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CMAXS

Planned Maintenance Operation Manual

(Headquarters System)

Index

1. System Outline.....	4
1.1 Main Function.....	4
1.2 Basic Operational Flow	5
1.3 System requirement	5
1.4 About the version up of program	6
2. System Installation Procedure.....	6
2.1 Installation for “GO-Global”	6
3. System Start / Stop	10
3.1 Connect to Application Server	10
3.2 Start / Stop System.....	11
4. Screen Description	13
4.1 [Menu] screen.....	13
4.2 [Original Plan] screen.....	13
4.3 [Actual Plan] screen.....	14
4.4 [Work History] screen.....	14
4.5 [Equipment Run Hrs] screen	15
4.6 [Preparation Notice] screen	15
5. Data Import / Export	16
5.1 Data Import.....	16
5.2 Data Export.....	16
6. Approval of Original Plan.....	18
7. Input of work report for Head office job.....	19
8. Input of Company’s Comment.....	20
9. Confirmation of Work Report	21
10. Review of Equipment Run Hour	221
11. Modification of Maintenance Item Data.....	23
11.1 Modification of Maintenance Item Data.....	24
11.2 Addition of Maintenance Item Data.....	26
11.3 Delete a Setting of User Authority and Password Maintenance work Item	28
12. Setting of User Authority and Password	30
13. Setting of Controls	31
14. Filter Function	37
15.Modification of Managed Ship.....	38
16.History of Outstanding	39
16.1 Fleet Outstanding	39
16.2 History of Outstanding for last 12 months.....	40

17. New function Custom code setting	41
18. Output Sample.....	412
A.1 Original Plan	42
A.2 Actual Plan	42
A.3 Work Procedure.....	43
A.4 Work Report (Repair & Maintenance).....	43
A.5 Work Report (Trouble)	44
A.6 Work Report (Postpone).....	44
A.7 Equipment Run Hours.....	45

1. System Outline

This system facilitates the maintenance management for onboard machinery. There are major functions for planning of maintenance schedule, reporting of maintenance/repair work and data export/import etc. It consists of Headquarters System and Shipboard System installed on the ships managed under this system. Moreover, the user are restricted for each function as below.

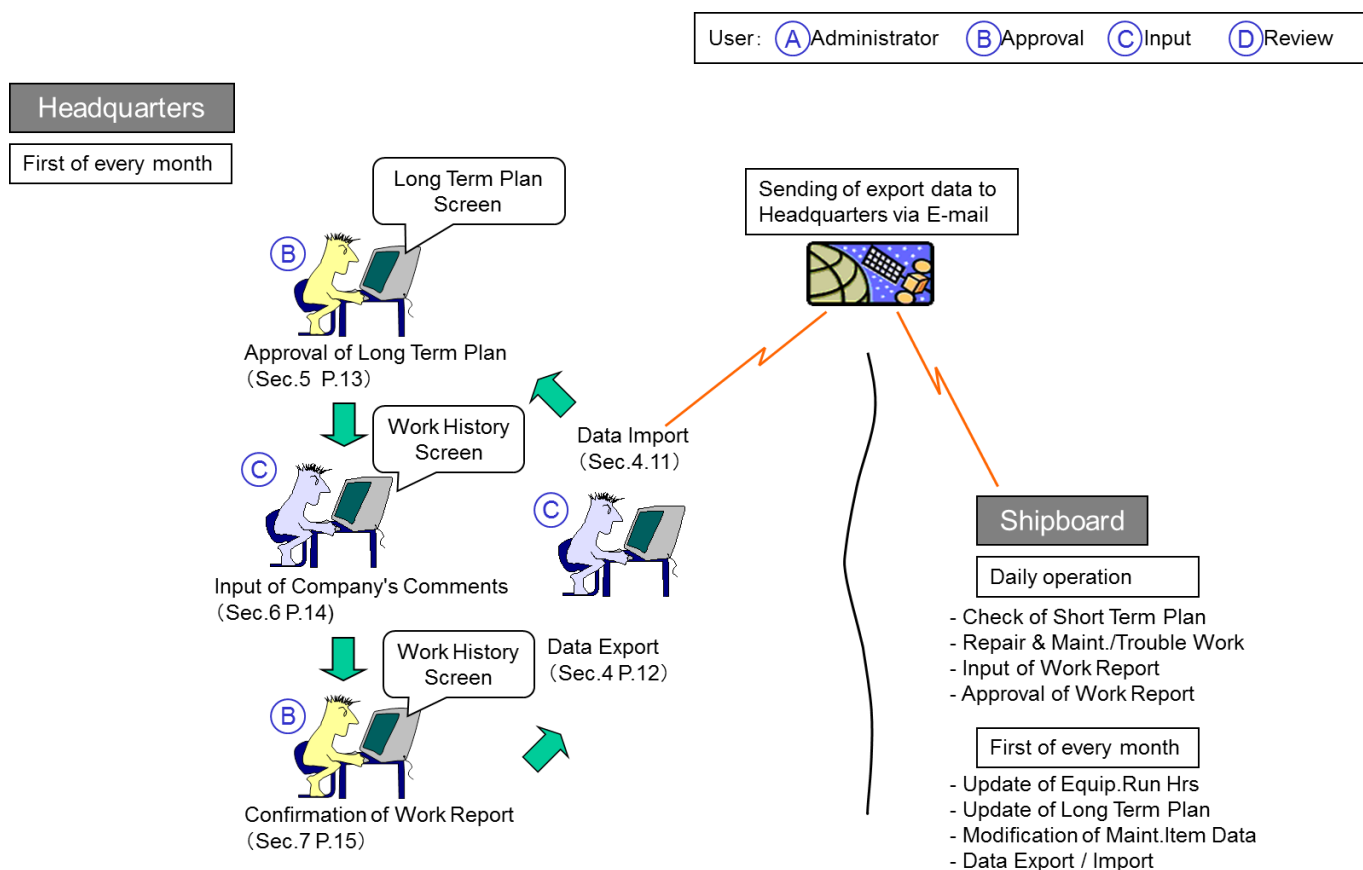
1.1 Main Function

User: A:Administrator, B:Approval, C:Input, D:Review

Item	Function	Headquarters		Shipboard
Actual Plan	Check	—	—	D
Work Report	Input	—	—	C
	Approval	—	—	B
	Input Company's Comment	C	Section 6	—
	Confirmation	B	Section 7	—
Equipment Run Hour	Update	—	—	C
	Confirmation	C	Section 8	—
Maintenance Item Data	Modification	C (※)	Section 9	C (※)
Original Plan	Update	—	—	B
	Approval	B	Section 5	—
Data Export / Import	Execution	C	Section 4	C
User Authority and Password	Setting	A	Section 10	A
Controls	Setting	B	Section 11	B
Data Backup / Restore	Execution	C	Section 12	C

(※) According to control setting, the function can be used by HQS or SBS. You cannot use by both systems.

1.2 Basic Operational Flow



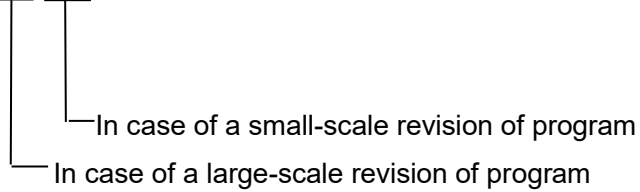
1.3 System requirement

The system requirement is as follows.

PC	IBM PC/AT compatible with Intel Pentium III processor (or equivalent) and later
OS	Windows XP/Vista/7
RAM	256MB (512MB recommended)
Free hard-disk space	50MB (Depend on Package software number and kinds)
Monitor	XGA (1024 x 768) or higher-resolution monitor with 256 colors

1.4 About the version up of program

Ver.1.2.0.X



2. System Installation Procedure

2.1 Installation for “GO-Global”

- (1) Double-Click “gg-client.windows.exe”.

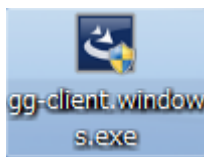


Fig.2-1 GO-Global icon

- (2) “GO-Global Client – InstallShield Wizard” is automatically displayed.

Select [Next].

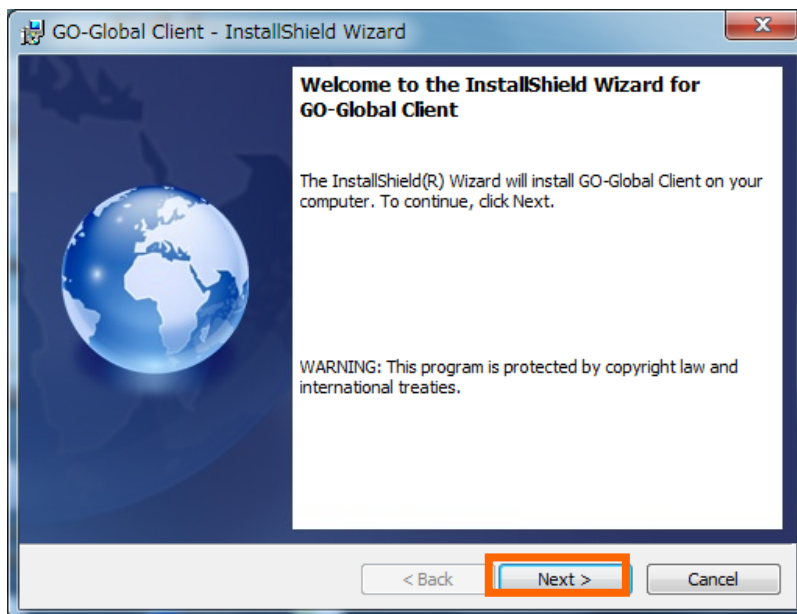


Fig.2-2 GO-Global InstallShield Wizard

(3) "License Agreement" screen is displayed.

Put check mark on "I accept the terms in the license agreement", and then, select [Next].

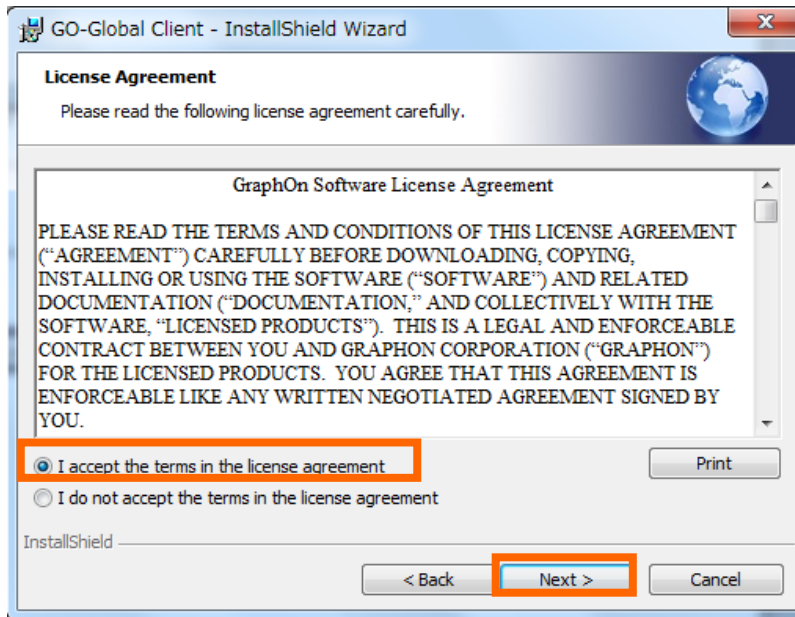


Fig.2-3 License Agreement screen

(4) "Destination Folder" screen is displayed. Select [Next].

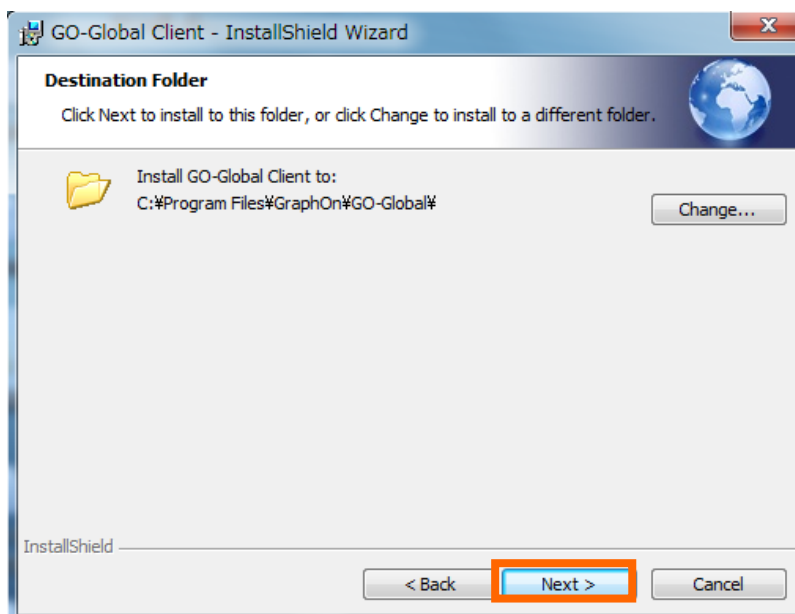


Fig.2-4 Destination Folder screen

- (5) “Setup Type” screen is displayed. Make sure that check mark is put on “Complete”, and then, select [Next].

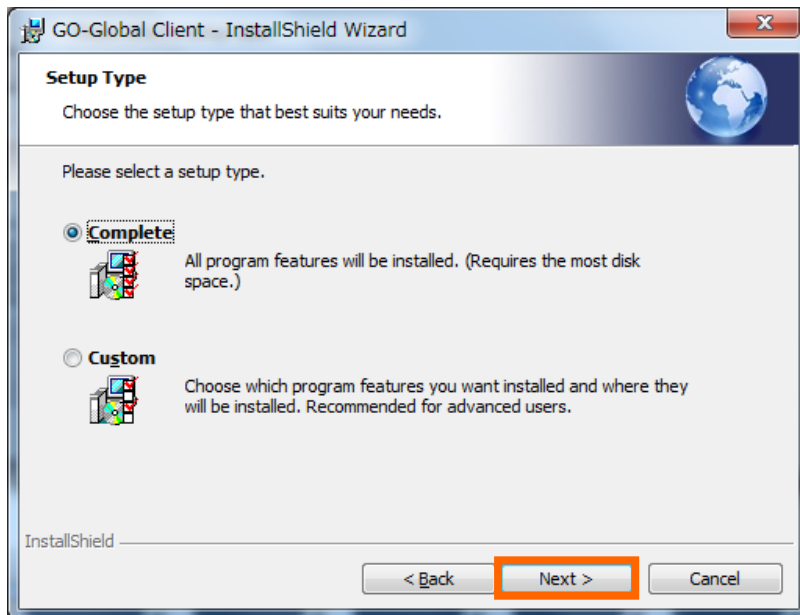


Fig.2-5 Setup Type screen

- (6) “Ready to Update or Repair the Program” screen is displayed. Select [Install].

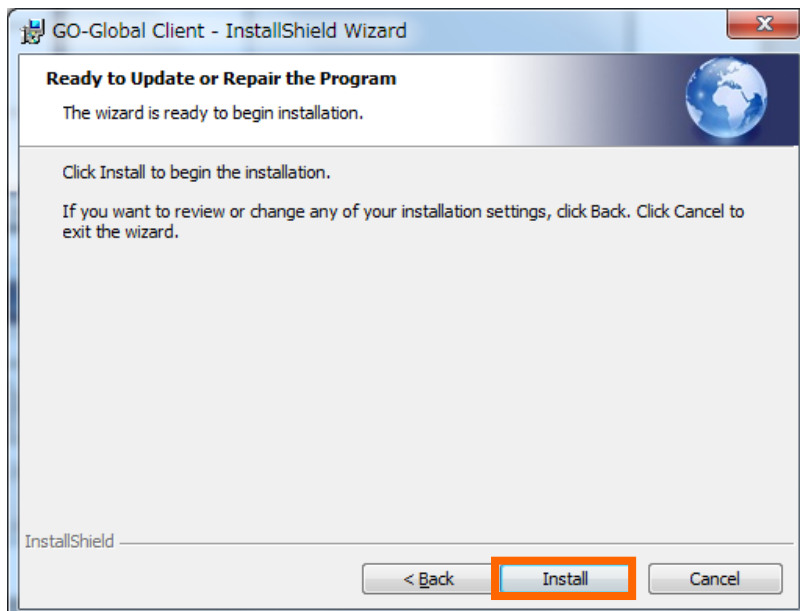


Fig.2-6 Ready to Update or Repair the Program screen

- (7) "InstallShield Wizard Completed" screen is displayed. Select [Finish].

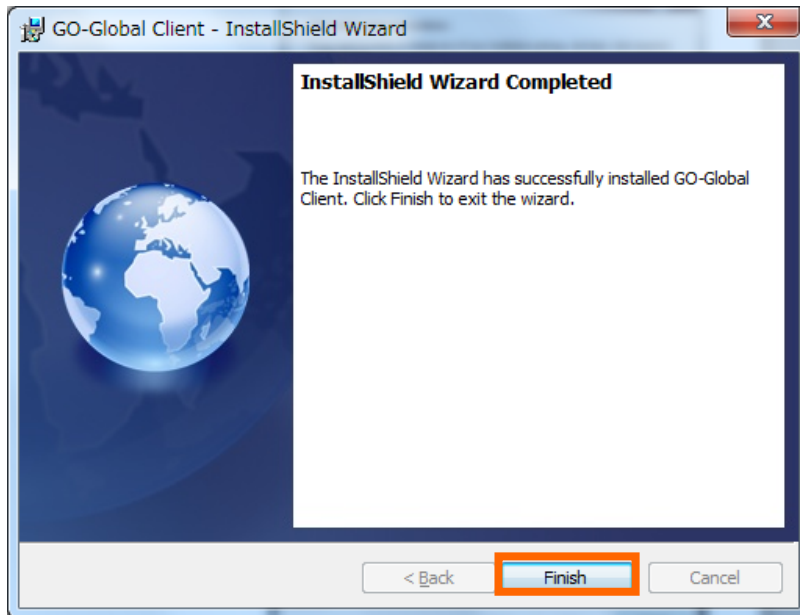


Fig.2-7 InstallShield Wizard Completed screen

- (8) On desktop screen, select [Start] -> [All Program] -> [GraphOn GO-Global 4].
Then, make short cut "GO-Global" on desktop screen by drag & drop.

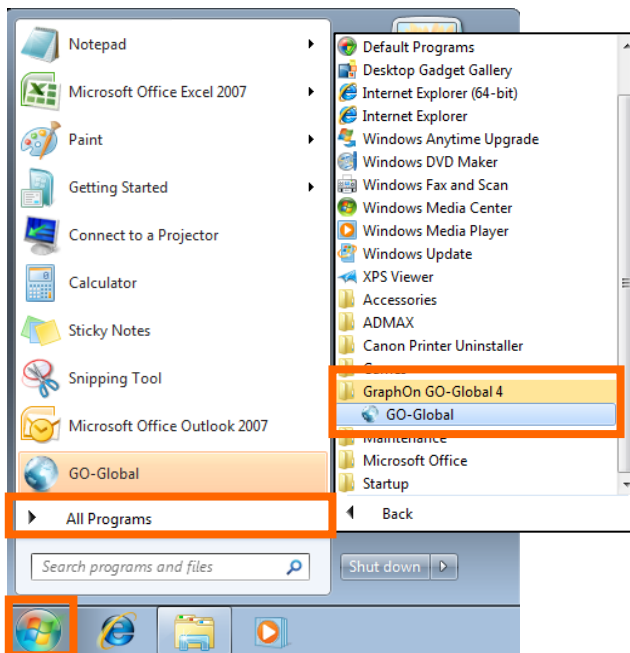


Fig.2-8 Windows screen

3. System Start / Stop

3.1 Connect to Application Server

- (1) On desktop screen, double-click “GO-Global” icon.



Fig.3-1-1 Short Cut screen

- (2) “Connection” screen is displayed. Input “210.149.88.156 : 443” in “Host Address”, and then, select “Connect”.



Fig.3-1-2 Connection screen

- (3) GO-Global is started as following screen.



Fig.3-1-3 GO-Global Start screen

- (4) “Sign In” screen is displayed. Input “User name” and “Password”, and then, select “Sign In”.

※“User name” and “Password” are informed to you by other paper.



Fig.3-1-4 Sign In screen

- (5) "Program Window on IMC-ITDS01" screen is displayed.

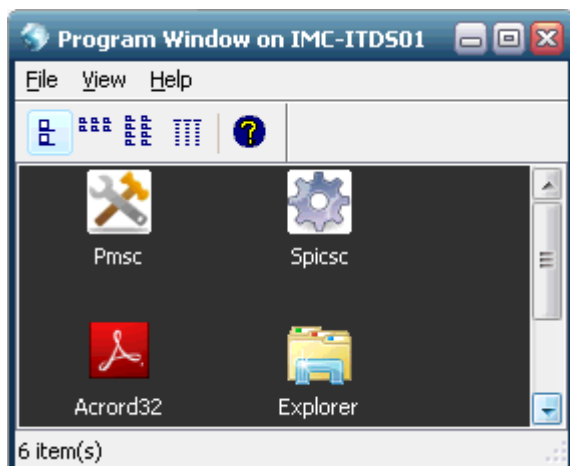


Fig.3-1-5 Program Window on IMC-ITDS01

3.2 Start / Stop System

- (1) Double-click "Pmsc" icon on "Program Window on IMC-ITDS01" (Fig.3-1-5).

- (2) "CMAXS-AD PMS[Login]" screen is displayed.

Enter password and press [Enter] key. As default set, **"MAN"** (Manager) for administrator authority is registered. Please change user authority and password before actual operation. As for user authority and password.

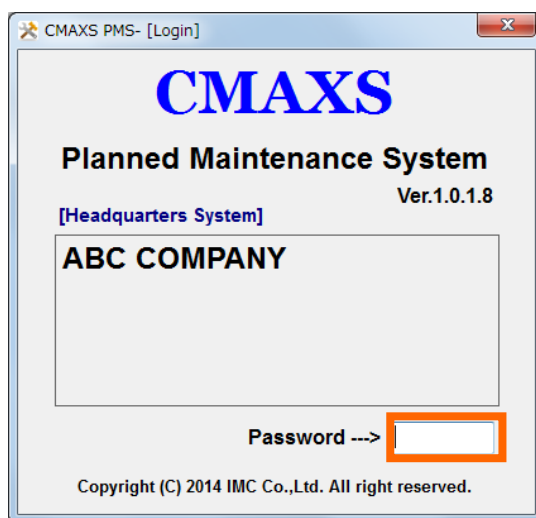


Fig.3-2-1 Login Screen

- (3) "Guidance Dialog"(Fig.3-2-2) is displayed.

Confirm your login name and authority.

- (4) If you put check mark on the check box,

"Guidance Dialog"→ "Menu screen" is displayed automatically from next time.

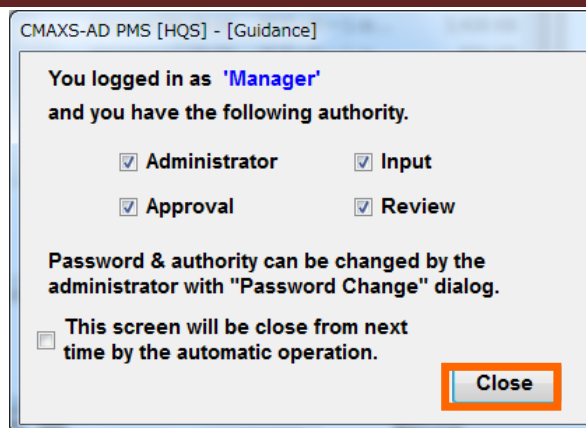


Fig.3-2-2 Guidance Dialog

5. Select [Close] button on “Guidance Dialog”(Fig.3-2-2).

”Menu Screen”(Fig.3-2-3) is displayed.

6. If you want to end the system, select [End] button or [x] button of right upper corner.

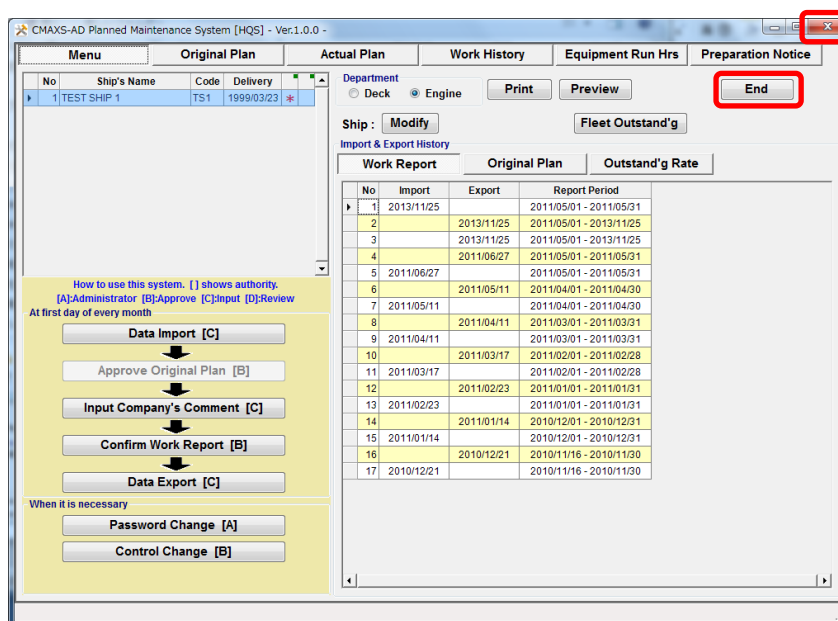


Fig.3-2-3 Menu Screen

4. Screen Description

4.1 [Menu] screen

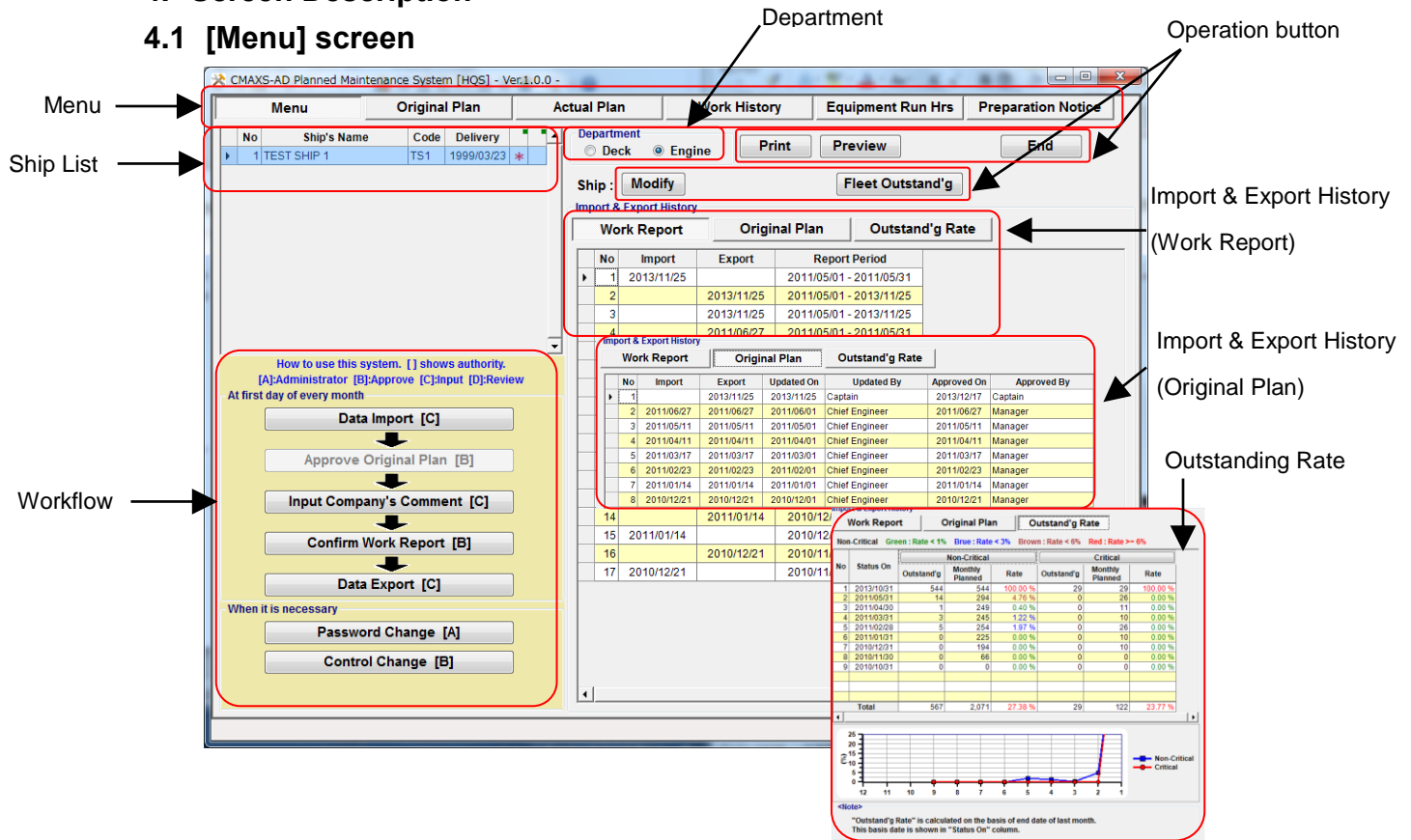


Fig.4-1 Menu Screen

4.2 [Original Plan] screen

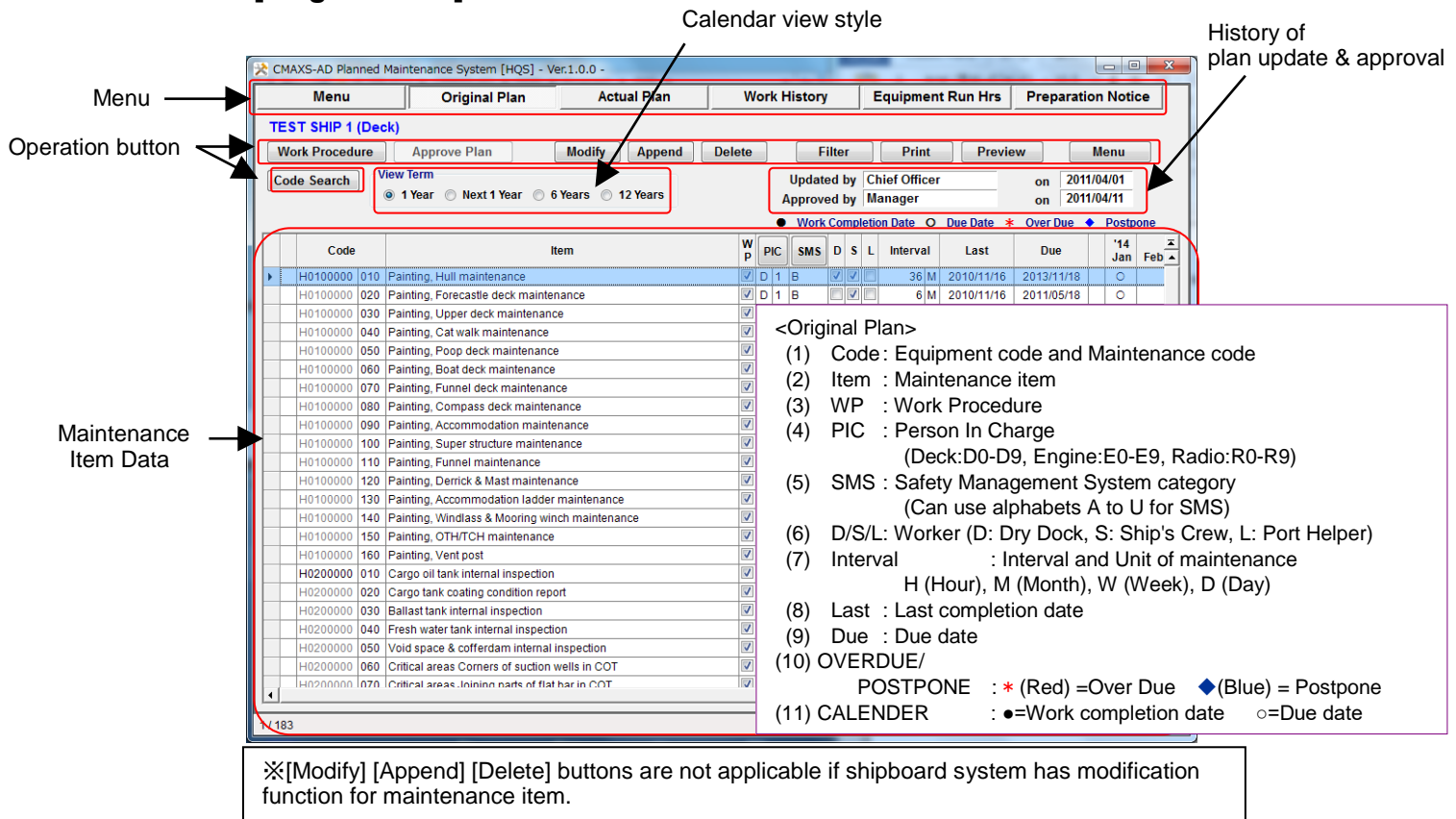


Fig.4-2 Original Plan Screen

4.3 [Actual Plan] screen

Menu

Operation button

Displayed data view style

Period for Actual Plan

Object month for "Outstand'g" field and total count table.

Total count table of "Outstand'g" field".

Maintenance Item Data

<Actual Plan>

- (1) Code : Equipment code and Maintenance code
- (2) Item : Maintenance item
- (3) WP : Work Procedure
- (4) PIC : Person In Charge
(Deck:D0-D9, Engine:E0-E9, Radio:R0-R9)
- (5) SMS : Safety Management System category
(Can use alphabets A to U for SMS)
- (6) D/S/L: Worker (D: Dry Dock, S: Ship's Crew, L: Port Helper)
- (7) Interval : Interval and Unit of maintenance
H (Hour), M (Month), W (Week), D (Day)
- (8) Last : Last work date
- (9) Due : Due date
- (10) Outstand'g : $\frac{\text{Completed Work base}}{\text{Overdue base}}$ [Number of Outstand'g] / [Number of Planned] for object month
overdue=1/1/ not overdue=0/1
- (11) OVERDUE/
POSTPONE : * (Red) =Over Due ◆(Blue)=Postpone
- (12) CALENDER : ●=Work completion date ○=Due date

※Completed Work base: Calculate [Number of Outstand'g] / [Number of Planned] for the month.

※Overdue base: Calculate [Number of Outstand'g] / [Number of all Items]

Fig.4-3 Actual Plan Screen

4.4 [Work History] screen

Menu

Operation button

Work History Data

< Work History >

- (1) Code : Equipment code and Maintenance code
- (2) Item : Maintenance item
- (3) PIC : Person In Charge
(Deck:D0-D9, Engine:E0-E9, Radio:R0-R9)
- (4) SMS : Safety Management System category
(Can use alphabets A to U for SMS)
- (5) Work Date : Work Complete Date
- (6) Status : Status of Work Report (Ver.6.4x or later) (Trouble/Postpone)
※STATUS is not displayed if the work report is "Repair & Maintenance"
- (7) File No. : File Number (Ver.6.3x, Ver.7.0.1 or later)
- (8) Voy. No. : Voyage Number
- (9) DR(PD) : Docking Repair(Pending for Dock)
- (10) PR : Pending for Repair
- (11) CL : All Pending Cleared (Ver.6.45 or later)
- (12) TW : Trouble Work (Ver.6.3x or older)
- (13) SC : Ship's Comment
- (14) CC : Company's Comment
- (15) AT : Attachment (Ver.7.0.1 or later)

※Default "Work History" screen only displays latest 6 month's work reports.

If you want to see work reports of other period, please click "Filter" button and set "Work Date" of work report which you want to see.

Fig.4-4 Work History Plan Screen

4.5[Equipment Run Hrs] screen

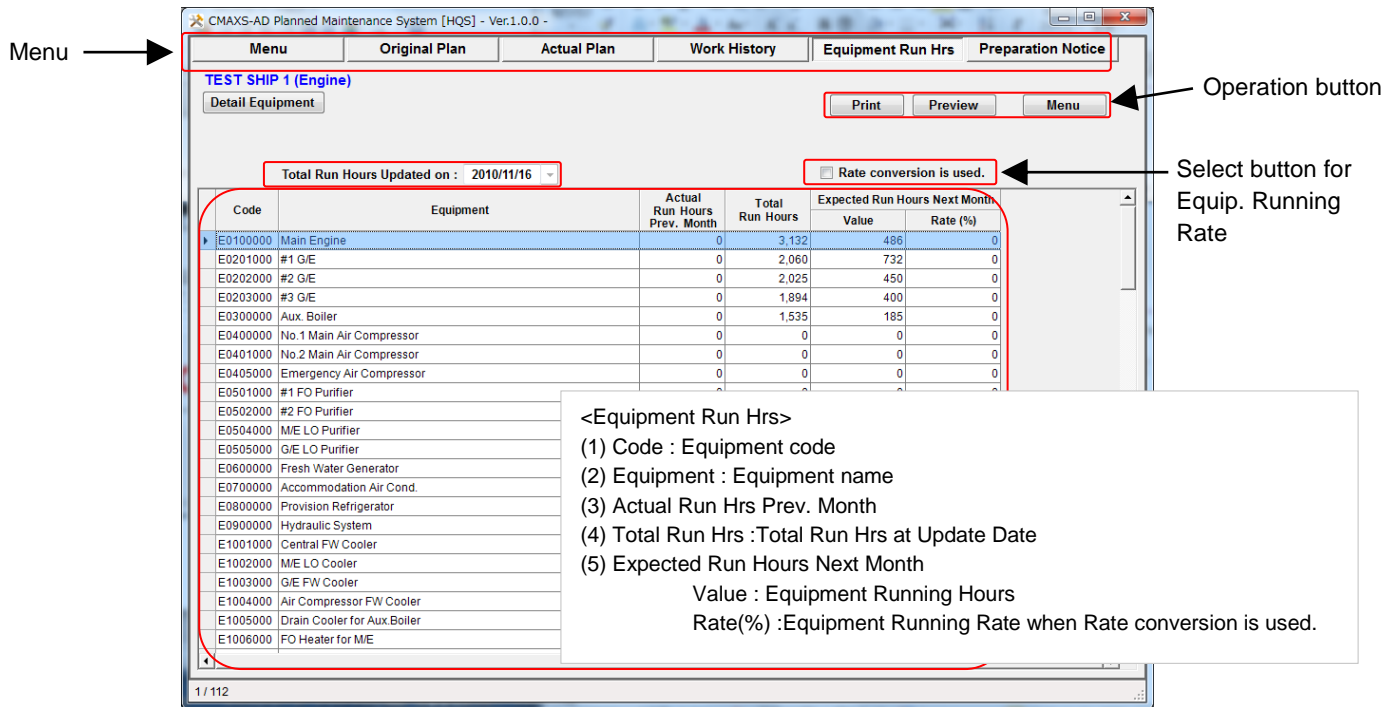


Fig.4-5 Equipment Run Hrs Plan Screen

4.6[Preparation Notice] screen

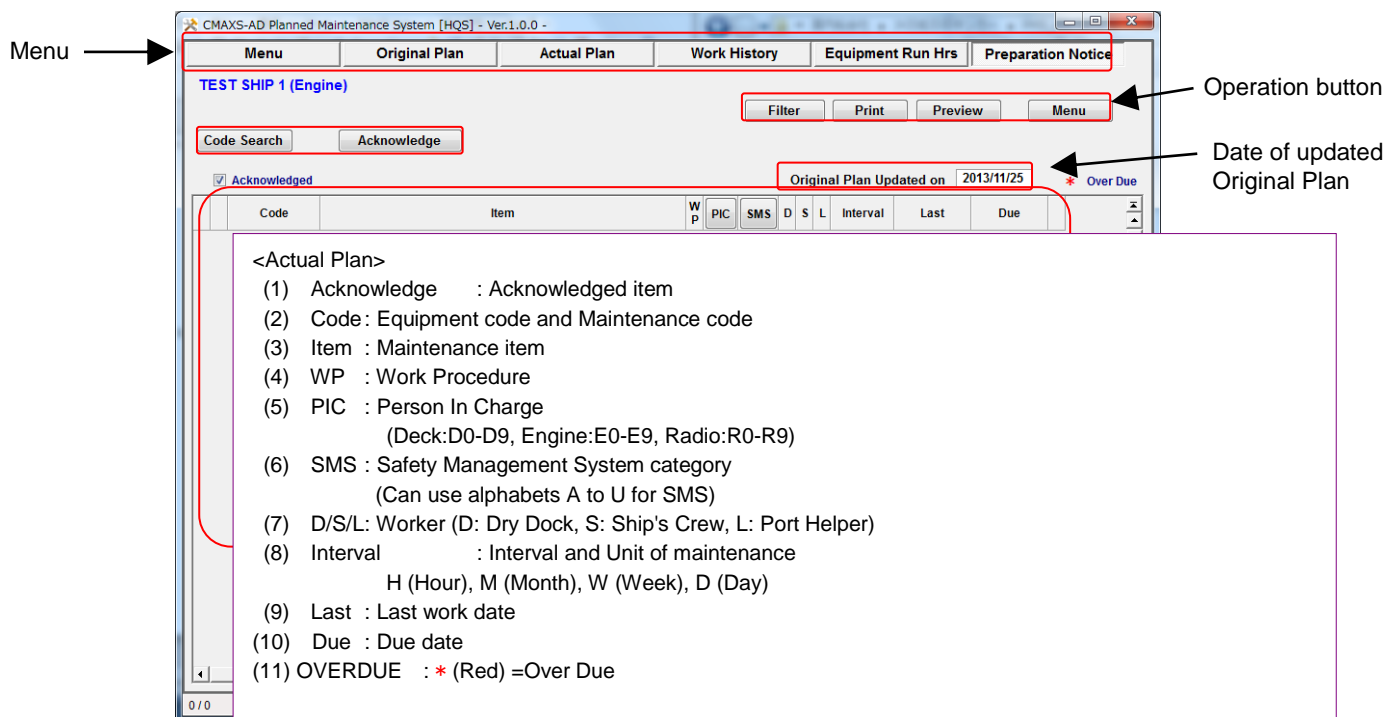


Fig.4-6 Preparation Notice Screen

5. Data Import / Export

5.1 Data Import

"Original Plan" and "Work Report" made by ship staff shall be approved or confirmed by Headquarters' responsible person regularly.

Ship staff sends data regularly to headquarters. When receive the reported data from ship, import those data into headquarters system.

After that, confirm and approve data according to Sec. 6 ~ 9.

(1) On the "Menu Screen"(Fig.5-1), select [Data Import].

"Open File Screen"(Fig.5-2) is displayed.

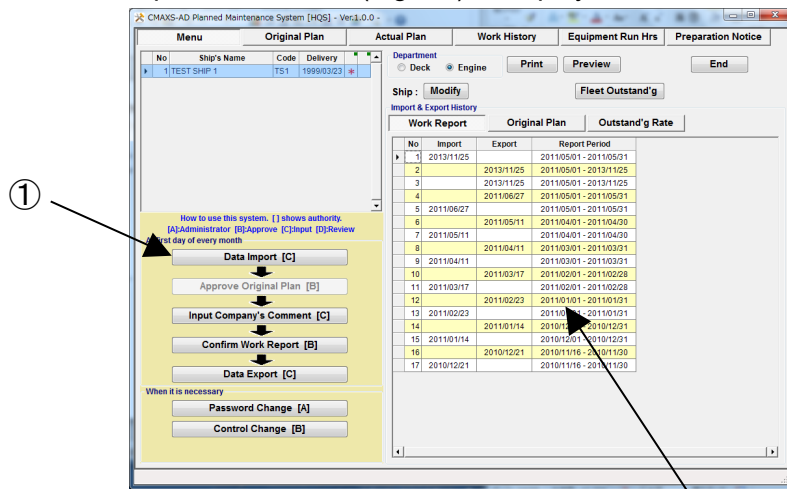


Fig.5-1 Menu Screen

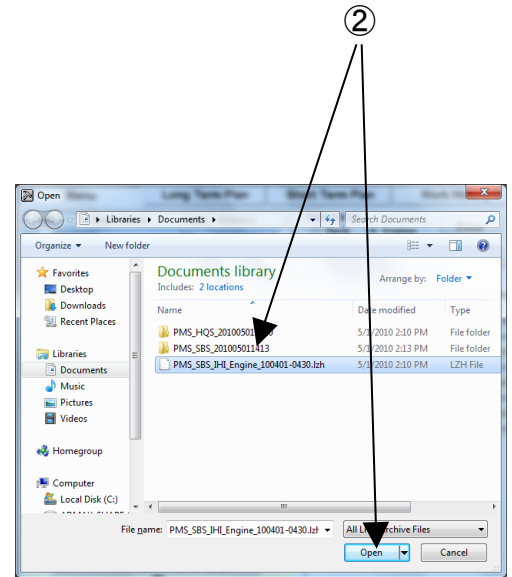


Fig.5-2 Open File Screen

(2) Select file for import. Then, select [Open] button.

File name is decided by your company's standard.

Standard file name of our system is shown for your reference.

PMS_SBS_aaa_Engine(Deck)_ymmdd-mmdd.lzh (.zip)

aaa: Ship code

ymmdd-mmdd: Export period.

(3) Select [OK] at completion message dialog.

(4) Import history is recorded on "Import & Export History".

5.2 Data Export

After confirmation/approval of data according to Sec. 6 ~ 9, export the data by "Data Export" function, and send it to ship by E-mail.

When ship receives and import the data from headquarters, they can check that "Original Plan" and "Work Report" has been confirmed / approved by headquarters.

Following is "Data Export" procedure.

- (1) On the "Menu Screen"(Fig.5-3), select [Data Export].
"Export Period Dialog" is displayed.
- (2) Enter export period or select from calendar by [▼] button.
Then, select [OK] button.
"Save As Screen"(Fig.5-4) is displayed.

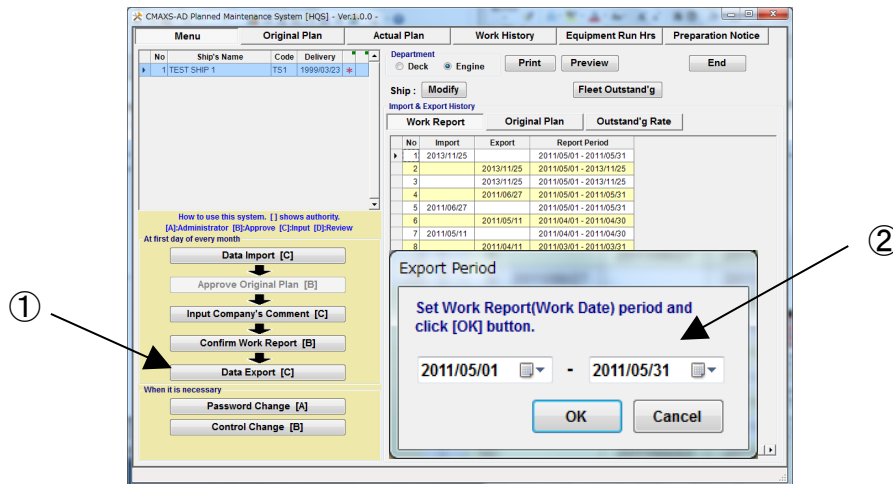


Fig.5-3 Menu Screen

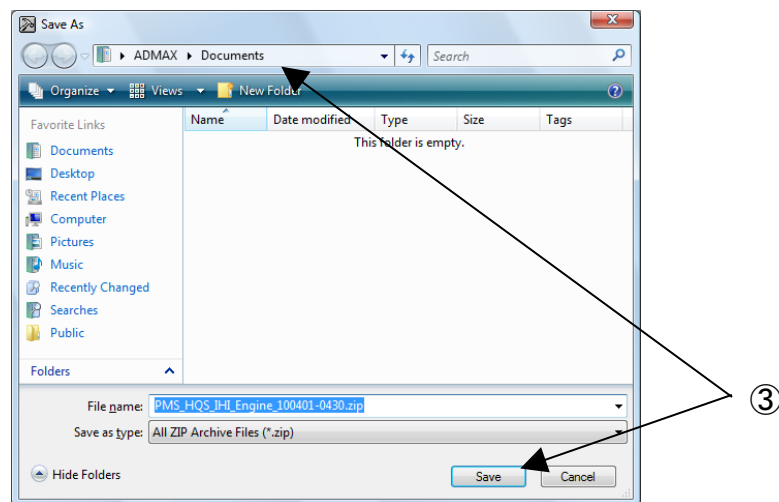


Fig.5-4 Save As Screen

- (3) Select saving folder, compressing format(.zip) for export file.
File name is given as below.
PMS_HQS_aaa_Engine(Deck)_yyymmdd-mmdd.lzh (.zip)
aaa: Ship code
yyymmdd-mmdd: Export period
Modify file name if necessary. Then, select [Save] button.
- (4) Select [OK] at completion message dialog.
- (5) Export history is recorded on "Import & Export History".
- (6) Send export file to the subject ship as attached file of E-mail.

6. Approval of Original Plan

"Original Plan" shall be approved by Headquarters' responsible person regularly according to the following step.

- (1) On the "Menu Screen"(Fig.6-1), select [Approve Original Plan].

"Original Plan Screen"(Fig.6-2) is displayed.

At that time, [Approve Plan] button is blinked several times for your guidance of next operation.

- (2) Check situation of "Original Plan".
- (3) Screen scrolling can be made by each scroll bars.
- (4) If you select option button of "View", displayed calendar is changed for "1 Year" or "Next 1 Year" or "6 Years" or "12 Years".
- (5) If you select [Menu] button, screen is returned to "Menu Screen".

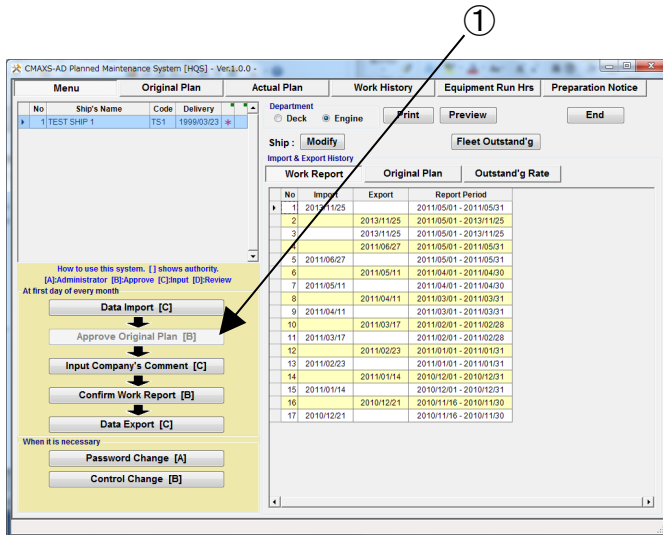


Fig.6-1 Menu Screen

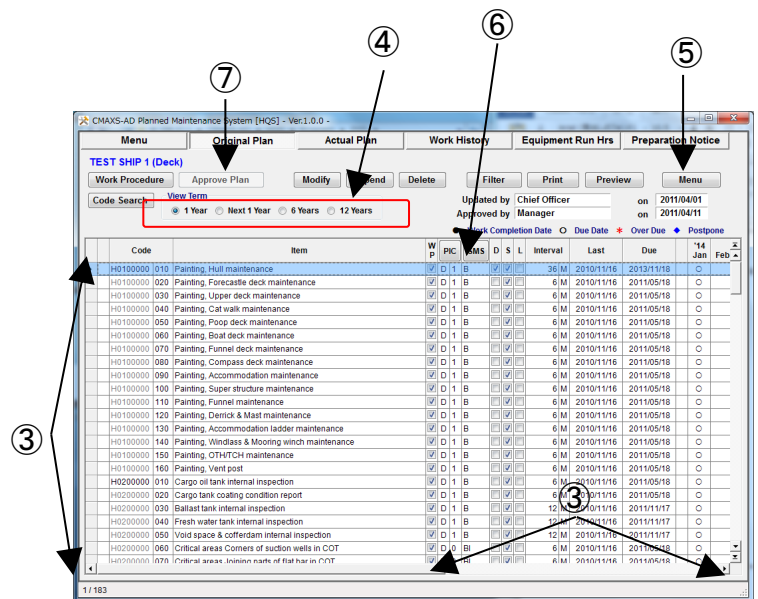


Fig.6-2 Original Plan Screen

- (6) If calculated "Due Date" is already elapsed "Updated Date" of "Long Term Plan", Over Due mark "*" is indicated.

Over Due => Due Date < Updated Date of Original Plan

- (7) Select [Approve Plan].

Approved date and person are indicated.

- (8) Once you execute [Approve Plan], the button cannot be clicked until you import next export file which includes new Original Plan from vessel.

7. Input of work report for Head office job

Headquarters system can input the work report of head office job.

- (1) On the “Menu Screen”, select [Actual Plan] tab.
- (2) "Actual Plan"(Fig.7-1) is displayed.
- (3) Select “Filter” button to displayed “Filter screen” (Fig.7-2)
- (4) Put a check mark on “Head office job” and select “OK” button to extract only the head office job.
- (5) Select check box of maintenance work item to be reported.
“Work Report Repair & Maintenance Screen” (Fig.7-3) is displayed.
- (6) Select “Repair & Maintenance” or ”Trouble”, and fill in the work report.

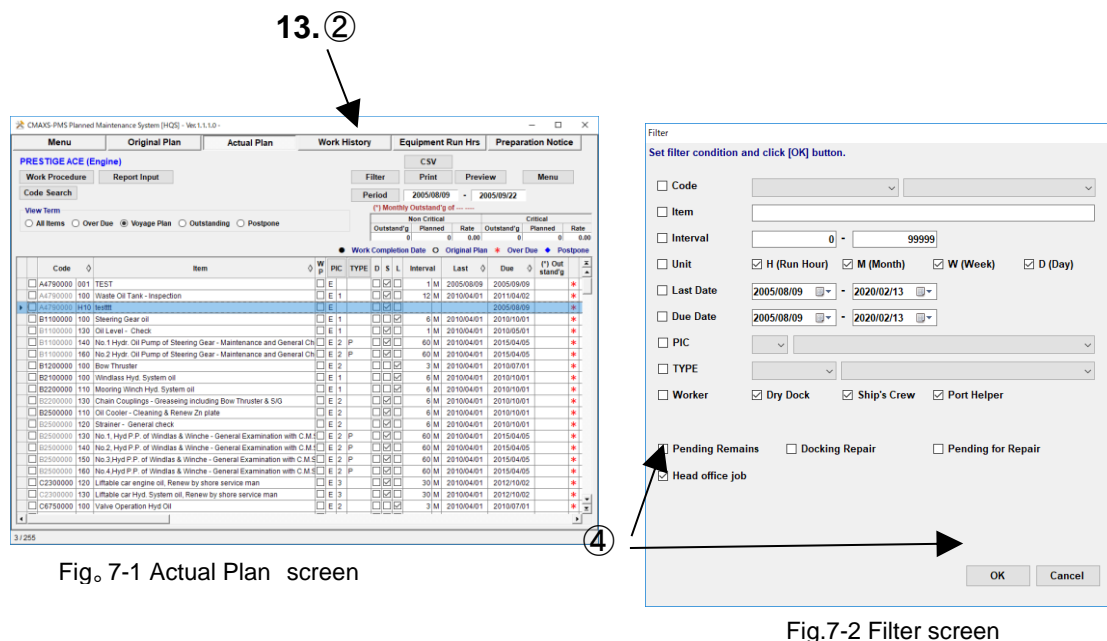


Fig. 7-1 Actual Plan screen

Fig.7-2 Filter screen

Fig.7-3 Work report Screen

8. Input of Company's Comment

"Work Report" shall be confirmed by Headquarters' responsible person regularly. And then, input company's comments according to the following step, if necessary.

- (1) On the "Menu Screen"(Fig.8-1), select [Input Company's Comment]. "Work History Screen"(Fig.8-2) is displayed.
At that time, [Modify] button is blinked several times for your guidance of next operation.
- (2) Select maintenance work item and [Modify] button.
- (3) Enter Company's Comments. Then, select [Save].
- (4) Select [Close].
- (5) If you select [Menu] button, screen is returned to "PMS Main Screen".

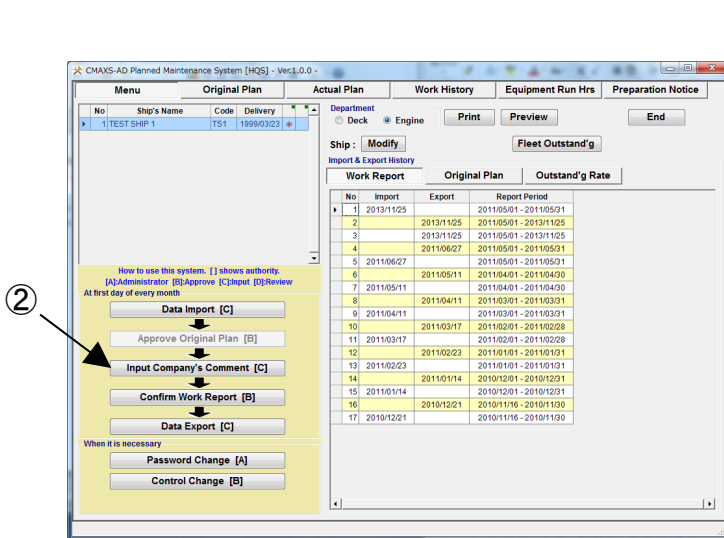


Fig.8-1 Menu Screen

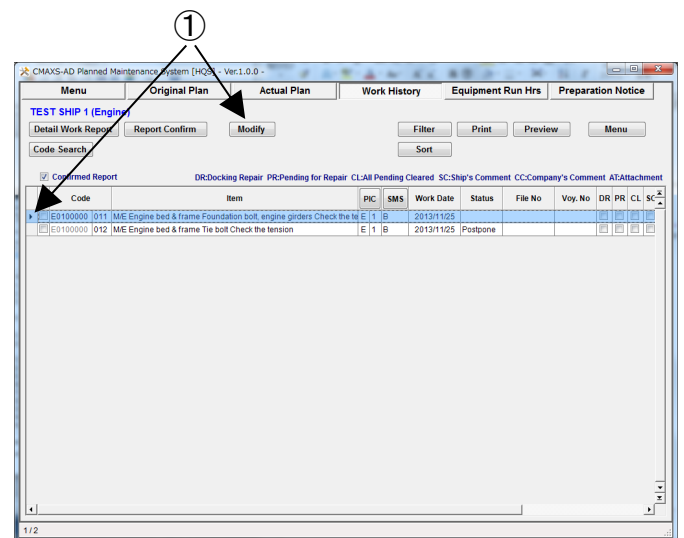


Fig.8-2 Work History Screen

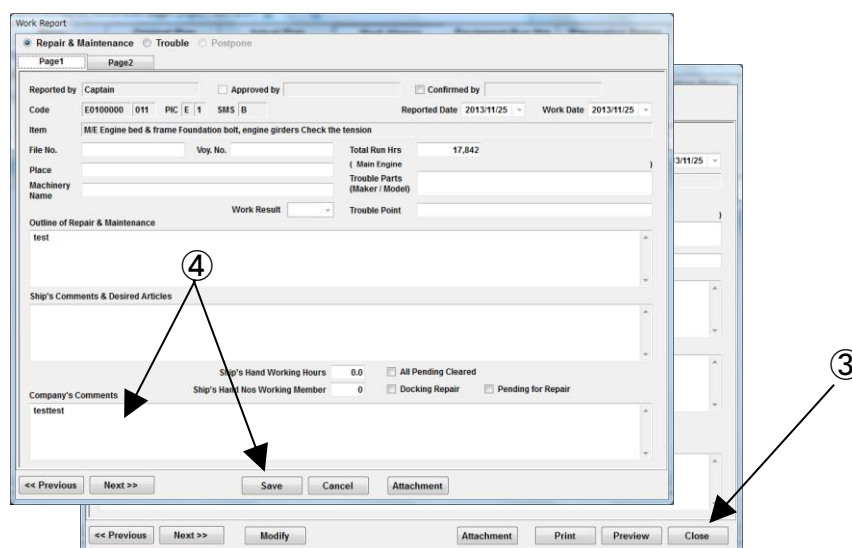


Fig.8-3 Work report Screen

9. Confirmation of Work Report

"Work Report" shall be confirmed by Headquarters' responsible person regularly according to the following step.

- (1) On the "Menu Screen"(Fig.9-1), select [Confirm Work Report].

"Work History Screen"(Fig.9-2) is displayed.

At that time, note is blinked several times for your guidance of next operation.

- (2) Select item and [Detail Work Report] button.

"Work Report Screen"(Fig9-3) is displayed.

- (3) Confirm detail work report. Then, [Close] button.

- (4) Select check box of maintenance item to be confirmed.

Check mark is put on check box for confirmation.

If you select same check box again, check mark is taken off.

- (5) If you select [Confirm All] button, check marks of all report are put on the block.

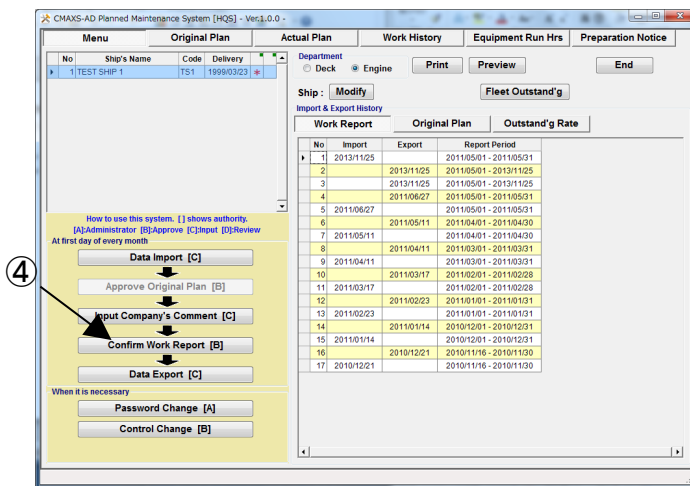


Fig.9-1 Menu Screen

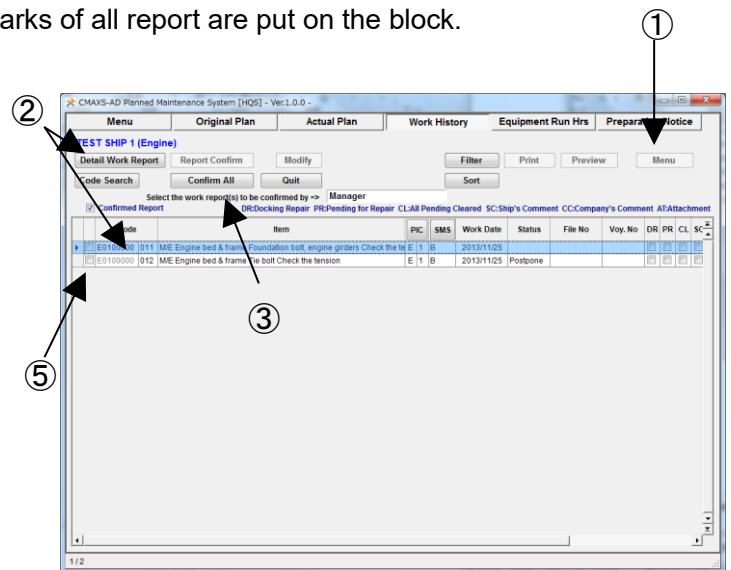


Fig.9-2 Work History Screen

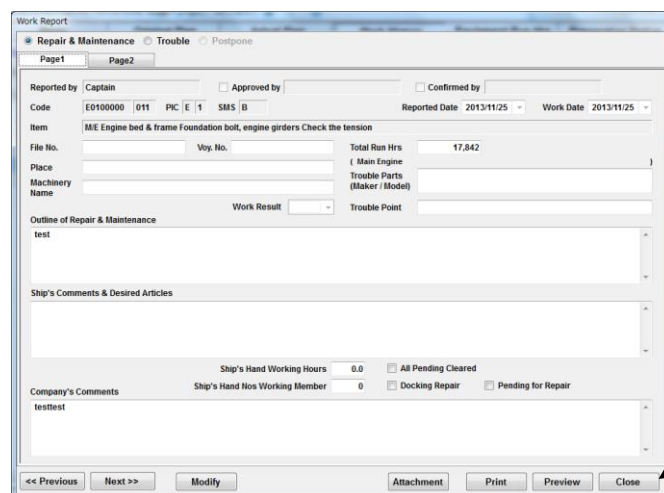


Fig.9-3 Work Report Screen

10. Review of Equipment Run Hour

- (1) On the "Menu Screen"(Fig.10-1), select [Equipment Run Hrs] tab.

"Equipment Run Hrs Screen"(Fig.10-2) is displayed.

- (2) Review Total Run Hours and Average Run Hours Per Month.

"Equipment Running Hour" can be updated only Shipboard System.

- (3) "Expected Run Hours Next Month" is calculated by the following formula.

$$\text{Expected Run Hours} = (\text{TRH} - \text{TRH WR}) / (\text{TRH update date} - \text{latest WR work date}) \times 30.5$$

TRH : Latest total running hour of equipment.

TRH WR : Total running hour of latest work report.

(Except within 14 days from work date)

Latest WR work date : Latest work report date

- (4) (Except within 14 days from work date)If you select [Menu] button, screen is returned to "Menu Screen".

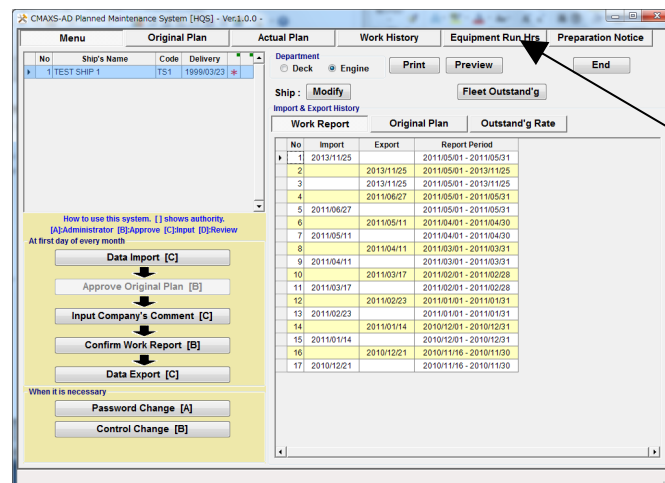


Fig.10-1 Menu Screen

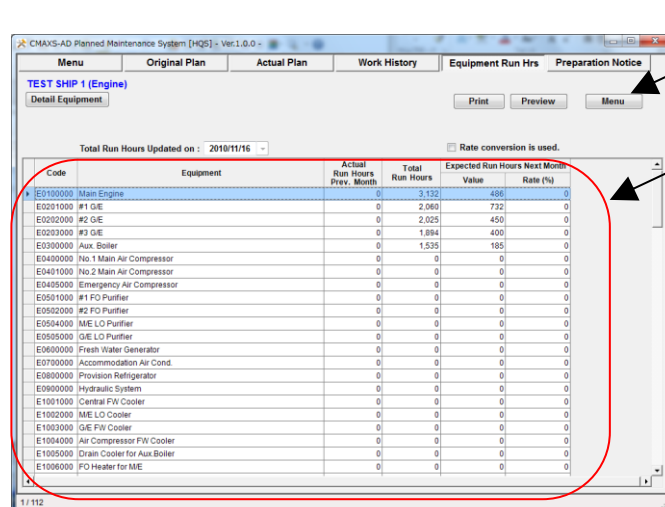


Fig.10-2 Equipment Run Hrs Screen

Due Date calculation method for hour base maintenance item.

There are two types of work due date calculation methods for works interval = H, which can be switched by setting. The Due date is updated by the following formula when updating the Expected Run Hour and when creating the Work Report. (Please contact us if you want to switch the calculation formula.)

(1) Calculation formula No.1: Due date calculation using by “Expected Run Hours Next Month”.

- ① When the cumulative operating time of the equipment is updated after the previous Due date

Due Date = Due Date'

(Take over the previous Due date.)

- ② When the Total Run Hours of the equipment is updated before the Due date

$\text{Due Date} = \text{TRH Update date} + \{ \text{Interval} - (\text{TRH} - \text{WR TRH}) \} / (\text{ERH} / 30)$

(Divide the value of the work interval minus the latest operation time by the daily average Expected Run Hours of the next month, and add it to the update date of the Total Run Hours.)

- ③ When the actual Run Hours is longer than the expected Run Hours for the next month and the Due date is exceeded earlier.

Due Date = TRH Update date

(The update date of Total Run Hours is set as the Due date.)

- ④ When a Work Report is created

$\text{Due Date} = \text{WR Date} + \text{Interval} / (\text{ERH} / 30)$

(Divide the work interval by the average Expected Run Hours of the next month and add it to the Work Date.)

(2) Calculation formula No.2: Due date calculation using by “Difference between the latest Total Run Hours and the latest Total Run Hours”.

If the work report creation date is larger than the Total Run Hours update date, the TRH and WR TRH below will be swapped.

$\text{Due DateT} = \text{Last Date} + (\text{Interval} - (\text{TRH} - \text{WR TRH}) \div 24$

- ① Due DateT > TRH Update date
Due Date = Due DateT

- ② Due DateT ≤ TRH Update date
Due Date = TRH Update date

WR Date	: Work Date
WR TRH	: Total Run Hours of Work Report
TRH Update date	: Total Run Hours Update date
TRH	: Total Run Hours
Due Date'	: Previous Due date
Due DateT	: Temporary Due date for comparison
ERH	: Expected Run Hours

11. Modification of Maintenance Item Data

11.1 Modification of Maintenance Item Data

11. 1-1 Modification of Crew's job (This function is applicable when headquarters system has modification function of maintenance item.)

(1) On the "Original Plan Screen"(Fig.11-1) is displayed.

(2) If you want to modify the maintenance item data.

Select subject item and select [Modify].

"Work Procedure Screen" (Fig.11-2) is displayed.

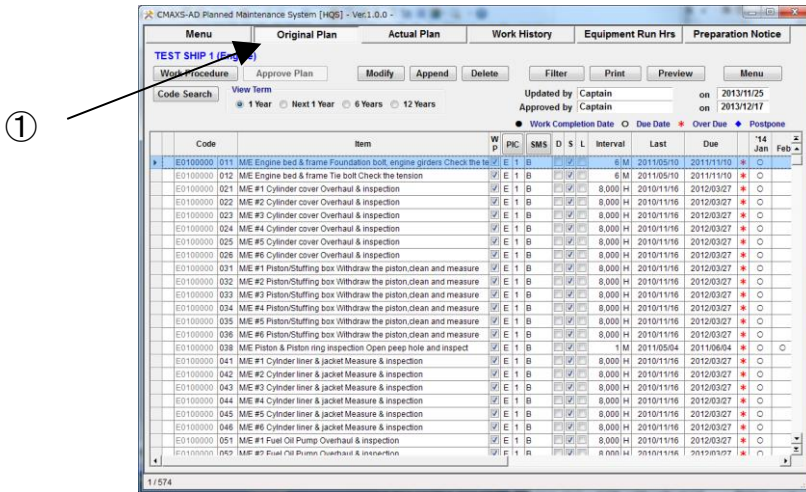


Fig.11-1 Original Plan Screen

(3) Modify data

(Item, Interval, Unit, PIC, SMS, Worker and Work Procedure)

※ As a general rule, please set the interval within 5 years.

(4) Select [Save] button.

(5) Select [Close] button.

(6) Revision (M) is put on subject item of "Original Plan Screen".

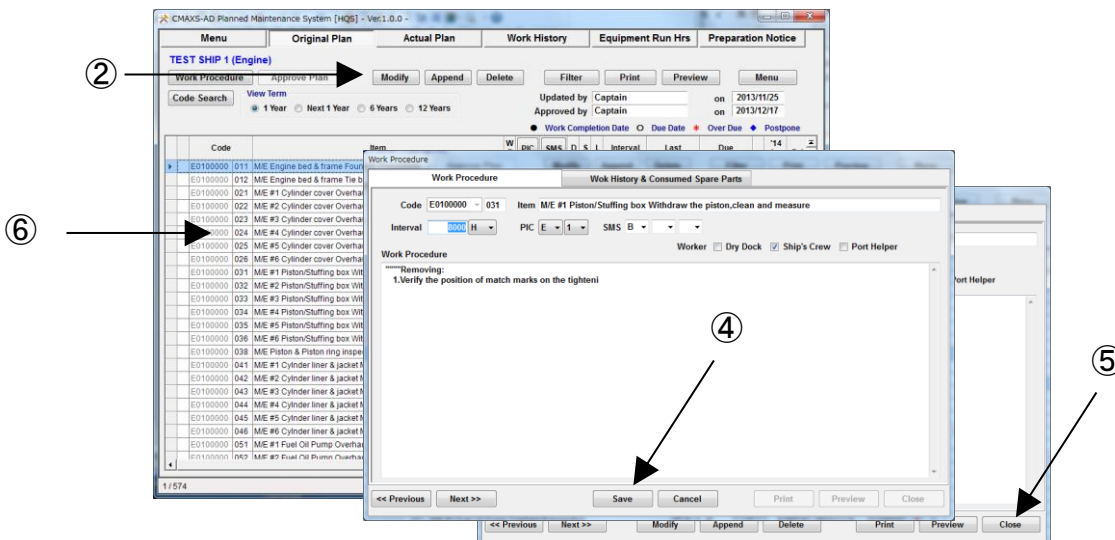


Fig.11-2 Work Procedure Screen

11.1-2 Modification of Head office job

- (1) Select the 【Original Plan】 tab for 【Menu】
- (2) 【Original Plan screen】 (Figure 11-3) is displayed.
- (3) Select the 【Filter】 button. "Filter screen" (Figure 11-4) is displayed.
- (4) Select Head office job and press the OK button to extract only the Head office job.
- (5) Subsequent operations are the same as 11.1-1 (2)-6.

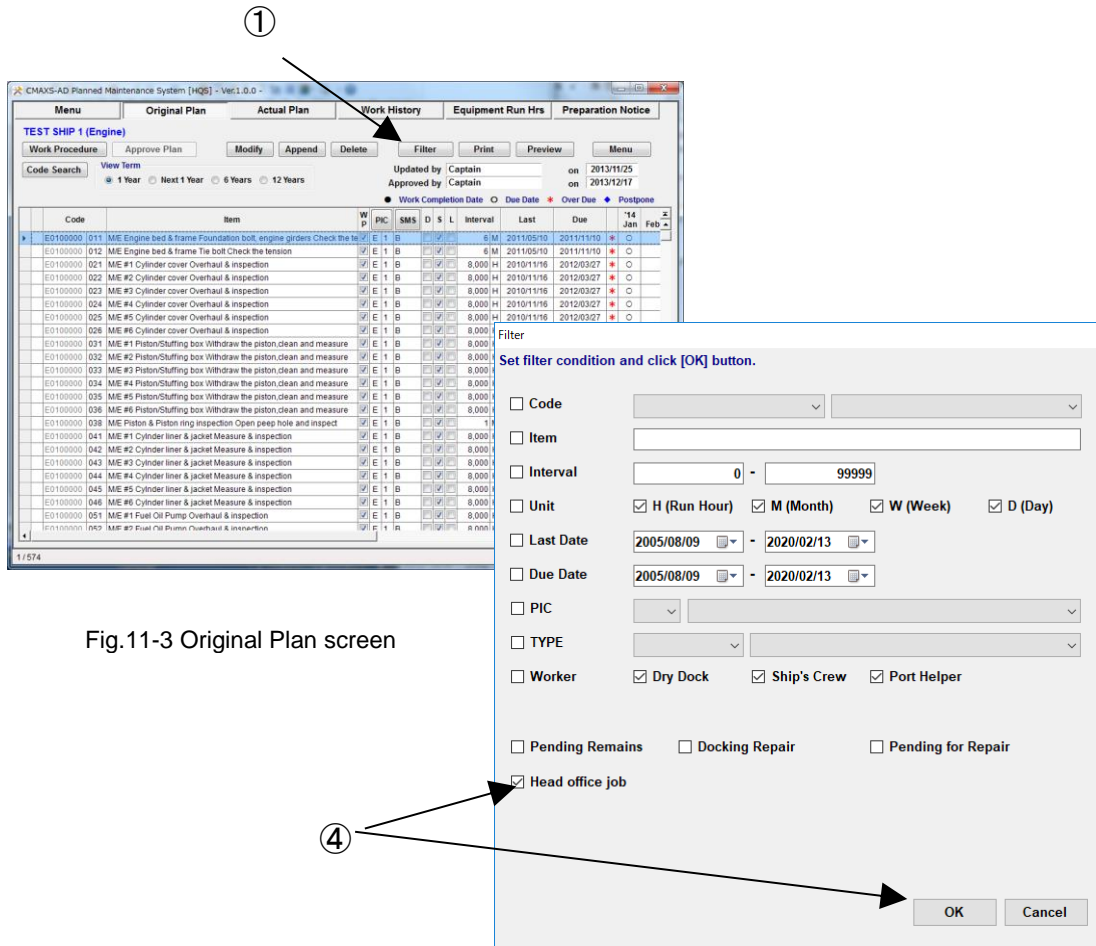


Fig.11-3 Original Plan screen

Figure 11-4 shows the 'Filter' screen. It is a dialog box titled 'Filter' with the instruction 'Set filter condition and click [OK] button.' The filter criteria include:

- ☐ Code
- ☐ Item
- ☐ Interval: 0 - 99999
- ☐ Unit: ☒ H (Run Hour) ☒ M (Month) ☒ W (Week) ☒ D (Day)
- ☐ Last Date: 2005/08/09 - 2020/02/13
- ☐ Due Date: 2005/08/09 - 2020/02/13
- ☐ PIC
- ☐ TYPE
- ☐ Worker: ☒ Dry Dock ☒ Ship's Crew ☒ Port Helper
- ☐ Pending Remains
- ☐ Docking Repair
- ☐ Pending for Repair
- ☒ Head office job

 The 'OK' and 'Cancel' buttons are at the bottom. A circled '4' points to the 'Head office job' checkbox.

Fig.11-4 Filter screen

11.2 Addition of Maintenance Item Data

11.2-1 Addition of Crew's job (available only if the head office system has editing privileges for maintenance work items)

(1) If you want to add a Crew job, select the [Append] button in "Original Plan Screen" (Figure 11-5).

(2) "Create job screen" (Figure 11-6) will be displayed, select "Crew's job" and press the OK button.

(3) "Work Procedure Screen" (Figure 11-7) is displayed.

(4) Please enter the following data.

(Code), Item (Work), Due Date (Next Work Date), Unit (Unit), PIC (Person in Charge), TYPE (Work Classification), Worker (Work Place) and Work Procedure (Work Procedure) Attachment (any attachments)

(5) Select the Save button.

(6) Select the Close button to exit the "Work Procedure screen".

(7) Additional marks (A) appear on the left side of the work item that you added.

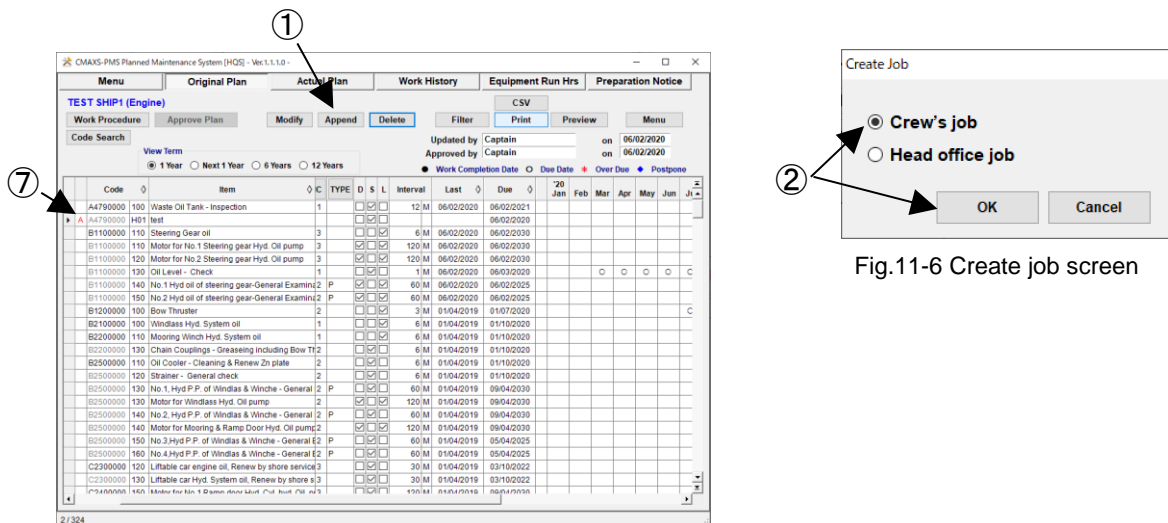


Fig.11-5 Original Plan screen

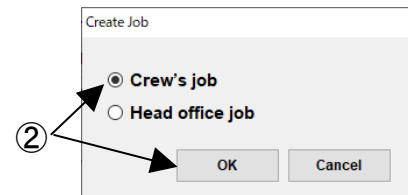


Fig.11-6 Create job screen

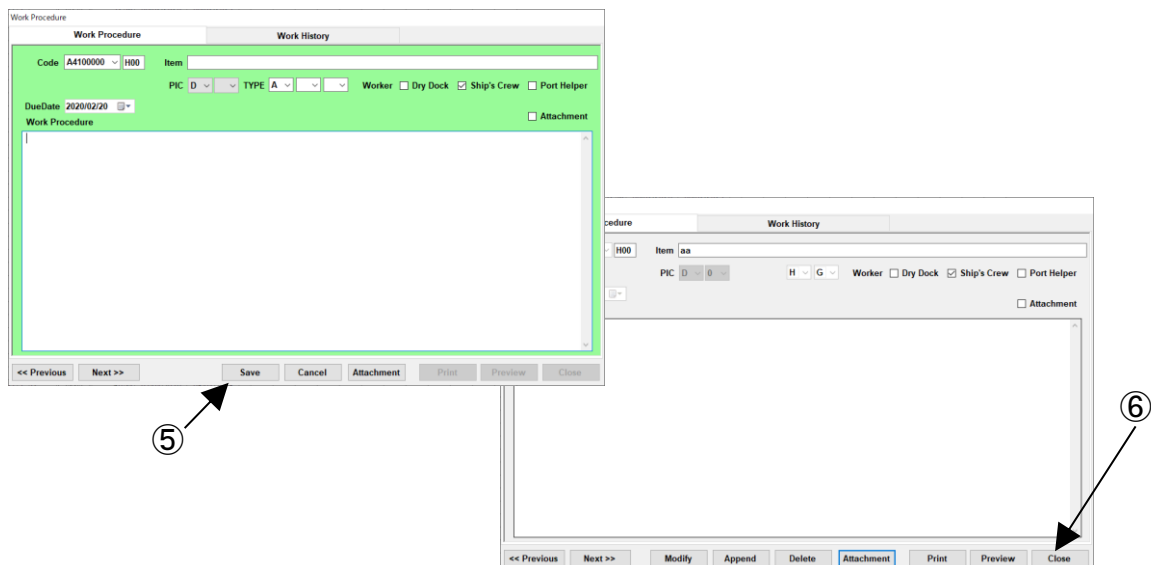


Fig.11-7 Work Procedure screen

11.2-1 Addition of Head office job

- (1) If you want to add a Head office job, select the Append button on the Original Plan Screen (Figure 11-8).
- (2) "Create job screen" (Figure 11-9) will be displayed, select "Head office job" and press the OK button.
- (3) And subsequent operations are the same as 11.2-1 (3) to (7).

In the Head office job, it is necessary to prefix the three-digit Code with "H". If there is no H, you cannot register as head office job.

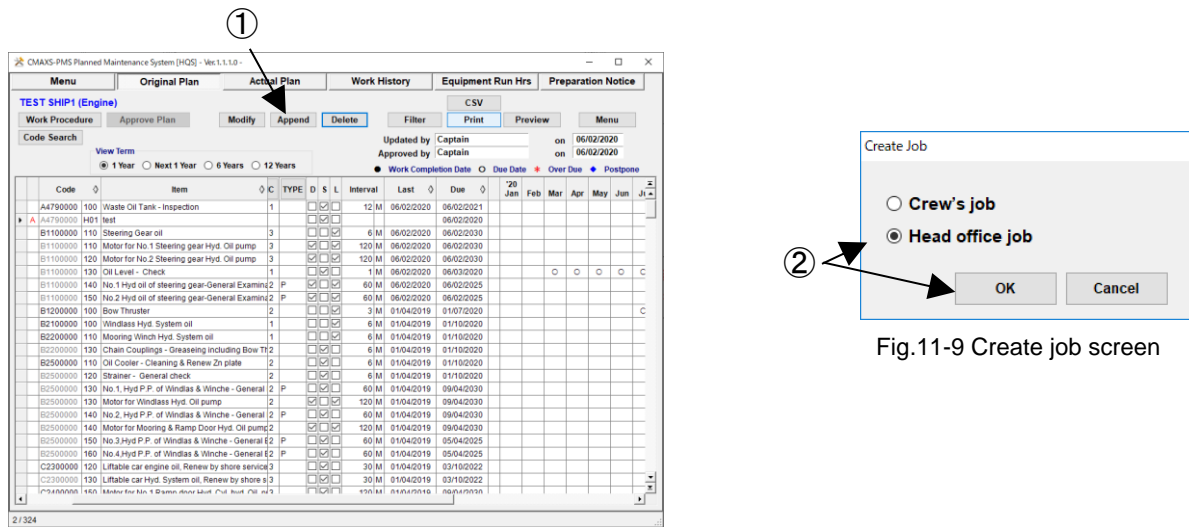


Fig.11-8 Original Plan screen

11.3 Delete a Maintenance work Item

11.3-1 Remove Crew's job (available only if the head office system has editing privileges for maintenance work items.)

(1) If you want to delete Crew's job, select the Delete button on the "Original Plan Screen" (Figure 11-10). You will be prompted to select OK.

(2) The deletion mark (D) appears on the left side of the deleted work item.

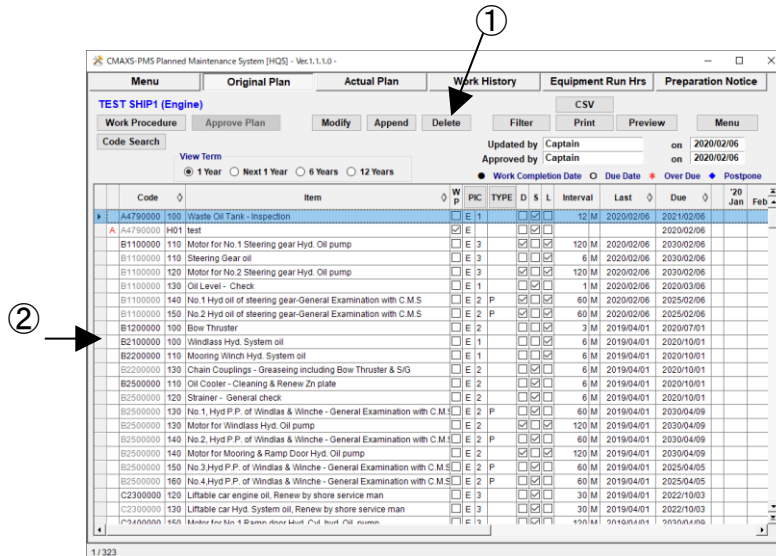


Fig.11-10 Original Plan screen

11.3-2 Modification of Head office job

(1) Select the 【Original Plan】 tab for 【Menu】

(2) 【Original Plan screen】 (Figure 11-11) is displayed.

(3) Select the 【Filter】 button. "Filter screen" (Figure 11-12) is displayed.

(4) Select Head office job and press the OK button to extract only the Head office job.

(5) Subsequent operations are the same as 11.3-1 (1)-(2).

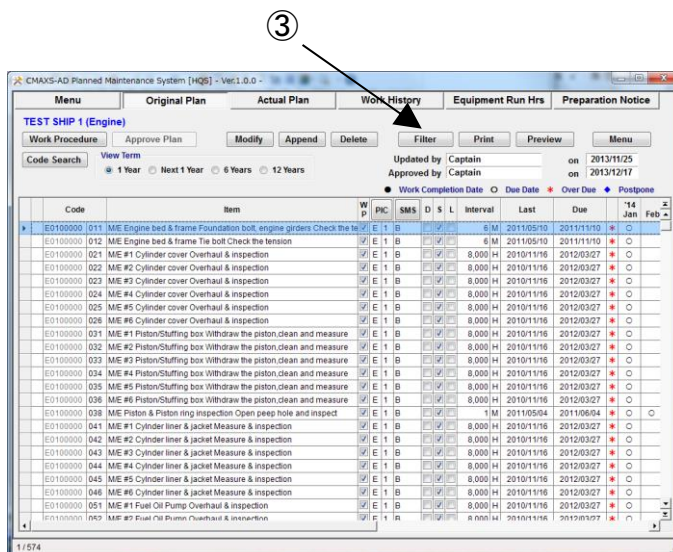


Fig.11-11 Original Plan screen

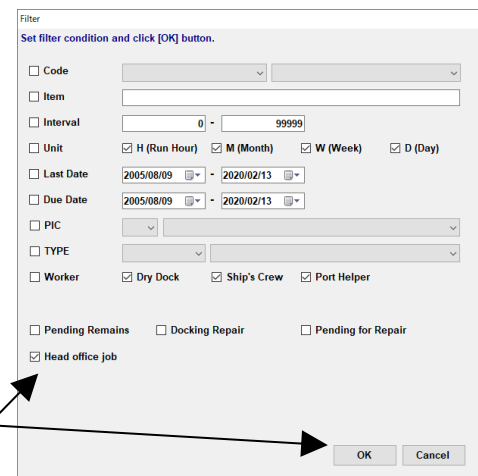


Fig.11-12 Filter screen

11.4 SMS Category Modification

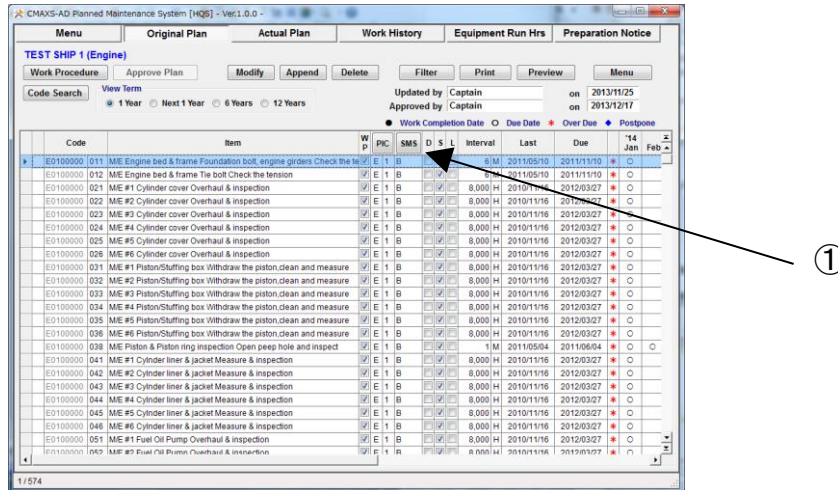
(1) If you want to modify SMS codes, Click [SMS].

"SMS Dialog" is displayed.

(2) Can use alphabets A to U (total 20 codes) for SMS.

User can change only category name.

Select [Modify] button. Then, enter category name.



(3) Select [Save] button.

(4) Select [Close] button..

(5) If you select [Menu] button, screen is returned to "Menu Screen".

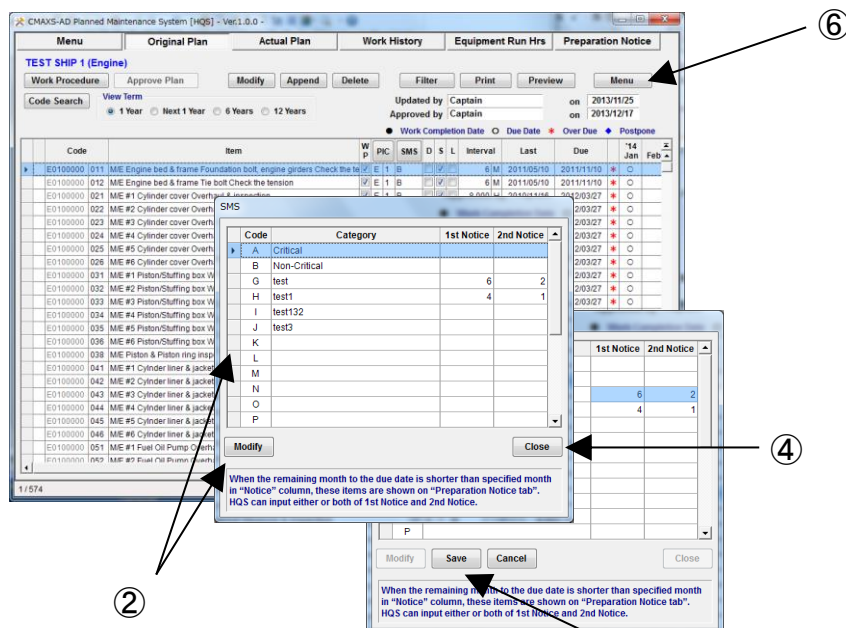


Fig.11-13 SMS Screen

12. Setting of User Authority and Password

"User Authority and Password" can be set for each user.

Management of password only can be performed by the user who has administrator authority. Other users can't select [Password Change] button.

(1) Select [Password Change] button on the "PMS Initial Screen" (Fig.12-1).

"Password Control Dialog"(Fig.12-2) is displayed.

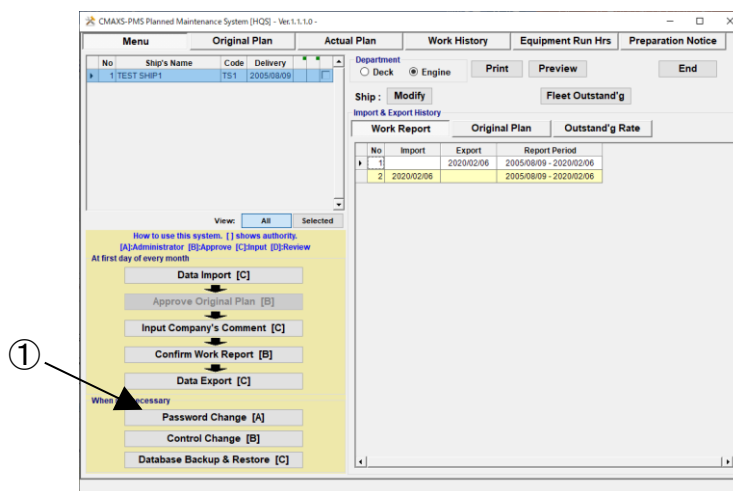


Fig12-1 Menu screen

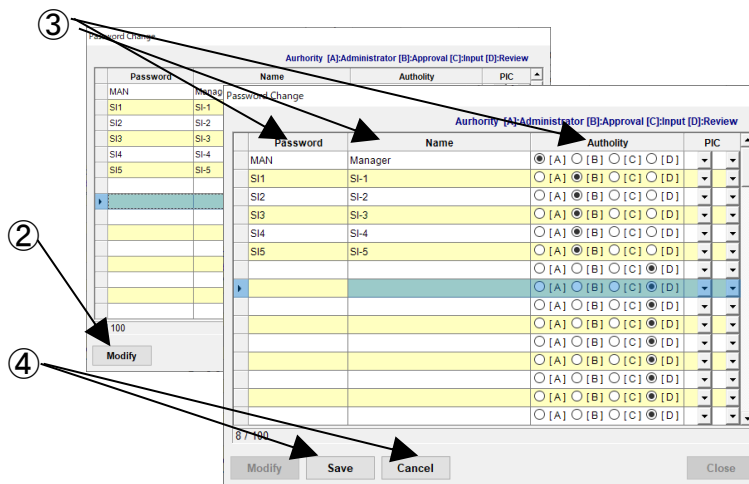


Fig.12-2 Password Change Dialog

(2) Select [Modify] button.

(3) Change "Password", "Name" and "Authority".

"Password" shall be less than 20 characters. And, "Name" shall be less than 40 characters. Max.100 items can be registered.

(4) If you want to save data, select [Save] button. If you want to cancel data, select [Cancel] button.If you want to close, select [Close] button.

13. Setting of Controls

"Various Controls" can be set by the user who has administrator or approve authority. Other users can't select [Control Change] button.

(1) Select [Control Change] button on the "PMS Initial Screen"(Fig.13-1).

"Control Dialog"(Fig.13-2) is displayed.

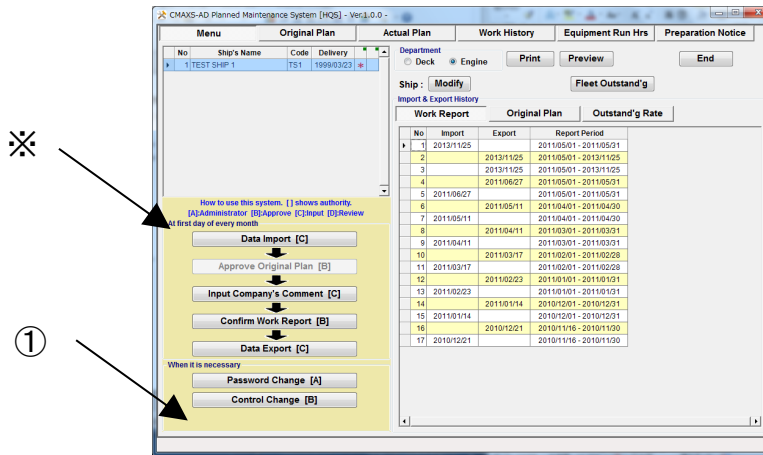


Fig.13-1 Menu Screen

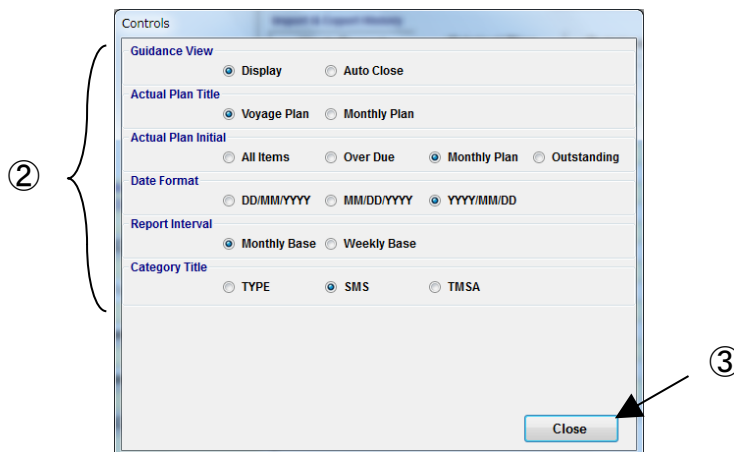


Fig.13-2 Controls Dialog

(2) Select various setting for the following controls.

- Guidance View
- Actual Plan Title
- Report Interval (Switch display [every week] or [every month] for “X” point)
- Actual Plan Initial
- Date Format
- Category Title

(3) If you want to close, select [Close] button.

<Note> Please contact us if you change these items because these items affect the calculation method of Outstanding Rate and the rest.

14. Common Utility Functions

14.1 Code Search Function

On the "Original Plan Screen", "Actual Plan Screen" and "Work History Screen", "Code Search" function can be used for searching objective data easily.

- (1) Select [Code Search] button on the "Original Plan Screen" (Fig.14-1).
- (2) Select [+]mark of equipment and maintenance item data. Then, select [Ok].
- (3) Selected data is displayed on top of data list.

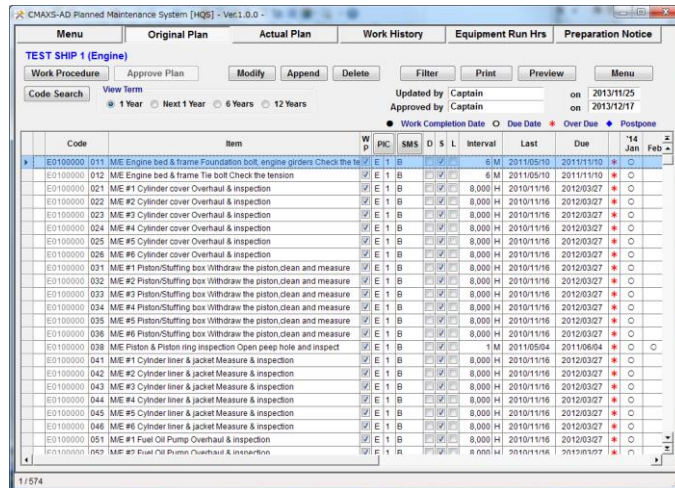


Fig.14-1 Original Plan Screen

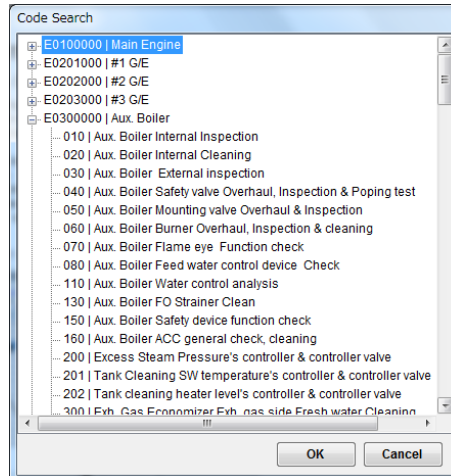


Fig.14-2 Code Search Screen

14.2 Filter Function

On the "Long Term Plan Screen", "Short Term Plan Screen" and "Work History Screen", "Filter" function can be used for extracting by setting of extraction conditions.

(1) Select [Filter] button on the "Long Term Plan Screen"(Fig.13-3).

(2) Select or enter extracting conditions. Then, select [Ok].

Multiple extracting conditions can be set at the same time.

(3) Extracted data are displayed.

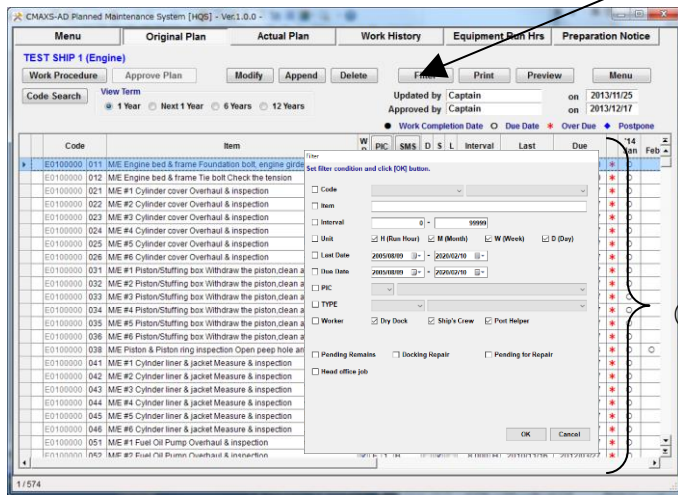


Fig.13-3 Original Plan Screen

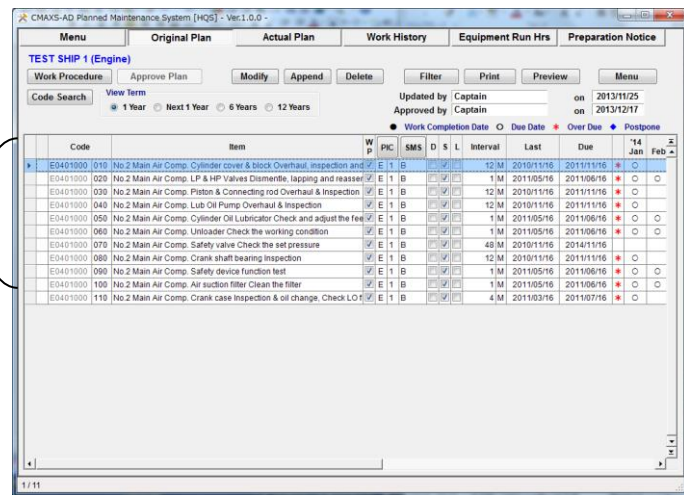


Fig.13-4 Original Plan Screen

<Extracting conditions [Original Plan screen]>

- (1) Code : Equipment code and/or Maintenance code
- (2) Item : Maintenance item
- (3) Interval : Maintenance interval (0-99999)
- (4) Unit : Unit for maintenance interval
H (Run Hour), M (Month), W (Week), D (Day)
- (5) Last Date : Last completion date
- (6) Due Date : Due Date
- (7) PIC : Person in charge D (Deck), E (Engine), R (Radio)
- (8) SMS : Category of safety management system
- (9) Worker : Worker (Dry Dock, Ship's Crew, Port Helper)
- (10) Remaining Pending : Pending
(No, Pending for Dock[Docking Repair], Pending for Repair)

<Extracting conditions [Actual Plan screen]>

- (1) Code : Equipment code and/or Maintenance code
- (2) Item : Maintenance item
- (3) Interval : Maintenance interval (0-99999)
- (4) Unit : Unit for maintenance interval
H (Run Hour), M (Month), W (Week), D (Day)
- (5) Last Date : Last completion date
- (6) Due Date : Due Date
- (7) PIC : Person in charge
D (Deck), E (Engine), R (Radio)
- (8) SMS : Category of safety management system
- (9) Worker : Worker (Dry Dock, Ship's Crew, Port Helper)
- (10) Remaining Pending : Pending
(No, Pending for Dock[Docking Repair], Pending for Repair)
- (11) Outstand'g : Filter unexecuted/planned item
- (12) Head office job : Job for head office

The image shows a 'Filter' dialog box with the title 'Filter' and a subtitle 'Set filter condition and click [OK] button.' The dialog contains several filter criteria, each with a checkbox and a corresponding input field or set of checkboxes. The criteria are: Code (dropdown), Item (text input), Interval (0 - 99999), Unit (checkboxes for H (Run Hour), M (Month), W (Week), D (Day)), Last Date (1999/03/23 - 2014/03/17), Due Date (1999/03/23 - 2014/03/17), PIC (dropdown), SMS (dropdown), Worker (checkboxes for Dry Dock, Ship's Crew, Port Helper), and Outstand'g (checkboxes for 1 ≤ Unexecuted Item, 1 ≤ Planned Item). At the bottom right are 'OK' and 'Cancel' buttons.

Fig.14-5 Filter Screen of Actual Plan

< Extracting conditions [Work History screen]>

- (1) Code : Equipment code and/or Maintenance code
- (2) Item : Maintenance item
- (3) PIC : Person in charge
D (Deck), E (Engine), R (Radio)
- (4) SMS : Category of safety management system
- (5) Worker : Worker (Dry Dock, Ship's Crew, Port Helper)
- (6) Work Date : Work Date
- (7) File No. : File No.
- (8) Voy.No : Voyage No.
- (9) Repair & Maintenance/Trouble/Postpone: Status of work report
- (10) Pending : Remaining/Cleared
- (11) Docking Repair(Pending for Dock) : Docking Repair
- (12) Pending for Repair : Pending for Repair
- (13) Ship's comment : Ship's comment
- (14) Company's comment : Company's comment
- (15) Attachment : Attachment of work report
- (16) Head office job : Job for head office

Filter

Set filter condition and click [OK] button.

☐ Code

☐ Item

☐ PIC

☐ SMS

☐ Worker

☒ Dry Dock☒ Ship's Crew☒ Port Helper

☐ Work Date

1999/03/23

-

2014/03/17

☐ File No.

☐ Voy. No.

☐ Report

☒ Repair & Maintenance☒ Trouble☒ Postopone

☐ Pending

☒ Remaining☐ Cleared

☐ Docking Repair

☒ Yes☐ No

☐ Pending for Repair

☒ Yes☐ No

☐ Ship's Comment

☒ Yes☐ No

☐ Company's Comment

☒ Yes☐ No

☐ Attachment

☒ Yes☐ No

OK

Cancel

Fig.13-6 Filter Screen of Work History

14.3 Sort Function

On the "Work History Screen", "Sort" function can be used for sorting of work history data.

(1) Select [Sort] button on the "Work History Screen"(Fig.13-7).

(2) Select sort key and sort order of "Ascend" or "Descend". Then, select [Ok].

Sort keys can be set up to 3rd priority at the same time.

(3) Sorted data are displayed.

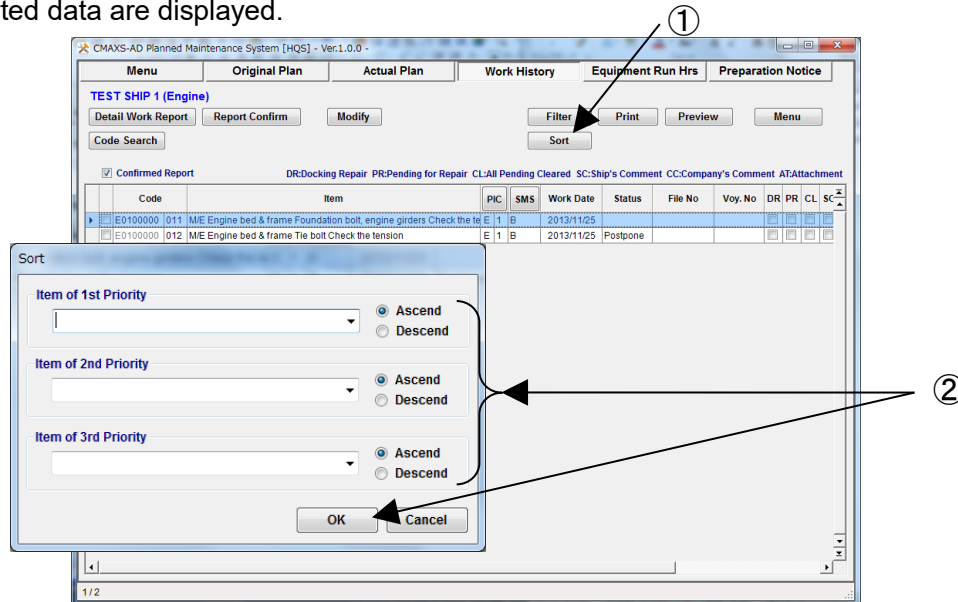


Fig.13-7 Work History Screen

15.Modification of Managed Ship

If you want to modify the new managed ship into ADMAX PMS (HQS), database for subject ship should be made and set into proper database folder on your PC by IMC.

As for the detail, please contact to IMC.

- (1) If you want to modify ship list data, select [Modify] button on the "Menu Screen" (Fig.15-1).
- (2) Modify ship list data, then select [Save] button (Fig. 14-2).

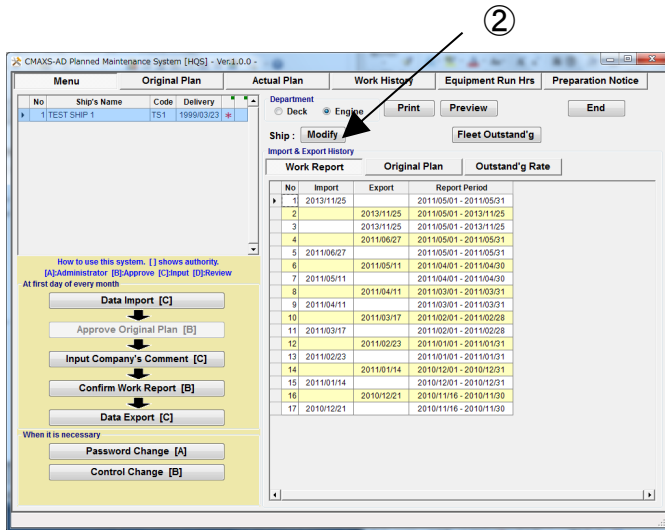


Fig.15-1 Menu Screen

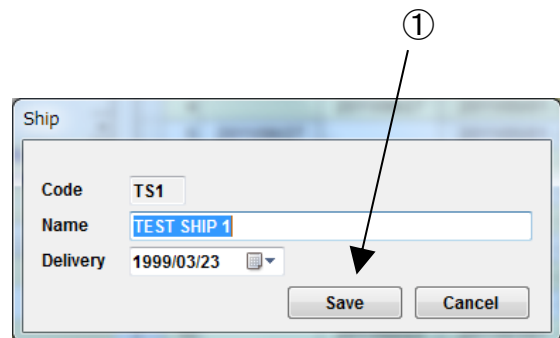


Fig.15-2 Ship Screen

16. History of Outstanding

16.1 Fleet Outstanding

(1) Select [Fleet Outstand'g] button. Each ship's Screen (Fig.15-1) is displayed.

You can see the latest Outstanding Rate for each ship.

- (2) Latest Non-Critical Equipment on Deck part's Rate
- (3) Latest Non-Critical Equipment on Engine part's Rate
- (4) Average of latest Non-Critical Equipment on Deck part & Engine part
- (5) Latest Critical Equipment on Deck part's Rate
- (6) Latest Critical Equipment on Engine part's Rate
- (7) Average of Latest Critical Equipment on Deck part & Engine part

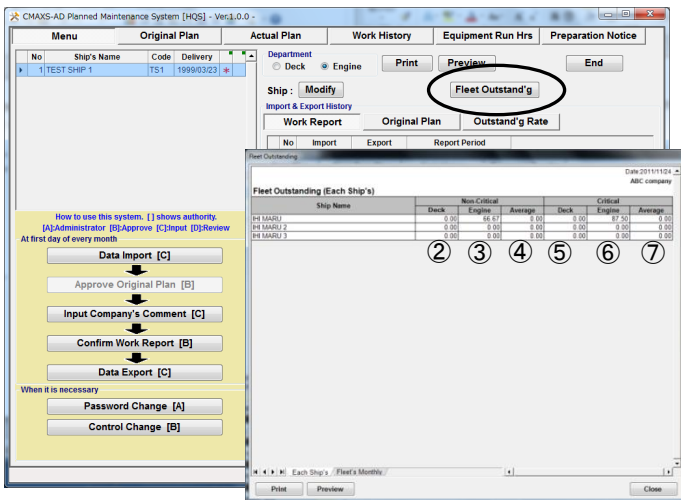


Fig.16-1 Menu Screen

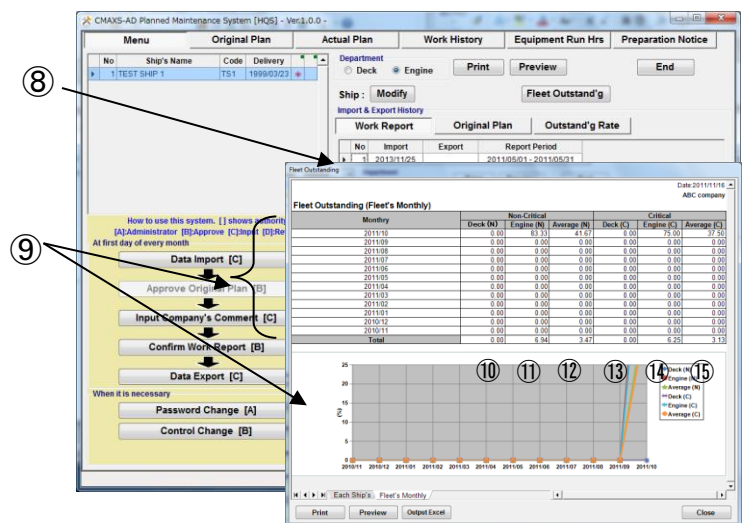


Fig.16-2 Fleet's Monthly Screen

- (8) Select [Fleet's Monthly] (Fig.16-2). Fleet's Monthly Screen is displayed.
- (9) You can see the average of ship's rate of per month.
- (10) Non-Critical Equipment per month on Deck part's Rate.
- (11) Non-Critical Equipment per month on Engine part's Rate
- (12) Average of Non-Critical Equipment per month on Deck part & Engine part
- (13) Critical Equipment per month on Deck part's Rate
- (14) Critical Equipment per month on Engine part's Rate
- (15) Average of Critical Equipment per month on Deck part & Engine part

16.2 History of Outstanding for last 12 months

- (1) On the “Menu” screen(Fig. 16-3) Select “Outstand'g Rate” in “Import & Export History” area.
- (2) Select the “Non-Critical” or “Critical” button to display “Outstanding Rate for last 12 month” screen.
- (3) You can refer the “Outstanding Rate History for last 12 months” of “Non-Critical” of “Critical”(Fig.16-4).

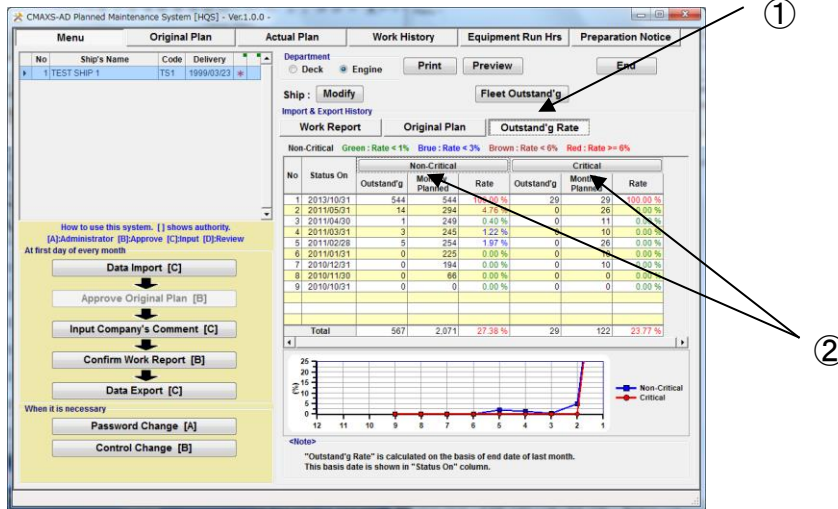


Fig.16-3 Menu Screen

- (4) You can switch “Non-Critical” / “Critical” by tabs.
- (5) You can output the “Outstanding Rate History for last 12 months” of “Non-Critical” and “Critical”.

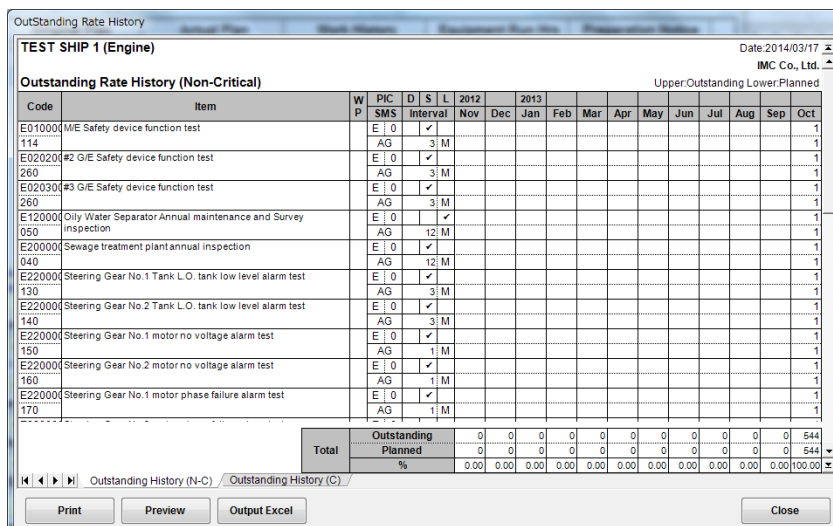


Fig.16-4 Outstanding Rate History for last 12 months

17. Modification of Equipment Code

Customers can now freely change the code that was automatically assigned by CMAXS.

* This operation can be edited only by either the ship or the head office that has Master Data editing authority.

The Equipment code can be edited when "Modify" is pressed in the "Detail Equipment Dialog" of the "Equipment Run Hours screen".

The screenshot shows the 'Equipment Run Hours' screen with a list of equipment items. A 'Detail Equipment Data' dialog box is open, allowing modification of the equipment code. The 'Code' field is highlighted with a red box and contains the value '00000001'. Other fields in the dialog include 'Name' (ME Tightening Bolt), 'Type', 'Model', and 'Maker'. The background list shows various equipment items with their respective run hours.

Fig.16-8 Expected Run Hrs Screen

You can edit the item code by selecting the plan on the "Original Plan screen" and then pressing "Modify" on the Work Procedure screen on the "Work Procedure".

The screenshot shows the 'Work Procedure' screen with a list of work procedures. A 'Work Procedure' dialog box is open, allowing modification of the work procedure code. The 'Code' field is highlighted with a red box and contains the value 'C1400000'. Other fields in the dialog include 'Interval' (2 M), 'DueDate' (2017/11/11), and 'Attachment'. The background list shows various work procedures with their respective intervals and due dates.

Fig.16-9 Work Procedure Screen

18. Output Sample

A.1 Original Plan

TEST SHIP 1 (Engine)

Date : 2014/03/17

IMC Co., Ltd.

Original Plan (1 Year)

Updated by Captain on 2013/11/25

Approved by Captain on 2013/12/17

● Work Completion Date ○ Due Date ★ Over Due ◆ Postpone

Code	Item	W P	PIC SMS	D Interval	S L	Last Due	'14 Jan	Feb	Mar	'14 Apr	May	Jun	'14 Jul	Aug	Sep	'14 Oct	Nov	Dec
M E0100000 011	M/E Engine bed & frame Foundation bolt, engine girders Check the tension	✓	E 1	6 M	2011/05/10	★	○						○					
M E0100000 012	M/E Engine bed & frame Tie bolt Check the tension	✓	E 1	6 M	2011/05/10	★	○						○					
M E0100000 021	M/E #1 Cylinder cover Overhaul & inspection	✓	E 1	8,000 H	2010/11/16	★	○											
M E0100000 022	M/E #2 Cylinder cover Overhaul & inspection	✓	E 1	8,000 H	2010/11/16	★	○											
M E0100000 023	M/E #3 Cylinder cover Overhaul & inspection	✓	E 1	8,000 H	2010/11/16	★	○											
M E0100000 024	M/E #4 Cylinder cover Overhaul & inspection	✓	E 1	8,000 H	2010/11/16	★	○											
M E0100000 025	M/E #5 Cylinder cover Overhaul & inspection	✓	E 1	8,000 H	2010/11/16	★	○											
M E0100000 026	M/E #6 Cylinder cover Overhaul & inspection	✓	E 1	8,000 H	2010/11/16	★	○											
E0100000 031	M/E #1 Piston/Stuffing box Withdraw the piston, clean and measure	✓	E 1	8,000 H	2010/11/16	★	○											
E0100000 032	M/E #2 Piston/Stuffing box Withdraw the piston, clean and measure	✓	E 1	8,000 H	2010/11/16	★	○											
E0100000 033	M/E #3 Piston/Stuffing box Withdraw the piston, clean and measure	✓	E 1	8,000 H	2010/11/16	★	○											
E0100000 034	M/E #4 Piston/Stuffing box Withdraw the piston, clean and measure	✓	E 1	8,000 H	2010/11/16	★	○											
E0100000 035	M/E #5 Piston/Stuffing box Withdraw the piston, clean and measure	✓	E 1	8,000 H	2010/11/16	★	○											
E0100000 036	M/E #6 Piston/Stuffing box Withdraw the piston, clean and measure	✓	E 1	8,000 H	2010/11/16	★	○											

CMAXS-AD PMS

A.2 Actual Plan

TEST SHIP 1 (Engine)

Date : 2014/03/17

Actual Plan (Monthly Plan)

IMC Co., Ltd.

(*) Monthly Outstand'g of Nov. 2013

Non Critical 561 / 562 99.82 % Critical 29 / 29 100.00 %

● Work Completion Date ○ Original Plan ★ Over Due ◆ Postpone

Period: 2013/11/01 - 2013/11/30

Code	Item	W P	PIC SMS	D Interval	S L	Last Due	(*) Out stand'g	No. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
E0100000 011	M/E Engine bed & frame Foundation bolt, engine girders Check the tension	✓	E 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2013/11/25	0 / 1	○																												
			B	6 M		2014/05/25																															
E0100000 012	M/E Engine bed & frame Tie bolt Check the tension	✓	E 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2011/05/10		★	○																											
			B	6 M		2011/11/10																															
E0100000 021	ME#1 Cylinder cover Overhaul & inspection	✓	E 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2010/11/16	1 / 1	★	○																											
			B	8,000 H		2012/03/27																															
E0100000 022	ME#2 Cylinder cover Overhaul & inspection	✓	E 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2010/11/16	1 / 1	★	○																											
			B	8,000 H		2012/03/27																															
E0100000 023	ME#3 Cylinder cover Overhaul & inspection	✓	E 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2010/11/16	1 / 1	★	○																											
			B	8,000 H		2012/03/27																															
E0100000 024	ME#4 Cylinder cover Overhaul & inspection	✓	E 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2010/11/16	1 / 1	★	○																											
			B	8,000 H		2012/03/27																															
E0100000 025	ME#5 Cylinder cover Overhaul & inspection	✓	E 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2010/11/16	1 / 1	★	○																											
			B	8,000 H		2012/03/27																															
E0100000 026	ME#6 Cylinder cover Overhaul & inspection	✓	E 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2010/11/16	1 / 1	★	○																											
			B	8,000 H		2012/03/27																															
E0100000 031	ME#1 Piston/Stuffing box Withdraw the piston, clean and measure	✓	E 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2010/11/16	1 / 1	★	○																											
			B	8,000 H		2012/03/27																															
E0100000 032	ME#2 Piston/Stuffing box Withdraw the piston, clean and measure	✓	E 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2010/11/16	1 / 1	★	○																											
			B	8,000 H		2012/03/27																															
E0100000 033	ME#3 Piston/Stuffing box Withdraw the piston, clean and measure	✓	E 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2010/11/16	1 / 1	★	○																											
			B	8,000 H		2012/03/27																															

Total 590 / 591

CMAXS-AD PMS

1

A.3 Work Procedure

TEST SHIP 1 (Engine) IMC Co., Ltd.
Date: 2014/03/17

Work Procedure

Code	E0100000011			Item	M/E Engine bed & frame Foundation bolt, engine girders Check the tension		
Interval	6M	PIC	E1	SMS	B	Worker	<input type="checkbox"/> Dry Dock <input checked="" type="checkbox"/> Ship's Crew <input type="checkbox"/> Port Helper

Work Procedure

====The above bolts should be checked/tightened with a hydraulic tool.As for the standard of the nut rev. angle,the degree obtained by the handful tightening with nut tightening rod at hydraulic press. 640kg/cm2 shall be zero point.

- 1 -

CMAXS-AD PMS

A.4 Work Report (Repair & Maintenance)

TEST SHIP 1 (Engine) Date: 2014/03/17
IMC Co., Ltd.

Work Report (Repair & Maintenance)

Reported By	Captain		<input type="checkbox"/> Approved By		<input type="checkbox"/> Confirmed By				
Code	E0100000011	PIC	E1	SMS	B	Reported Date	2013/11/25	Work Date	2013/11/25
Item	M/E Engine bed & frame Foundation bolt, engine girders Check the tension								
File No.		Voy. No.		Total Run Hrs	17,842	(Main Engine)			
Place		Trouble Parts (Maker/Model)							
Machinery Name		Trouble Point							
Outline of Repair & Maintenance			Work Result				01 : OK		
test									
Ship's Comment & Desired Articles									
Ship's Hand Working Hours		0	<input type="checkbox"/> All Pending Cleared		<input type="checkbox"/> Pending Repair				
Ship's Hand Nos Working Member		0	<input type="checkbox"/> Docking Repair						
Company's Comment									
testtest									

- 1 -

CMAXS-AD PMS

A.5 Work Report (Trouble)

IHI MARU (Engine)

Date :2011/02/10

ABC company

Work Report (Trouble)

Reported By	Captain	<input type="checkbox"/> Approved By		<input type="checkbox"/> Confirmed By	
Code	E010003B	PIC	E	SMS	
Reported Date	2011/02/09	Work Date	2011/02/09	Next Due Date	2011/08/15
Item	ME #2 Fuel oil valve Test of injection				
File No.		Voy. No.		Total Run Hrs	49,036
				(Main Engine (Kobe Diesel 7UEC50LSII))	
Place				M/E Stop Hours	
Machinery Name				M/E Speed Reduction Hours	
Reason				Delay Hours for Repair	
				Cargo Work Delay Hours	0
Outline of Trouble					
Presumed Cause					
Countermeasures & Disposal					
Ship's Comment & Desired Articles					
				Ship's Hand Working Hours	0
				Ship's Hand Nos Working Member	0
				<input type="checkbox"/> Repair by Ship's Hand	<input type="checkbox"/> All Pending Cleared
				<input type="checkbox"/> Repair by Shore	<input type="checkbox"/> Docking Repair
				<input type="checkbox"/> Pending Repair	
Company's Comment					

A.6 Work Report (Postpone)

TEST SHIP1 (Deck)

Date :2014/03/17

ABC company

Work Report (Postpone)

Reported By	Captain	<input type="checkbox"/> Approved By		<input type="checkbox"/> Confirmed By	
Code	H0100000070	PIC	D1	SMS	B
Reported Date	2014/03/17				
Item	Painting, Funnel deck maintenance				
File No.		Voy. No.		Total Run Hrs	0
				(Painting)	
				Original Due Date	2011/11/12
				Postpone	2013/02/15
Ship's Comment & Desired Articles					
Company's Comment					

A.7 Equipment Run Hours

TEST SHIP1 (Engine)

Date : 2014/03/17

Equipment Run Hours

ABC company

Total Run Hours Update On : 2010/11/16

☐ Rate conversion is used.

Code	Name	Actual Run Hours Prev. Month	Total Run Hours	Expected Run Hours Next Month	
				Value	Rate (%)
E0100000	Main Engine	0	3,132	486	0
E0201000	#1 G/E	0	2,060	732	0
E0202000	#2 G/E	0	2,025	450	0
E0203000	#3 G/E	0	1,894	400	0
E0300000	Aux. Boiler	0	1,535	185	0
E0400000	No.1 Main Air Compressor	0	0	0	0
E0401000	No.2 Main Air Compressor	0	0	0	0
E0405000	Emergency Air Compressor	0	0	0	0
E0501000	#1 FO Purifier	0	0	0	0
E0502000	#2 FO Purifier	0	0	0	0
E0504000	M/E LO Purifier	0	0	0	0
E0505000	G/E LO Purifier	0	0	0	0
E0600000	Fresh Water Generator	0	0	0	0
E0700000	Accommodation Air Cond.	0	0	0	0