

Quick start guide of ClassNK MRV Portal for compliance of IMO DCS

Jan, 2020
ClassNK

Initial Setting after Application

- Registration of detailed company data (EU MRV users can start from here)

The screenshot shows the 'Applicant and Contact Information' page of the ClassNK MRV Portal. The form includes fields for IMO No., Organization Name, Address, and Top Management details. A sidebar on the left contains navigation options like 'Monitoring', 'MP (Monitoring Plan)', 'User Information', 'Company Data', 'Ship List', 'Sub User List', and 'Alert Setting'. The 'Applied Regulation' section has 'IMO-DCS' selected. The 'Submission method of the Certification data' section has 'Submit the Certification data by using ClassNK MRV Portal' selected. A signature field is present at the bottom right.

Check terms for certification (normally "every year") - Points to the 'Period subject to ER Certification' section where 'Every year since 2019' is selected.

Input company information - Points to the 'Applicant & Billing Address' section.

Check "IMO DCS" - Points to the 'Applied Regulation' section where 'IMO-DCS' is checked.

Check "...by using ClassNK MRV Portal" - Points to the 'Submission method of the Certification data' section where the first option is selected.

No need (for IMO only user) - Points to the 'Signature image of Management Representative for MRV' field.

Click save - Points to the 'Save' button at the bottom right.

Initial Setting after Application

- Registration of ships data and applied regulation

ClassNK MRV Portal Ver.1.7.2 - 2019/12/18 User's Guide Video Manual US000678 SQ Minatoya Shim Logout

Monitoring
MP(Monitoring Plan)
EU Emission Report
IMO DCS Annual Report
User Information
Company Data
Ship List
Sub User List
Alert Setting

Ship List

List of registered ships

IMO No.	Ship name	Flag	Applied Regulation		Type of Ship		Ship Detail	Edit MP
			EUMRV	Type of Ship(EUMRV)	IMO-DCS	Type of Ship(IMO-DCS)		
0000001	NK Bulker	JPN	<input checked="" type="checkbox"/>	Bulk carrier	<input checked="" type="checkbox"/>	Bulk Carrier		
0000002	NK Tanker	PAN	<input checked="" type="checkbox"/>	Oil tanker	<input type="checkbox"/>			
0000003	NK MARU	PAN	<input checked="" type="checkbox"/>	General cargo ship	<input checked="" type="checkbox"/>	General Cargo Ship		
111111	NK Flower	JPN	<input type="checkbox"/>		<input checked="" type="checkbox"/>	Bulk Carrier		
987654	NK cargo	PAN	<input checked="" type="checkbox"/>	LNG carrier	<input type="checkbox"/>			

Please add ships which are classed by other Classification Societies.

Print application information Edit Log Save Get NK's data Add Ship

You can get your NK-SHIPS data by this button for NK-classed ships.

Initial Setting after Application

- Registration of ship data and applied regulation

Ship Detail

Particulars Emission Source Billing To

IMO No. 0000001

Ship name NK Bulker

Applied Regulation EUMRV IMO-DCS

FLAG / PORT Japan Hiroshima

Call sign CALL Official number OFFI

Name of Ship owner NK Shipping S.A

Address of Ship owner

IMO No.(※) 0000000 ※Registered owner identification

Management Company NK Shipmanagement

Type of ship(EUMRV) Bulk carrier

Type of ship(IMO-DCS) Bulk Carrier

Deadweight 80000

Gross tonnage 40000.00 Net tonnage 10000.00

Technical Efficiency 10.20 EEDI EIV

Class Nippon Kaiji Kyokai

Ice-class

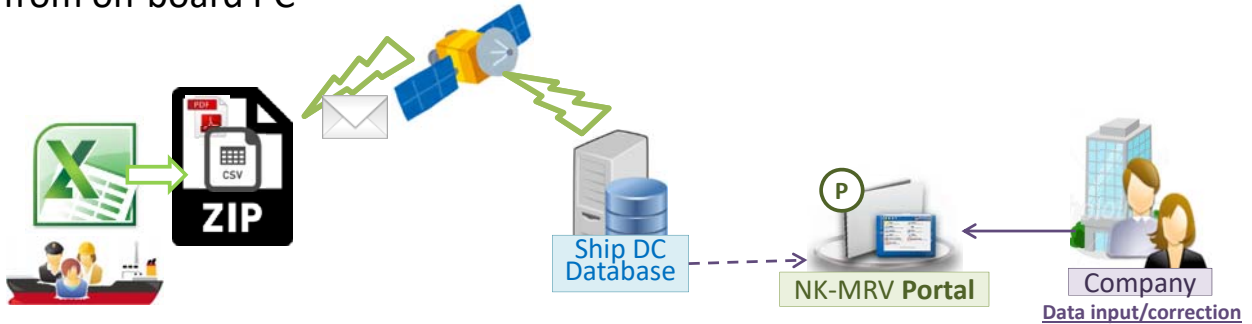
Additional identification parameters

Delete Save

Input EEDI on the ship's IEE cert, if applicable.

On-board reporting template of MRV Portal :

- On-board data reporting templates are automatically generated on MRV Portal web site with minimum setting
- Simple Excel template
- One-Click packaging of supporting document and data for sending by email from on-board PC



Merits of NK Portal:

- No need to install on-board applications (Excluding the possibility of software bugs on PC)
- ZIP file can be sent by on-board E-mail system (No internet connection required)

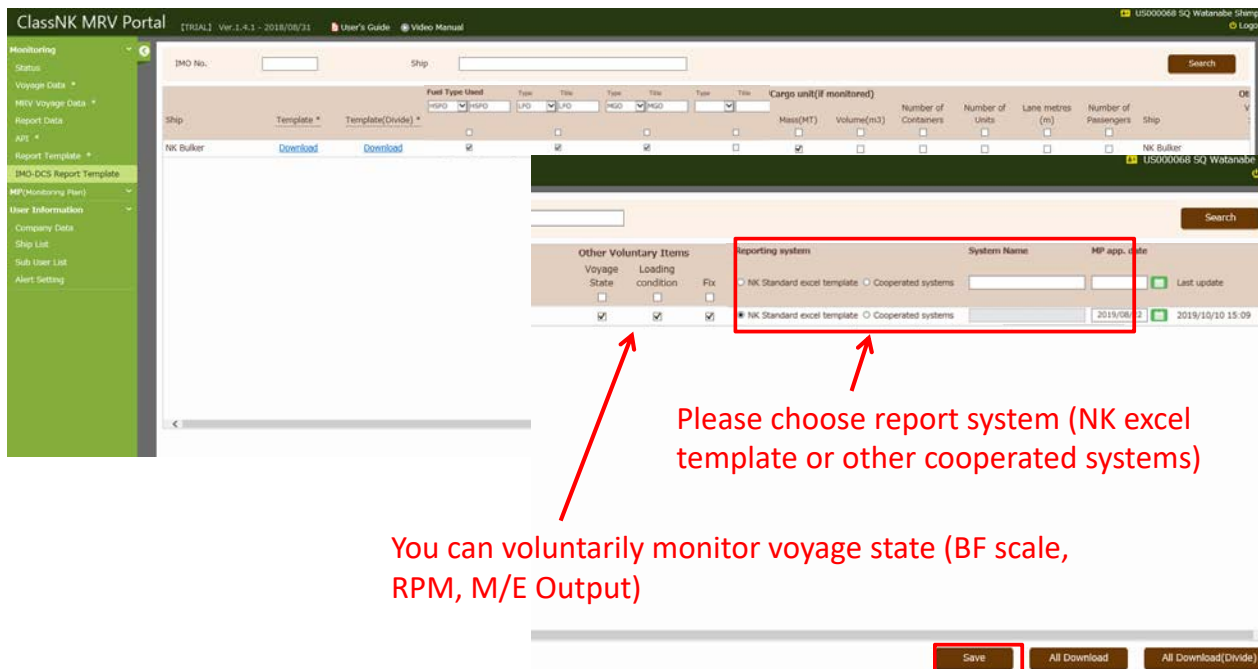
Preparation of Monitoring template

- Edit DCS monitoring format for each ship...

Note : For ships to which EU MRV apply, the current EU MRV template can be used for DCS data and hence it will not be displayed in IMO DCS Report Template tab.

Preparation of Monitoring template

- Edit DCS monitoring format for each ship...



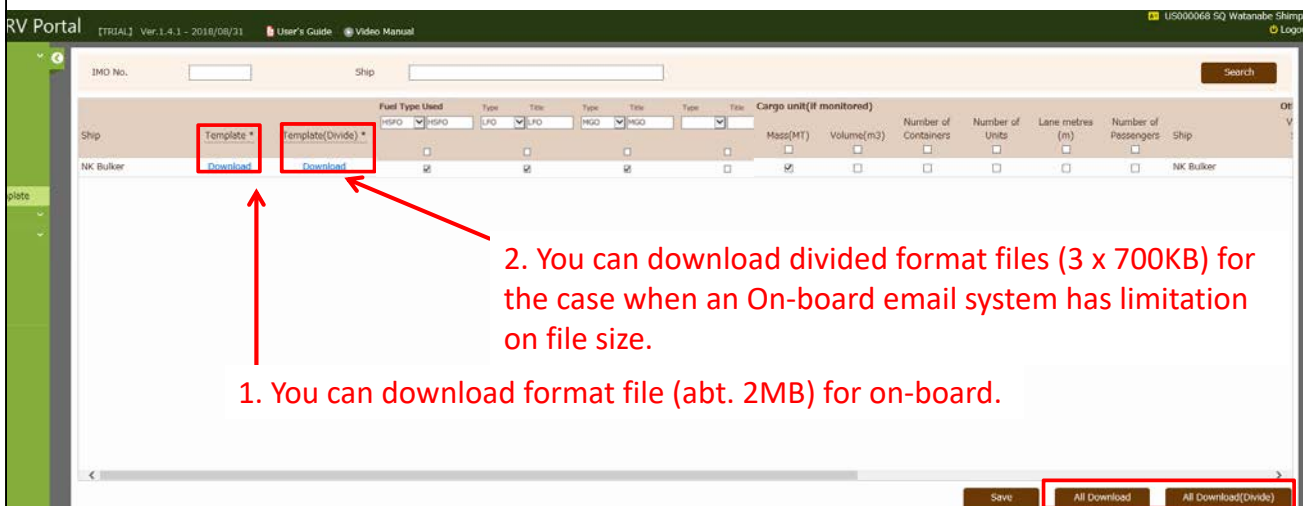
Please choose report system (NK excel template or other cooperated systems)

You can voluntarily monitor voyage state (BF scale, RPM, M/E Output)

Please save when all data is fixed

Preparation of Monitoring template

- Download DCS monitoring format for each ship...



1. You can download format file (abt. 2MB) for on-board.

2. You can download divided format files (3 x 700KB) for the case when an On-board email system has limitation on file size.

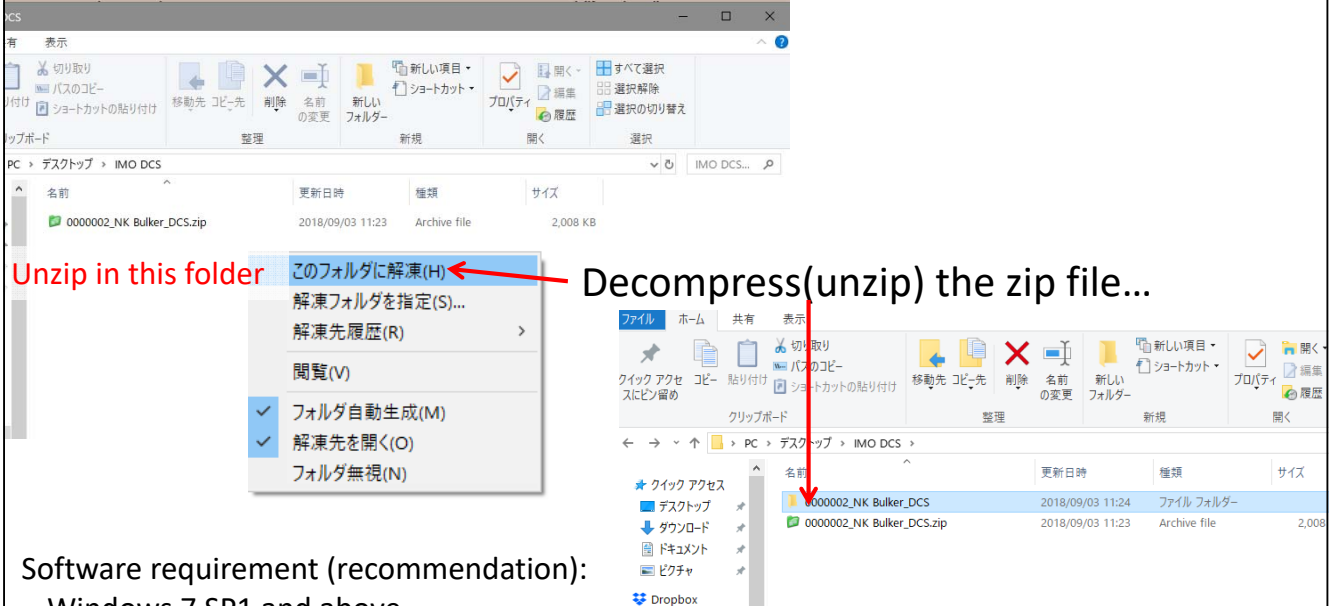
3. You can download all files from here

On-board reporting

- Setting on board

Please send a downloaded zip file to on-board.

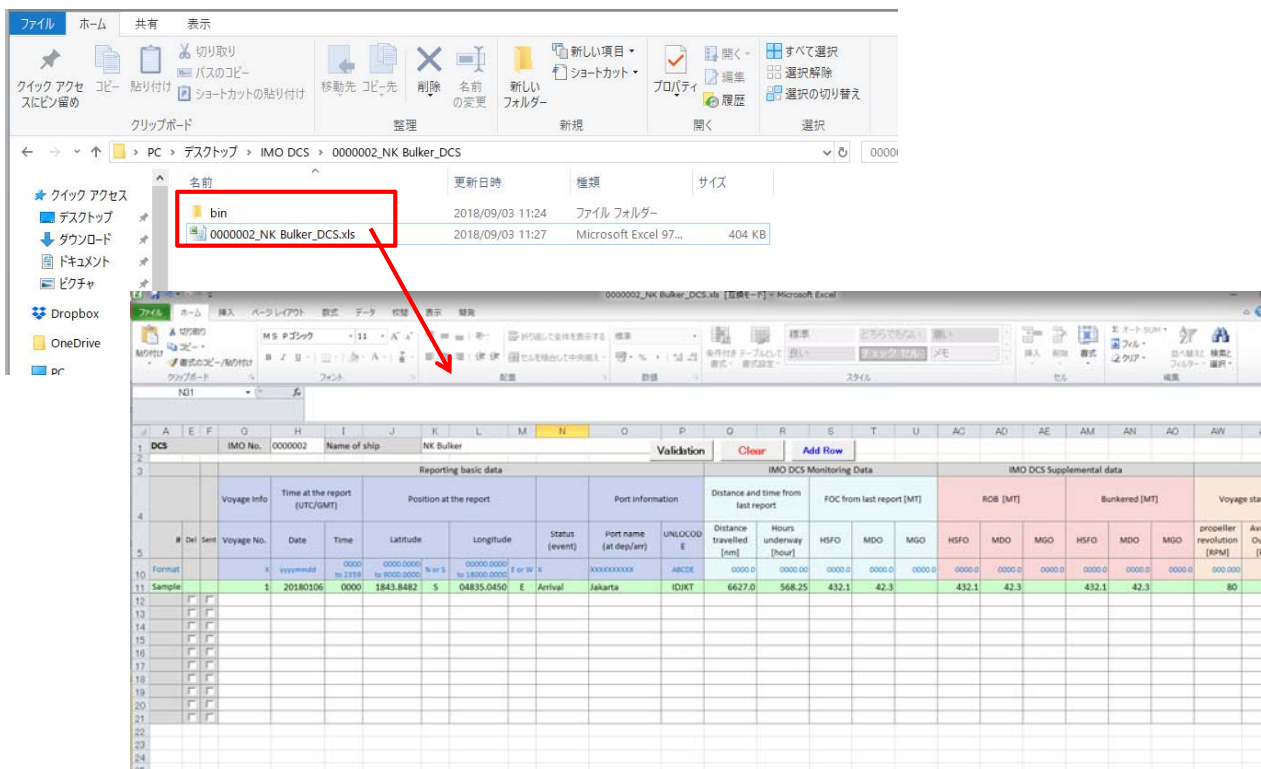
The zip file needs to be located on a local desktop or C drive as below;



Software requirement (recommendation):
 -Windows 7 SP1 and above
 -Microsoft Excel 2010 and above

On-board reporting

Configuration of file (please do not move "bin" files from this folder.)



On-board reporting

Sample input

Please input FOC, Distance, Time since the last report.

Reporting basic data		IMO DCS Monitoring Data									IMO DCS Supplemental data						Voluntary data field				Evidence					
#	Date	Time	Latitude	Longitude	Status (event)	Port name (at dep/arr)	UNLOCODE	Distance and time from last report			FOC from last report [MT]			ROB [MT]			Bunkered [MT]			Voyage state (Voluntary)		Loading Condition	Cargo Carried	File (BDN)		
								Distance travelled [nm]	Hours underway [hour]	MDO	HSFO	MDO	MGO	HSFO	MDO	MGO	HSFO	MDO	MGO	propeller revolution [RPM]	Ave. ME Output [kW]				Sea state [BF]	Laden or Ballast
1	20180106	0300	0843.8482	S 04835.0450	E Arrival	Jakarta	IDJKT	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0 to 12	L or B	00000.0	XXXXXXXXXXXX	abcdeghijkl
2	20180131	2106	3654.8000	N 12614.2000	E Departure	Teanan	KRTAN	6627.0	568.25	432.1	42.3	1400.00	42.3	1461.11	0.00	0.00	80	4000	4	L	B					
3	20180201	0300	3543.1000	N 12545.2000	E Noon			7.0	1.30	3.03	0.00										95.000	9223	4			
4	20180202	0300	3007.5000	N 12731.6000	E Noon			74.0	4.60	8.03	0.00										95.100	10084	5			
5	20180203	0300	2445.9000	N 13029.9000	E Noon			355.0	24.00	45.60	0.00										95.100	10082	5			
6	20180204	0300	1941.8000	N 13329.8000	E Noon			359.0	24.00	45.61	0.00										95.110	10084	5			
7	20180205	0300	1437.6000	N 13623.2000	E Noon			348.0	24.00	45.60	0.00										95.100	10082	5			
8	20180206	0300	0933.2000	N 13913.8000	E Noon			346.0	24.00	45.60	0.00										95.100	10082	4			
9	20180207	0300	0428.8000	N 14200.6000	E Noon			347.0	24.00	45.51	0.00										95.090	10081	4			
10	20180208	0200	0023.7000	S 14441.4000	E Noon			334.0	23.00	43.62	0.00										95.090	10082	4			
11	20180209	0200	0550.5000	S 14738.4000	E Noon			332.0	24.00	45.51	0.00										95.100	10081	4			
12	20180210	0200	0957.4000	S 15141.3000	E Noon			361.0	24.00	45.51	0.00										95.090	10081	4			
13	20180211	0200	1546.2000	S 15254.1000	E Noon			360.0	24.00	45.52	0.00										95.080	10083	4			
14	20180212	0100	2118.6000	S 15356.5000	E Noon			339.0	23.00	43.62	0.00										95.100	10082	4			
15	20180213	0100	2740.6000	S 15346.2000	E Noon			383.0	24.00	45.51	0.00										95.090	10081	4			
16	20180213	2130	3254.4000	S 15201.1000	E Departure	New Castle	AUNNT	0.0	0.00	0.00	0.00						851.55	0.00	0.00							
17	20180213	2242	3312.7000	S 15224.4000	E Drifting start			22.0	1.20	1.77	0.00															
18	20180216	1106	3308.0000	S 15207.0000	E Drifting end			8.0	0.80	9.22	0.00															
19	20180216	1454	3253.3000	S 15146.1000	E Arrival	New Castle	AUNNT	26.0	3.30	5.87	0.00															
20	20180217	0930	3253.3000	S 15146.1000	E Departure	New Castle	AUNNT	0.0	0.00	0.00	0.00															
21	20180217	1142	3257.7000	S 15151.4000	E Departure			9.0	2.20	3.27	0.00															
22	20180218	0100	3055.4000	S 15314.3000	E Noon			152.0	13.30	25.20	0.00										91.540	10073	5			
23	20180219	0100	2622.3000	S 15345.2000	E Noon			276.0	24.00	45.51	0.00										91.820	10081	5			

- Dep./Noon/Noon/Arr., etc. inputs are shown here.
- You can also input only Dep. and Arr. without other events. (Frequency of monitoring depends on company's choice.)

On-board reporting

Sample input(Attaching Evidence at first record (ROB) or Bunkering)

Reporting basic data		IMO DCS Monitoring Data									IMO DCS Supplemental data						Voluntary data field				Evidence						
#	Date	Time	Latitude	Longitude	Status (event)	Port name (at dep/arr)	UNLOCODE	Distance and time from last report			FOC from last report [MT]			ROB [MT]			Bunkered [MT]			Voyage state (Voluntary)		Loading Condition	Cargo Carried	File (BDN)			
								Distance travelled [nm]	Hours underway [hour]	MDO	HSFO	MDO	MGO	HSFO	MDO	MGO	HSFO	MDO	MGO	propeller revolution [RPM]	Ave. ME Output [kW]				Sea state [BF]	Laden or Ballast	Mass [MT]
1	20180106	0300	0843.8482	S 04835.0450	E Arrival	Jakarta	IDJKT	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0000.0	0 to 12	L or B	00000.0	XXXXXXXXXXXX	abcdeghijkl	
2	20180131	2106	3654.8000	N 12614.2000	E Departure	Teanan	KRTAN	6627.0	568.25	432.1	42.3	1400.00	42.3	1461.11	0.00	0.00	80	4000	4	L	B						

File Explorer window showing file selection:

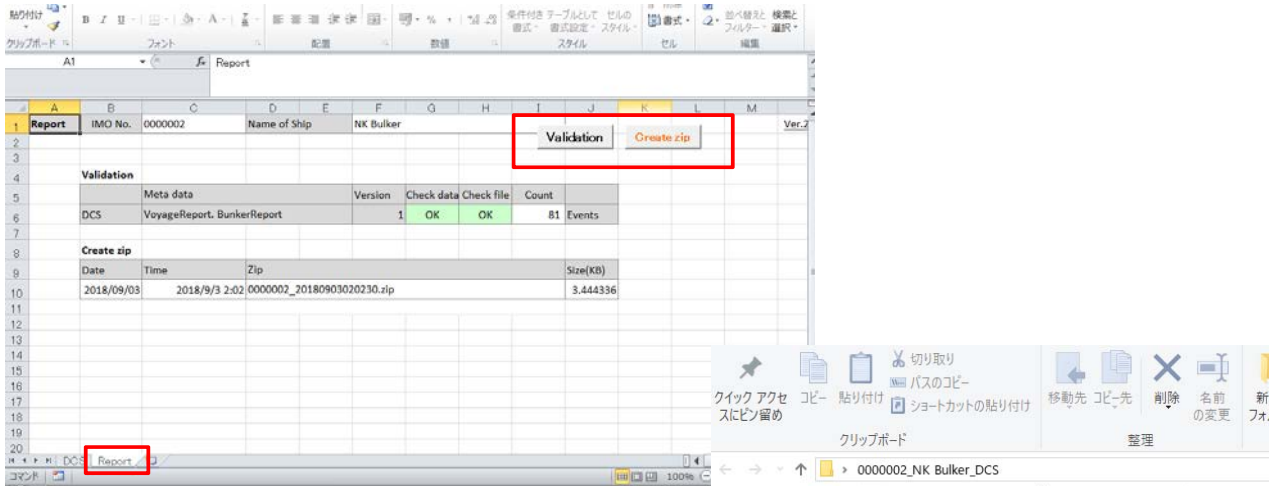
- File name: Email.pdf
- File size: 1 KB
- File type: Archive file
- File path: C:\Users\0838\Documents\Email.pdf

Select BDN or logbook (points to the file selection window)

Browse (points to the Evidence column in the table)

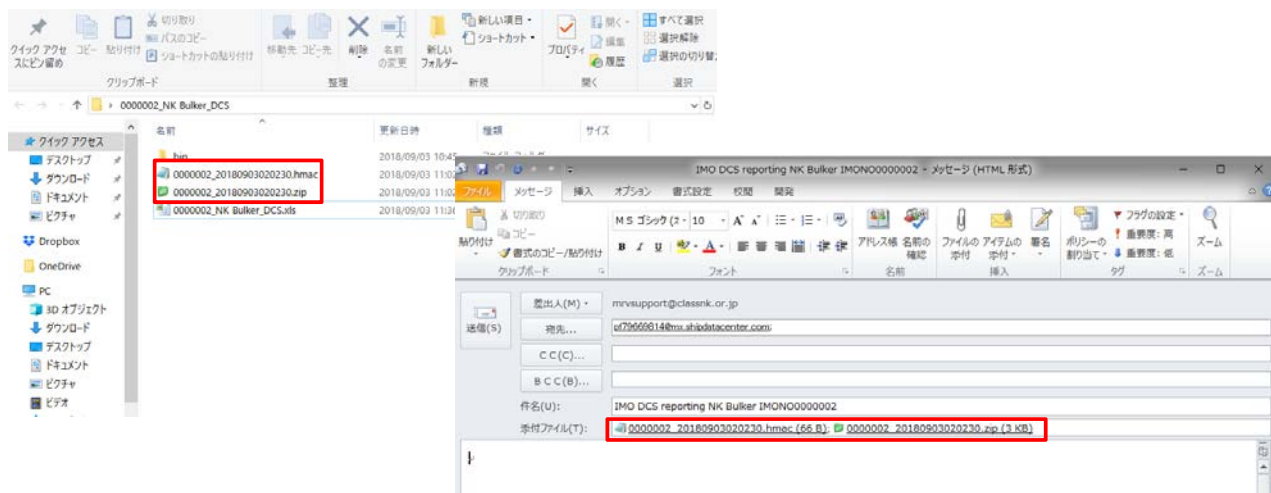
Open (points to the Open button in the file explorer)

Report file output



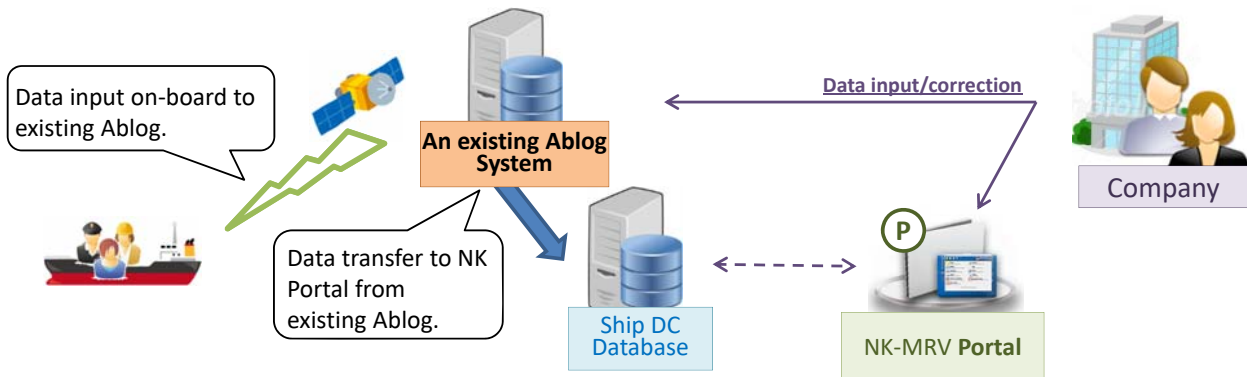
1. Go to "Report" sheet
2. Click "Validation" and "Create zip"
3. You can find zip/hmac file in the same folder with the excel sheet.

Report files by email



1. Please attach the **ZIP and hmac** file to email (Do Not change filename. Make sure to attach both ZIP and hmac files.)
2. The mail to be sent to pf79669814@mx.shipdatacenter.com
3. Title and body can be blank.
4. Maximum file size is about 7MB.

- Our standard data transmission protocol to NK is open to the public.
- Linkage with an Ablog-system enables a user to submit the monitoring data to NK by usual inputting Ablog only.

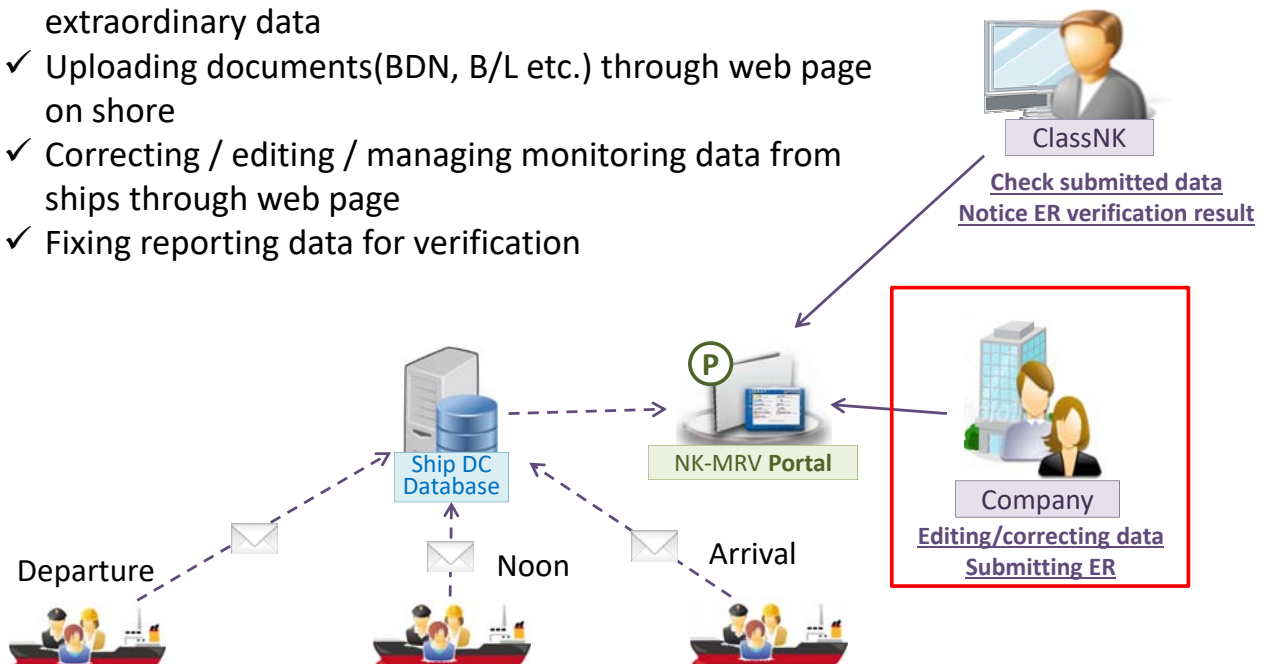


Merits of linkage with Ablog systems :

- Ship crews don't have to consider to input the data to NK Excel template.
- On-board duplicated work can be avoided.
- Ablog Data can be shared with proper IT security.

Function :

- ✓ Adding sub user login ID for each vessel
- ✓ Setting alert criteria for such as missing or extraordinary data
- ✓ Uploading documents(BDN, B/L etc.) through web page on shore
- ✓ Correcting / editing / managing monitoring data from ships through web page
- ✓ Fixing reporting data for verification



Data management on shore

You can see voyage data(port/distance and time/fuel) on "Voyage data" tab.

ClassNK MRV Portal Ver.1.3.0 - 2018/8/19

Detail of each voyage can be checked from "Detail" tabs

Error Mark	V.No.	Departure	Port	Arrival	EU	Distance	Time	At Sea	In Port
		Dep.Time(UTC)		Arr.Time(UTC)				HSFG	MDO
	36A	2018/01/31 21:06	Taeon	2018/02/16 14:54		4727.0	318.20	606.56	0.0
	36A	2018/02/17 09:30	New Castle	2018/03/06 03:30		4721.0	379.80	668.92	0.0
	37A	2018/03/08 22:06	Taeon	2018/03/22 09:42		4192.0	297.90	547.68	0.0
	37A	2018/03/23 23:36	GLADSTONE	2018/04/13 22:06		4201.0	352.30	629.5	0.0
	38A	2018/04/13 22:06	Taeon			0	0	0.0	0.0

Voyage Data / Monitoring

Distance: 4727.0 nm (8754.4km) Time Spent at sea: 318.20 h

Report Time (UTC): 2018/01/07 14:00

Event Status: Noon

Report Lat./Long.: 2516.0000 N 14420.0000 E

Voyage No.: 201704 (Santos / QINGDAO)

Distance: 139.0 nm Time Spent at sea: 12.50 h

Average propeller revolution: 90,400 rpm

Average BHP: 5542 kw

Sea State: 4

Laden or Ballast: Laden

FOC from test report [MTN]: HFO: 11.120000, MDO: 0.200000

FOC for cargo Heating [MTN]:

FOC for Dynamic positioning [MTN]:

Unranked [MTN]:

You can correct wrong inputs.

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Data management on shore

BDN uploading procedure

ClassNK MRV Portal Ver.1.3.0 - 2018/8/19

BDN uploading procedure

Detail	V.No.	Departure	Port	Arrival	EU
		Dep.Time(UTC)		Arr.Time(UTC)	
	36A	2018/01/31 21:06	Taeon	2018/02/16 14:54	
	36A	2018/02/17 09:30	New Castle	2018/03/06 03:30	
	37A	2018/03/08 22:06	Taeon	2018/03/22 09:42	
	37A	2018/03/23 23:36	GLADSTONE	2018/04/13 22:06	
	38A	2018/04/13 22:06	Taeon		

Voyage Data / Monitoring

Port: [36A (Taeon-gun / Newcastle)(AUS)]

Time(UTC): 2018/02/17 00:00

Event Status: Departure

Report Lat./Long.: [N S] [E W]

Voyage No.: 36A

Departure port: [36A] EU Port U/U

ROB[MTN] at departure port

Evidence of ROB

Just drop file(s)

Fuel tab

Place	Time(UTC)	FOC (MT)	HSFG	MDO	MGO	Ave. RPM	Ave. BHP	Sea State	ROB (MT)	HSFG	MDO	MGO
Departure (KRTAN)	2018/01/31 21:06	N.A.	N.A.	N.A.	N.A.				1461.13			
SOSP	2018/01/31 22:24	1.99	0.0	0.0	0.0							
Nixon	2018/02/01 03:00	8.03	0.0	0.0	0.0	95.000	9223	4				
	1:00	45.6	0.0	0.0	0.0	95.100	10082	5				
	2:00	45.61	0.0	0.0	0.0	95.110	10084	5				
	3:00	45.6	0.0	0.0	0.0	95.100	10082	5				
	4:00	45.6	0.0	0.0	0.0	95.100	10082	5				
	5:00	45.51	0.0	0.0	0.0	95.090	10081	4				
	6:00	43.62	0.0	0.0	0.0	98.090	10082	4				
	7:00	45.51	0.0	0.0	0.0	95.100	10081	4				
	8:00	45.51	0.0	0.0	0.0	95.090	10081	4				

Add new

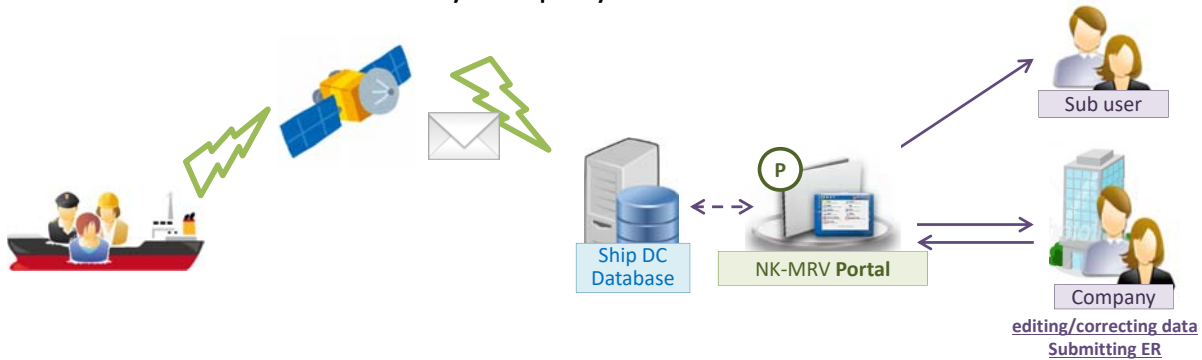
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➤ **Function of Alert Criteria Setting for incorrect, missing or extraordinary data:**

- The function notifies the alerts to users for such as Data lack, wrong format, wrong order, unlikely value.

For example:

- [FOC check] Extraordinary FOC comparing with the accumulated data and/or estimation value from Engine SFOC (20% difference etc.)
- [Ship speed check] Extraordinary ship speed comparing with ship's spec. (over 25knot,etc)
- The criteria for alert is set by company's own standard on NK Portal site.



➤ **Function of Alert Criteria Setting for missing or extraordinary data :**

Recommended alerts for IMO DCS ships

The screenshot shows the 'Alert Setting' interface in the ClassNK MRV Portal. The interface is divided into a left sidebar with navigation options and a main content area. The main content area contains a table of alert criteria with columns for 'valid', 'Error', and 'Additional Items'. Several rows are highlighted with red boxes, indicating recommended alerts for IMO DCS ships.

valid	Error	Additional Items
<input checked="" type="checkbox"/>	Reported ROB is inconsistent with reported FOC.	Divergence criteria (MT) 10
<input type="checkbox"/>	Reported ship speed is over 20.0 knot.	Knot 20.0
<input type="checkbox"/>	Wrong order of events	
<input type="checkbox"/>	Period of the voyage is duplicated/isolated with the previous voyage	
<input checked="" type="checkbox"/>	ROB calculated by FOC has minus value.	
<input type="checkbox"/>	Reported FOC at sea is unusual value comparing to accumulated FOC which is already reported.	Divergence criteria (%) Times reported
<input type="checkbox"/>	Reported FOC in port is unusual value comparing to accumulated FOC which is already reported.	Divergence criteria (%) Times reported
<input type="checkbox"/>	Ship speed estimated from Noon positions is over 20.0 knot.	Knot 20.0
<input type="checkbox"/>	Reported time spent at sea is inconsistent with Dep/Arr timing	Hour 5.0
<input type="checkbox"/>	The value of cargo carried is zero in spite of laden loading condition	
<input type="checkbox"/>	The value of cargo carried is not zero in spite of ballast loading condition	
<input type="checkbox"/>	The value of cargo carried is larger than maximum.	Mass (MT) TEU/Full TEU/Empty Unit Laine metres Passengers Volume
<input type="checkbox"/>	Data lack	
<input type="checkbox"/>	Unlikely Value	

➤ Transmitted data check by alert system

The alerts are listed on “Monitoring - Alert History” tab.

Ship	Report	Subject
NK Bulker	Voyage	36A
NK Bulker	Voyage	36A
NK Bulker	Voyage	36A
NK Bulker	Voyage	36A
NK Bulker	Voyage	37A
NK Bulker	Voyage	37A
NK Bulker	Voyage	37A
NK Bulker	Voyage	37A
NK Bulker	Voyage	37A
NK Bulker	Voyage	37A
NK Bulker	Voyage	37A
NK Bulker	Voyage	37A

➤ Transmitted data check by alert system

You can move detailed alert data by clicking each alert data.

Reported ROB is inconsistent with reported FOC
Unlikely Value
-Time spent at sea

IMO No. 0000001 Ship Name NK Bulker V/No. 37A

Place	Time(UTC)	FOC (MT)			Ave. RPM	Ave.BHP	Sea Stat
		HSFO	MDO	MGO			
Departure [KRTAN]	2018/03/08 22:06	N.A.	N.A.	N.A.			
SOSP	2018/03/08 23:30	2.33	0.0	0.0	43.750	6720	
Noon	2018/03/09 03:00	6.27	0.0	0.0	89.900	8732	
Noon	2018/03/10 03:00	41.42	0.0	0.0	90.070	9134	
Noon	2018/03/11 03:00	42.4	0.0	0.0	90.690	9377	
Noon	2018/03/12 03:00	43.32	0.0	0.0	91.200	9382	
Noon	2018/03/13 03:00	44.04	0.0	0.0	91.560	9572	
Noon	2018/03/14 03:00	44.98	0.0	0.0	92.260	9907	
Noon	2018/03/15 03:00	45.85	0.0	0.0	93.060	9968	

End