MRV - Summary 27
7.2. MRV - By Vessel 28
7.3. IMO DCS - Summary 29
7.4. IMO DCS - By Vessel 30
8. Power BI 32
8.1. Bunker Map 33
8.2. Consumptions 34
8.3. Current Voyage 37
8.4. EEOI 39
8.5. Engine 41
8.6. Event report timeline 43
8.7. FOC 45
8.8. Route Map 47
8.9. Speed 49

1. About This Guide

This user guide provides an introduction to CFM MRV & IMO DCS and describes how you can leverage the application to meet your business needs.

The application allows you to carry out the necessary reporting to comply with MRV and IMO DCS standards. It also provides several reporting capabilities including the option to leverage our MS Power BI integration that allows you to analyze your data in further detail and provides insights to action.

CFM MRV & IMO DCS consists of the following tabs:

- **Dashboard**
- **Monitoring Plans**
- **Vessels**
- **Reports**
- **Power BI**

NOTE

If you cannot access the **MRV & IMO DCS** tile from the Cloud Fleet Manager (CFM), please contact your system administrator to assign the relevant permissions to your user in the **Users** app.

This user guide describes the features and functions available to a user with full access to the application. If you're expecting rights that your user currently doesn't have, get in contact with your system administrator.

2. Initial Setup

Before you can start to use CFM MRV & IMO DCS, certain settings have to be made:

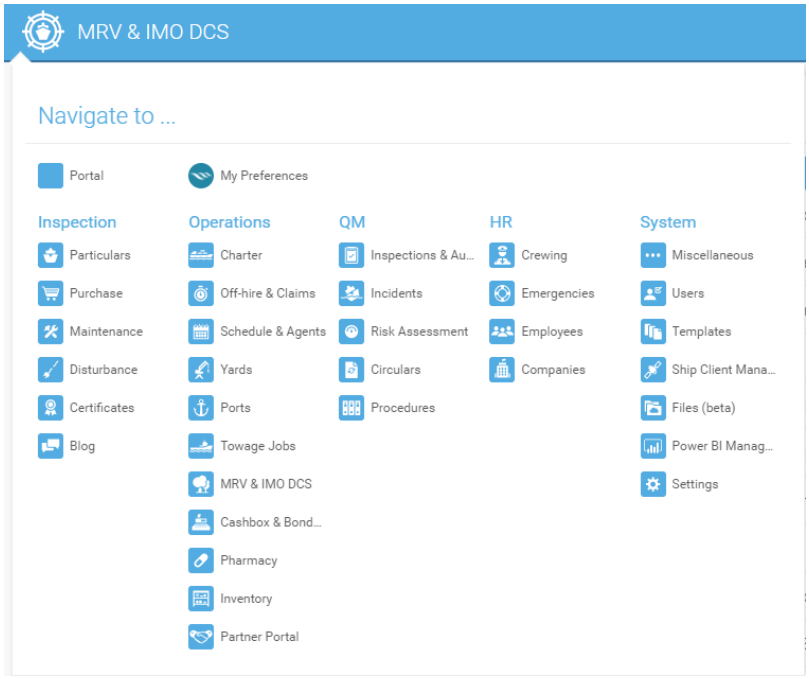
1. Create users for CFM in CFM Users.
2. Assign the users the permission role for CFM MRV & IMO DCS and the relevant tabs.
3. Set up notifications (optional).

3. General Features

The following general features are available from the main navigation bar:

- **Navigation**

  You can directly navigate to other CFM apps by choosing the CFM logo (⚙) from the main navigation bar. Then choose the respective app that you want to launch and the app automatically opens in another tab.



- **What's New**

  Choose the **gift** icon to get an overview of new features, improvements, and bug fixes that were released since the last time you checked. The number displayed in red indicates how many new features, improvements, and bug fixes were released.

  A flyout window allows you to navigate to the timeline of updates for all CFM applications, as well as to the changelog and module history of CFM MRV & IMO DCS.

- **Export**

  You can directly download different types of exports from the main navigation bar. Choose the **Download** icon (⬇) and select the type of export that you require:

  - **Bunker abstracts export**
  - **Log abstracts export**
  - **General XML export**
  - **IMO DCS export**

- **Notifications**

  The **bell** icon indicates whether any notifications from the current app and other apps within CFM are available. This allows you to get relevant information without the need to open all apps.

  Choose the **cogwheel** icon to define for which applications and their actions you want to receive notifications.

- **User Menu**

  To log out of CFM MRV & IMO DCS, choose the user avatar and then **Log out**.

3.1. Export Bunker Abstracts

To export bunker abstracts, proceed as follows.

1. Launch CFM MRV & IMO DCS from your CFM instance.
2. Choose **Download** (⭳) from the main navigation bar.
3. Select **Bunker abstracts export** from the drop-down list.
4. In the dialog window, specify the following information:
   - **Start Date**

     Enter a start date for the time period for which you want to export all available bunker abstracts.
   - **End Date**

     Enter an end date for the time period for which you want to export all available bunker abstracts.
   - **Only include mandatory data**

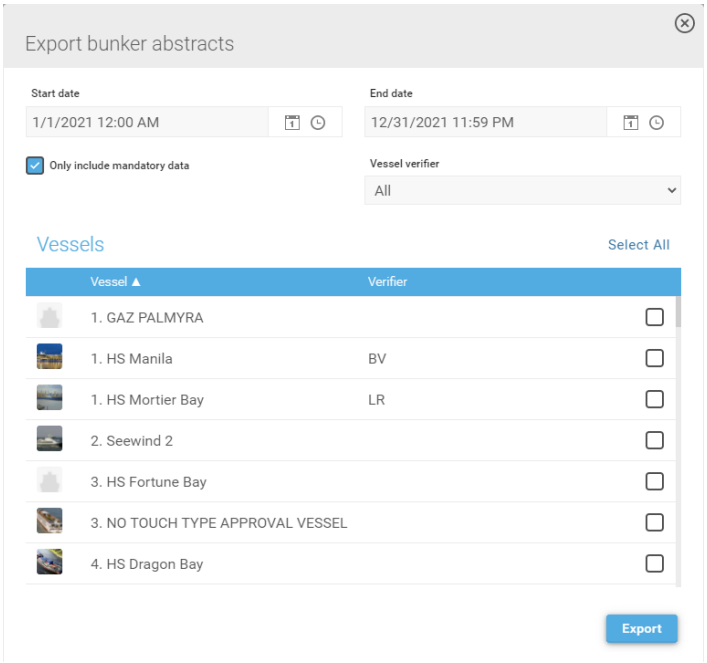
     Set this checkbox, if you want to include mandatory data, only.

     The checkbox is set, by default.

- **Vessel Verifier**

  Select the relevant vessel verifier to get the list of vessels that report to the selected verifier and for which you want to export the available bunker abstracts.

  The data that was maintained in CFM Particulars for the vessel verifier of a particular vessel is used here.



- **Vessels**

  Select the relevant vessels for which you want to get the available bunker abstracts from the list.

5. Choose **Export** to export the specified bunker abstracts.

3.2. Export Log Abstracts

To export log abstracts, proceed as follows.

1. Launch CFM MRV & IMO DCS from your CFM instance.
2. Choose **Download** (⭳) from the main navigation bar.
3. Select **Log abstracts export** from the drop-down list.
4. In the dialog window, specify the following information:
   - **Start Date**

     Enter a start date for the time period for which you want to export all available log abstracts.
   - **End Date**

     Enter an end date for the time period for which you want to export all available log abstracts.
   - **Only include mandatory data**

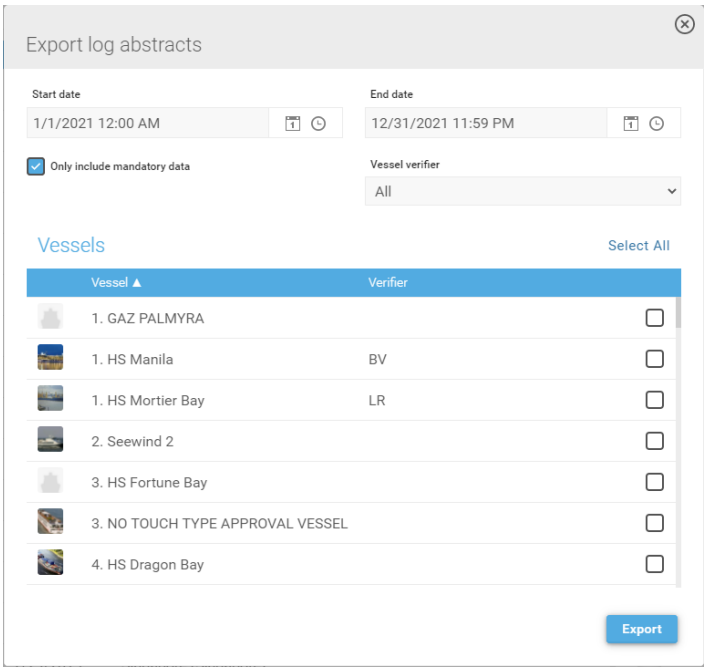
     Set this checkbox, if you want to include mandatory data, only.

     The checkbox is set, by default.

- **Vessel Verifier**

  Select the relevant vessel verifier to get the list of vessels that report to the selected verifier and for which you want to export the available log abstracts from the drop-down list.

  The data that was maintained in CFM Particulars for the vessel verifier of a particular vessel is used here.



- **Vessels**

  Select the relevant vessels for which you want to get the data of all available log abstracts from the list.

5. Choose **Export** to export the specified log abstracts.

3.3. Export to XML format

To export data to a generic XML format (Thetis format), proceed as follows.

1. Launch CFM MRV & IMO DCS from your CFM instance.
2. Choose **Download** (⭳) from the main navigation bar.
3. Select **General XML export** from the drop-down list.
4. In the dialog window, specify the following information:
   - **Year of Monitoring Period**

     Select a year for the monitoring period from the drop-down list.

   - **Vessel Verifier**

     Select the relevant vessel verifier to get the list of vessels that report to the selected verifier and for which you want to export the data from the drop-down list.

     The data that was maintained in CFM Particulars for the vessel verifier of a particular vessel is used here.

- **Include monitoring plan**

  Set the checkbox, if you want to include monitoring plans in the export. The checkbox is set by default.
- **Include annual emissions**

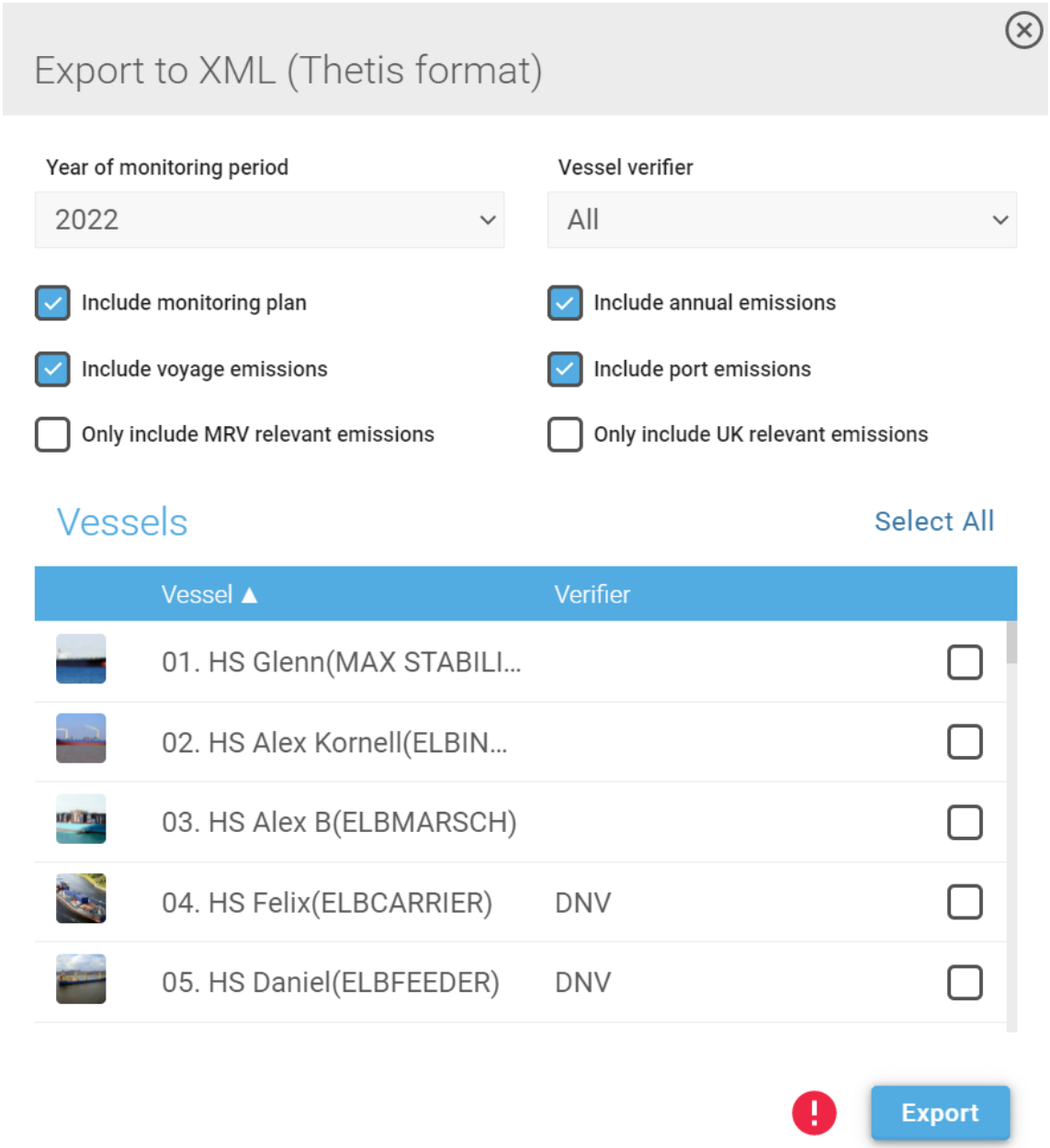
  Set the checkbox, if you want to include annual emissions of the vessels in the export. The checkbox is set by default.
- **Include voyage emissions**

  Set the checkbox, if you want to include voyage emissions of the vessels in the export. The checkbox is set by default.
- **Include port emissions**

  Set the checkbox, if you want to include port emissions of the vessels in the export. The checkbox is set by default.
- **Only include MRV relevant emissions**

  Set the checkbox, if you want to include only MRV-relevant emissions of the vessels in the export.
- **Only include UK relevant emissions**

  Set the checkbox, if you want to include only UK-relevant emissions of the vessels in the export.



- **Vessels**
  Select the relevant vessels for which you want to get the data from the list.

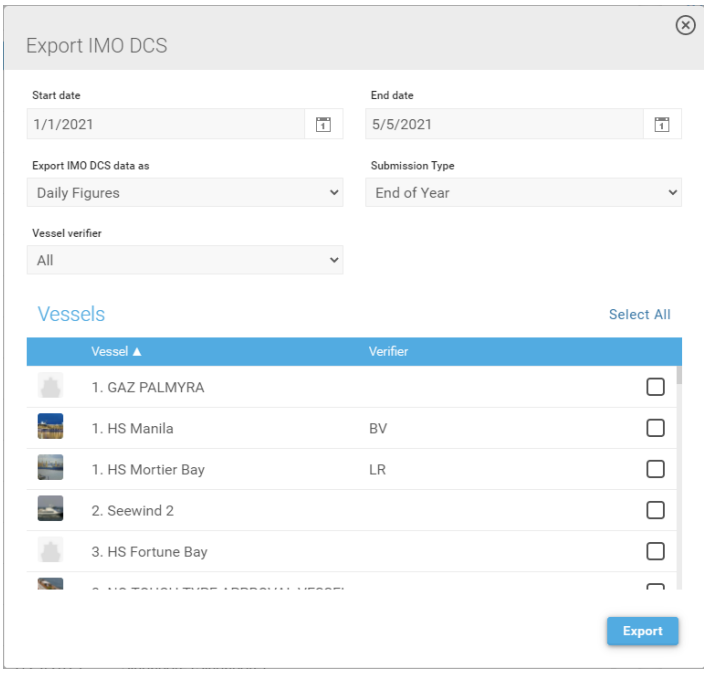
5. Choose **Export** to export the selected data to the XML format.

3.4. Export IMO DCS

To export IMO DCS data, proceed as follows.

1. Launch CFM MRV & IMO DCS from your CFM instance.
2. Choose **Download** (⭳) from the main navigation bar.
3. Select **IMO DCS export** from the drop-down list.
4. In the dialog window, specify the following information:

- **Start Date**
  Enter a start date for the time period for which you want to export all available IMO DCS data.
- **End Date**
  Enter an end date for the time period for which you want to export all available IMO DCS data.
- **Export IMO DCS data as**
  Select how you want to export the IMO DCS data from the drop-down list:
  - **Daily Figures**
    To get all daily figures of IMO DCS, choose this option.
  - **Voyage Legs**
    To get a condensed overview for each voyage leg, choose this option.
- **Submission Type**
  Select how the IMO DCS data was submitted from the drop-down list. The following submission types are available:
  - **End of Year**
  - **Change of Flag**
  - **Change of Company**
  - **Change of Flag and Company**
  - **Decommission**
- **Vessel Verifier**
  Select the relevant vessel verifier to get the list of vessels that report to the selected verifier and for which you want to export the IMO DCS data from the drop-down list.
  The data that was maintained in CFM Particulars for the vessel verifier of a particular vessel is used here.



- **Include Fuel Oil Remainings**
  Select this checkbox, if you want to include information on the remaining fuel oil into your export file. This checkbox only is available, if the **Export IMO DCS data as** is marked as **Voyage Legs**.
- **Vessels**
  Select the relevant vessels for which you want to get the IMO DCS data from the list.

5. Choose **Export** to export the specified IMO DCS data.

4. Dashboard

The **Dashboard** provides an overview of the reports that were recently sent by the vessels and indicates which vessels emit fewer CO_2 than others.

The **Dashboard** tab consists of the following cards:

- **Last Sent Reports**

  Lists all reports that were recently sent from your fleet to the office using CSM MRV & IMO DCS. The list is sorted by date in descending order, by default. However, you can sort the list by any column.

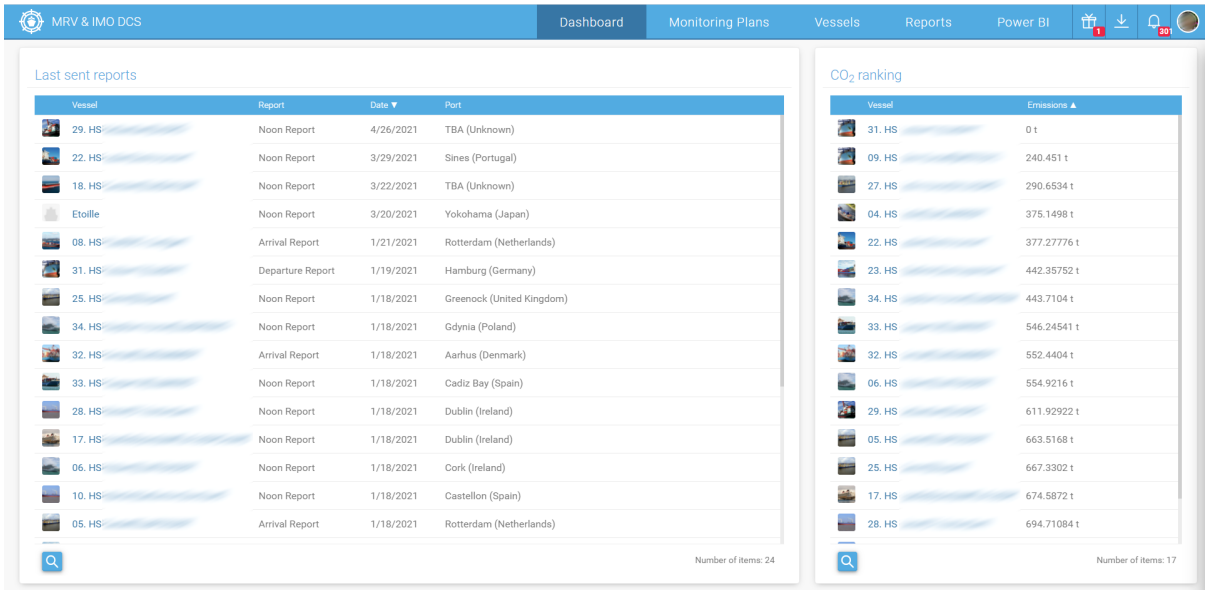
  By double-clicking on an entry in the list, you are automatically redirected to the detail screen of the selected report.

  You can search the list by entering a keyword in the search bar below the table.

- **CO_2 Ranking**

  Lists the vessels according to their CO_2 emissions starting with the one that emits the fewest CO_2 emissions.

  You can search the list by entering a keyword in the search bar below the list.



5. Monitoring Plans

On the **Monitoring Plans** tab, you get an overview of the monitoring plans that were created for your vessels. You can also create and copy monitoring plans as well as manage existing monitoring plans.

Once you've completed the monitoring plans, you export the plans and send them to the responsible verifier of your fleet. For more information, see General Features [6].

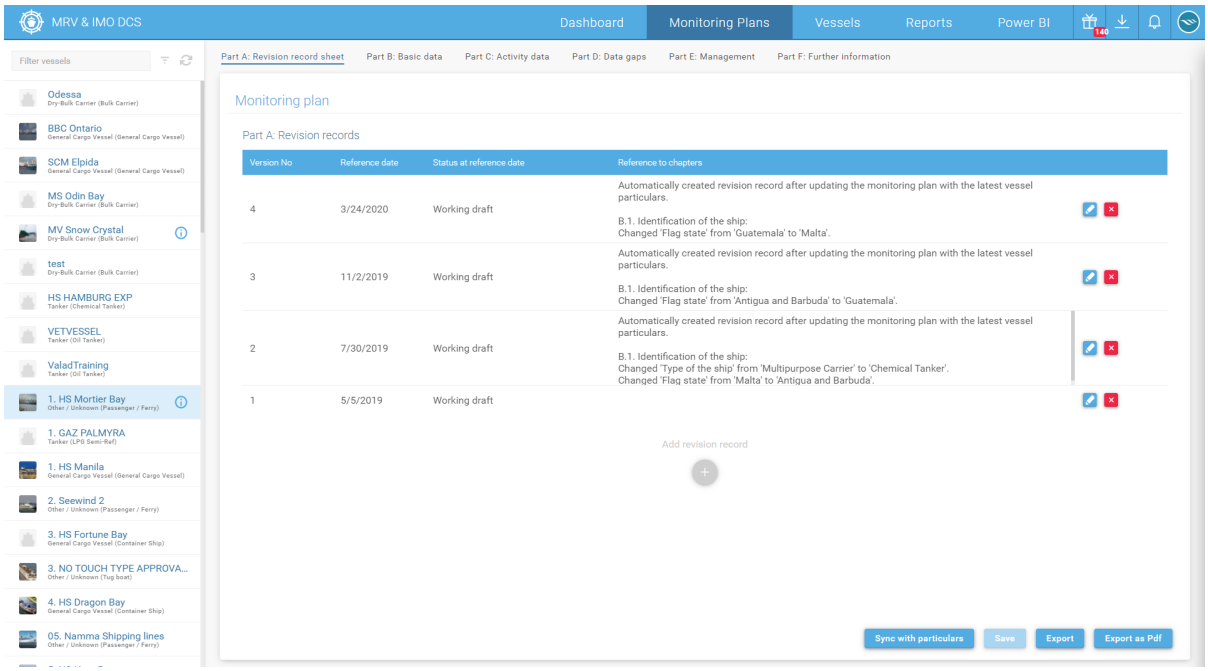
IMPORTANT
If you have maintained the general information of your vessels in CFM Particulars, the monitoring plans are automatically pre-filled.

Each monitoring plan is divided into the following parts:

- **Part A: Revision record sheet**
  Lists all revisions of the monitoring plan including information on the individual changes made to the chapters.
- **Part B: Basic data**
  Includes general information about the vessel, the company, and the emissions used by the vessel.
- **Part C: Activity data**
  Includes information on methods and procedures used to determine values, such as fuel consumption and fuel in tanks.
- **Part D: Data gaps**
  Includes information on methods used to treat data gaps regarding values, such as distance traveled and cargo carried.
- **Part E: Management**
  Includes information on control activities for quality assurance and reliability of information technology, for example.
- **Part F: Further information**
  Includes information on definitions and abbreviations as well as additional information.

The monitoring plans are sorted by vessel. You can search the tab for a specific vessel by entering its name in the search bar.

Additionally, you can display monitoring plans for vessels with changed particulars only. Choose the **Filter** icon ( ) and set the **Only vessels with changed particulars** checkbox.



The following features are provided on the tab:

- Create monitoring plans
- Copy monitoring plans
- Edit entries in monitoring plans
- Synchronize monitoring plans with particulars

> **NOTE**
> An info icon ( ) next to a vessel in the list indicates that the data of the monitoring plan and the particulars of the vessel are not in sync.

- Export monitoring plans as MS Word and PDF files

5.1. Create Monitoring Plans

To create a monitoring plan for your vessel, proceed as follows.

1. Launch CFM MRV & IMO DCS from your CFM instance.
2. Go to the **Monitoring Plans** tab.
3. Choose a vessel from the sidebar on the left.

> **NOTE**
> You can only create monitoring plans for vessels that do not have a monitoring plan yet.

4. Choose **Create new plan**.
   A draft version of the monitoring plan is created.
5. Go through the different parts of the monitoring plan and add the relevant information where required:
   a. **Part B: Basic data**
   b. **Part C: Activity data**
   c. **Part D: Data gaps**
   d. **Part E: Management**
   e. **Part F: Further information**
6. Choose the pencil icon (✎) next to the entry that you want to adapt and enter the relevant value in the **Value** field.
7. Once the entry is complete, choose the green checkmark icon (✓) to accept the entries.

> **NOTE**
> If you want to delete an entry, choose the red cross icon (×) next to the entry.

8. Once you've made all necessary entries for the monitoring plan, choose **Save**.

5.2. Copy Monitoring Plans

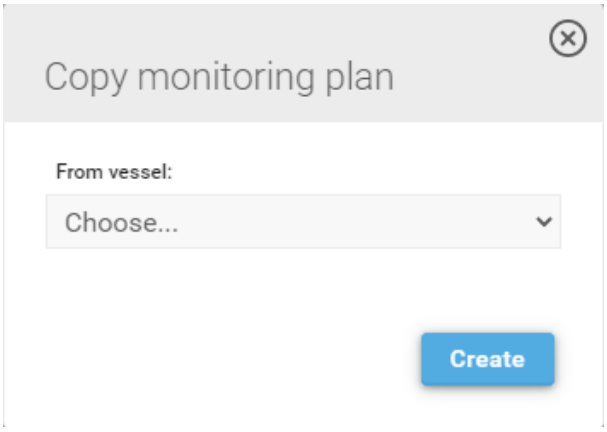
To copy an existing monitoring plan from another vessel, proceed as follows.

1. Launch CFM MRV & IMO DCS from your CFM instance.
2. Go to the **Monitoring Plans** tab.
3. Choose a vessel from the sidebar on the left.

> **NOTE**
> You can only create monitoring plans for vessels that do not have a monitoring plan yet.

4. Choose **Copy Existing Plan** in the lower right corner.
5. In the dialog window, select the vessel from which you want to copy the monitoring plan from the **From vessel** drop-down list.

6. Choose **Create**.



A copy of the monitoring plan from the selected vessel is created.

7. Go through the different parts of the monitoring plan and adapt or add the relevant information where required:
   a. **Part B: Basic data**
   b. **Part C: Activity data**
   c. **Part D: Data gaps**
   d. **Part E: Management**
   e. **Part F: Further information**
8. Choose the pencil icon (✎) next to the entry that you want to adapt and enter the relevant value in the **Value** field.
9. Once the entry is complete, choose the green checkmark icon (✓) to accept the entries.

> **NOTE**
> If you want to delete an entry, choose the red cross icon (×) next to the entry.

10. Once you've made all necessary entries for the monitoring plan, choose **Save**.

6. Vessels

The **Vessels** tab provides an overview of all reports that were carried out for your fleet over a specified period of time.

The tab consists of the following subtabs:

- **Reports**
  Lists all reports that were carried out over a specified period of time and for a selected vessel.
- **Timeline**
  Displays the number of reports that were carried out for your fleet over a specified period of time in a timeline sorted alphabetically by name of the vessel.

> **NOTE**
> You cannot create new reports from the **Vessels** tab.
>
> All reports are created on board the vessel using **CSM MRV & IMO DCS** and are then synchronized to the shore side where the colleagues in the office monitor the reports and make changes, if necessary.

6.1. Reports

The **Reports** subtab shows you all reports that were created on board the vessel for your fleet.

The reports are grouped by vessel and filtered by a specified time period. By default, the last four weeks are pre-selected by the system.

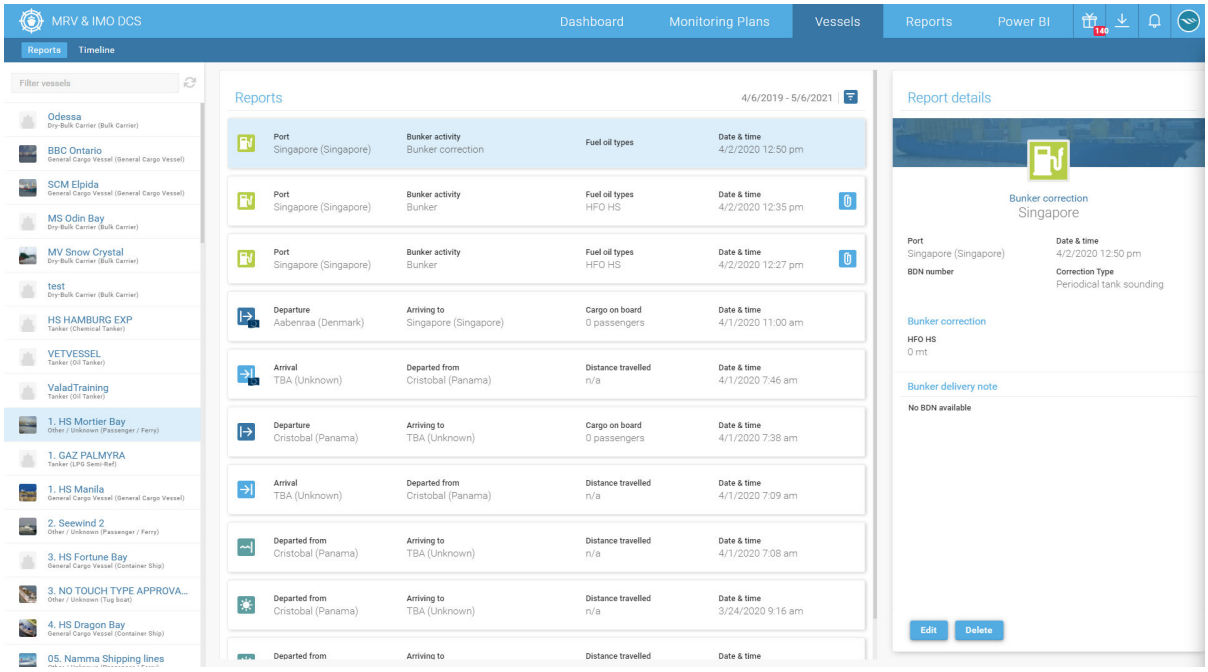
To see the reports for a specific vessel, you can enter the name of the vessel in the filter bar at the top or choose a vessel directly from the list.

Choose a report from the list to see further details.

The following basic information is displayed for each report on the tab:

- Icon indicating the type of report and whether it is relevant for MRV
- Port information, whether it is an arrival or departure port, for example
- Date and time
- Attachments are indicated with a paperclip icon ( )

- Specific data depending on the report type:
  - Bunker and debunkering activity
  - Fuel oil types
  - Cargo on board
  - Distance traveled
  - Anchoring start and end

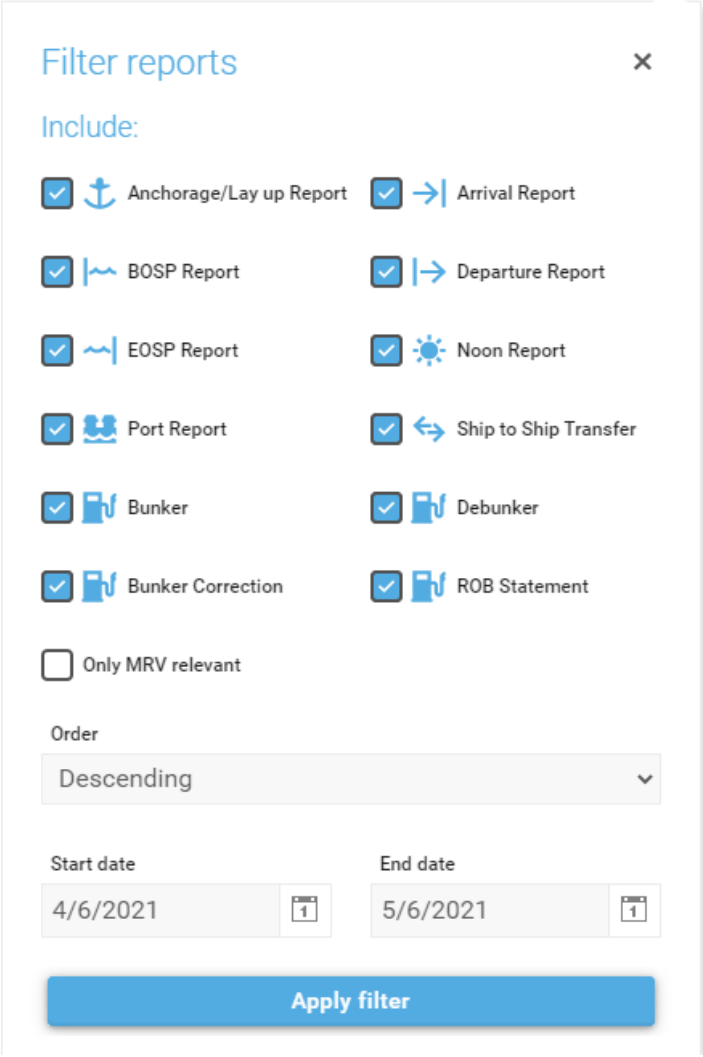


The following additional filter options are available:

- **Anchorage/Lay up Report**
  Set the checkbox, if you want to see all available anchorage/lay up reports for the selected vessel.
- **BOSP Report**
  Set the checkbox, if you want to see all available BOSP reports for the selected vessel.
- **EOSP Report**
  Set the checkbox, if you want to see all available EOSP reports for the selected vessel.
- **Port Report**
  Set the checkbox, if you want to see all available port reports for the selected vessel.
- **Bunker**
  Set the checkbox, if you want to see all available bunker reports for the selected vessel.
- **Bunker Correction**
  Set the checkbox, if you want to see all available bunker correction reports for the selected vessel.
- **Arrival Report**
  Set the checkbox, if you want to see all available arrival reports for the selected vessel.

- **Departure Report**
  Set the checkbox, if you want to see all available departure reports for the selected vessel.
- **Noon Report**
  Set the checkbox, if you want to see all available noon reports for the selected vessel.
- **Ship to Ship Transfer**
  Set the checkbox, if you want to see all available ship-to-ship transfer reports for the selected vessel.
- **Debunker**
  Set the checkbox, if you want to see all available debunker reports for the selected vessel.
- **ROB Statement**
  Set the checkbox, if you want to see all available ROB statement reports for the selected vessel.
- **Only MRV Relevant**
  Set the checkbox, if you want to see only MRV-relevant reports.
- **Order**
  Choose in which order you want to display the available report by selecting one of the following options from the drop-down list:
  - **Descending**
    The report list is displayed in descending order, by default.
  - **Ascending**
- **Start Date**
  Enter a start date for the period for which you want to get all reports.

- **End Date**
  Enter an end date for the period for which you want to get all reports.



6.1.1. Edit Reports

You can edit reports that were created on board the vessel and sent to CFM MRV & IMO DCS.

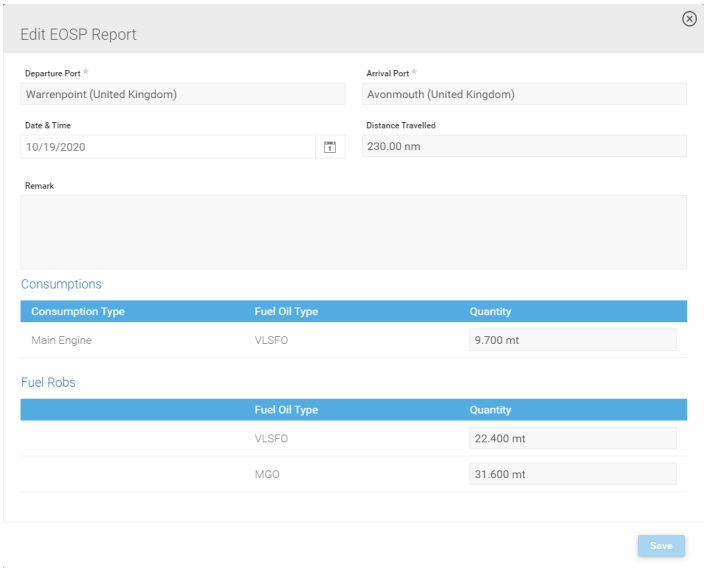
To do so, proceed as follows.

1. Launch CFM MRV & IMO DCS from your CFM instance.
2. Go to **Vessels** > **Reports**.
3. Choose a vessel from the sidebar on the left.
4. Choose the report that you want to edit from the **Reports** list.
5. Choose **Edit** from the **Report Details** card.
6. Depending on the type of report that you're editing, you can update the following fields:
   - **Port**
     Change the port in which bunkering or debunkering were carried out, for example.
     Start typing a port into the field and the system provides you with a list of available ports for you to choose from.

- **Departure Port**
  Change the departure port for arrival or departure reports, for example.
  Start typing a port into the field and the system provides you with a list of available ports for you to choose from.
- **Arrival Port**
  Change the arrival port for arrival or departure reports, for example.
  Start typing a port into the field and the system provides you with a list of available ports for you to choose from.
- **Date & Time**
  The date and time values are read-only and cannot be changed retroactively.
- **Distance Travelled**
  Change the distance traveled for arrival or departure reports, for example. The distance is entered in nautical miles.
- **Cargo on Board**
  Change the number of passengers that were on board the vessel while the report was created.
- **Ballast Water**
  Change the amount of ballast water.
- **Cargo Operation During Port Stay**
  Set this checkbox, if a cargo operation was carried out while the vessel was in port.
- **BDN Number**
  Change the BDN number for a bunkering or debunkering report, for example.
- **Remark**
  Enter any additional remarks in this field.
- **Quantity**
  Change the quantity of fuel that was consumed during a voyage leg of a departure report, for example. The quantity is entered in metric tons (mt).

Example 1. Edit EOSP Report

The screenshot provided below is an example of which values can be added for an EOSP report.



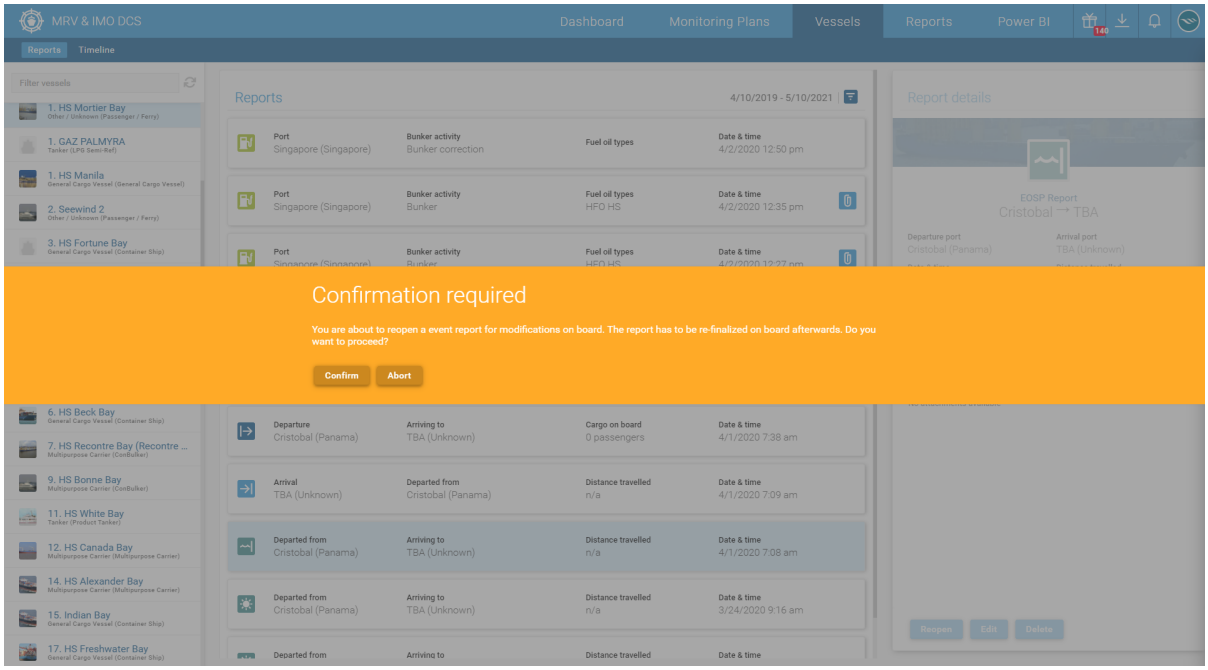
7. Choose **Save** to save your changes.

6.1.2. Reopen Reports

To reopen reports for modifications on board the vessel using CSM MRV & IMO DCS, proceed as follows.

1. Launch CFM MRV & IMO DCS from your CFM instance.
2. Go to **Vessels** > **Reports**.
3. Choose a vessel from the sidebar on the left.
4. Choose the report that you want to reopen from the **Reports** list.
5. Choose **Reopen** from the **Report Details** card.

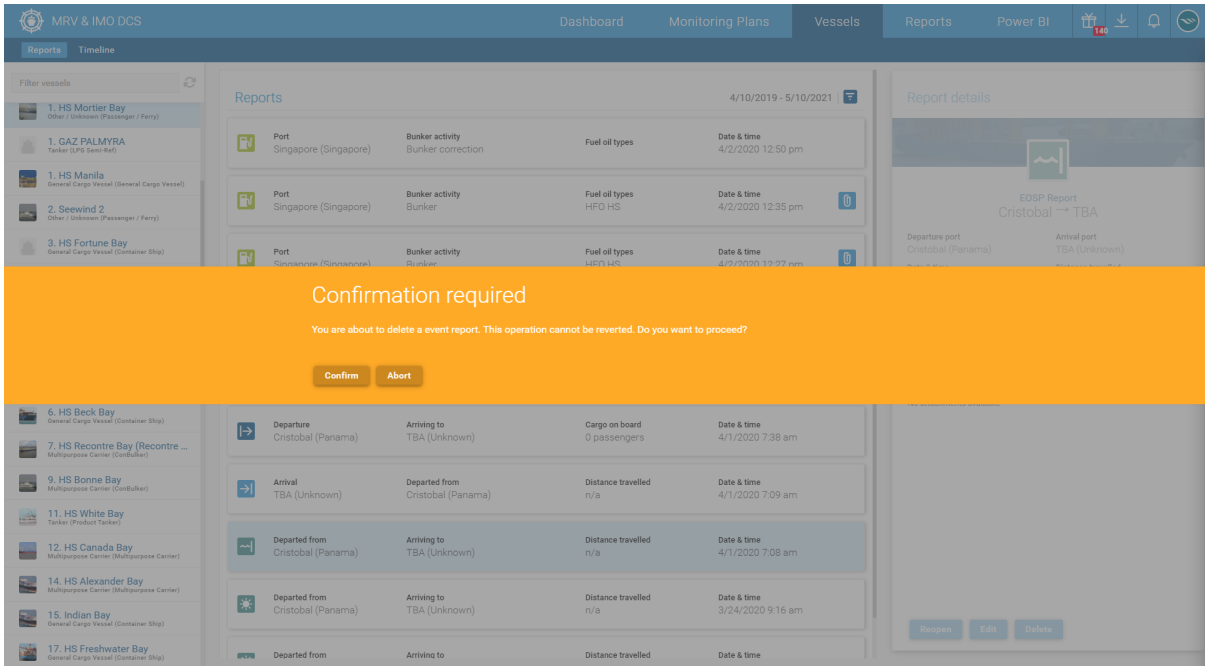
6. Confirm the warning message.



6.1.3. Delete Reports

To delete reports, proceed as follows.

1. Launch CFM MRV & IMO DCS from your CFM instance.
2. Go to **Vessels** > **Reports**.
3. Choose a vessel from the sidebar on the left.
4. Choose the report that you want to delete from the **Reports** list.
5. Choose **Delete** from the **Report Details** card.
6. Confirm the warning message.



6.2. Timeline

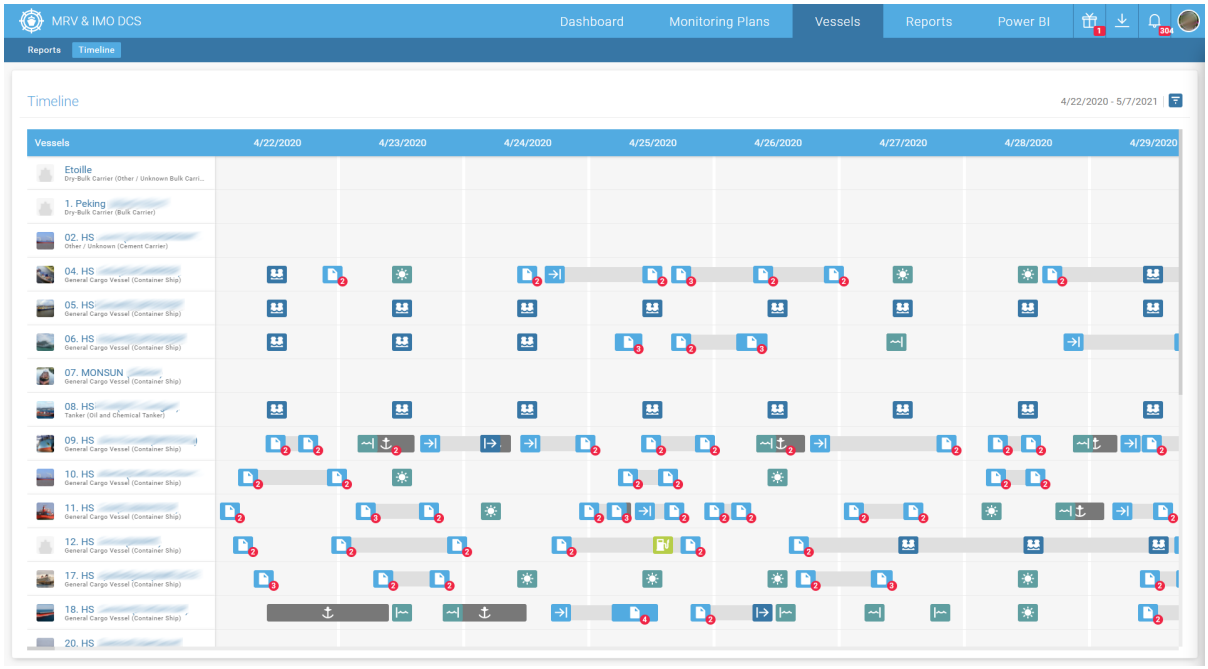
The **Timeline** tab displays the reports that were carried out over a specified period of time in a timeline and grouped by vessel.

By default, the last two weeks are pre-selected. Additionally, you can filter the timeline by changing the start and end date of the time period for which you want to see all reports. Choose the filter icon ( ) and enter different dates in the **Start Date** and **End Date** fields.

Each day in the timeline is represented as a column.

Each report that was carried out on a specific date is displayed with the icon for the corresponding report type. If several reports were carried out on the same date, a small number icon indicates how many.

Choose an icon from the timeline to see further details on the report, such as report type, date and time it was carried out. Click on the report type in the flyout window and you are automatically navigated to the **Reports** subtab providing you with all details on the report and further editing options.



7. Reports

The **Reports** tab provides an overview of the MRV and IMO DCS-relevant reports that were carried out over the course of one year.

The tab consists of the following subtabs:

- **MRV - Summary**
  Summarizes all MRV-relevant emissions reports that were carried out over the course of a year sorted by vessel.
- **MRV - By Vessel**
  Summarizes all MRV-relevant emissions reports that were carried out over the course of a year for a selected vessel. The reports within the selected vessel are then sorted by month.
- **IMO DCS - Summary**
  Summarizes all IMO DCS reports that were carried out over the course of a year sorted by vessel.
- **IMO DCS - By Vessel**
  Summarizes all IMO DCS reports that were carried out over the course of a year for a selected vessel. The reports within the selected vessel are then sorted by month.

7.1. MRV - Summary

The **MRV - Summary** subtab lists all emissions reports that were carried out in MRV-relevant areas over the course of a year sorted by vessel.

> **NOTE**
> The data shown on the subtab only includes complete voyage legs. So the numbers displayed may vary from what has actually been reported up until the current date.

By default, the emissions reports for the current year are displayed. You can select a different year from the drop-down list above the table. Choose any of the last five years.

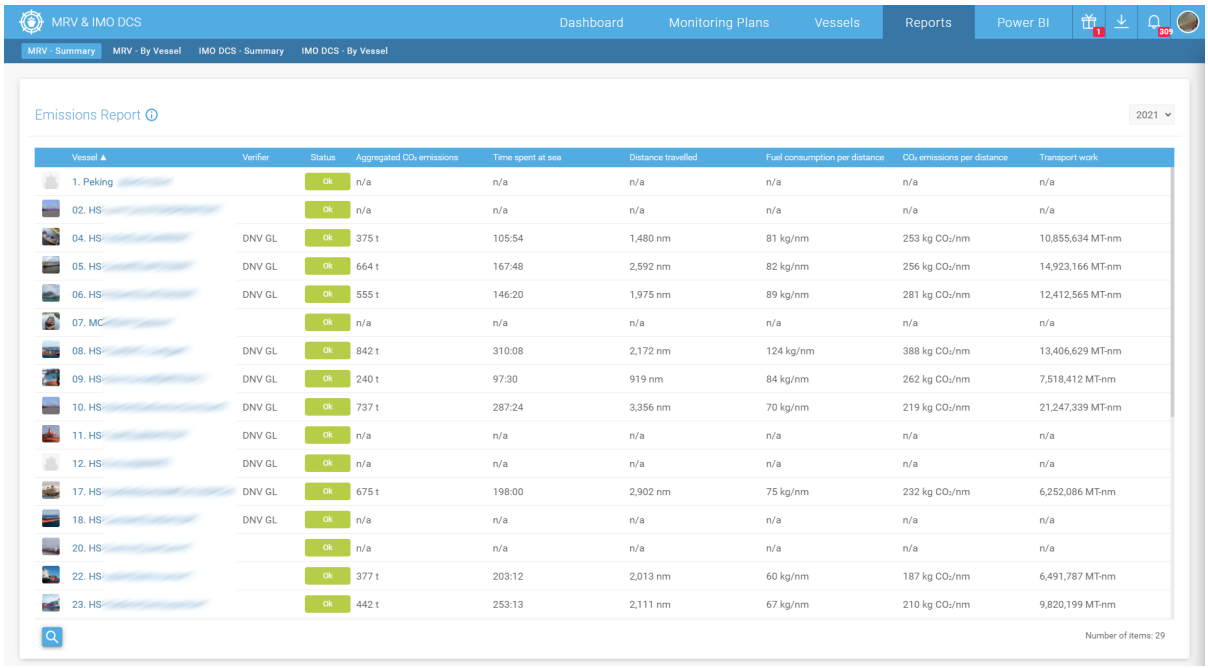
Additionally, you can filter the list of emissions reports for a specific vessel or verifier, for example. Enter a keyword in the search bar below the table.

The following data is displayed for each report:

- Vessel picture and name

- Verifier of the report
- Status of the report
- Aggregated CO_2 emissions in tons
- Time spent at sea
- Distance traveled in nautical miles
- Fuel consumption per distance in kg/nm
- CO_2 emissions per distance in kg CO_2/nm
- Transport work in MT-nm

Choose a report from the table to see further details on fuel consumptions and CO_2 emissions.



7.2. MRV - By Vessel

The **MRV- By Vessel** subtab lists all emissions reports that were carried out in MRV-relevant areas over the course of a year for a selected vessel. The reports are sorted by month.

By default, the monthly emissions reports for the current year are displayed. You can select a different year from the drop-down list above the table. Choose any of the last six years.

Choose a vessel from the sidebar on the left to see the monthly emissions reports for the selected vessel. You can also filter the sidebar for a specific vessel by entering its name in the search bar.

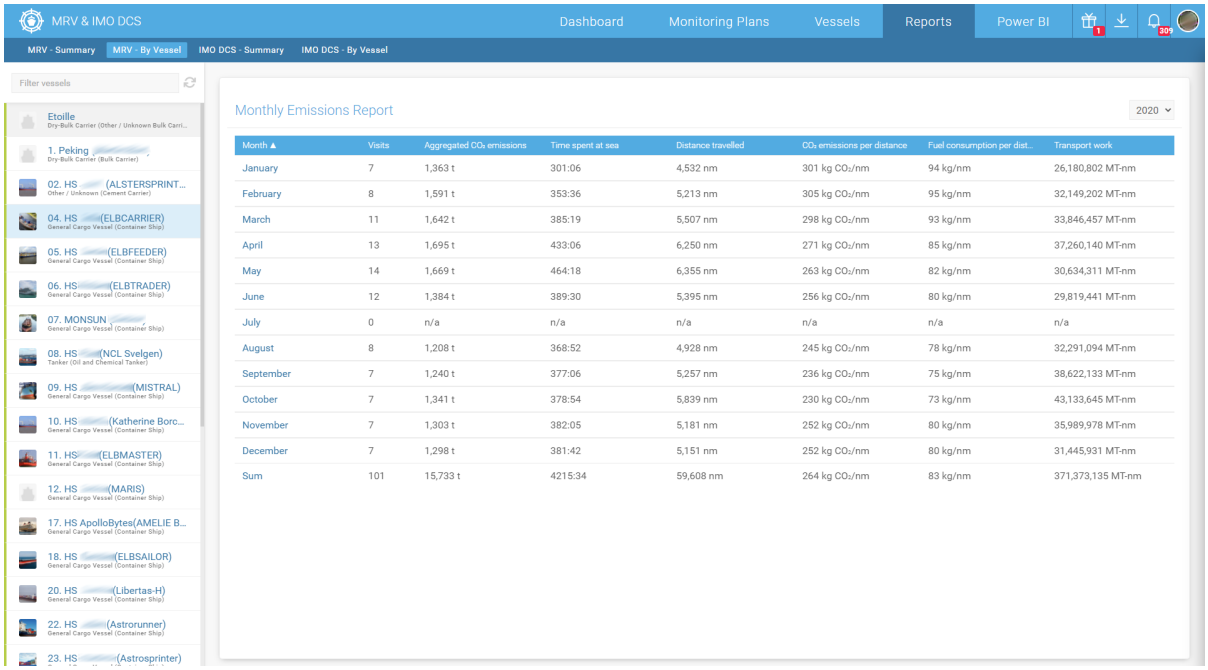
The status indicator next to a vessel in the list shows you the status of the monthly emissions reports.

The following data is displayed for the monthly emissions report:

- Month in which the report was carried out

- Number of visits
- Aggregated CO_2 emissions in tons
- Time spent at sea
- Distance traveled in nautical miles
- CO_2 emissions per distance in kg CO_2/nm
- Fuel consumption per distance in kg/nm
- Transport work in MT-nm

Choose a monthly report from the table to see further details on fuel consumptions and CO_2 emissions.



7.3. IMO DCS - Summary

The **IMO DCS - Summary** subtab lists all IMO DCS reports that were carried out over the course of a year sorted by vessel.

By default, the IMO DCS reports for the current year are displayed. You can select a different year from the drop-down list above the table. Choose any of the last six years.

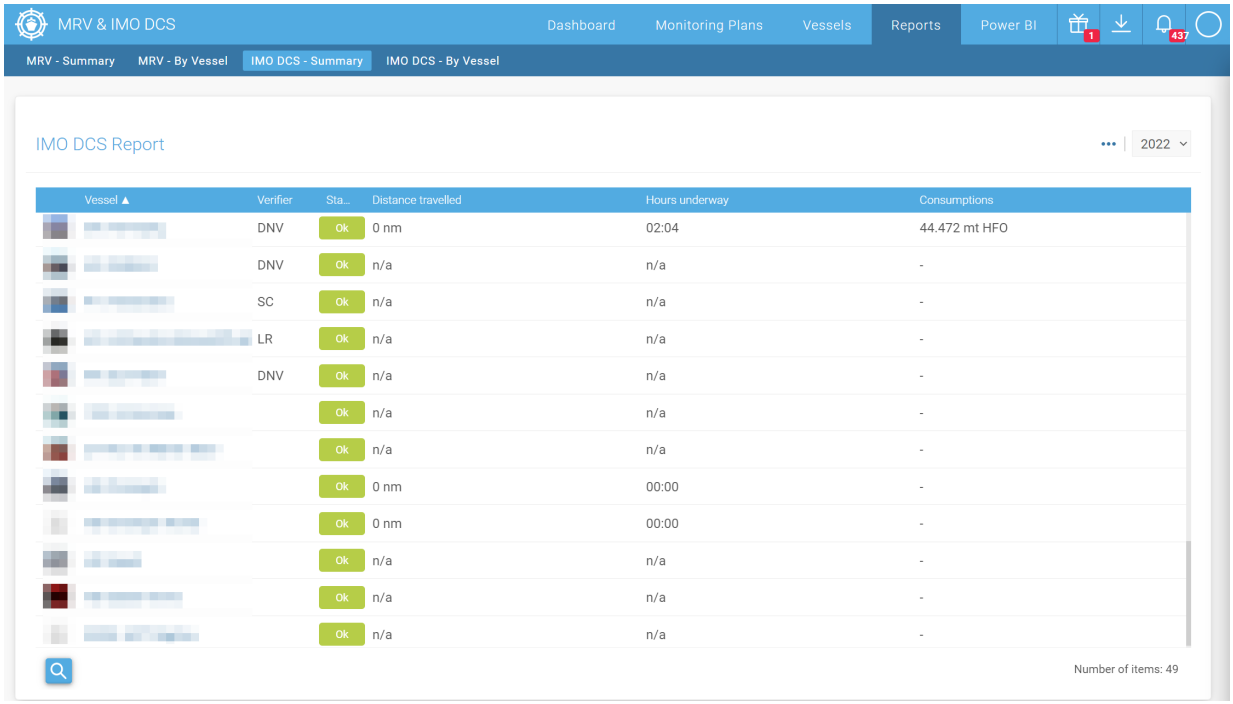
Additionally, you can filter the list of IMO DCS reports for a specific vessel or verifier, for example. Enter a keyword in the search bar below the table.

The following data is displayed for each report:

- Vessel picture and name
- Verifier of the report
- Status of the report
- Distance traveled in nautical miles
- Hours underway

- Consumptions

Choose a report from the table to see further details on daily consumptions of the vessel.



You can also export the IMO DCS data to an MS Excel spreadsheet.

To do so, choose the **More** icon (⋯) and select one of the following options:

- **Export Overview**
  Exports the aggregated data for all vessels as displayed on the subtab.
- **Export Daily Report**
  Exports the individual daily reports of each vessel.

7.4. IMO DCS - By Vessel

The **IMO DCS - By Vessel** subtab lists all IMO DCS reports that were carried out over the course of a year for a selected vessel. The reports are sorted by month.

By default, the IMO DCS reports for the current year are displayed. You can select a different year from the drop-down list above the table. Choose any of the last six years.

Choose a vessel from the sidebar on the left to see the IMO DCS reports for the selected vessel. You can also filter the sidebar for a specific vessel by entering its name in the search bar.

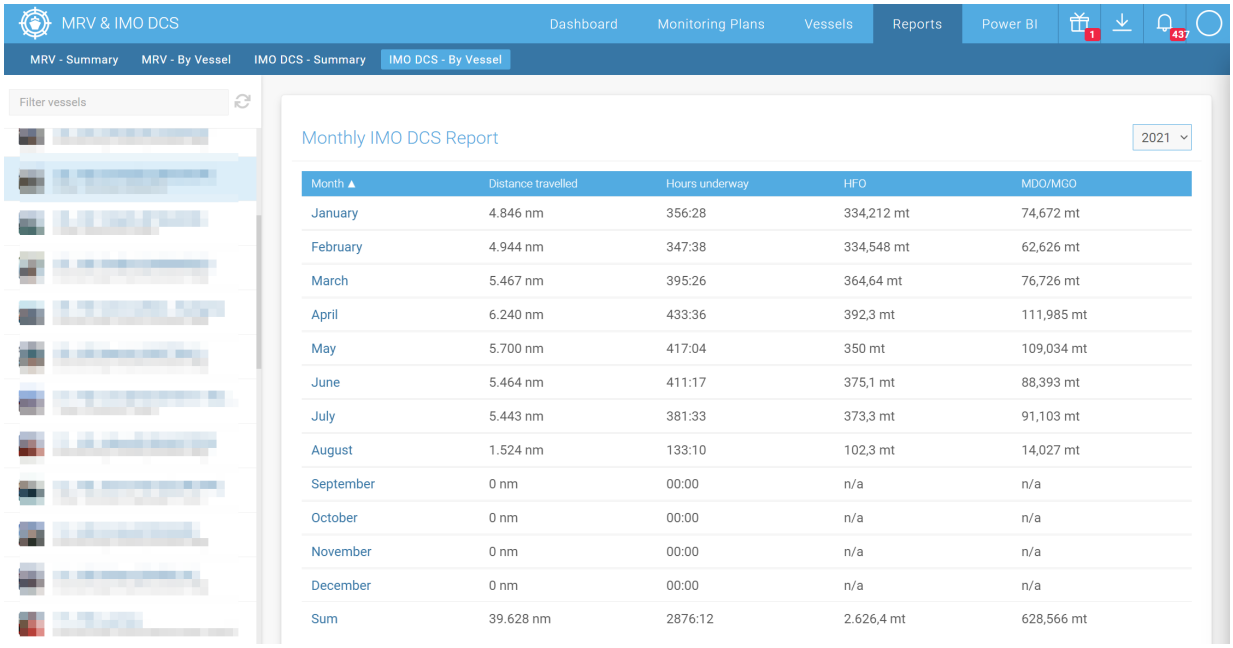
The status indicator next to a vessel in the list shows you the status of the IMO DCS reports.

The following data is displayed for the monthly IMO DCS reports:

- Month in which the report was carried out
- Distance traveled in nautical miles

- Hours underway

Choose a report from the table to see further details on daily consumptions of the vessel.



Month ▲	Distance travelled	Hours underway	HFO	MDO/MGO
January	4.846 nm	356:28	334,212 mt	74,672 mt
February	4.944 nm	347:38	334,548 mt	62,626 mt
March	5.467 nm	395:26	364,64 mt	76,726 mt
April	6.240 nm	433:36	392,3 mt	111,985 mt
May	5.700 nm	417:04	350 mt	109,034 mt
June	5.464 nm	411:17	375,1 mt	88,393 mt
July	5.443 nm	381:33	373,3 mt	91,103 mt
August	1.524 nm	133:10	102,3 mt	14,027 mt
September	0 nm	00:00	n/a	n/a
October	0 nm	00:00	n/a	n/a
November	0 nm	00:00	n/a	n/a
December	0 nm	00:00	n/a	n/a
Sum	39.628 nm	2876:12	2.626,4 mt	628,566 mt

8. Power BI

The **Power BI** tab provides an overview of the predefined reports provided by Hanseaticsoft GmbH and created using the integrated Microsoft Power BI solution.

On this tab, you can also embed customized reports within CFM MRV & IMO DCS that you created with your own Microsoft Power BI license.

> **NOTE**
> You need to purchase this feature separately, to leverage the Power BI integration.

Additionally, you can download the predefined reports, modify them and make them available to all your colleagues online.

For more detailed information, see the manual on CFM Power BI Management.

The following reports are available on this tab:

- **Bunker map**
  Displays the locations in which bunker reports were created. The data is taken from CSM Bunker or from the bunker reports created in CSM MRV & IMO DCS
- **Consumptions**
  Provides you with an overview of the consumption data of your fleet. Thus, allowing you to detect any unusual consumption early and correct any issues with the hull or engine performance that might exist.
- **Current Voyage**
  Provides an overview of the most recent voyages of a selected vessel and predicts its arrival time and needed consumption of the main engine. Additionally, the remaining voyage speed and GPS speed is displayed.
- **EEOI**
  Provides you with an overview of the consumption performance of your vessel, based on the schedule, and enables you to detect any irregularities in consumption or emissions.
- **Engine**
  Displays the performance of the main and auxiliary engines.
- **Event Report Timeline**
  Provides you with an overview of event reports carried out over time and their corresponding KPIs.

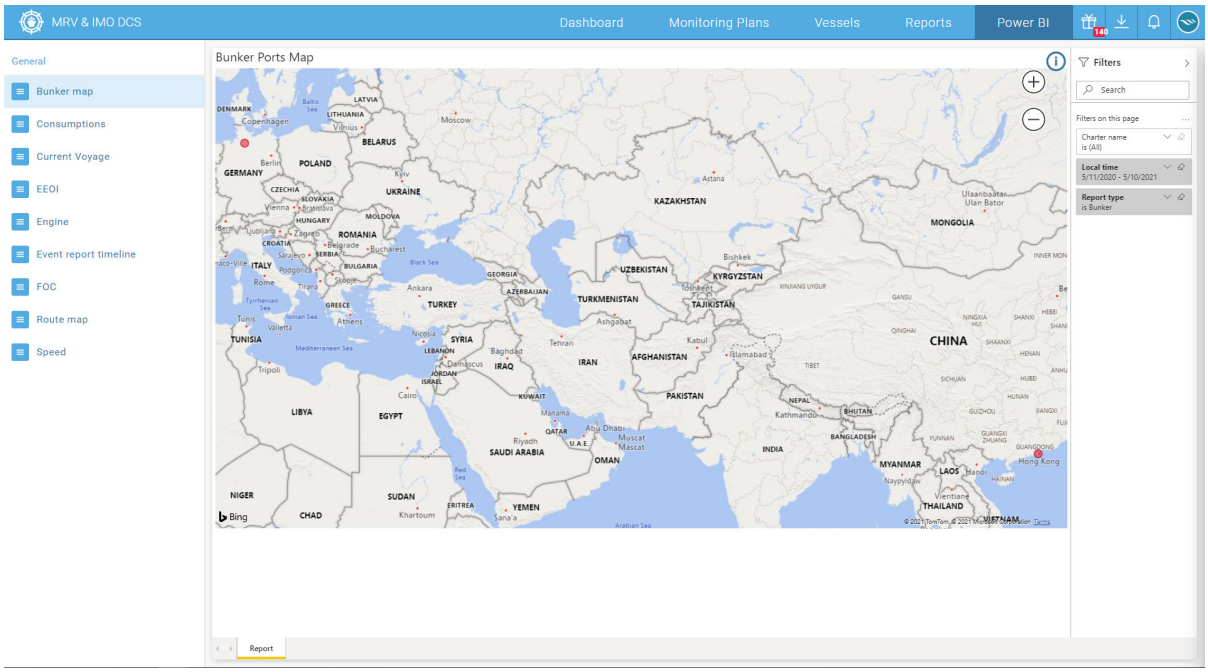
- **FOC**
  Provides an overview of the vessels' fuel oil consumption based on data taken from event reports. Thus, users get an overview of their vessels' consumption and can detect any operational problems easily.
- **Route Map**
  Provides a quick snapshot of the selected vessel's journey.
- **Speed**
  Shows detailed speed data of a selected vessel taken from event reports

8.1. Bunker Map

The **Bunker Map** report displays the locations in which bunker reports were created. The data is taken from CSM Bunker or from the bunker reports created in CSM MRV & IMO DCS.

The size of the bubble on the map indicates the number of reports that were created in a location. So, the larger the bubble, the more reports were created in that location.

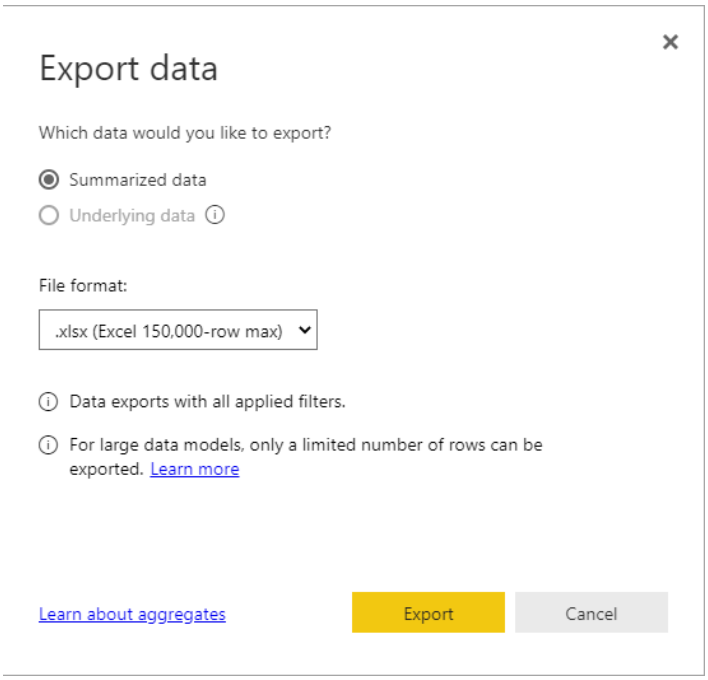
The data in the report is provided in real-time.



The following features are provided by the report:

- Filter the report for charter name, local time, and report type.
- Zoom in and out of the map by choosing the plus (+) and minus (−)buttons.

- Export data by choosing **More options** (···) > **Export data**.
  In the dialog window, choose the data that you want to export and the file format.



8.2. Consumptions

The **Consumptions** report provides you with an overview of the consumption data of your fleet. Thus, allowing you to detect any unusual consumption early and correct any issues with the hull or engine performance that might exist.

The data in the report is updated on a daily basis.

The report is divided into the following tabs:

- **Report**
  Displays the actual report consisting of the following charts:
  - **Information on vessel particulars**
    The card on top of the page displays the charter name, reference draft type, draft forward, draft aft, and the average reference draft of the selected vessels.
  - **ME Cons[mt/24h] over Speed**
    The scatter plot displays the main engine consumption [mt/24h] over average speed GPS [knot].
    The **x axis** in the plot represents: Average speed [knot] = Sailed distance GPS [nautical miles] / Steaming time [h].
    The **y axis** in the plot represents: Main engine consumption [mt/24h] = Sum of main engine consumption quantity (all oil types / Steaming time [h] * 24.
    The legend above the plot displays the different vessels that are represented in the plot.
  - **ME Cons[mt/24h] over RPM**
    The scatter plot displays the main engine consumption [mt/24h] over average shaft [RPM].

The **x axis** in the plot represents: Average shaft [RPM] is pre-calculated in CSM and overwritten by the values entered in CFM, if they exist.

The **y axis** in the plot represents: Main engine consumption [mt/24h] = Sum of main engine consumption quantity (all oil types / Steaming time [h] * 24.

The legend above the plot displays the different vessels that are represented in the plot.

- **ME Consumption[mt]**

  The column chart displays the main engine consumption [mt] over time. The data can be drilled up or drilled down to year, quarter, month, or day level.

  The legend above the plot displays the different vessels that are represented in the plot.

- **AE Consumption[mt]**

  The column chart displays the auxiliary engine consumption [mt] over time. The data can be drilled up or drilled down to year, quarter, month, or day level.

  The legend above the plot displays the different vessels that are represented in the plot.

- **Cylinder Oil Consumption[kg]**

  The column chart displays the cylinder oil consumption [kg] over time. The data can be drilled up or drilled down to year, quarter, month, or day level.

  The legend above the plot displays the different vessels that are represented in the plot.

- **AE Energy Produced[kWh]**

  The line chart displays the energy produced by the auxiliary engine during the reporting period. The data can be drilled up or drilled down to year, quarter, month, or days level.

- **Live Reefers**

  The line chart displays the number of live reefers over each event report. The data is taken from a departure report and transferred to the other reports until another departure report begins.

- **Cargos & Containers**

  The line chart displays cargos [mt/100] and the number of containers over each event report. The data is taken from a departure report and transferred to the other reports until another departure report begins.

- **Draft**

  The line chart displays cargos [mt/100] and the number of containers over each event report.

- **Trim**

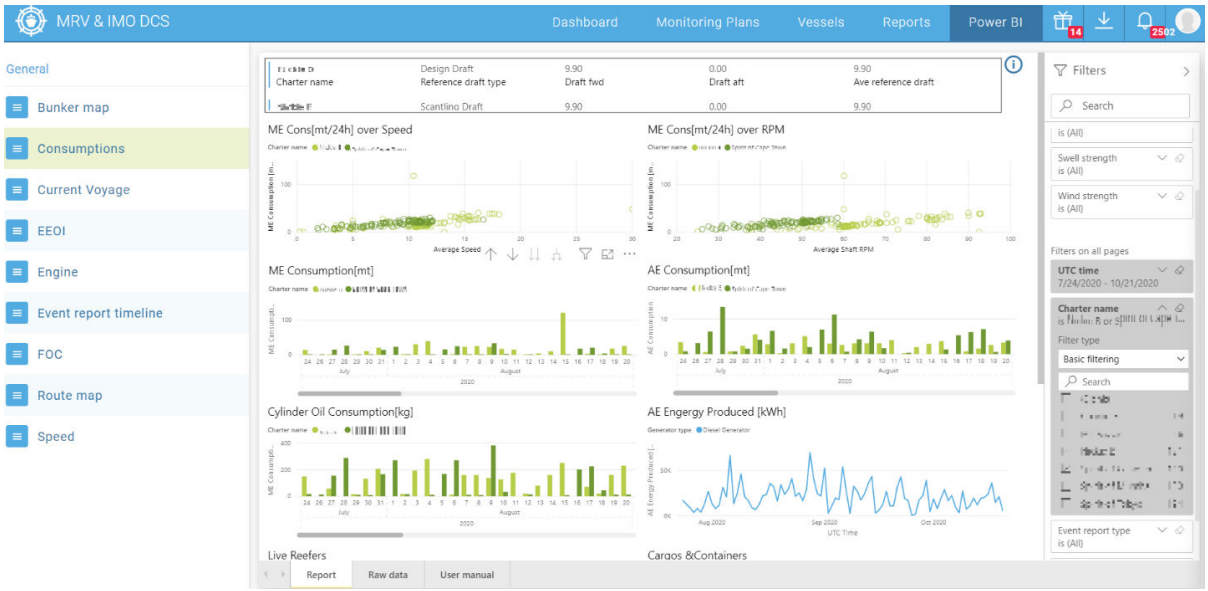
  The line chart displays tim [m] over each event report.

- **Raw Data**

  Displays the detailed data that lies behind the graphical representations on the **Report** tab.

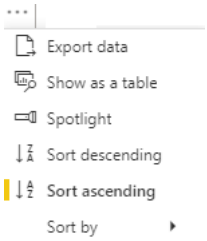
- **User Manual**

  Provides helpful information on how to interpret the data displayed in the report.

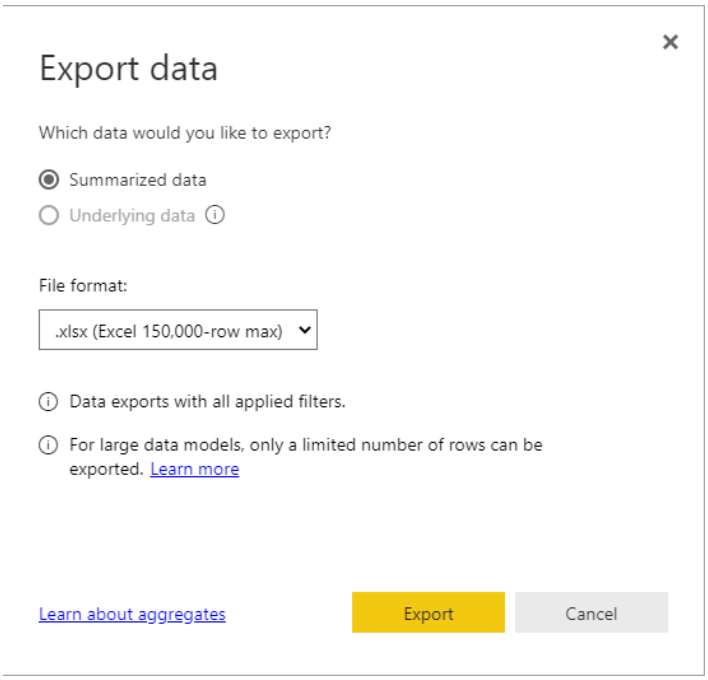


The following general features are provided by the report:

- Filter the report for UTC time, charter name, event report type, and voyage number.
- Change the layout by choosing **More options** (···) and then choose one of the following options:
  - **Show as a table**
  - **Sort descending**
  - **Sort ascending**
  - **Sort by**



- Export data by choosing **More options** (···) > **Export data**.
  In the dialog window, choose the data that you want to export and the file format.



8.3. Current Voyage

The **Current Voyage** report provides an overview of the most recent voyages of a selected vessel and predicts its arrival time and needed consumption of the main engine. Additionally, the remaining voyage speed and GPS speed is displayed.

By default, no vessel is pre-selected by the system and thus no data is displayed in the report. Select a vessel from the **Christian name** filter to get the data for a specific vessel.

The data in the report is provided in real-time.

The report is divided into the following tabs:

- **Current voyage**
  Displays the actual report consisting of the following charts:
  - **Remaining Voyage Speed**
    The table provides an estimation of the estimated time to arrival (ETA) based on different speed benchmarks. The ETA is calculated as follows:
    ETA = UTC time of current report + Distance to arrival port / Benchmark speed.

> **NOTE**
> The estimation is only possible when the latest report of the vessels was an EOSP or noon report as the calculation is based on the remaining distance to the arrival port.

- **GPS Speed**

  The chart displays the GPS speed and compared to the charterer's speed order. Thus, you can easily identify any irregularities.

- **Accumulated Current Voyage**

  The table provides you with information on nautical data of the most recent voyages including:

  - Sailed distance in nautical miles taken from event reports
  - Remaining distance in nautical miles taken from event reports
  - GPS speed in knot

    Sailed distance GPS [nm] / Steaming time [h]
  - LOG speed in knot

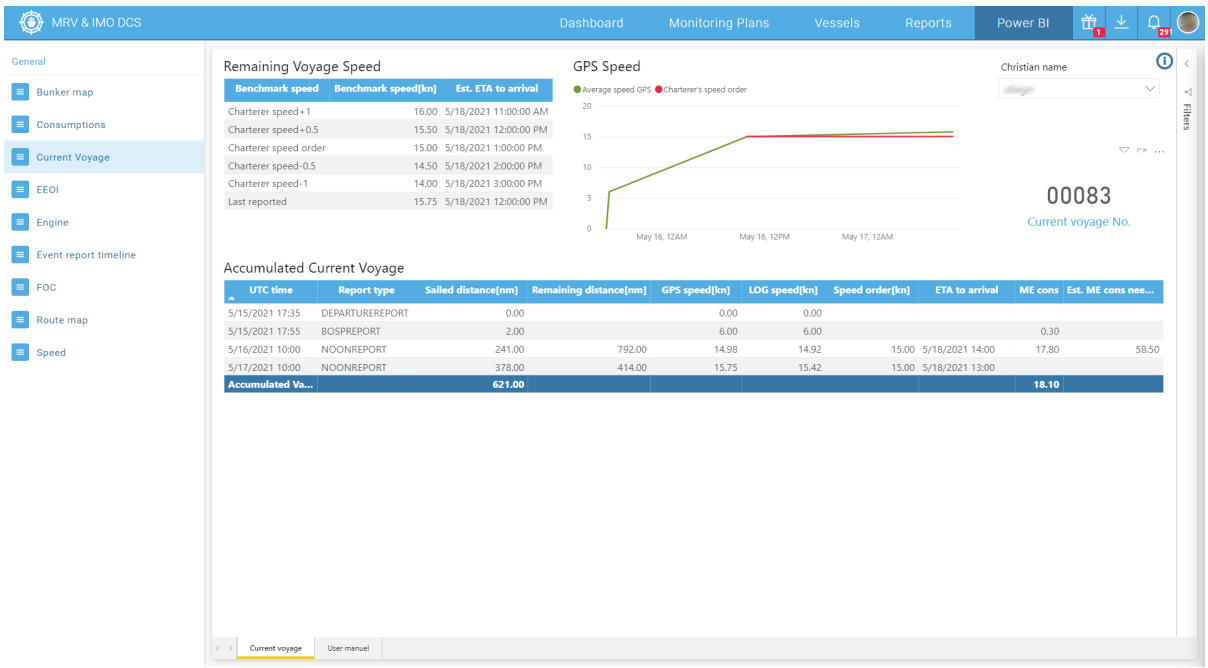
    Sailed distance LOG [nm] / Steaming time [h]
  - Charterer's speed order taken from event reports
  - ETA (Estimated time needed to arrival port)

    Equals the UTC time of the current report + Distance to arrival port / Charterer's speed order of the current report
  - Main engine consumption in metric tons taken from event reports
  - Estimated main engine consumption needed for the remaining sea passage

    Equals ME consumption of the current report * Distance to arrival port / GPS traveled of the current report

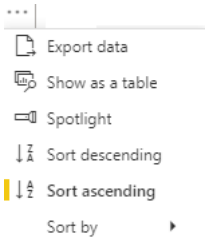
- **User Manual**

  Provides helpful information on how to interpret the data displayed in the report.

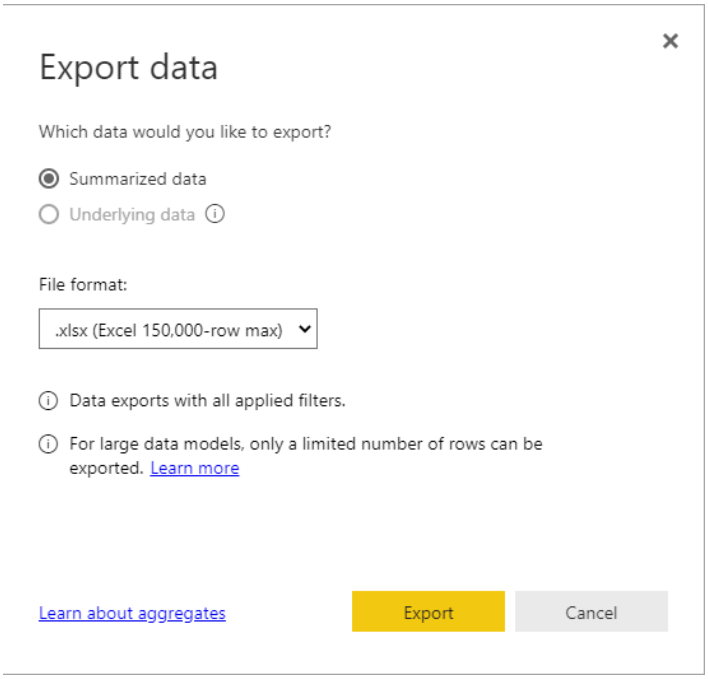


The following general features are provided by the report:

- Change the layout by choosing **More options** (···) and then choose one of the following options:
  - **Show as a table**
  - **Sort descending**
  - **Sort ascending**
  - **Sort by**



- Export data by choosing **More options** (···) > **Export data**.
  In the dialog window, choose the data that you want to export and the file format.



8.4. EEOI

The **EEOI** (energy efficiency output index) report provides you with an overview of the consumption performance of your vessel and enables you to detect any irregularities in consumption or emissions. The standard EEOI report provided within CFM MRV & IMO DCS uses the voyage number from the vessel's schedule and the Power BI EEOI report uses the actual voyage number provided by the event report.

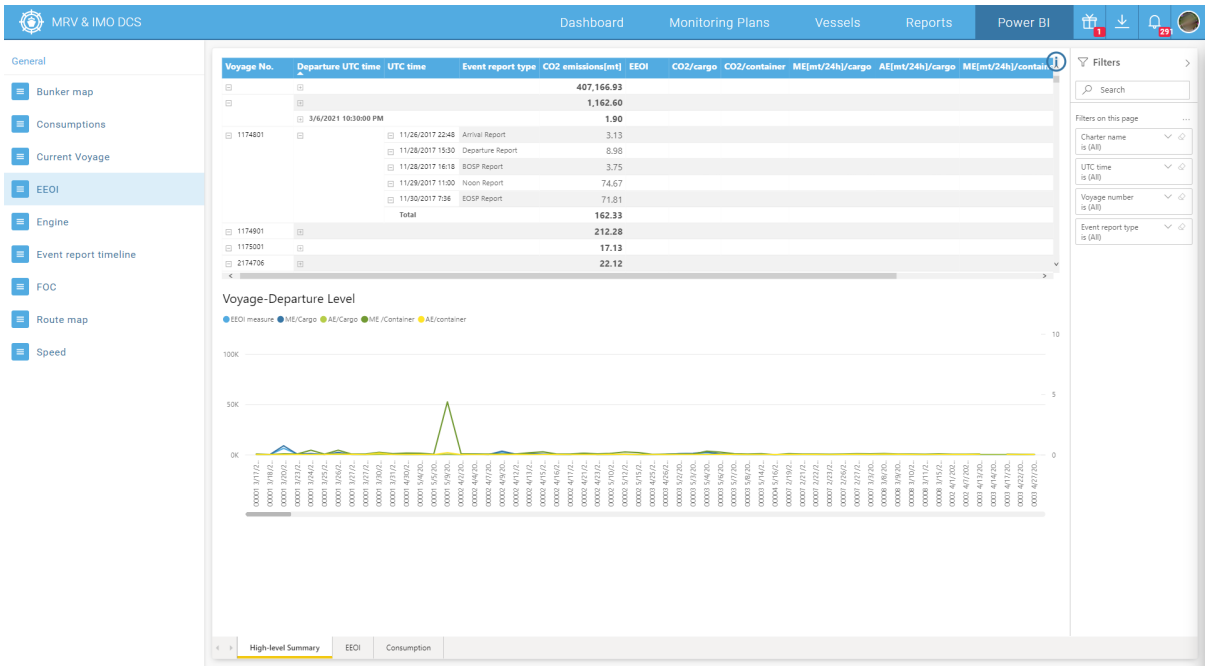
By default, data from all vessels is displayed in the report. You can adjust the filters to get the data you need.

The report is divided into the following tabs:

- **High-level Summary**
  The table on this tab displays the most important measures for EEOI and consumption, such as CO_2 emissions. The **Voyage-Departure Level** chart displays the EEOI and consumption metrics on trip level (from departure to arrival).
- **EEOI**
  The table on this tab provides information on the following metrics:
  - **CO_2 emissions [mt]** for each event report. The **Total** row displays the sum of all CO_2 emissions of the specific voyage.
  - **Cargo [mt]** indicates the amount taken from the departure report and transferred to other reports until the next departure report begins. The **Total** row displays the average value of cargo that was transported for the specific voyage.
  - **GPS traveled [nm]** indicates the sailed distance GPS from the event report. The **Total** row displays the sum of all traveled distances for the specific voyage.
  - **EEOI** = CO_2 emissions * 1000000 / (Cargo * Distance Traveled GPS)
    Total EEOI = Sum (CO_2 emissions) * 1000000 /(Ave (Cargo) * Sum (Distance Traveled GPS))
  - **CO_2/Cargo**
    Total CO_2/Cargo = Sum (CO_2 emissions) / Ave(Cargo)
  - **Total Containers[in Teu]** = Full Teu Containers + Full Feu Containers * 2
  - **CO_2/Container** = Sum (CO_2 emissions) / Total Containers in Teu

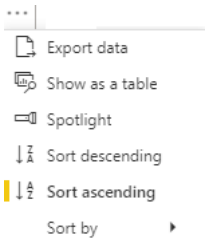
  The line chart displays EEOI for each event report. The chart is interactiev with the table. You can click on a voyage number on the table to filter the line chart, for example.
- **Consumption**
  The table and chart on this tab display consumption-related data. The different metrics are also explained in a legend next to the table.

The data in the report is updated on a daily basis.

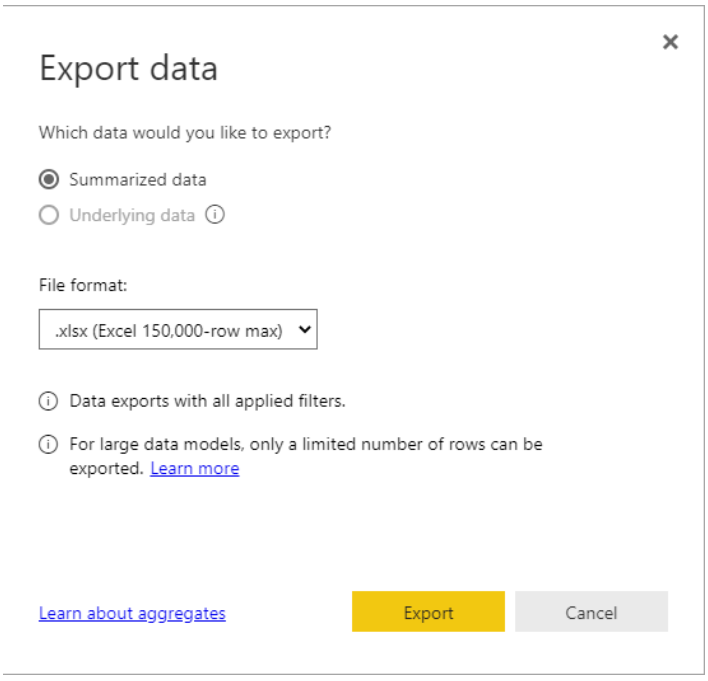


The following general features are provided by the report:

- Filter the report for charter name, UTC time, voyage number, and event report type.
- Change the layout by choosing **More options** (···) and then choose one of the following options:
  - **Show as a table**
  - **Sort descending**
  - **Sort ascending**
  - **Sort by**



- Export data by choosing **More options** (···) > **Export data**.
  In the dialog window, choose the data that you want to export and the file format.



8.5. Engine

The **Engine** report displays the performance of the main and auxiliary engines.

The data in the report is updated on a daily basis.

The report is divided into the following tabs:

- **ME monitor**
  Displays two charts: **SFOC/Load%** and **Propeller Curve**.

The metrics displayed in the charts are defined as you can see below:

- **SFOC (specific fuel oil consumption)** = Sum (main engine consumption[mt]) * 1,000,000 / ShaftAverage shaft power[kW] / Steaming time[h]
- Load% = Average shaft power [kW] / Continuous output
- The average shaft RPM is pre-calculated in CSM MRV & IMO DCS and is overwritten by the entered values, if any were made.
- The average power at shaft is raw data taken from event reports.

- **ME monitor formula**

  This tab displays the same charts as on the **ME monitor** tab, but provides you with the estimated formulas.

- **AUX monitor**

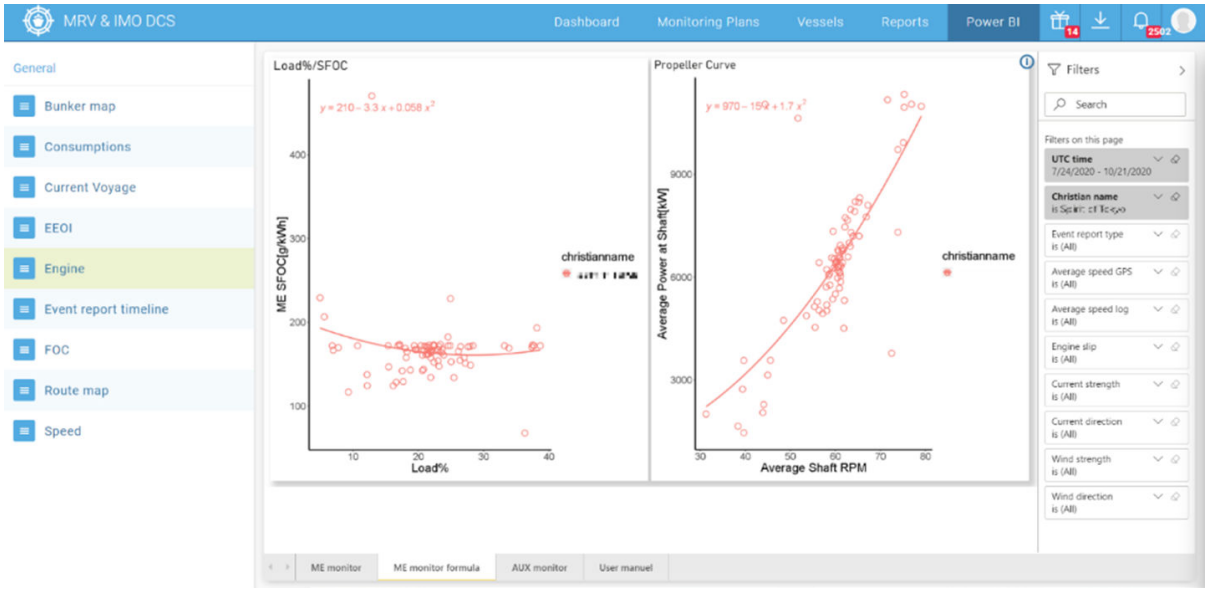
  Provides information on each auxiliary engine in a table, such as engine ID, serial number and make.

  The scatter plot on the tab displays the auxiliary engine load in percent over time. It is calculated as follows:

  Auxiliary engine load % = Energy produced in report period (kWh) / Running hours in report period [h] / Auxiliary engine continuous output from particular * 100

- **User manual**

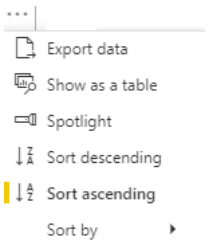
  Provides helpful information on how to interpret the data displayed in the report.



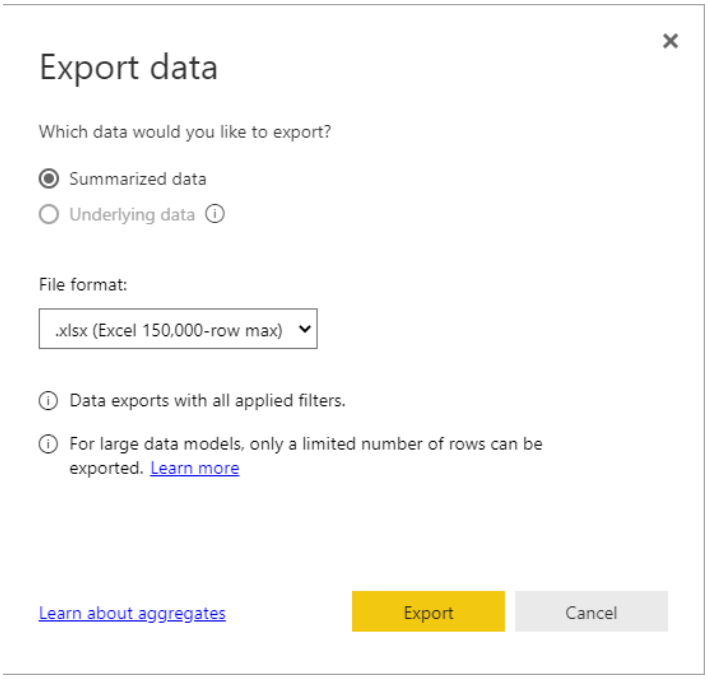
The following general features are provided by the report:

- Filter the different charts in the report for different parameters such as UTC time and christian name of the vessel.
- Change the layout by choosing **More options** (⋯) and then choose one of the following options:
  - **Show as a table**
  - **Sort descending**

- **Sort ascending**
- **Sort by**



- Export data by choosing **More options** (···) > **Export data**.
  In the dialog window, choose the data that you want to export and the file format.



8.6. Event report timeline

The **Event report timeline** report provides you with an overview of event reports carried out over time and their corresponding KPIs.

The data in the report is updated on a daily basis.

The report consists of the following charts:

> **TIP**
> By default, no vessel is pre-selected by the system and thus no data is displayed in the report. Select a vessel from the **Christian name** filter to get the data for a specific vessel.

- **Operational Share**

If you hover over the vessel name under **Hover over to see operational share of**, two pie charts are displayed in a flyout window.

The first pie chart displays the average percentages of anchorage days, port days, steaming days, and maneuvring days of all vessels. The second pie chart displays the percentage of anchorage days, port days, steaming days, and maneuvring days of the selected vessel.

- **Particulars**

  If you hover over the vessel name under **Hover over to see particulars of**, the particulars information of the selected vessel are displayed in a table.

  Information such as vessel type, IMO number, and build series is displayed.

- **Reporting Gap & Overlaps**

  The bar chart displays all event reports of the selected vessel over the course of time allowing you to identify any gaps or overlaps. A tooltip for each bar provides further details on the event type, UTC, and reporting period.

- **Event Report Timeline**

  The line chart provides an overview of all event reports of the selected vessel over the course of time and grouped by trips (from departure to arrival).

- **Validated**

  The chart provides an overview which of the event reports of the selected vessel were validated and which were not.

- **Raw Data Table**

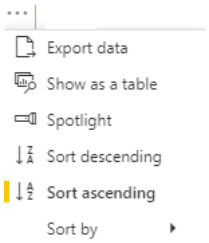
  At the bottom of the tab a raw data table lists all detailed data of each event report. The raw data table provides the data used for the graphical representations in the charts.

  The table is interactive with the charts above, meaning you can choose a bar from the **Reporting Gap & Overlaps** chart to see the detailed data of that report, for example.

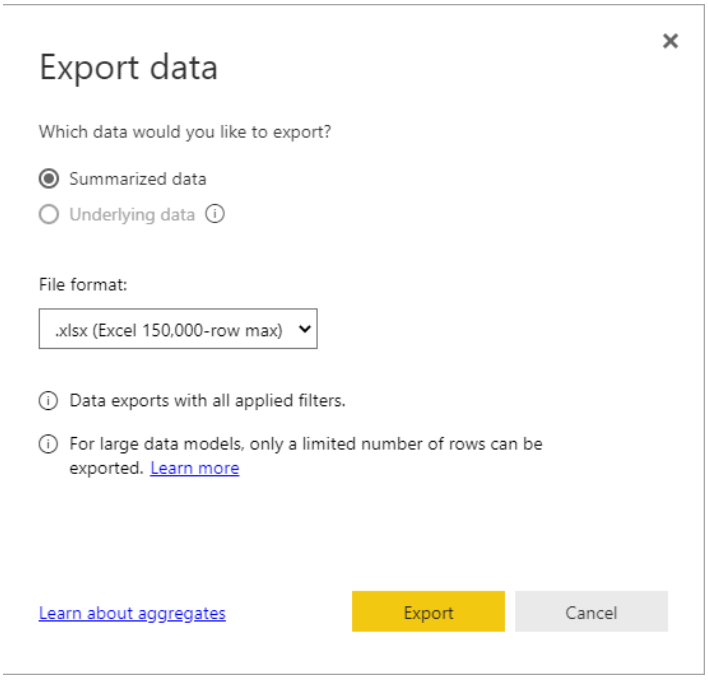
The following general features are provided by the report:

- Filter the report for UTC time and event report type

- Change the layout by choosing **More options** (···) and then choose one of the following options:
  - **Show as a table**
  - **Sort descending**
  - **Sort ascending**
  - **Sort by**



- Export data by choosing **More options** (···) > **Export data**.
  In the dialog window, choose the data that you want to export and the file format.



8.7. FOC

The **FOC** (fuel oil consumption) report provides an overview of the vessels' fuel oil consumption based on data taken from event reports. Thus, users get an overview of their vessels' consumption and can detect any operational problems easily.

The data in the report is provided in real-time.

The report consists of the following charts:

- **Total Fuel Consumption [mt]**
  The bar chart provides a high-level summary on the total fuel consumption in metric tons for each day in a month. The data is broken down for main engine, auxiliary engine, and boiler.

- **ME FOC [mt]**

  The bar chart provides an overview of the main engine's fuel consumption in metric tons for each day in a month. The data is broken down by fuel oil type.

- **AE FOC [mt]**

  The bar chart provides an overview of the auxiliary engine's fuel consumption in metric tons for each day in a month. The data is broken down by fuel oil type.

- **Boiler FOC [mt]**

  The bar chart provides an overview of the boiler consumption in metric tons for each day in a month. The data is broken down by fuel oil type.

The **Details** tab provides detailed data on each event report including more information on values, such as wind, swell, and distance traveled.

The following general features are provided by the report:

- Filter the report for charter name, date, and voyage number
- Drill up or down to year, month, or day level data by clicking on the chart and using the four arrow icons
- Drill through to detailed data

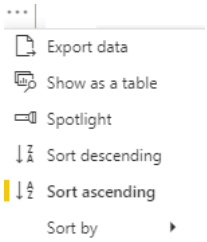
  If you detect any issues in the high-level data, you can right-click on the suspicious data in the bar chart and choose **Drill through** > **Details** to see the detailed data.

- Enlarged view of each chart

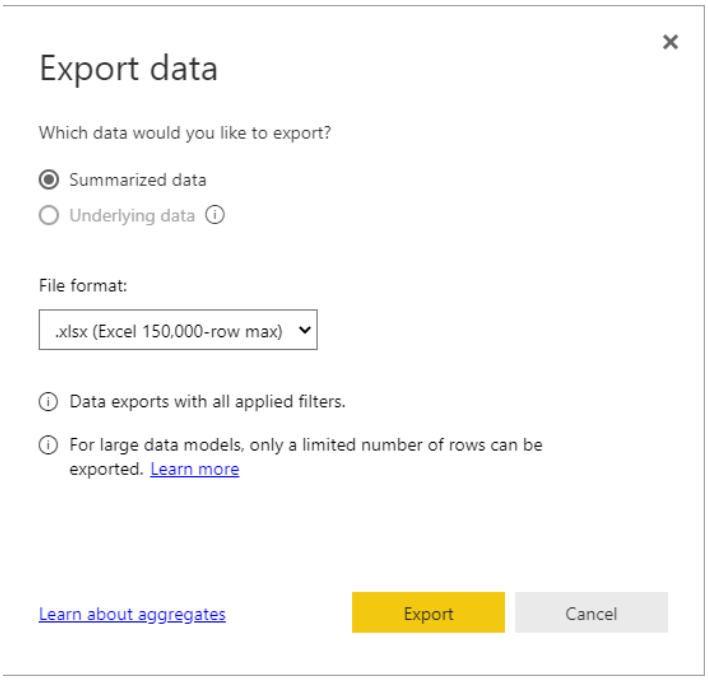
  Choose the **Focus mode** icon to see a bar chart in full size on the screen minimizing the other charts.

- Change the layout of the table by choosing **More options** (···) and then choose one of the following options:
  - **Show as a table**
  - **Sort descending**
  - **Sort ascending**

- **Sort by**



- Export data by choosing **More options** (···) > **Export data**.
  In the dialog window, choose the data that you want to export and the file format.



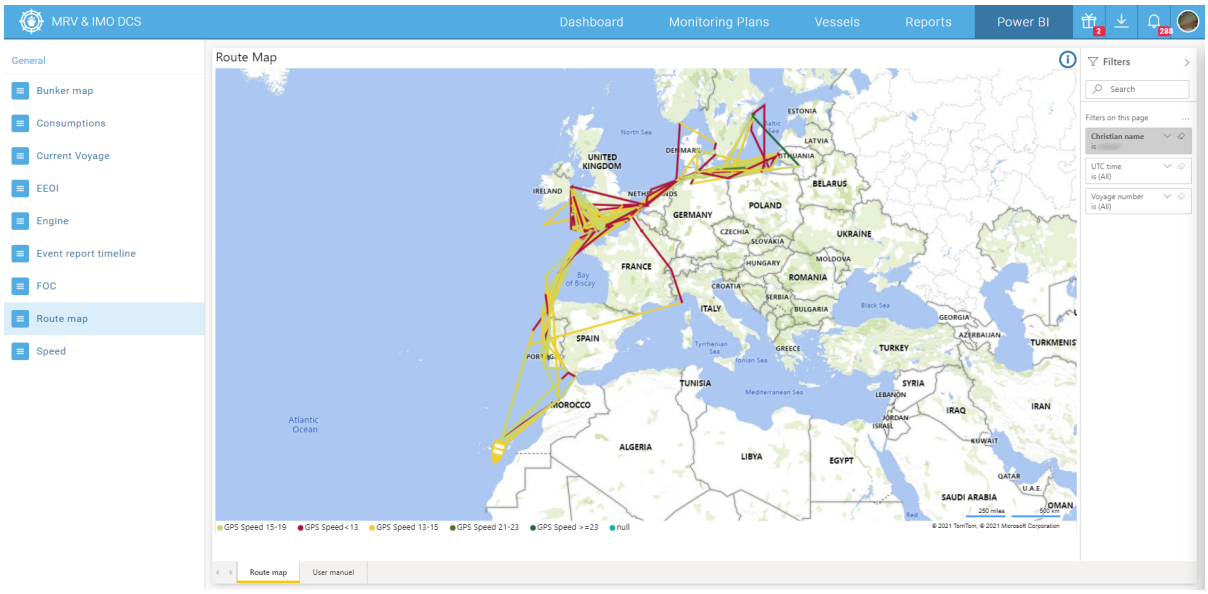
8.8. Route Map

The **Route Map** report provides a quick snapshot of the selected vessel's journey. Color indicators display the different types of speed of the vessel.

The data in the report is provided in real-time.

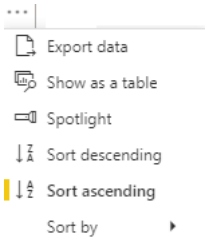
The report is divided into the following tabs:

- **Route map**
  Displays the route of a selected vessel on a world map.
- **User manual**
  Provides helpful information on how to interpret the data displayed in the report.

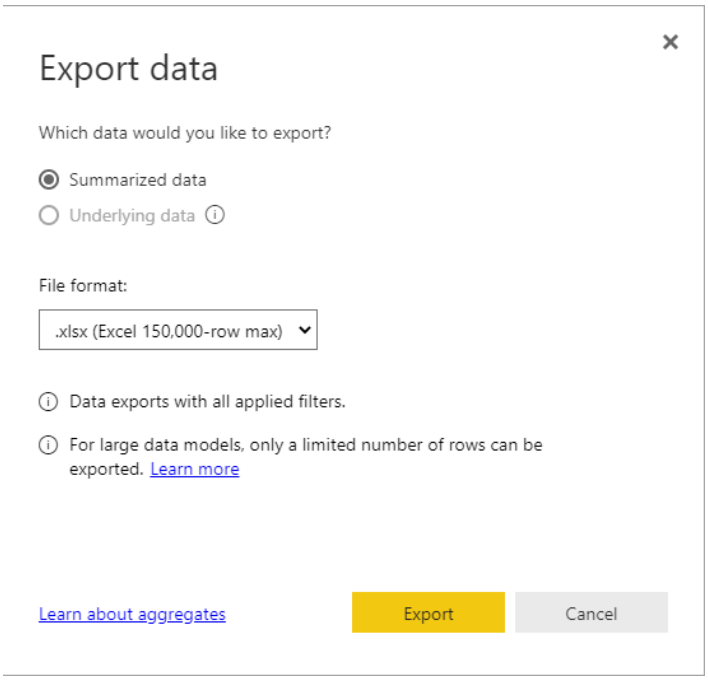


The following general features are provided by the report:

- Filter the report for the Christian name of a vessel, UTC time, and voyage number.
- Change the layout by choosing **More options** (···) and then choose one of the following options:
  - **Show as a table**
  - **Sort descending**
  - **Sort ascending**
  - **Sort by**



- Export data by choosing **More options** (···) > **Export data**.
  In the dialog window, choose the data that you want to export and the file format.



8.9. Speed

The **Speed** report shows detailed speed data of a selected vessel taken from event reports.

The data in the report is provided in real-time.

> **TIP**
> By default, no vessel is pre-selected by the system and thus no data is displayed in the report. Select a vessel from the **Charter name** filter to get the data for a specific vessel.

The report is divided into the following tabs:

- **Speed**
  Displays the report data in the following charts:
  - **Speed**
    The line chart displays the average GPS speed [kn], the average speed LOG [kn], and the charterer's speed order allowing you to compare the different speeds.
  - **GPS Speed Distribution**
    The chart displays the average speed GPS bin which is the average speed GPS rounded to 0.5 level. It shows the frequency of different speed levels for a particular vessel in the selected time period.

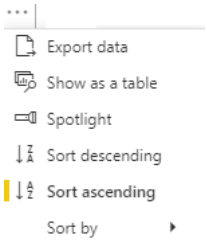
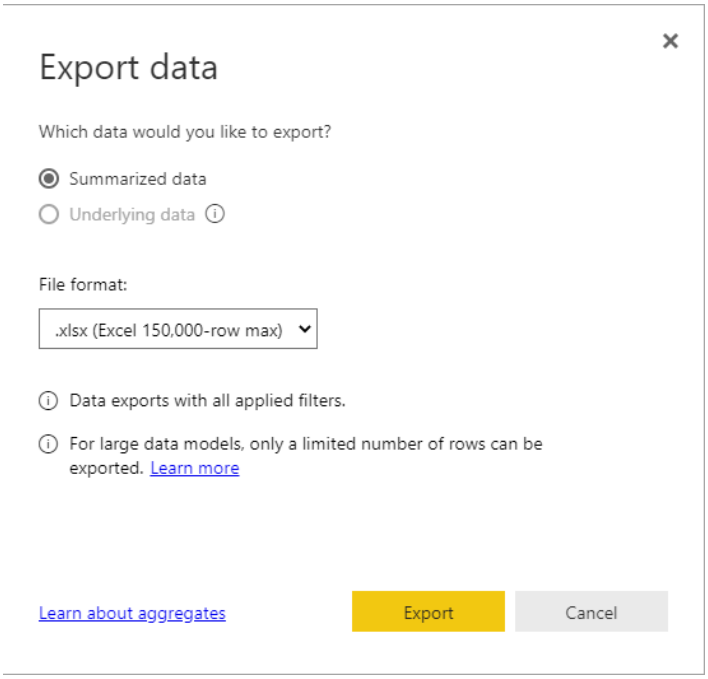
- **GPS Speed Cumulative Distribution**
  The chart shows the cumulative frequency of different speed levels for a particular vessel in the selected time period.
- **Speed LOG Static Correction**
  The line chart shows the STW/SOG over time. STW (speed through water) / SOG (speed over ground) is calculated as average speed log / average speed GPS.
- **Speed Log Dynamic Correction**
  The line chart shows STW/SOG over average speed GPS [kn].
- **LOG vs. GPS**
  The chart displays the average speed log [kn] compared to the average speed GPS [kn].

- **User manuel**
  Provides helpful information on how to interpret the data displayed in the report.

The following general features are provided by the report:

- Filter the report for charter name, UTC time, event report type, swell direction, wind direction, and wind strength
- Change the layout by choosing **More options** (···) and then choose one of the following options:
  - **Show as a table**
  - **Sort descending**
  - **Sort ascending**

- **Sort by**



- Export data by choosing **More options** (···) > **Export data**.
  In the dialog window, choose the data that you want to export and the file format.