



Høglund Fleet Manager

20000-HMS-C-MA-0007

User Manual

IMPORTANT!

This document is property of Høglund AS, with its subsidiaries. No part of this document may be reproduced, distributed, or otherwise used without prior written consent of Høglund AS.

Document Information

Doc Type:	User Manual
Doc Title:	Høglund Fleet Manager
Doc No.:	20000-HMS-C-MA-0007
Doc Rev.:	01
Project Entity	Høglund AS
Delivery Type:	IAS

Revision History

Rev	Reason for Issue	Author	Checker	Approver	Date	Issue Status
IFI	First Issue	ABE			2021/05/19	IFI
01	New Template	TKO	ABE	GMO	2022/09/26	IFI
02	New Template	KMA			2024/0326	IFI

Document Change Log

Rev	Description / Summary of changes
00	First Issue
01	New Template
02	New Template

Table of Contents

Document Introduction	4
References	4
Reference documents	4
Abbreviations	4
Health, Safety and Environment	5
Health, Safety & Environment	5
Laws and property	5
Laws and Regulations	5
Property and IP Rights	5
1 User Manual	6
1.1 Fleet Manager Introduction	6
1.2 Fleet Manager Introduction	6
1.2.1 Onboard users	6
1.2.2 Office users	6
1.3 Installation	6
1.3.1 Installing MongoDB	6
1.3.2 Installing Fleet Manager	7
1.4 Log into Fleet Manager and select vessel	8
1.5 Fleet manager tools	9
1.5.1 Clear All Database	10
1.5.2 Clear Current Database	10
1.5.3 Delete Configuration files	10
1.5.4 Offline mode	10
1.5.5 Adjust default period	10
1.5.6 Display Times In Local Time	10
1.6 Fleet Manager Data Tab	10
1.6.1 Data Display	10
1.6.2 Report Configuration & Report Summary	11
1.6.3 Report Summary	11
1.6.4 Edit/Correct data	12
1.6.5 Recalculate	12
1.6.6 Add Record to table – Manual Data	13
1.7 Export function	13
1.7.1 Exporting Data	14
1.8 Live Data	15
1.8.1 External Calculation Requests	15
1.9 Check for updates	15

Document Introduction

References

Reference documents

All documents referred in this document are found in Table 1.

Documents which may be relevant, but are not referred in this document, are found in Table 2.

Revisions are optional, keep rev. blank if this is not relevant for the document.

Table 1 – Documents referred inside this document.

Ref. No. / Doc Number	Description	Rev.
[1] /		
[2] /		
[3] /		

Table 2 - Documents for reference only – Not referred inside this document.

Ref. No. / Doc Number	Description	Rev.
[1] /		
[2] /		
[3] /		

Abbreviations

All abbreviations referred in this document are found in Table 3

Table 3 - Abbreviations

Abbreviation	Description
Høglund	Høglund AS
HSE	Health, Safety and Environment
FM	Fleet Manager
SPM	Ship Performance Monitor

Health, Safety and Environment

Health, Safety & Environment

Høglund puts the physical and mental health of employees, customers and all other people involved first. All work is carried out in a safe manner to protect our employees, customers and the environment. Høglund sets high standards for the environment and takes responsibility for ensuring that products and services are delivered in an environmentally friendly manner.

Laws and property

Laws and Regulations

Høglund AS is a privately held company regulated by applicable Norwegian laws and regulations valid for all companies, such as laws for tax and reporting, shareholder registrations, work environment, vacation law, internal control regulations, HSE-regulations and all others relevant for the type of business we are in. Compliance to these laws are non-negotiable.

Property and IP Rights

This document / drawing is the property of Høglund AS. It is protected by copyright, intellectual property rights and marketing laws. The document / drawing and the design and technical solutions expressed by the document / drawing, may not be copied, distributed, or otherwise used without the express, written consent of Høglund AS.

1 User Manual

1.1 Fleet Manager Introduction

Vessel Data		MDO Consumption											
Start Date	End Date	MDO Cons	HFO Cons	Speed	Distance	Cons pr Nm	ME	DG1	DG2	DG3	Burner1	Burner2	InertGas
		MT	MT	kn	nm	kg/nm	MT	MT	MT	MT	MT	MT	MT
01.03.2017 00.00.00	02.03.2017 00.00.00	9.12	0.00	11.78	209.22	40.86	8.57	0.34	0.03	0.00	0.00	0.17	0.00
28.02.2017 00.00.00	01.03.2017 00.00.00	9.92	2.90	12.21	293.00	43.77	9.90	0.00	0.00	0.00	0.00	0.03	0.00
27.02.2017 00.00.00	28.02.2017 00.00.00	2.20	6.00	13.57	136.98	43.78	0.00	0.87	0.89	0.00	0.00	0.45	0.00
26.02.2017 00.00.00	27.02.2017 00.00.00	4.54	9.48	12.78	295.51	46.93	4.38	0.04	0.04	0.00	0.00	0.07	0.00
25.02.2017 00.00.00	26.02.2017 00.00.00	14.53	0.00	13.21	317.00	45.83	14.53	0.00	0.00	0.00	0.00	0.00	0.00
24.02.2017 00.00.00	25.02.2017 00.00.00	3.47	0.00	9.77	27.21	51.87	1.49	0.08	1.20	0.00	0.00	0.70	0.00
23.02.2017 00.00.00	24.02.2017 00.00.00	2.02	0.00	0.40	0.01	108.15	0.00	0.00	1.24	0.00	0.00	0.78	0.00
22.02.2017 00.00.00	23.02.2017 00.00.00	2.85	0.00	7.84	18.70	49.55	0.93	0.07	1.15	0.00	0.00	0.70	0.00
21.02.2017 00.00.00	22.02.2017 00.00.00	11.02	0.00	12.35	296.48	37.18	11.00	0.00	0.00	0.00	0.00	0.03	0.00
20.02.2017 00.00.00	21.02.2017 00.00.00	5.61	6.41	11.90	285.49	42.09	5.48	0.00	0.00	0.00	0.00	0.13	0.00
19.02.2017 00.00.00	20.02.2017 00.00.00	0.28	12.23	12.32	295.61	42.30	0.00	0.00	0.00	0.00	0.00	0.28	0.00
18.02.2017 00.00.00	19.02.2017 00.00.00	1.61	7.64	11.80	177.89	44.04	0.00	0.57	0.61	0.00	0.00	0.44	0.00
17.02.2017 00.00.00	18.02.2017 00.00.00	0.97	10.63	12.03	237.94	46.20	0.00	0.25	0.26	0.00	0.00	0.46	0.00
16.02.2017 00.00.00	17.02.2017 00.00.00	1.80	8.08	12.41	187.20	45.04	0.00	0.62	0.64	0.00	0.00	0.54	0.00
15.02.2017 00.00.00	16.02.2017 00.00.00	1.20	9.87	12.70	230.39	44.63	0.00	0.40	0.30	0.00	0.00	0.51	0.00
14.02.2017 00.00.00	15.02.2017 00.00.00	0.38	12.99	11.85	284.41	47.01	0.00	0.00	0.00	0.00	0.00	0.38	0.00
13.02.2017 00.00.00	14.02.2017 00.00.00	2.04	11.89	12.10	290.39	47.96	1.61	0.00	0.00	0.00	0.00	0.42	0.00
12.02.2017 00.00.00	13.02.2017 00.00.00	13.40	0.00	13.36	320.58	41.79	13.03	0.00	0.00	0.00	0.00	0.36	0.00

Figure 1 Høglund Fleet Manager

1.2 Fleet Manager Introduction

Høglund Fleet Manager provides the operator with access to all reported data. Users can connect to Høglund Cloud Database through Høglund Fleet Manager. After login, users can access all vessels within their fleet from the dropdown menu. All data from the specified time period are sorted and presented in different sheets. The data in each sheet is sorted in specified groups and all visual groups and subgroups are adjustable in the vessel's configuration file.

1.2.1 Onboard users

Onboard operators (Chief Eng., Captain, etc.) are assigned write access to their own vessel, allowing corrections and adjustments of exported data. This is possible only for parameters with write access enabled in vessel config file.

With a LiveData update rate of 1 record per minute, the Fleet Manager can also perform automatic recalculations. Operators only need to adjust "From" and "To" date & time, and then activate the recalculation command, whereupon the SPM server will perform the calculation based on the LiveData records.

With LiveData, operators can also manually insert new Day and Mode records in the Fleet Manager. After adjusting date & time, the SPM Server will automatically perform necessary calculations.

1.2.2 Office users

Office users are given read access to the entire fleet. In the drop-down list of ships, they can access all vessels within their fleet, but they are not allowed to do manual adjustments to any records.

1.3 Installation

MongoDB must be installed before Fleet Manager. Høglund will provide software download links.

Supported MongoDB versions:

- 4.0.4 (Preferred)
- 3.2.16

1.3.1 Installing MongoDB

1. Download the latest supported version of MongoDB. This needs to be installed before Fleet Manager.

2. Open installation and click Next Welcome to The Mongo DB
3. Accept the terms and click Next
4. Select Complete installation
5. Leave settings as default and click Next

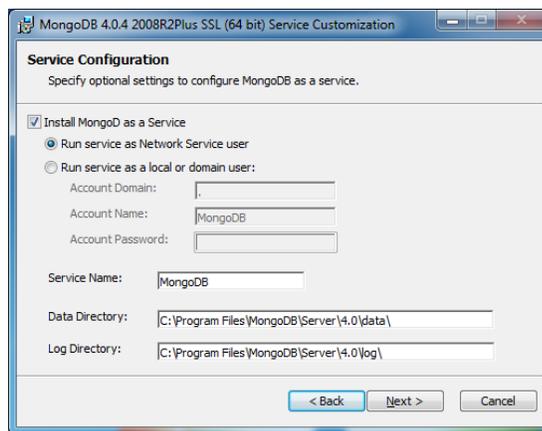


Figure 2 MongoDB as a service

6. Deselect Install MongoDB Compass (only 4.0.4 version) and click Next in Install MongoDB Compass

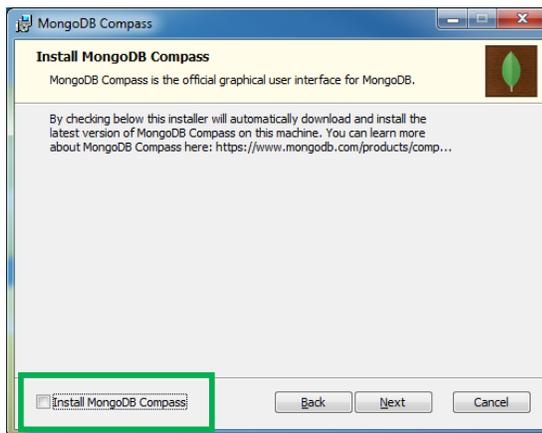


Figure 3 Deselect MongoDB Compass

7. Click Install

1.3.2 Installing Fleet Manager

1. Download the latest version of Fleet Manager
2. Open installation and click Install
3. For MongoDB – 4.0.4 - Ensure Launch Fleet Manager with default configurations is Selected
*Only **Select** Change the default server and/or mongo parameters if:*
 - *Fleet manager is installed on a different server than HMA*
 - *MongoDB is earlier than version 4.0*

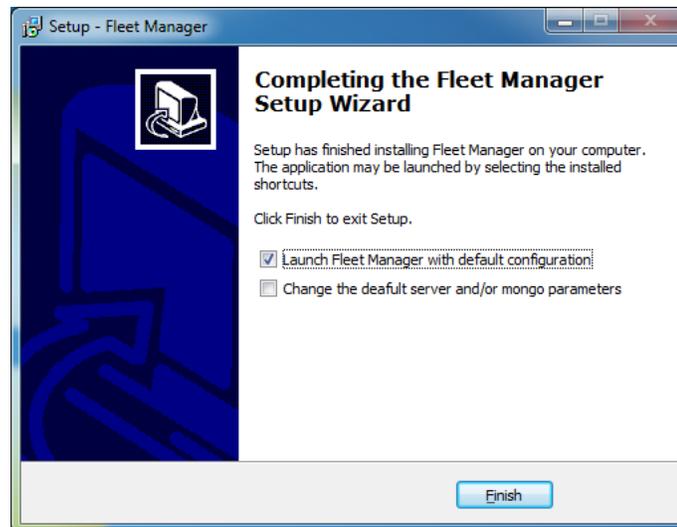


Figure 4 Fleet Manager setup wizard

- For MongoDB 3.2.16, select *Change the default server and/or mongo parameters* and press Finish. This will launch the FMConfigurator tool. This tool needs ADMIN privileges.

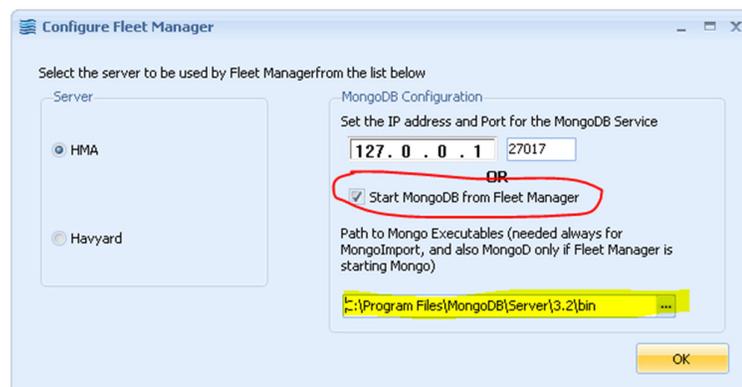


Figure 5 MongoDB v3.2.16 settings

- Make sure *Start MongoDB from Fleet Manager* is selected. You also need to browse for the MongoDB server location. Default settings are for MongoDB 4.0.4. In FMConfigurator tool, you can also select default SPM Server to retrieve data from. Configurator tool can also be found in ProgramFiles/HMA/SPM/Fleet Manager folder.

Press OK to launch FM.

1.4 Log into Fleet Manager and select vessel

- Open Fleet Manager and enter a username/password. These will be provided by Høglund technical team.
- Select the vessel you want to view

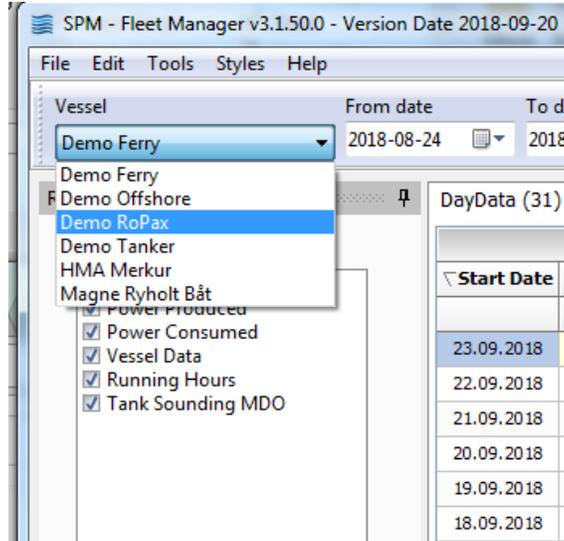


Figure 6 Vessel selection

- Once you have selected the vessel, select From date and To date (This is the period of data you want displayed from SPM). Click Update & Display to download and display results.

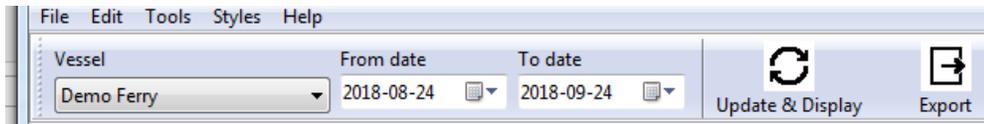


Figure 7

Fleet Manager will now download data from the specified time period and store this data into your local mongo database. Data from the downloaded period is stored on your local hard drive. Next time the user requests data for the same period, FM only requests changed data from the SPM server. This way, we will make sure that the data traffic (amount of data) is limited.

1.5 Fleet manager tools

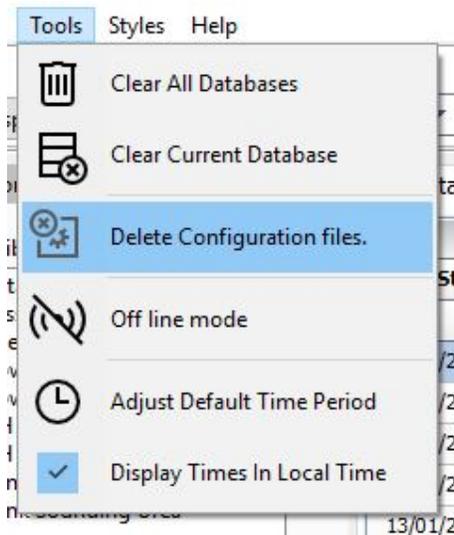


Figure 8 Fleet Manager Tools

1.5.1 Clear All Database

Clears the local Mongo database for all vessels.

Note: Use this feature when experiencing local database issues or fleet manager is not loading data correctly.

1.5.2 Clear Current Database

Clears local mongo database for current active vessel

1.5.3 Delete Configuration files

This will delete all configuration files from your local machine. Fleet Manager will then download new updated files from server. This function can be used if some of the current configuration files are obsolete (deleted from server).

1.5.4 Offline mode

Uses local database and does not download from cloud server

1.5.5 Adjust default period

Sets the default time period (to/from) which will be displayed when FM is opened/started. "To" will always be "Today".

"From" will be "Today" – "Default time period".

1.5.6 Display Times In Local Time

This option allows you to display all Dates & Time values in UTC Time or Local Time. Editing data will be inhibited when Fleet Manger is in "Local time" mode.



Figure 9 Local Time mode

1.6 Fleet Manager Data Tab

1.6.1 Data Display

There are default tabs to access the data needed

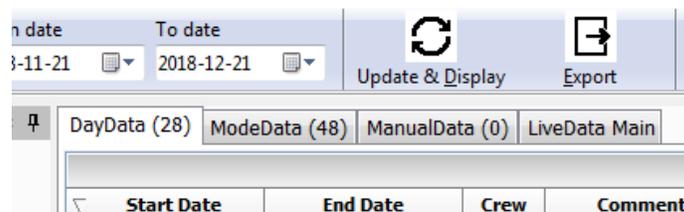


Figure 10 Data display

1.6.1.1 DayData

Daily data records. This data is triggered midnight (UTCTime or LocalTime).

1.6.1.2 ModeData / TripData

Triggered at mode/trip change. This is the most important report type. For ModeData, onboard crew need to make sure that start/end date & time is correct. You also need to make sure correct mode is selected.

1.6.1.3 ManualData

Here you can manually add records (use Insert new Report Record button in left pane). Once inserted, enter correct date & time for START and END, then press the Recalculate button in top menu to see data for the time period added. The recalculate function uses historical LiveData records to calculate correct data. Note that time & date added need to be UTC.

1.6.1.4 LiveData – Live

Data is sent from vessel every 1 minute. LiveData supports playback, so you can go back in time to see historical data.

1.6.1.5 Alarm & Event

It is possible to send Alarms & Events from the vessel to the Fleet Manager. This makes it possible for the onshore management to be alerted of situations arising onboard and use the Playback function to analyse the root cause of the event.

1.6.2 Report Configuration & Report Summary

1.6.2.1 Visible Group

You can select the groups you want to display on Fleet Manager.



Figure 11 Visible groups

1.6.3 Report Summary

Average – Calculates the average amount

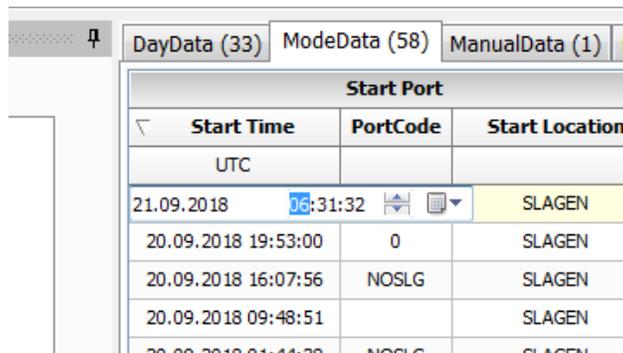
Total – Calculates the total amount

1.23	4.37	29.01	34.24	1.23	2.47	3.02
1.99	7.34	39.46	43.94	2.07	3.28	12.15
0.29	1.18	0.12	31.31	5.00	2.14	0.42
0.14	0.53	0.23	36.47	5.00	2.80	0.61
0.51	1.85	13.72	53.55	2.99	6.68	6.50
0.19	0.74	1.51	33.84	5.00	2.79	0.72
0.17	0.66	1.30	40.03	3.26	3.10	1.29
1.83	7.23	25.07	34.83	3.75	2.27	0.74
1.22	4.54	35.08	44.93	2.97	3.32	7.69

Figure 12 Report summary

1.6.4 Edit/Correct data

Only some of the data cells can be edited within Fleet Manager. Double click on the selected box to edit data.



Start Port		
Start Time	PortCode	Start Location
UTC		
21.09.2018 06:31:32		SLAGEN
20.09.2018 19:53:00	0	SLAGEN
20.09.2018 16:07:56	NOSLG	SLAGEN
20.09.2018 09:48:51		SLAGEN
20.09.2018 01:44:28	NOSLG	SLAGEN

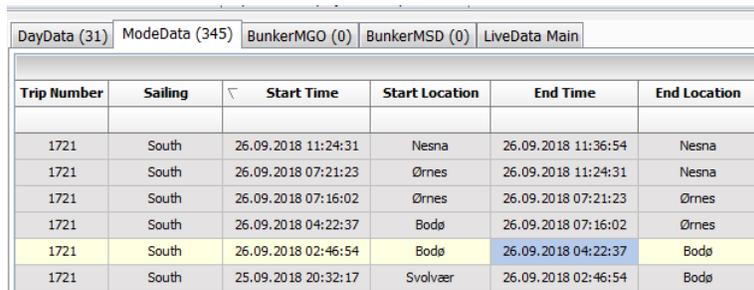
Figure 13 Manual editing of data

1.6.5 Recalculate

With the recalculating function, FM allows you to modify record's Date & Time for Start and End of a period. Once the correct date & time is added, press the Recalculate button. SPM server will now recalculate all data according to your new specified time period.

Note: FM needs to be in time mode: UTC before the recalculation function is enabled. All new start- & end times need to be entered in UTC time!

1. Edit start- & end time for the record that is incorrect.



Trip Number	Sailing	Start Time	Start Location	End Time	End Location
1721	South	26.09.2018 11:24:31	Nesna	26.09.2018 11:36:54	Nesna
1721	South	26.09.2018 07:21:23	Ørnes	26.09.2018 11:24:31	Nesna
1721	South	26.09.2018 07:16:02	Ørnes	26.09.2018 07:21:23	Ørnes
1721	South	26.09.2018 04:22:37	Bodø	26.09.2018 07:16:02	Ørnes
1721	South	26.09.2018 02:46:54	Bodø	26.09.2018 04:22:37	Bodø
1721	South	25.09.2018 20:32:17	Svolvær	26.09.2018 02:46:54	Bodø

Figure 14 Edit start and end times

2. Once you have corrected start and stop time, select Recalculate and data will be recalculated according to new data.

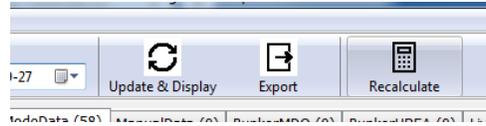


Figure 15 Recalculate button

- After Recalculating the first record, you also need to modify the StartPeriod for the next record. Remember to press “recalculate” again for this record as well.

Trip Number	Sailing	Start Time	Start Location	End Time
1721	South	26.09.2018 11:24:31	Nesna	26.09.2018 11:36:54
1721	South	26.09.2018 07:21:23	Ørnes	26.09.2018 11:24:31
1721	South	26.09.2018 07:16:02	Ørnes	26.09.2018 07:21:23
1721	South	26.09.2018 04:00:00	Bode	26.09.2018 07:16:02
1721	South	26.09.2018 02:46:54	Bode	26.09.2018 04:00:00
1721	South	25.09.2018 20:32:17	Svolvær	26.09.2018 02:46:54

Figure 16 Modify StartPeriod for the next record

1.6.6 Add Record to table – Manual Data

It is possible to manually add records (use Insert new Report Record button in left pane). Once inserted, enter correct date & time for START and END, then press the Recalculate button in top menu to see data for the time period added. The recalculate function is using historical LiveData records to calculate correct data. Note that the time & date added need to be UTC. Adding a record to the table enables you to add information that was missed when the vessel was in operation.

- Insert a new record within the table



Figure 17 Insert new record

- A new row appears at the top of the table. Enter the data needed and then select Recalculate. Note: FM needs to be in time mode: UTC before recalculation function is enabled. All new start- & end times need to be entered in UTC time!

1.7 Export function

From Fleet Manager, users can export data from a time specific period into an Excel report template. The exported excel report contains all data visible in Fleet Manager. The Excel report template will also contain one or more KPI sheets with predefined formulas pointing to the different data sheets. This template can be adjusted to fit customers' requests.

1.7.1 Exporting Data

Pressing the Export button will export all data from the selected time period to pre-generated excel templates.

1. Once you have your data, select Export. You can then select which template to use for the export.

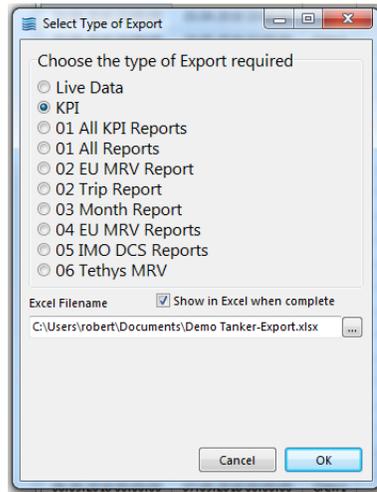


Figure 18 Type of export

Live Data – Export Live data reports

KPI Data – Export all reports (Except live data)

01-06 – Export custom data from the selected vessel

This may take several minutes, depending on the amount of data.

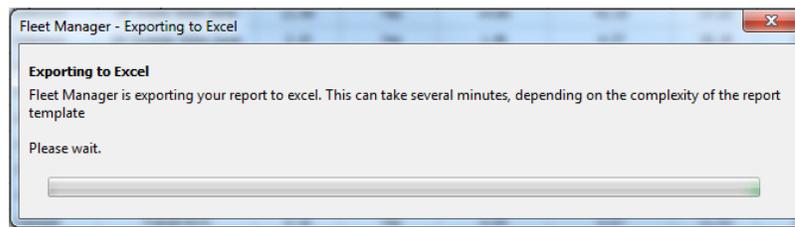


Figure 19 Exporting to excel

1.8 Live Data

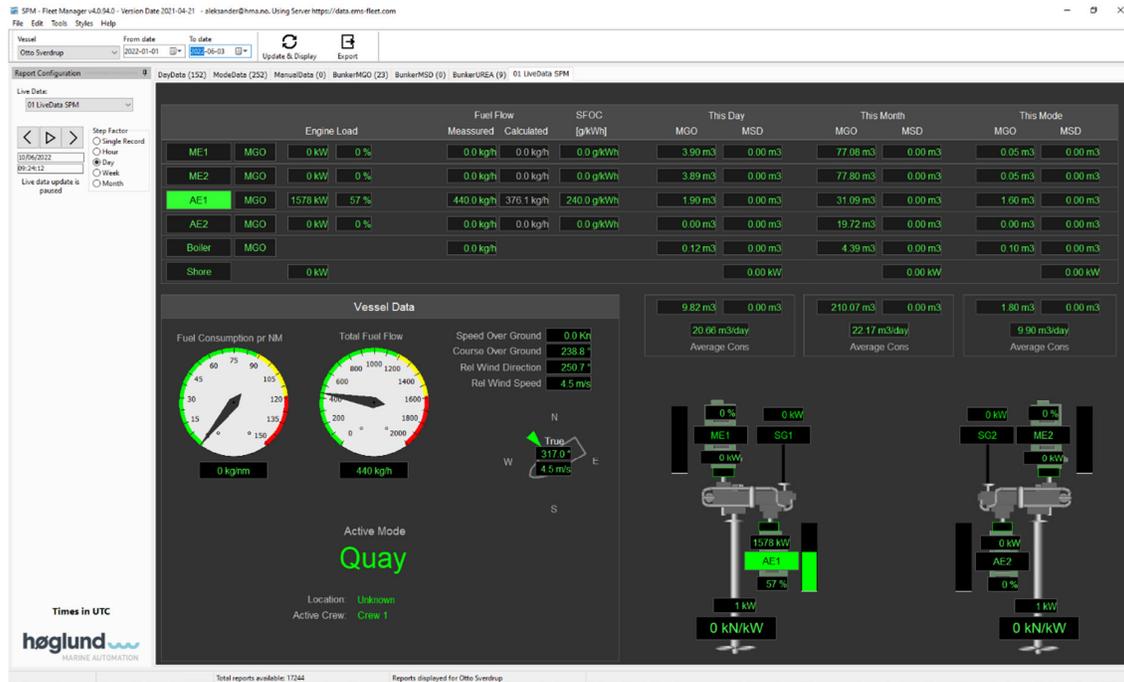


Figure 20 Example LiveData view

Mimics from the vessel will be presented in the Fleet Manager. Note that the powerful Høglund Playback function is also available in Fleet Manager, making it possible to step backwards in time to see historical data.

1.8.1 External Calculation Requests

Live Data is updated once every minute. Consequently, the Cloud server can make important calculations between user specified time intervals. Data such as total and average Fuel consumption, distance sailed, running hours etc. can be calculated from the Live Data.

Example

Many offshore companies use UNISea as the master reporting software on all their vessels. Earlier the captain registered specific time stamps for the main events (In Port, DP Operation etc.) and the chief engineer had to fill in engine data between these time stamps, but now this can be done automatically. All they need to do, is to specify the “From” and “To” time stamps and then press the GET VALUES button. UNISea then sends a request to the Høglund cloud server, requesting the total fuel consumption within the period and the server will revert with the correct data.

1.9 Check for updates

There is an option under Help where FM checks if newer versions of Fleet Manager is available for download on Høglund’s server.



Figure 21 Check for updates

If there are newer version available, FM will ask the operator if they want to download and install it or exit without updating.

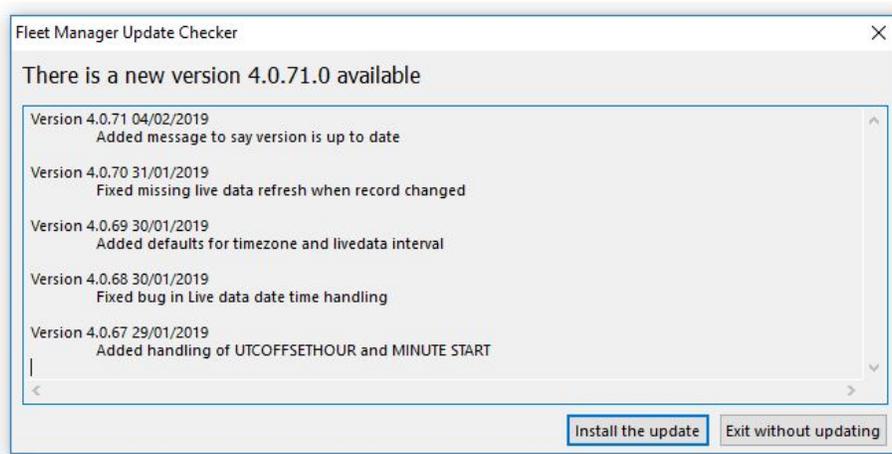


Figure 22 Updates are available