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**CMAXS  
Planned Maintenance  
Operation Manual  
(Shipboard System)**



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## 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 users are restricted for each function as below.

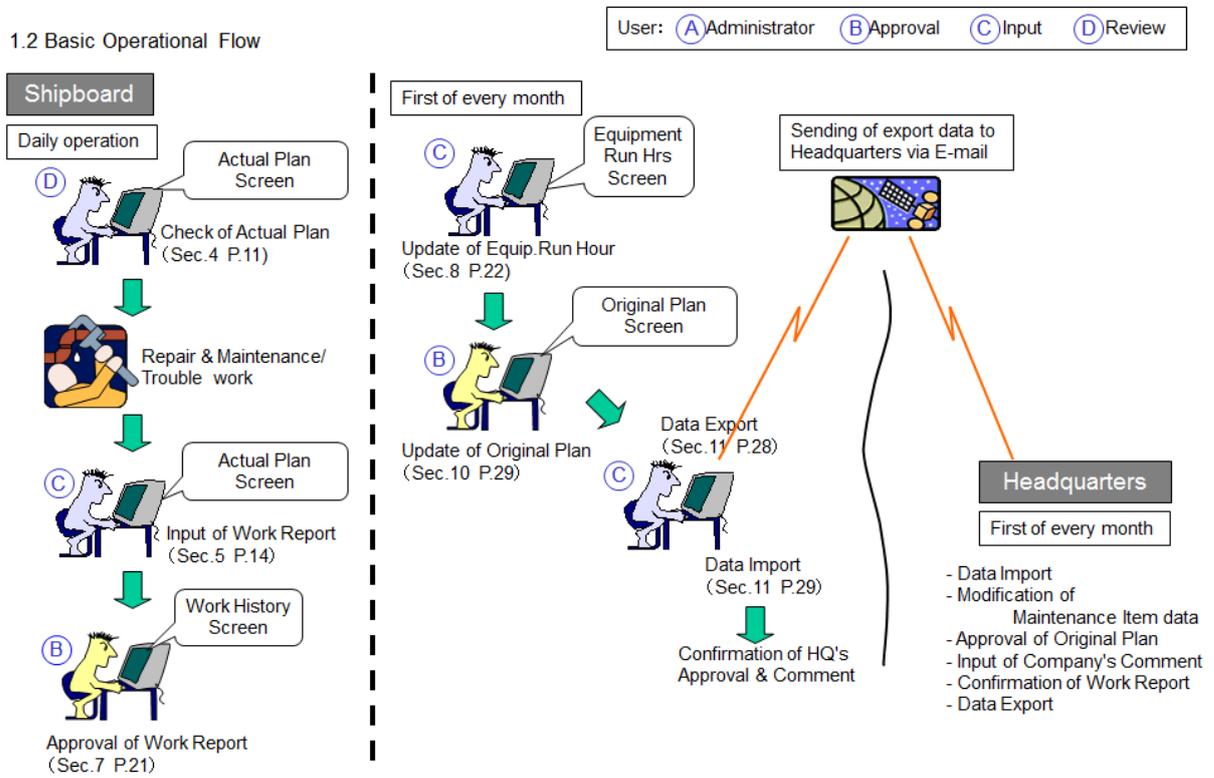
### 1.1 Main Function

Item	Function	Headquarters	Shipboard	
Actual Plan	Check	—	<b>D</b>	Section 5
Work Report	Input	—	<b>C</b>	Section 6
	Approval	—	<b>B</b>	Section 8
	Input Company's Comment	<b>C</b>	—	—
	Confirmation	<b>B</b>	—	—
Equipment Run Hour	Update		<b>C</b>	Section 9
	Confirmation	<b>C</b>	—	—
Maintenance Item Data	Modification	<b>C</b> (※)	<b>C</b> (※)	Section 10
Original Plan	Update	—	<b>B</b>	Section 11
	Approval	<b>B</b>	—	—
Data Export / Import	Execution	<b>C</b>	<b>C</b>	Section 12
User Authority and Password	Setting	<b>A</b>	<b>A</b>	Section 13
Controls	Setting	<b>B</b>	<b>B</b>	Section 14
Data Backup / Restore	Execution	<b>C</b>	<b>C</b>	Section 15

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

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

## 1.2 Basic Operational Flow



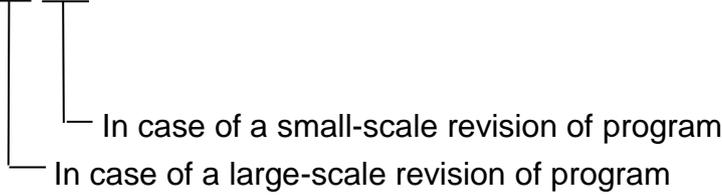
## 1.3 System requirement

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

- (1) Set CMAXS installation CD into your PC.
- (2) “CMAXS Planned Maintenance System Setup Wizard” is automatically displayed.
- (3) Select [Next].

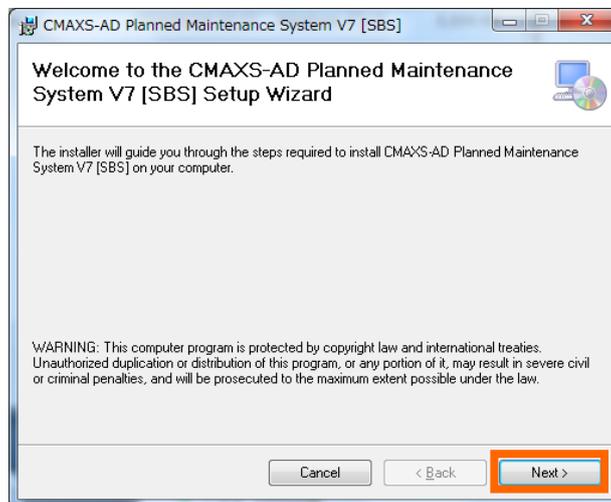


Fig.2-1 CMAXS PMS Setup Wizard

- (4) “Select Installation Folder” screen is displayed.  
Make sure that check mark is put on “Everyone”, and then, select [Next].

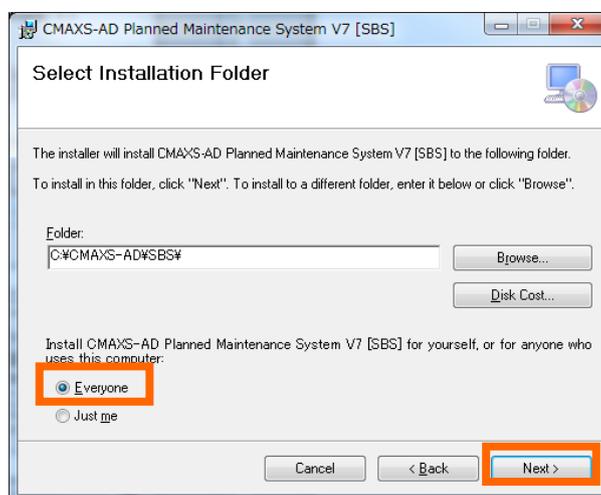


Fig.2-2 Select Installation Folder Screen

- (5) “Confirm Installation” screen is displayed.  
Select [Next].

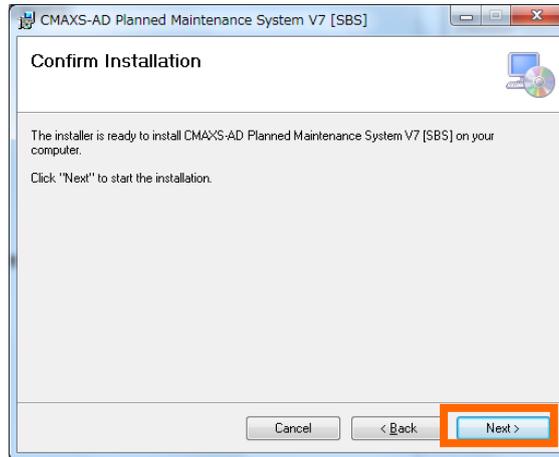


Fig.2-3 Confirm Installation Screen

- (6) “Installation Complete” screen is displayed.  
Select [Close].

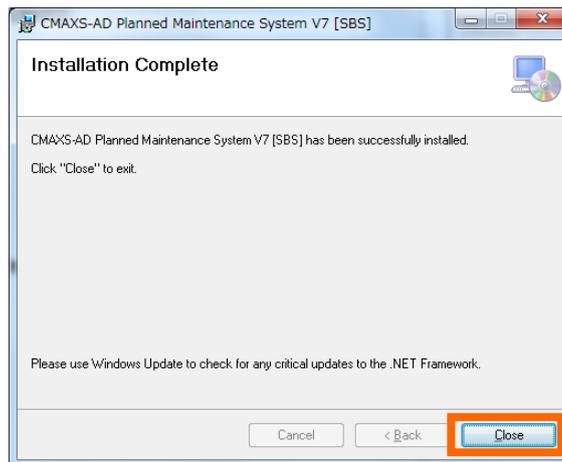


Fig.2-4 Installation Complete Screen

### 3. System Start / Stop

- (1) On the MS-Windows Desktop screen, double-click "CMAXS Planned Maintenance System [SBS]" icon.

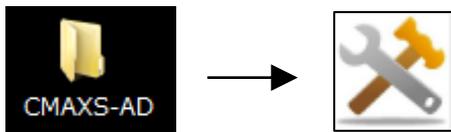


Fig.3-1 CMAXS Planned Maintenance System [SBS] icon

- (2) "Password Input Dialog"(Fig.3-2) is displayed.

Enter password and press [Enter] key.

As default set, "CAP" Captain for administrator authority is registered.

Please change user authority and password before actual operation.

As for user authority and password, refer to Section 13.

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

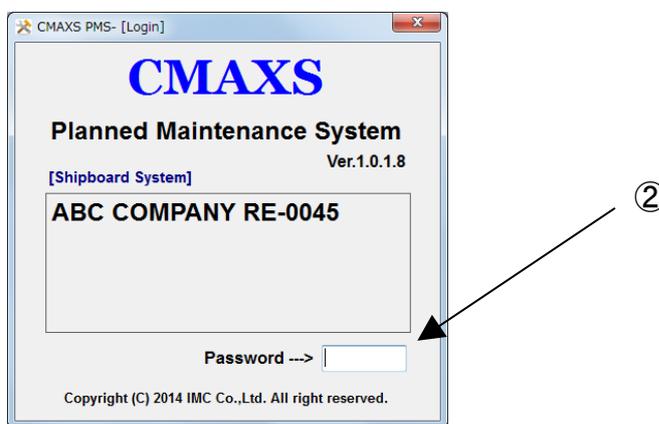


Fig.3-2 Password Input Dialog

- (3) 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.

- (5) Select [Close] button.

"Menu Screen"(Fig.2-4) is displayed.

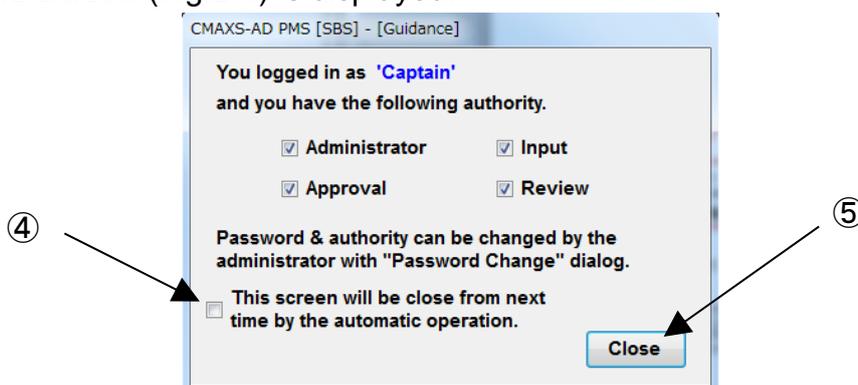


Fig.3-3 Guidance Dialog

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

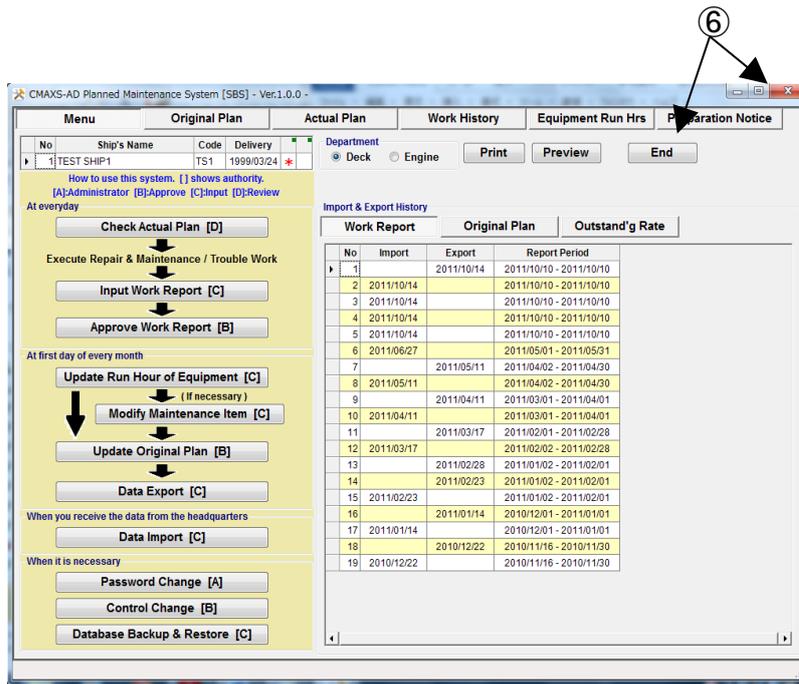


Fig.3-4 Menu Screen

## 4. Screen Description

### 4.1 [Menu] screen

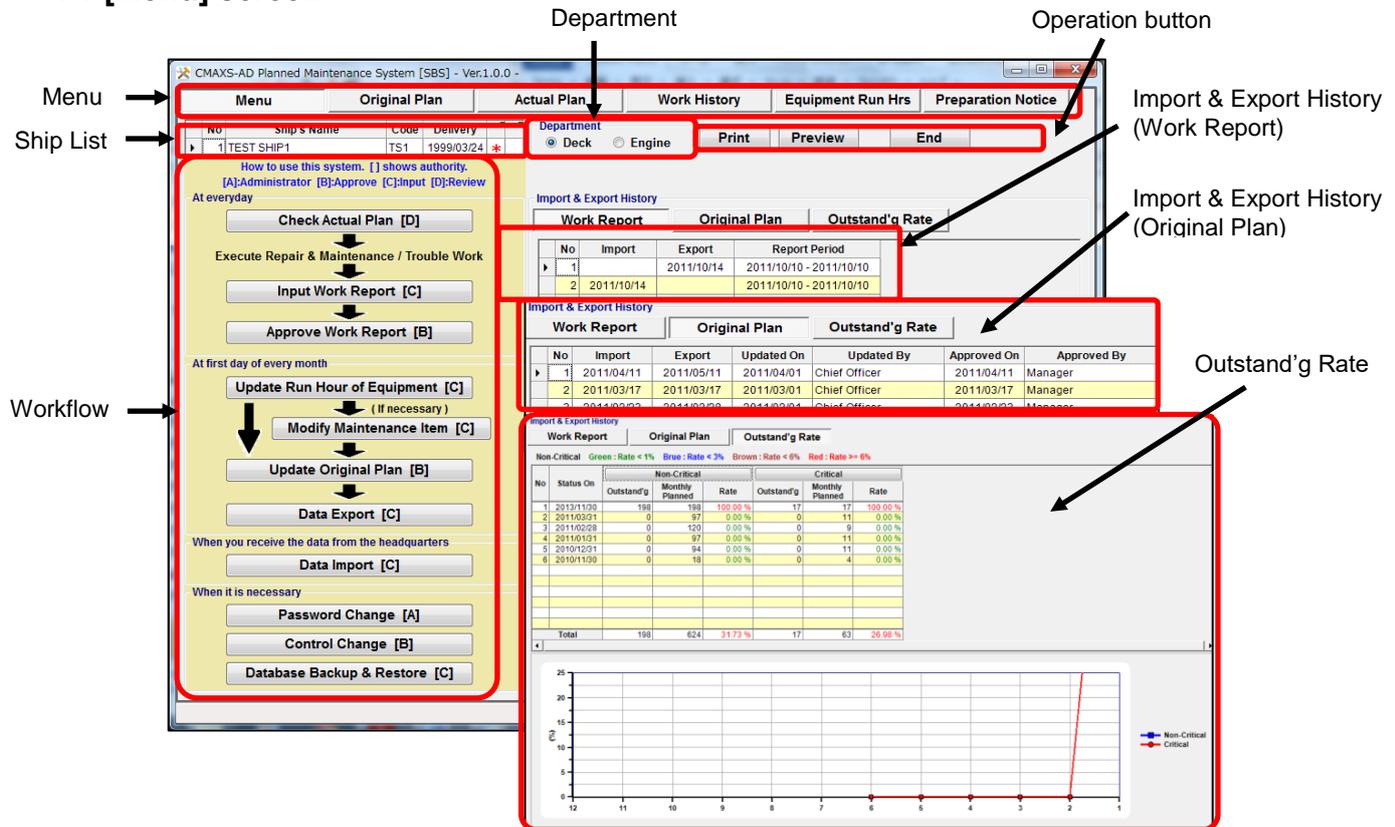


Fig.4-1 Menu Screen

### 4.2[Original Plan] screen

Menu

Operation button (※)

Calendar view style

Maintenance Item Data

History of plan update & approval

<Original 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 completion date
- (9) Due : Due date
- (10) OVERDUE/  
POSTPONE : \* (Red) =Over Due ◆(Blue) =Postpone
- (11) CALENDER : ●=Work completion date ○=Due date

Fig.4-2 Original Screen

※[Modify] [Append] [Delete] buttons are not applicable if headquarters system has modification function for maintenance item. And, [Append] [Delete] buttons are not applicable if headquarters system has modification function and shipboard system only has modification function of PIC(person in charge).

### 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"

<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 :  $\frac{\text{Completed Work base} \times [\text{Number of Outstand'g}] / [\text{Number of Planned}]}{\text{Overdue base}}$  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

Fig.4-3 Actual Screen

### 4.4 [Work History] screen

Fig.4-4 Work History Screen

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

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

### 4.5 [Equipment Run Hrs] screen

Fig.4-5 Equipment Run Hrs Screen

### 4.6 [Preparation Notice] screen

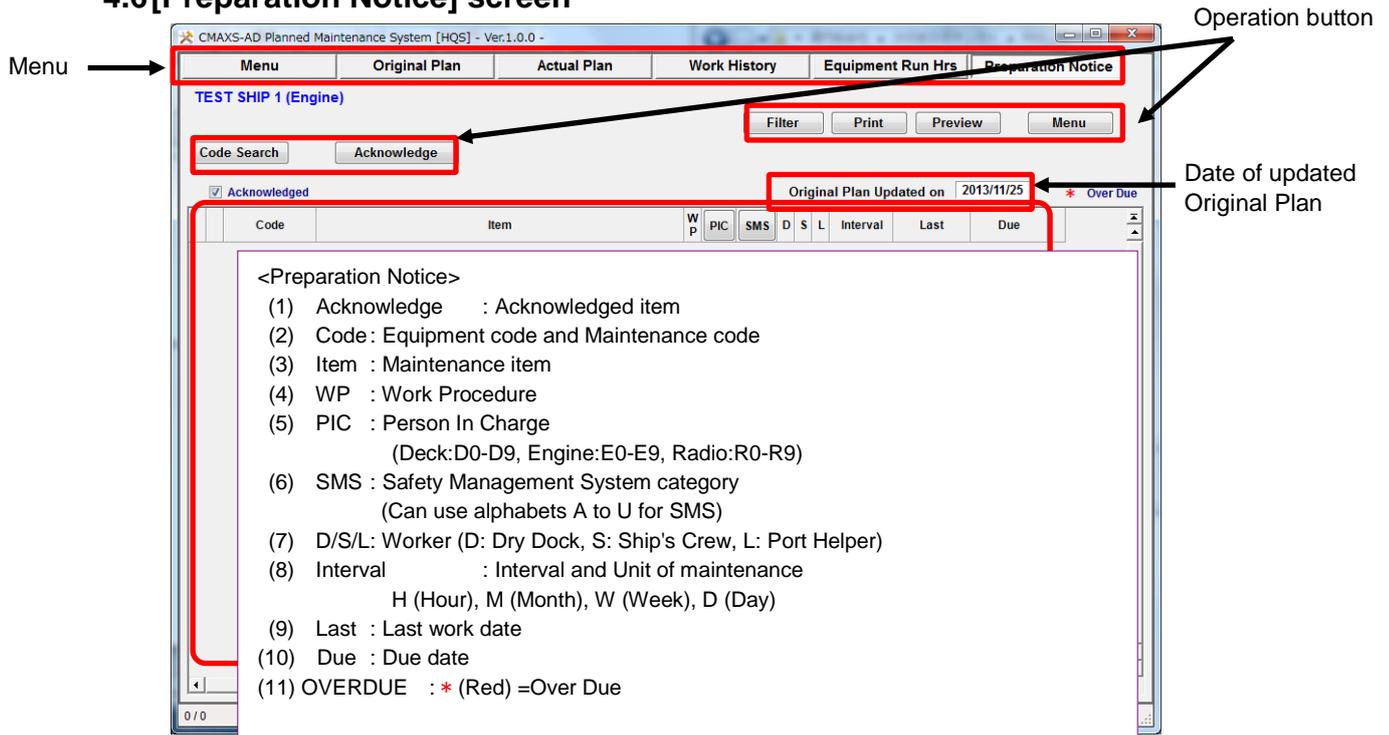


Fig.4-6 Preparation Notice Screen

## 5. Check of Actual Plan

### 5.1 Check Actual Plan

"Actual Plan" is automatically planned on the basis of "Original Plan" data and specified period.

- (1) On the "Menu screen"(Fig.5-1), select [Check Actual Plan].
- (2) "Actual Plan Screen"(Fig.5-2) is displayed.

At this time, [Period] button is blinked several times for your guidance of next operation.

- (3) Select [Period] button. "Period Input Dialog"(Fig5-3) is displayed.
- (4) Enter period of subject voyage term or management period (Max.45days).  
 Then, select [OK] button. Also, you can enter period by following (A) or (B).  
 (A) Click [▼] (Calendar is displayed and you can select date).  
 (B) Click [<<][>>] (Previous month or next month is selected).

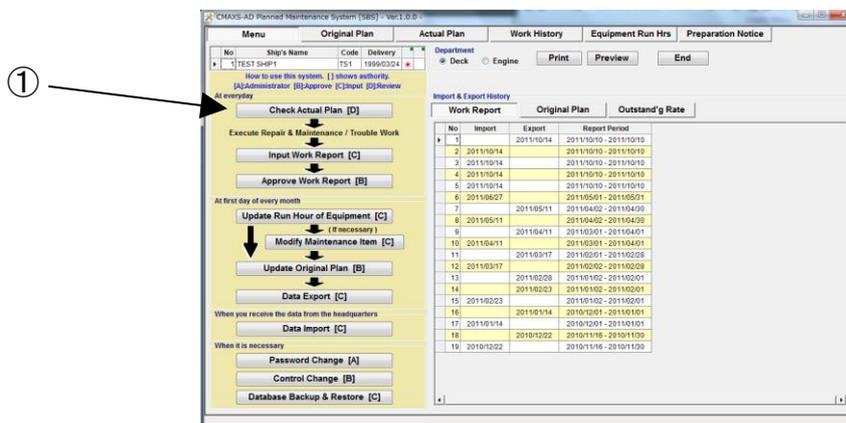


Fig.5-1 Menu Screen

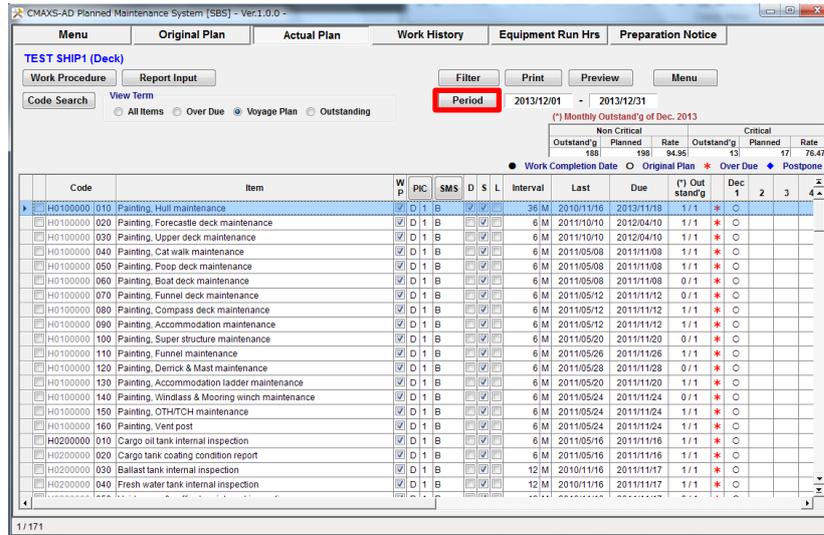


Fig.5-2 Actual Screen

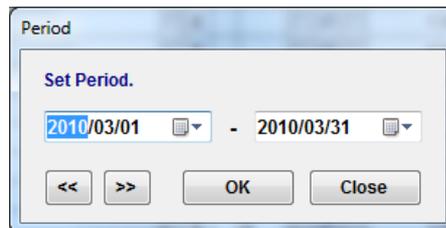


Fig.5-3 Period Input Dialog

- (5) All items of subject department in which "Work Date" or "Due Date" is contained within entered period and "OVER DUE" items are extracted from all registered maintenance item data .
- (6) If you select option button of "View", displayed items are changed for "All Items" or "Over Due" or "Monthly Plan".
- (7) If you select subject item and [Work Procedure] button, "Work Procedure Screen" is displayed.
- (8) If you select [Report Input] button, you can input work report.  
As for "Input of Work Report", refer section 6.
- (9) As for "Code Search" button, refer "Section 16".
- (10) As for "Filter" button, refer "Section 16".
- (11) If you select [Preview] button, print preview can be displayed.
- (12) If you select [Print] button, print setting can be set.
- (13) If you select [Menu] button, screen is returned to "PMS Main Screen"(Fig.5-1).

## 5.2 History of Outstanding for month

You can refer the number of plan and number of unexecuted work item until this month.

- (1) On the “Actual Plan screen”(Fig.5-4),  
[Number of Outstand'g] / [Number of Planned] for object month is displayed(①).
- (2) Outstand'g count table for critical equipment or other equipments at upper right of “Actual Plan” screen(②).

Non Critical		Critical	
Outstand'g	Planned	Outstand'g	Planned
188	198	13	17
	94.95		76.47

Code	Item	W/P	PIC	SMS	D	S	L	Interval	Last	Due	(*) Outstand'g
H0100000	010 Painting, Hull maintenance	D	1	B				36M	2010/11/16	2013/11/16	1/1
H0100000	020 Painting, Forecastle deck maintenance	D	1	B				6M	2011/10/10	2012/04/10	1/1
H0100000	030 Painting, Upper deck maintenance	D	1	B				6M	2011/10/10	2012/04/10	1/1
H0100000	040 Painting, Cat walk maintenance	D	1	B				6M	2011/05/08	2011/11/08	1/1
H0100000	050 Painting, Poop deck maintenance	D	1	B				6M	2011/05/08	2011/11/08	1/1
H0100000	060 Painting, Boat deck maintenance	D	1	B				6M	2011/05/08	2011/11/08	0/1
H0100000	070 Painting, Funnel deck maintenance	D	1	B				6M	2011/05/12	2011/11/12	0/1
H0100000	080 Painting, Compass deck maintenance	D	1	B				6M	2011/05/12	2011/11/12	1/1
H0100000	090 Painting, Accommodation maintenance	D	1	B				6M	2011/05/12	2011/11/12	1/1
H0100000	100 Painting, Super structure maintenance	D	1	B				6M	2011/05/20	2011/11/20	0/1
H0100000	110 Painting, Funnel maintenance	D	1	B				6M	2011/05/26	2011/11/26	1/1
H0100000	120 Painting, Derrick & Mast maintenance	D	1	B				6M	2011/05/28	2011/11/28	0/1
H0100000	130 Painting, Accommodation ladder maintenance	D	1	B				6M	2011/05/20	2011/11/20	1/1
H0100000	140 Painting, Windlass & Mooring winch maintenance	D	1	B				6M	2011/05/24	2011/11/24	0/1
H0100000	150 Painting, OTH/TCH maintenance	D	1	B				6M	2011/05/24	2011/11/24	1/1
H0100000	160 Painting, Vent post	D	1	B				6M	2011/05/24	2011/11/24	1/1
H0200000	010 Cargo oil tank internal inspection	D	1	B				6M	2011/05/16	2011/11/16	1/1
H0200000	020 Cargo tank coating condition report	D	1	B				6M	2011/05/16	2011/11/16	1/1
H0200000	030 Ballast tank internal inspection	D	1	B				12M	2010/11/16	2011/11/17	1/1
H0200000	040 Fresh water tank internal inspection	D	1	B				12M	2010/11/16	2011/11/17	1/1

Fig.5-4 Actual Plan Screen

※ [Number of Outstanding] is reduced instantly when you input Work Report.

But if you input work report later than planned month, [Number of Outstanding] is not reduced.

※ One unexecuted work item decreases by making [Repair & Maintenance] or [Trouble] report.

## 6. Input of Work Report

Shipboard system cannot input work report for “Head office job”.

### 6.1 Input of Work Report

(1) On the “Menu screen”(Fig.6-1), select [Input Work Report].

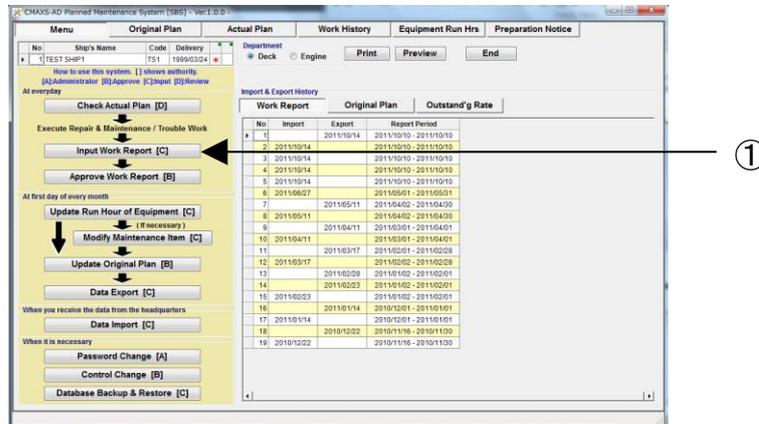


Fig.6-1 Menu Screen

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

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

(3) Enter executed work date.

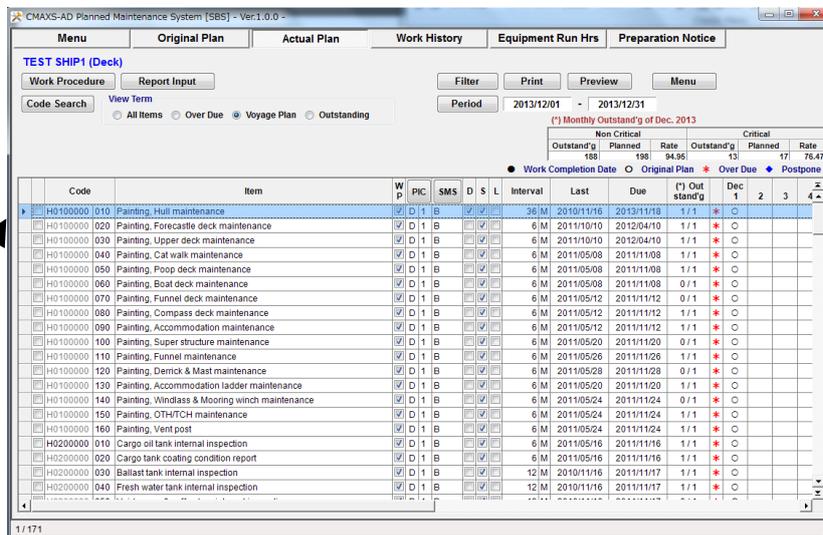


Fig.6-2 Actual Plan Screen

(4) Select check box of maintenance work item to be reported.

“Work Report Repair & Maintenance Screen”(Fig.6-3) is displayed.

(5) If you want to report for repair or maintenance work, enter detailed work report without change screen.

(6) If you want to attach files with the report, select [Attachment] button.

※ File name of attachment should not be overlapped with the other

attachments.

※ Attachments will be exported with reports.

If export file size is over the defined max.

File size due to attachment, export cannot be completed.

(7) After inputting work report, select [Save].

"Work Report Screen" is closed.

Fig.6-3 Work Report (Repair & Maintenance) Screen

(8) If you want to report for trouble, select [Trouble].

"Work Report Trouble" Screen (Fig.6-4) is displayed.

Fig.6-4 Work Report Trouble Screen

(9) Page can be changed by [Page1] and [Page2] and [Page3] tab.

(10) Enter detailed work report for trouble. Then, select [Save].

"Work Report Screen" is closed.

(11) If you need, you can select next due date on [Page2].

(12) Check mark is put into check box of subject item.

Last date and due date are updated according to work date of the report.

And, identification marking(●) for work completion date is put on calendar column.

(13) Screen scrolling can be made by each scroll bars.

(14) If you want to cancel report, select check box of each items.

Then, select [OK] on confirmation message dialog.

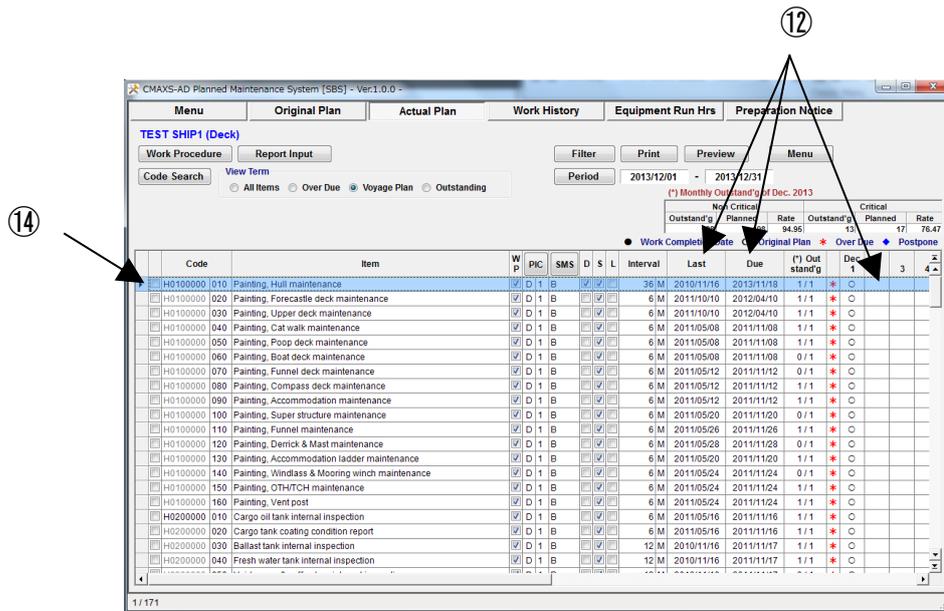


Fig.6-5 Actual Plan Screen

(15) If you want to skip work report screen for detail input, select check box with pressing [Shift] key of keyboard.

Therefore, reported date and work date are reported. And, next due date is planned.

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

## 6.2 Link to SPICS

PMS has additional function which can be linked to CMAXS SPICS (Spare Parts Inventory Control System).

- (1) On the “Work Report Screen”,  
Select [Page 2] tab, then “Page 2” (Fig.6-6) is displayed.
- (2) If you select [Input Consumed Parts / QTY] button, then SPICS (Spare Parts Inventory Control System) is opened and Parts List is displayed.
- (3) Please select and control the consumed parts by using SPICS. (Fig.6-7)  
(As details of how to use SPICS, please read instruction manual of SPICS.)
- (4) If you want to end the SPICS, select [x] button of right upper corner.

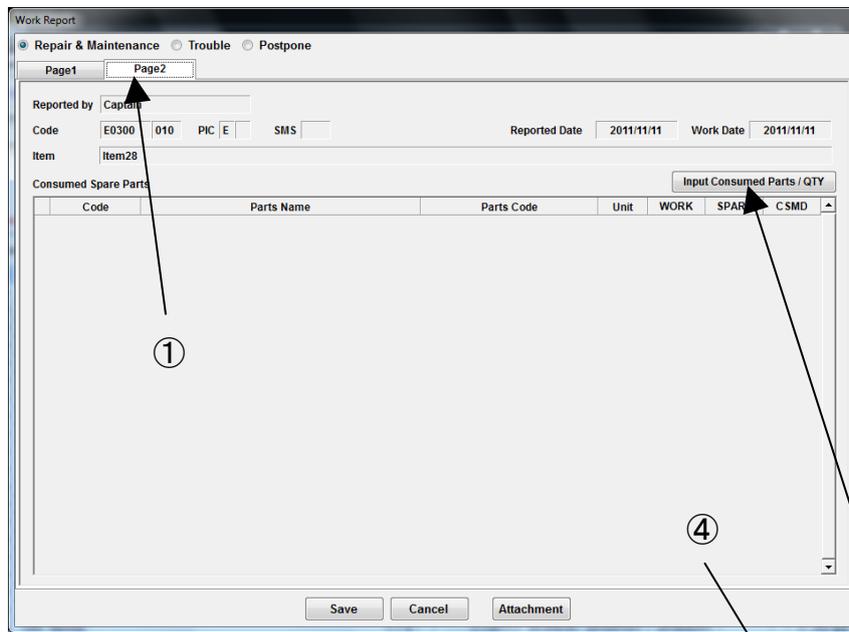


Fig.6-6 Work Report Screen

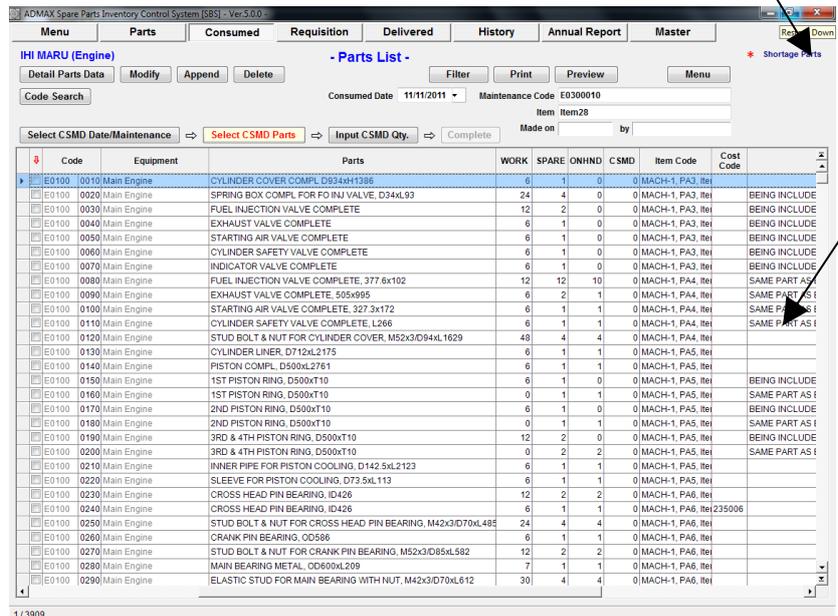


Fig.6-7 SPICS Screen

### 6.3 Postpone

- (1) On the “Work Report Screen”(Fig.6-8), select [Postpone].
- (2) Select postpone date by [Postpone]pull down menu.  
Then, select [Save].

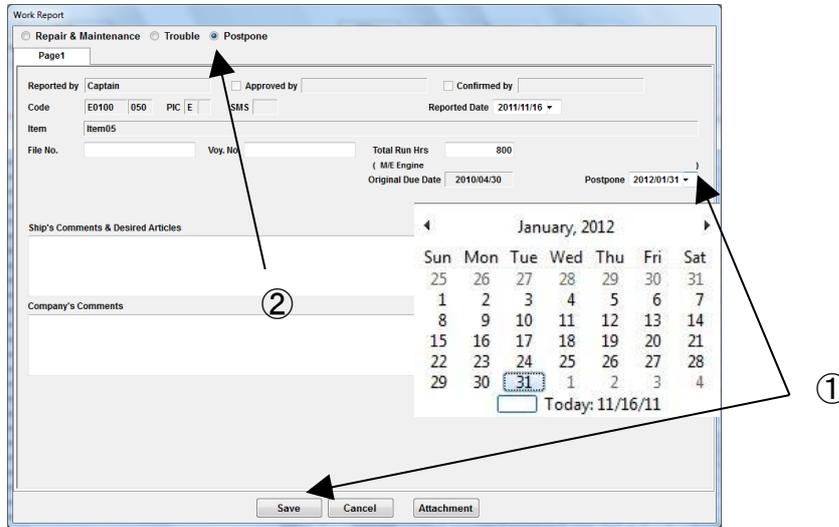


Fig.6-8 Work Report Screen

- (3) Due date is updated to [Postpone] date(Fig.6-9).  
[Postpone] date is later than today  
→Blue ◆ is displayed right side of maintenance item  
[Postpone] date is before than today  
→Red \* is displayed right side of maintenance item

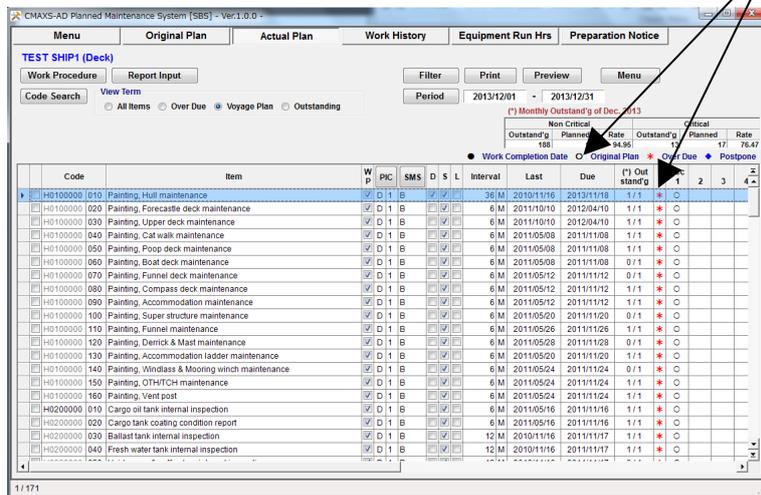


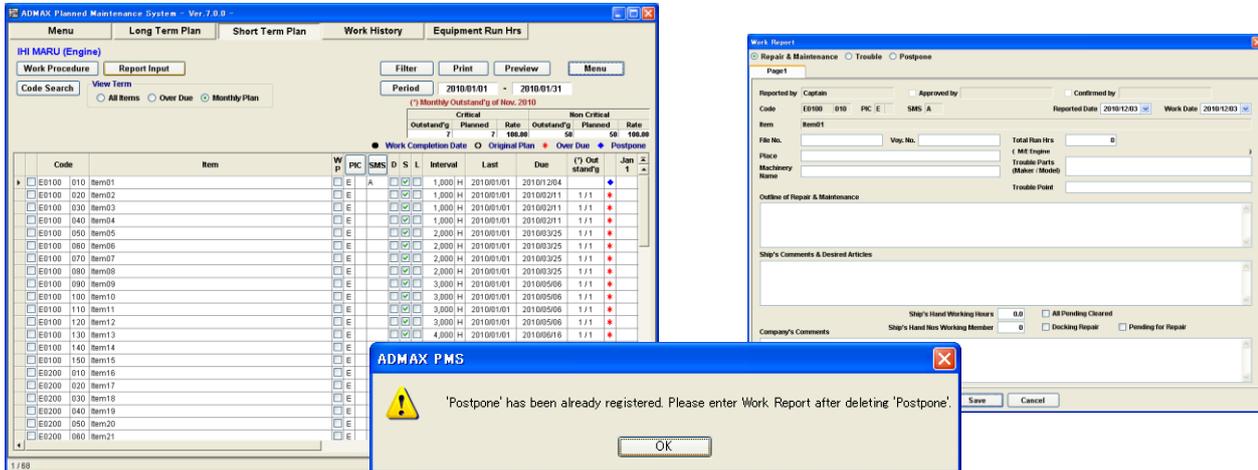
Fig.6-9 Actual Plan Screen

- ※If the item is postponed, the item will be excluded from counting of Outstanding Rate.
- ※If you want to postpone the item for the second time,  
please approve first postponed report on the “Work History” screen.  
After that, you can postpone for the second time.
- ※You have to delete postpone report if you make work report  
of themaintenance item which is being postponed. (Please refer next page)

### 6.4 Postpone Plan (additional guidance)

You can not make work report of maintenance item which is being postponed (DUE date has not come yet).

※ For example, if work date is postponed to 4<sup>th</sup> Dec. 2010, you can not make work report on 3<sup>rd</sup> Dec. 2010 or before.

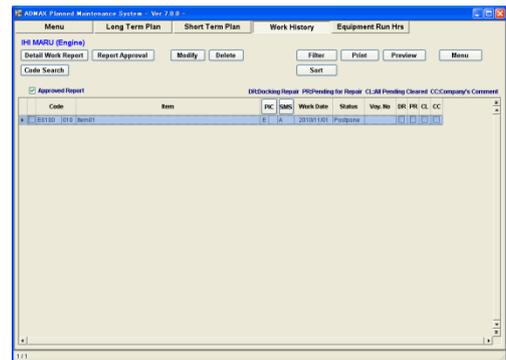


**Error message is displayed and you can not make work report if Work Date>DUE(Postpone date).**

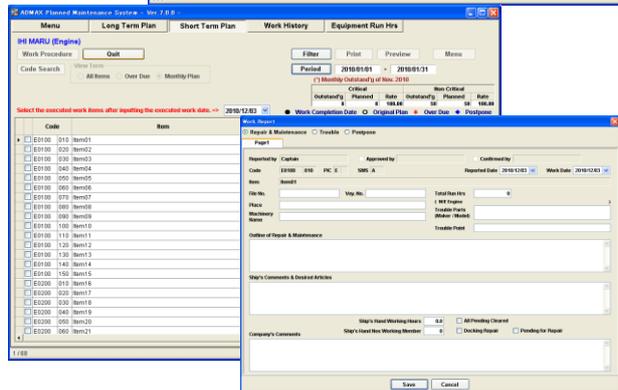


If you make work report of "Work Date > Postpone Date (Due)", error message is displayed. Please delete latest postpone report and input new work report according to following procedure.

(1) Delete latest postpone report of the maintenance item on Work History screen.



(2) Back to Actual Plan screen and make work report. (Repair & Maintenance/Trouble)



### 6.5 Next Due Date setting

You can set next due date to any date when you input "Trouble" work report.

(1) On the "Work Report Screen" (Fig.6-10), select [Trouble].

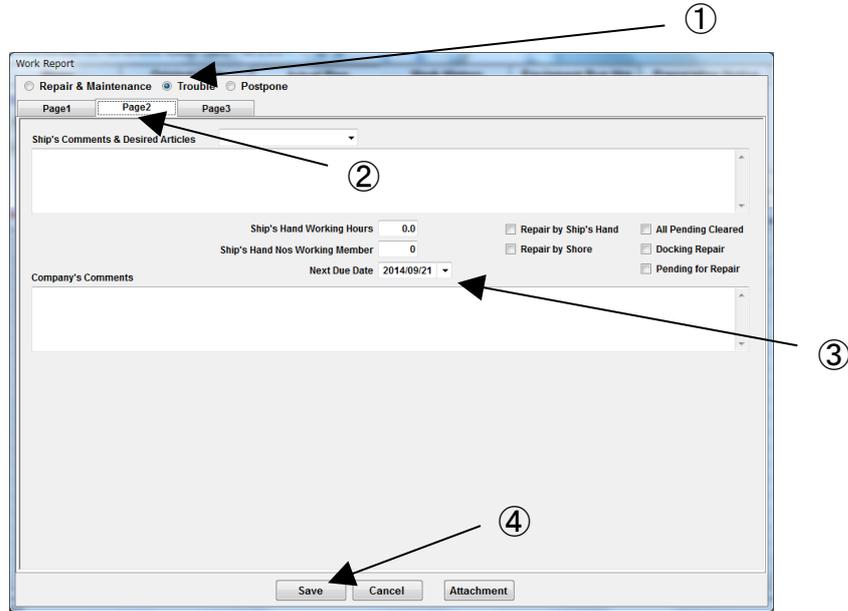


Fig.6-10 Work Report Screen

(2) After inputting necessary data, select "Page2" tab if you need to change next due date.

(3) Select next due date by "Next Due Date" pull down menu.

(4) Select [Save].

(5) Due Date is updated to [Next Due Date] (Fig.6-11).

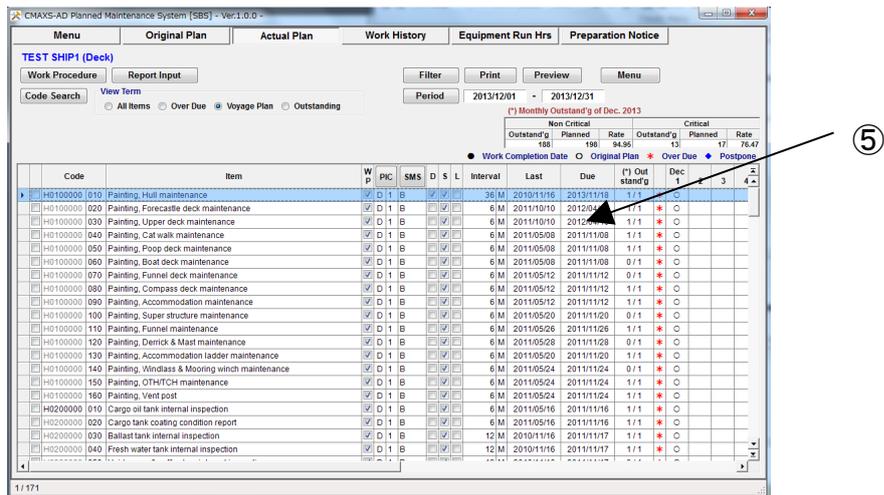


Fig.6-11 Actual Plan Screen

## 7. Modification & Deletion of Work Report

Shipboard system cannot input work report for "Head office job".

(1) If you want to modify or delete report already saved, select [Work History] tab.

"Work History Screen"(Fig.7-1) is displayed.

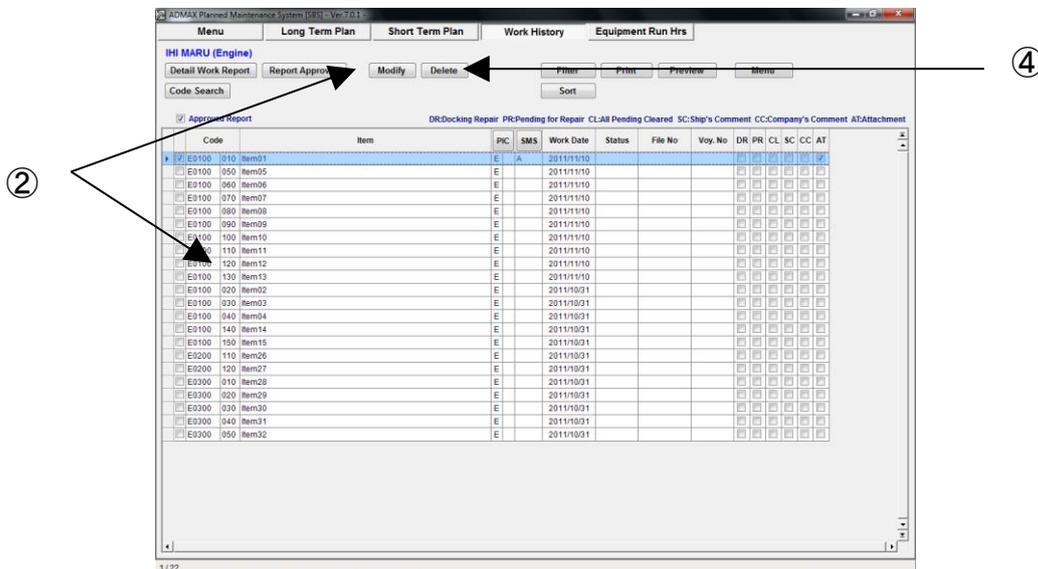


Fig.7-1 Work History Screen

(2) If you want to modify report, select item and [Modify] button.

"Work Report Screen"(Fig.7-2) is displayed.

(3) Modify report and select [Save] button.

(4) If you want to delete report, select item and [Delete] button.

Then, select [OK] on confirmation dialog.

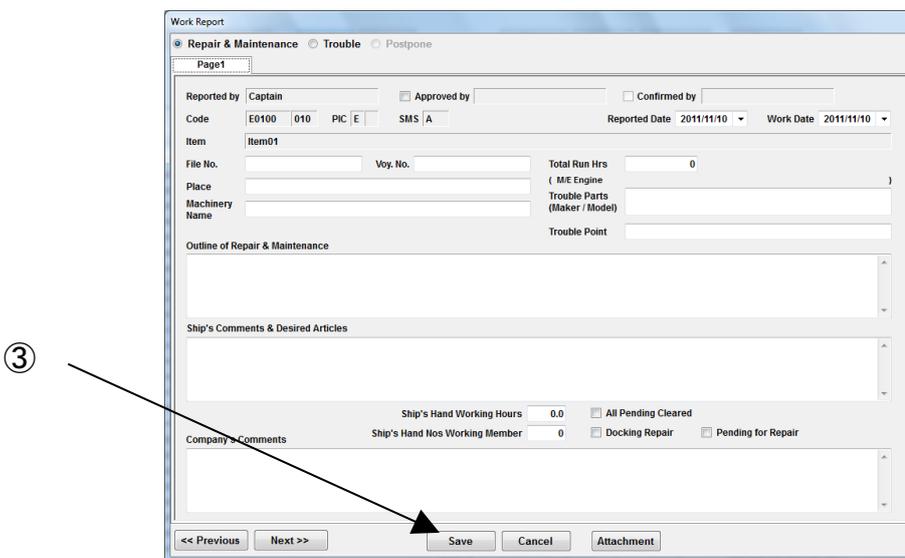


Fig.7-2 Work Report Screen

## 8. Approval of Work Report

The person who has "Administrator" or "Approve" authority are only permitted to approve of work report. Shipboard system cannot input work report for "Head office job".

(1) On the "Menu screen"(Fig.8-1), select [Approve Work Report].

"Work History Screen"(Fig.8-2) is displayed.

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

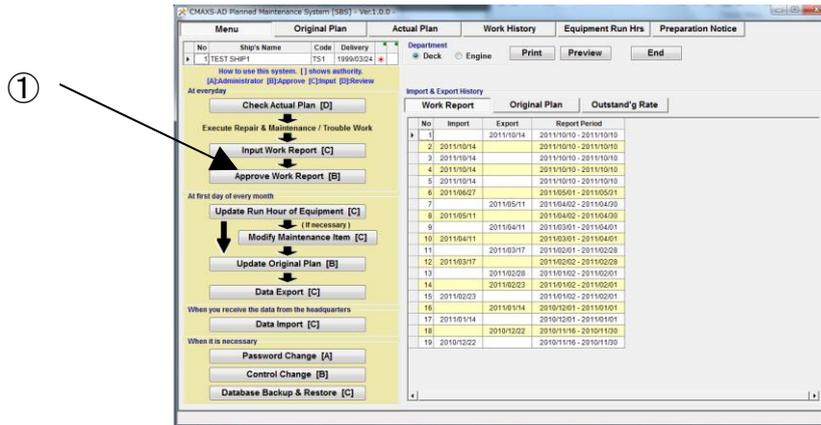


Fig.8-1 Menu Screen

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

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

(3) Confirm content of report. If you confirmed this report, select check box of "Approved by".

(4) Select [Save] button. Then, select [close] button.

(5) If you select check box directly on "Work History Screen", check mark for approval is put on the check box.

(6) If you select [Approve All] button, all report are approved on the block.

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

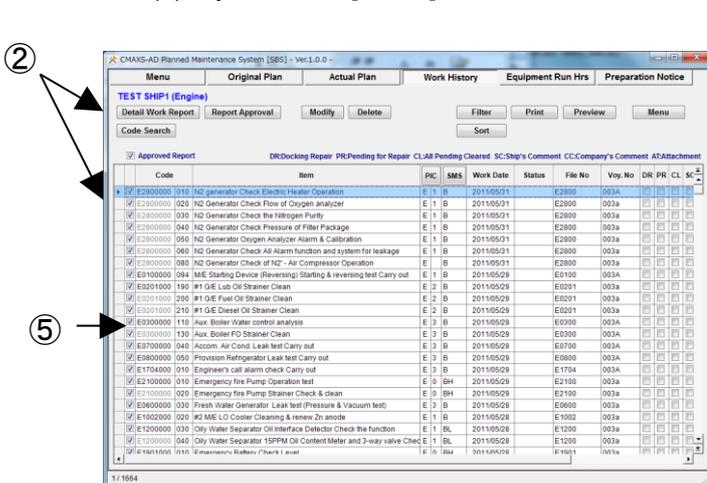


Fig.8-2 Work History Screen

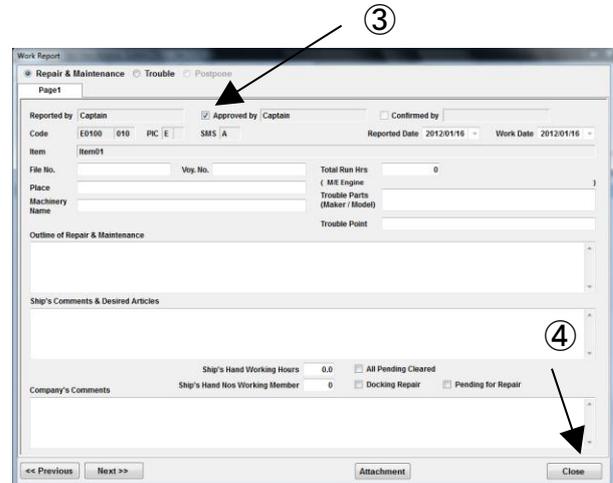


Fig.8-3 Work Report Screen

## 9. Update of Equipment Run Hour

If Run Hrs based maintenance are registered, subject equipment is listed on "Equipment Run Hrs Screen".

Total run hour of subject equipments should be updated at least every month.

- (1) On the "Menu screen" (Fig.9-1), select [Update Run Hour of [Equipments]]. "Equipment Run Hrs Screen"(Fig.9-2) is displayed.
- (2) Enter the operation time update date, and if you know the operation time of the previous month, enter it in "Actual Run Hours Prev. Month". The previous month's driving time will be added to "Total Run Hours", and the same value entered in "Actual Run Hours Prev. Month" will be entered in "Expected Run Hours Next Month".
- (3) If you do not know the operation time of the previous month, click the [Total Run Hours] button and enter the total operation time. "Expected Run Hours Next Month" is calculated based on the entered total operating time.
- (4) "Expected Run Hours Next Month" is calculated by the following formula.

Expected Run Hours = (TRH – TRH WR) / (TRH update date – latest WR work date) x 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  
(Except within 14 days from work date)

- (5) "Expected Run Hours Next Month" can be changed by directly entering it.
- (6) In "Diff between TRH and WR TRH", the difference between the updated equipment operation time and the latest equipment operation time described in the work report is automatically entered.
- (7) After inputting, click the [Save] button.
- (8) With the update of the operation time, the work deadline of the time-based work item is recalculated.

Please refer to P.25 for the calculation formula of the work due date.

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

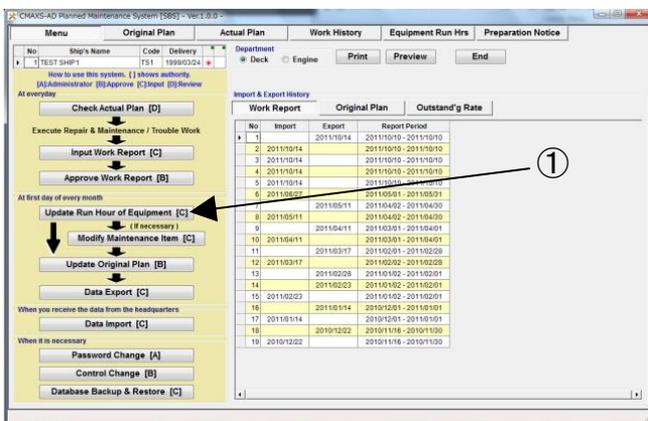


Fig.9-1 Menu Screen

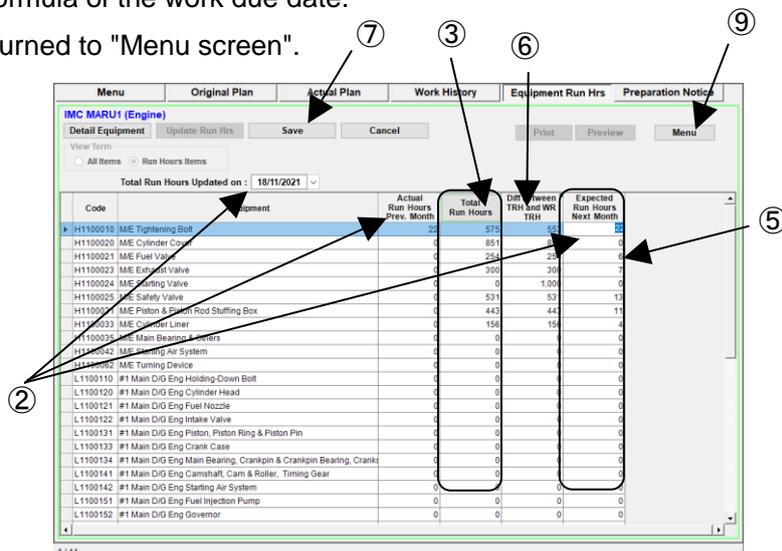


Fig.9-2 Equipment Run Hrs Screen

**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

$$\text{Due Date} = \text{Due Date}'$$

(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.

$$\text{Due Date} = \text{TRH Update date}$$

(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

## 10.Modification of Maintenance Item Data

※This function is applicable when shipboard system has modification function of maintenance item.  
Shipboard system cannot modify “Head office job”.

### 10.1 Modification of Maintenance Item Data

<Modify>

(1) On the “Menu screen”(Fig.10-1), select [Modify Maintenance Item Data].

“Original Plan Screen”(Fig.10-2) is displayed.

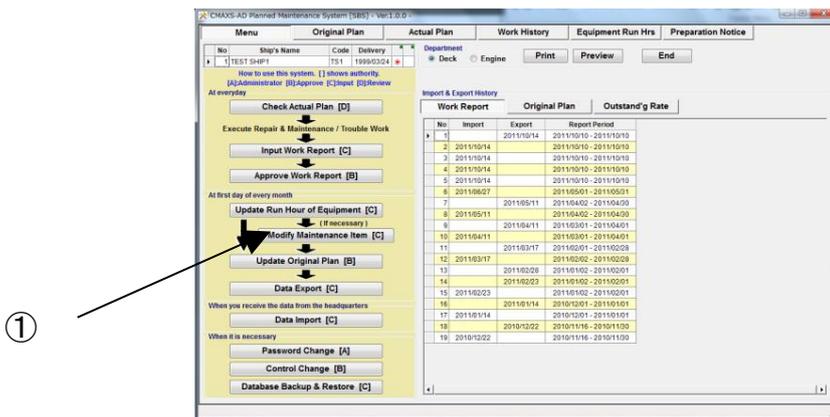


Fig.10-1 Menu Screen

(2) If you want to modify the maintenance item data, select subject item and select [Modify].

“Work Procedure Screen” (Fig.10-3) is displayed.

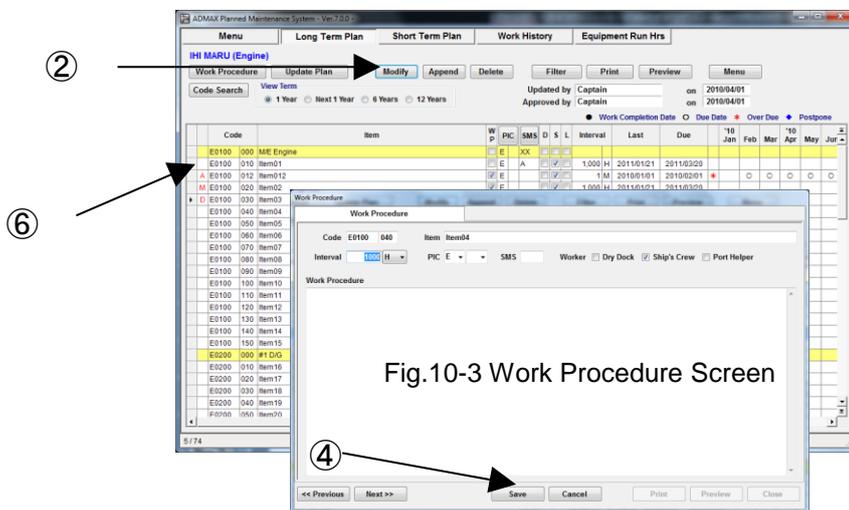


Fig.10-3 Work Procedure Screen

Fig.10-2 Original 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 flag (M) is put on subject item of “Original Plan Screen”.

<Append>

(7) If you want to append the new maintenance item data, select [Append] button on “Original Plan Screen”(Fig.10-4). Select “Crew’s job” to click OK button on “Create job screen”. “Work Procedure Screen”(Fig.10-5) is displayed.

(8)Enter data (Code, Item, Interval, Unit, PIC, SMS, Worker and Work Procedure).

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

(9) Select [Save] button.

(10) Select [Close] button/ Append Flag (A) is put on subject item of “Original Plan Screen”.

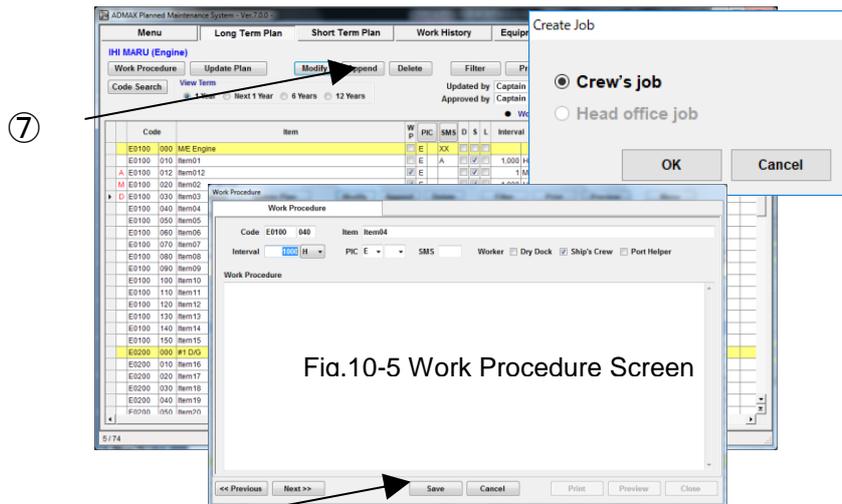


Fig.10-5 Work Procedure Screen

Fig.10-4 Original Screen

<Delete>

(11) If you want to delete the maintenance item data, select subject item and [Delete] button on “Original Plan Screen”

“Confirmation message”(Fig.10-6) is displayed. Then select [OK]

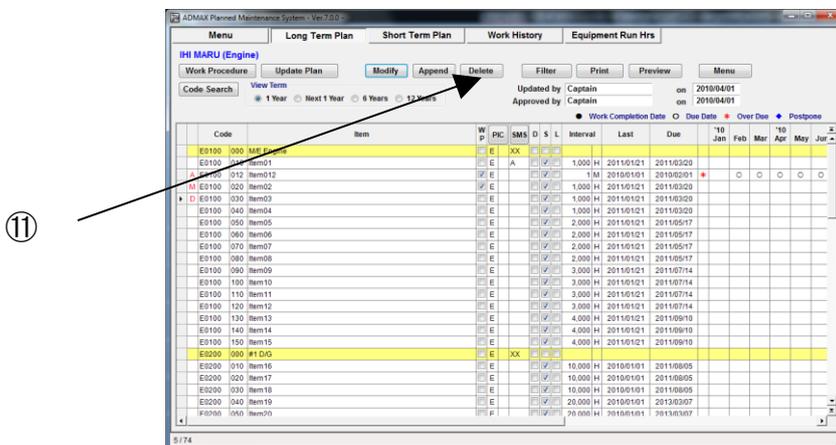


Fig.10-6 Original Screen

<Modify PIC list>

PIC(Person in charge) can be modified only by shipboard system.

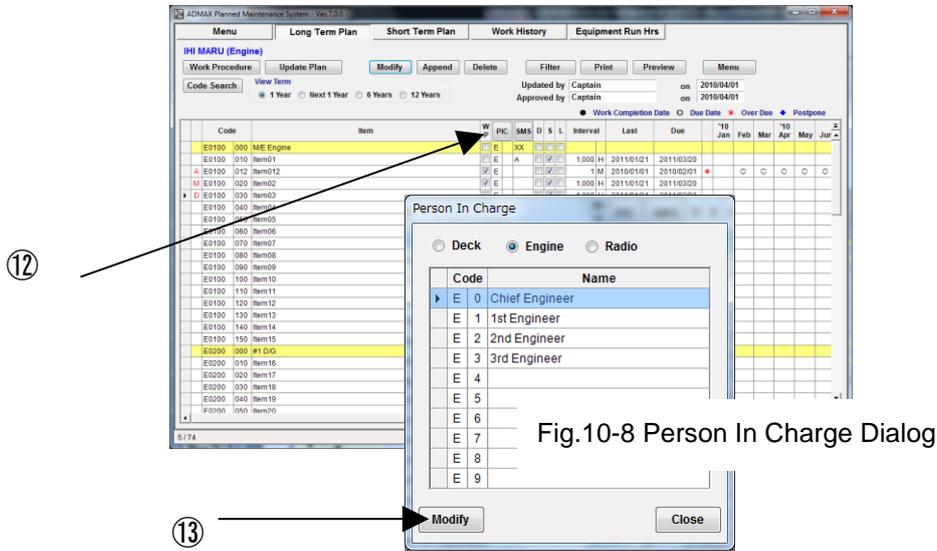


Fig.10-7 Original Plan Screen

(12) If you select [PIC], "Person In Charge Dialog (Fig.10-7) is displayed.

(13) On the "Original Plan screen" (Fig.10-7) or

"Actual Plan screen", user can modify only "Name" of PIC.

Select [Modify].

(14) Select [Save] or [Close].

<View SMS code list>

(15) On the "Original Plan screen" (Fig.10-9) or "Actual Plan screen", user can view SMS code list at "SMS dialog" (Fig.10-10) by selecting [SMS].

※SMS code list can be modified only by headquarters system.

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

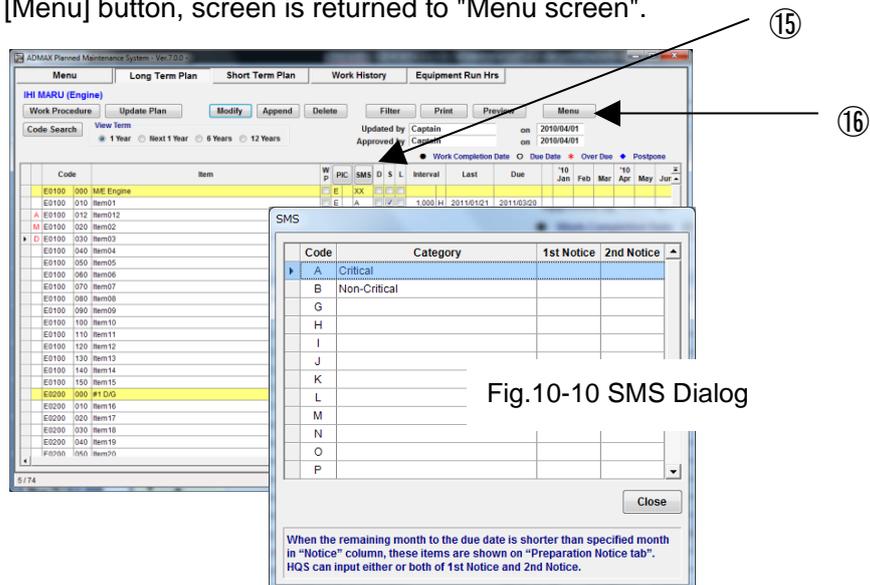


Fig.10-10 SMS Dialog

Fig.10-9 Original Plan Screen

## 10.2 PIC modification function

※This function is applicable when headquarters system has modification function of maintenance item, and shipboard has only PIC modification function.

1. On the “Original Plan screen” (Fig.10-11), select [Modify] button.

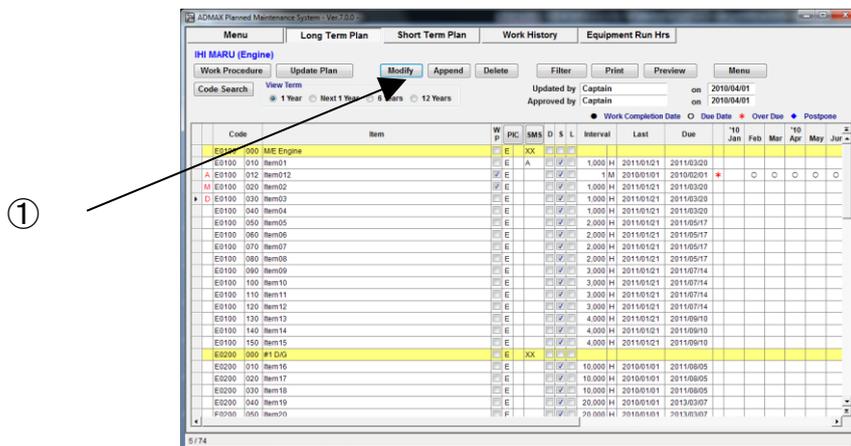


Fig.10-11 Original Plan Screen

(2) “Work Procedure screen” (Fig.10-12) is displayed.

(3) You can modify only “number” of PIC. (Dept. Code (“D”/”E”/”R”) can not be modified)

(4) Select [Save] button. Then, select [Close] button to close dialog.

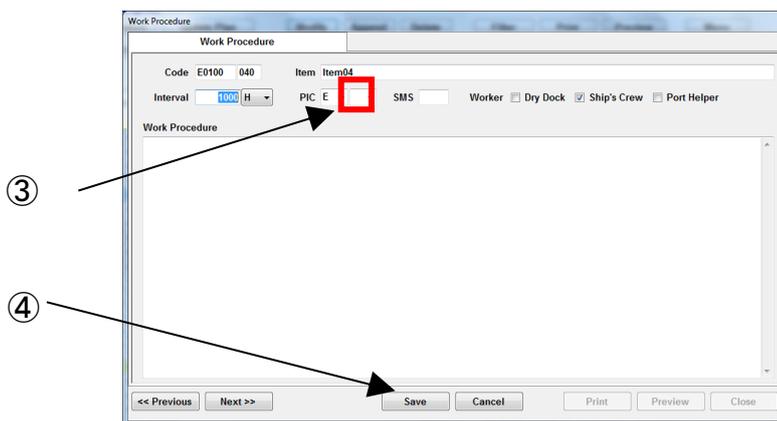


Fig.10-12 Work Procedure Screen

## 11. Update of Original Plan

The person who has "Administrator" or "Approve" authority is only permitted to update of "Actual Plan".

(1) On the "Menu screen" (Fig.11-1), select [Update Original Plan].

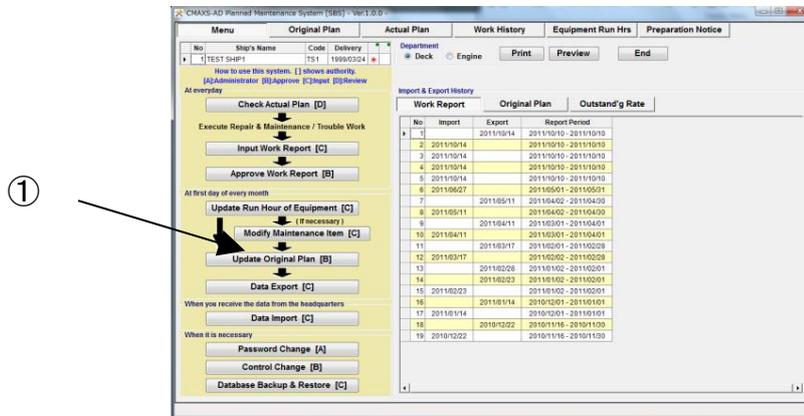


Fig.11-1 Menu Screen

(2) "Original Plan Screen"(Fig.11-2) and confirmation message are displayed and you can confirm Outstand'g rate on the end of previous month. At the moment, Original Plan is not updated yet.

(3) If Outstand'g rate is higher than assumed rate, select [Cancel] button to stop updating Original Plan. Then, open "Actual Plan" screen and check work report for previous month.

(4) If there is no problem with the Outstand'g rate, enter the Ship Code in the red frame and click the [OK] button. The Ship Code is displayed in the upper left of the Menu screen (Fig. 11-3).

After clicking the [OK] button, the Last date and Due date will be updated automatically based on the Work Report.

(5) Screen scrolling can be made by each scroll bars.

(6) If you select option button of "View", displayed calendar is changed for "1 Year" or "Next 1 Year" or "6 Years" or "12 Years".

(7) If you want to modify maintenance item data, refer to section 10 "Modification of Maintenance Item Data".

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

(9) If calculated "Due Date" is already elapsed "Updated Date" of "Original Plan", Over Due mark (red "\*\*") is indicated.

(10) You can execute [Update Original Plan] only once a month.

After updating, [Update Original Plan] button can not be clicked till next month.

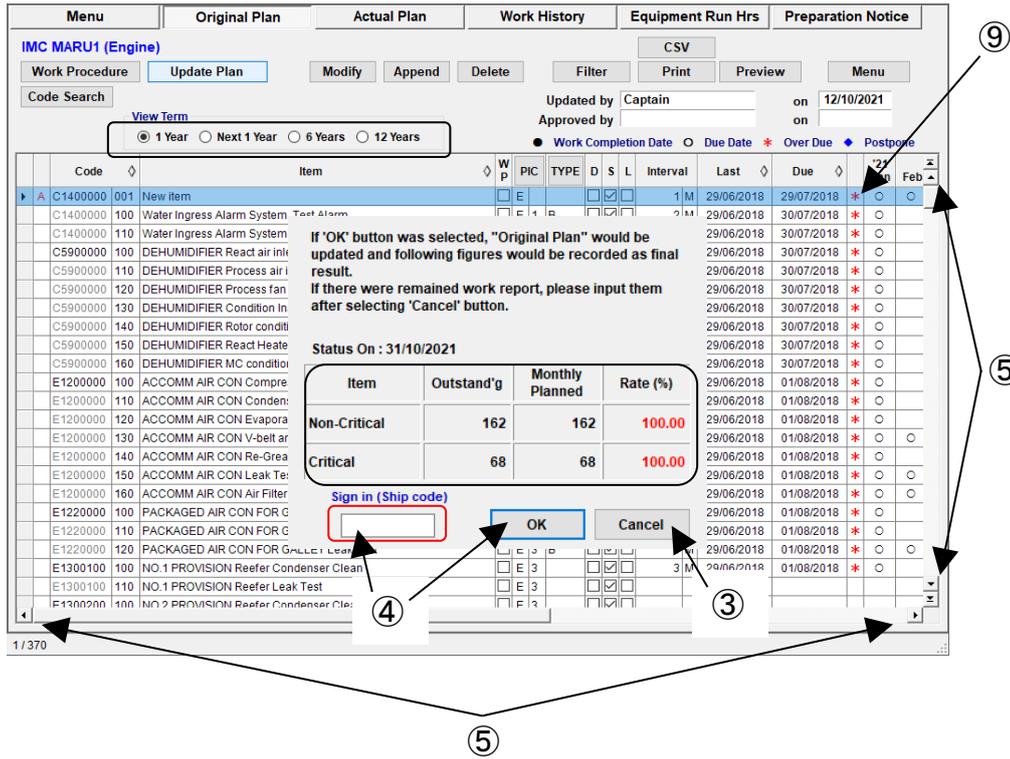


Fig.11-2 Original Plan Screen

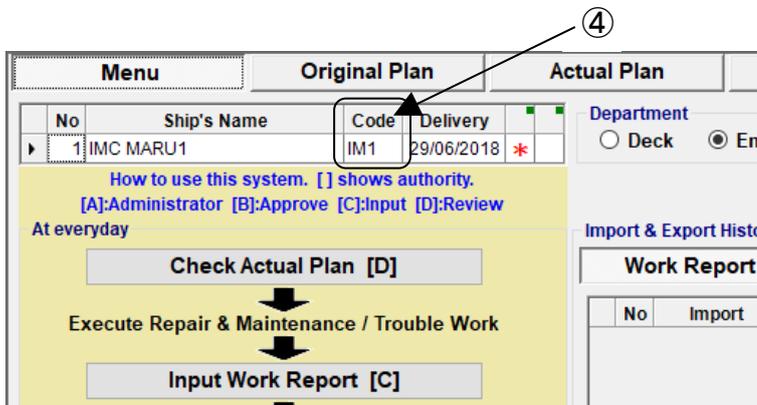


Fig.11-3 Original Plan Screen

## 12. Data Export / Import

### 12.1 Data Export

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

For that purpose, please export data and send to Headquarters.

(1) On the "Menu screen"(Fig.12-1), select [Data Export].

"Export Period Dialog" is displayed.

(2) Select the period to send. If you select Auto select, the period that is out of sync with the headquarters is automatically selected. If you select Manual select, enter it manually or click [▼] and select a period from the displayed calendar.

After selecting the period, click the [OK] button.

The Save As screen (Figure 12-2) is displayed.

(3) Select saving folder, compressing format(.zip) for export file(\*).

File name is given as below.

PMS\_SBS\_aaa\_Engine(Deck)\_yymmdd-mmdd.lzh (.zip)

aaa: Ship code

yymmdd-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 Headquarters as attached file of E-mail.

(\*) If the file size is over defined Max. file size (refer Sec. 14), error message is displayed and data export is not completed.

In the case, please select shorter export period,  
or reduce size/number of attachments for the period.

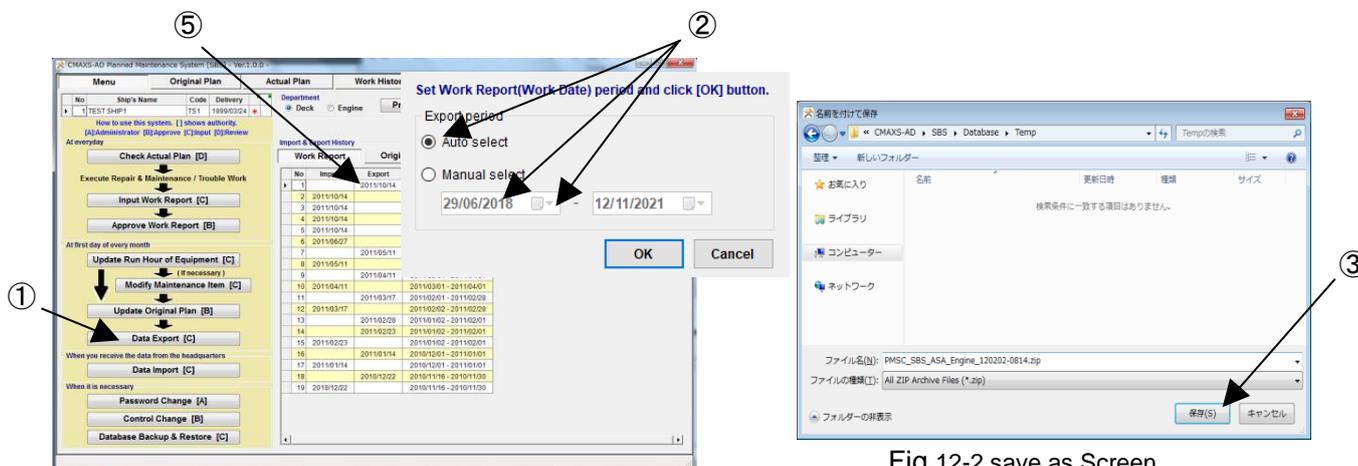


Fig.12-1 Menu Screen

Fig.12-2 save as Screen

## 12.2 Data Import

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

When you receive the export file (includes approval/confirmation history) sent from Headquarters, import and confirm contents.

(1) On the "Menu screen"(Fig.12-3), select [Data Import].

"Open File Screen"(Fig.12-4) is displayed.

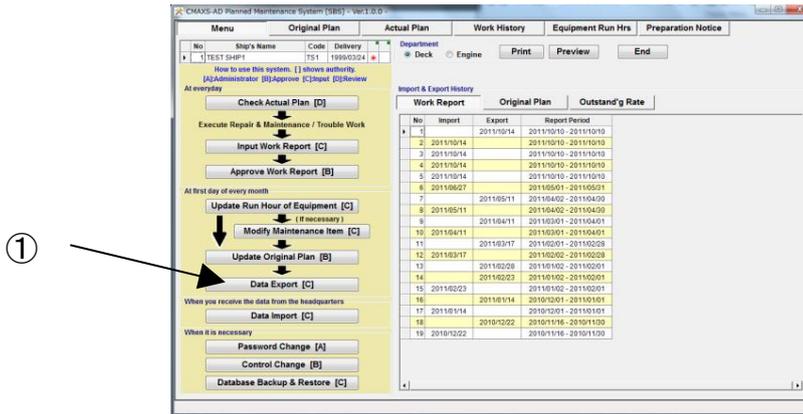


Fig.12-3 Menu Screen

(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\_HQS\_aaa\_Engine(Deck)\_ymmdd-mmdd.zip

aaa: Ship code

ymmdd-mmdd: Export period.

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

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

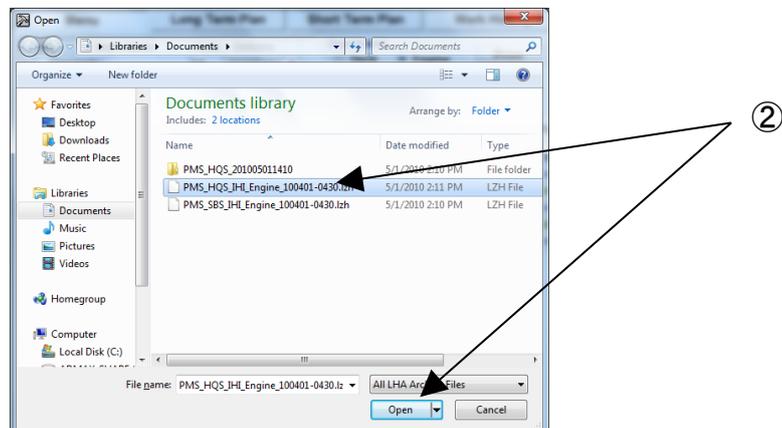


Fig.12-4 Open File Screen

### 13. 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 "Menu screen" (Fig.13-1).

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

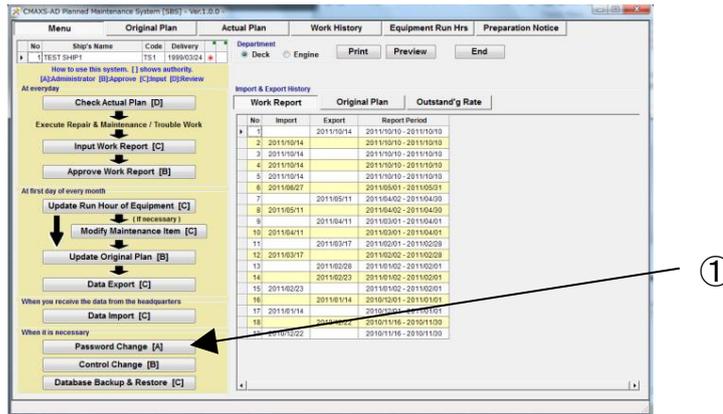


Fig.13-1 Menu Screen

(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.

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

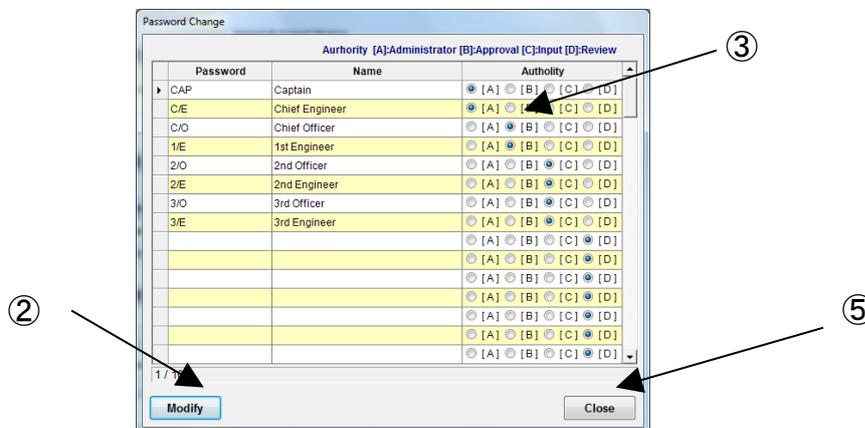


Fig.13-2 Password Change Dialog

## 14. 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 "Menu screen" (Fig.14-1).

"Controls Dialog"(Fig.14-2) is displayed.

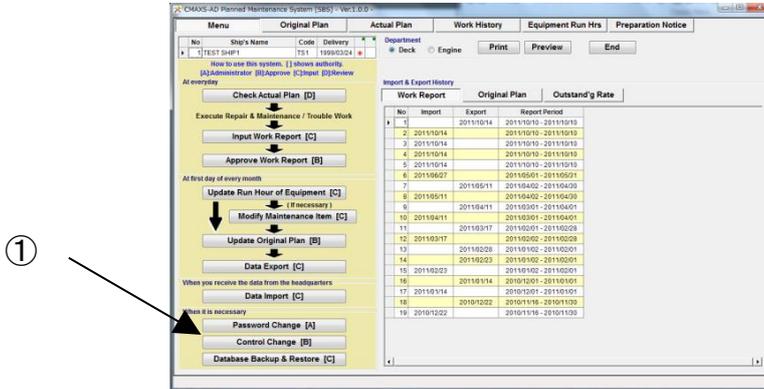


Fig.14-1 Menu Screen

(2) Select various setting for the following controls.

- Guidance View
- Actual Title
- Report Interval (Switch display [every week] or [every month] for “※” point)
- Actual Initial
- Date Format
- Number of SMS
- Critical Equipment <Note>
- Category Title
- Restriction of Export File Size

(3) For ③, check box → select option → Click [Apply] button to enable new setting.

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

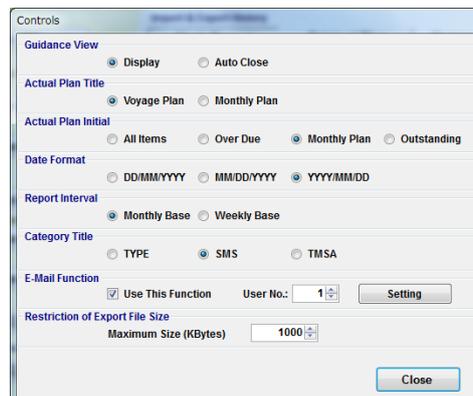


Fig.14-2 Controls Dialog

## 15. Database Backup / Restore

If the PC using ADMAX is troubled, the PC must be repaired or renewed.

In such case, it's impossible to recover the database in the hard disk.

Therefore, we recommend that you should take database backup into outside media (MO, CD, DVD etc.) periodically.

The database in the install CD is a only initial database. Therefore, the database can't be recovered for operational data.

### 15.1 Database Backup

- (1) Select [Database Backup & Restore] button on the "PMS Initial Screen" (Fig.15-1).

"Database Backup & Restore Dialog"(Fig.15-2) is displayed.

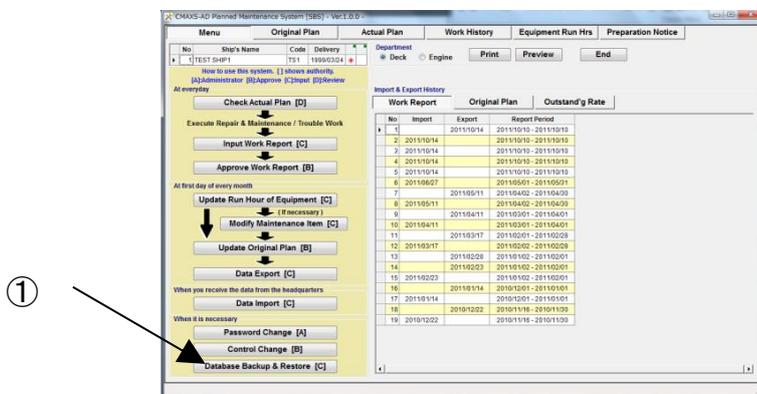


Fig.15-1 Menu Screen

- (2) [Database Backup] tab is selected. Then, select [Browse] button.
- (3) "Folder Selection Dialog" is displayed.

Select proper folder to save backup data. Then, select [OK] button.

- (4) Put check mark on "Compressing (zip)" if you want to compress back up data. Uncheck if you do not want to compress.

- (5) Select [Backup] button.
- (6) After making backup, completion message is displayed.

Then, select [OK].

- (7) Select [Close].

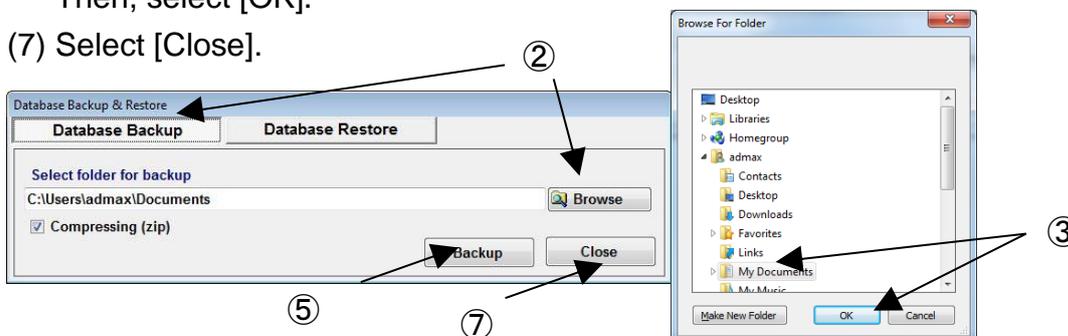


Fig.15-2 Backup & Restore Dialog

## 15.2 Database Restore

(1) Before restore operation, PC shall be repaired or renewed.

And, ADMAX PMS shall be installed.

Then, database backup file shall be copied into proper folder on the PC.

(2) Select [Database Backup & Restore] button on the "Menu Screen"(Fig.15-3).

"Backup & Restore Dialog"(Fig.15-4) is displayed.

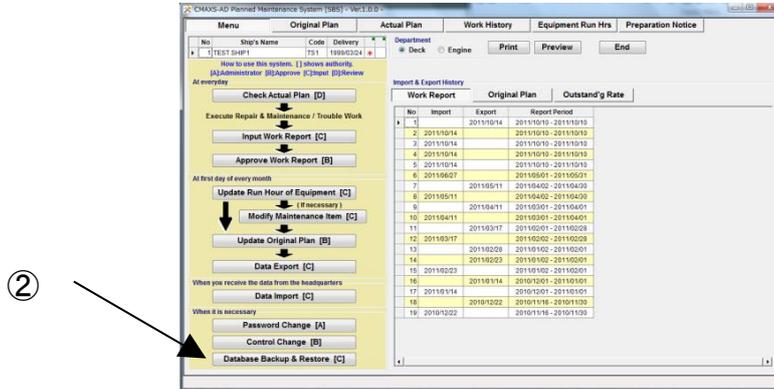


Fig.15-3 Menu Screen

(3) Select [Database Restore] tab.

(4)-1 In case the back up data is compressed by zip format

1) Put check mark on "Compressing (zip)". Then, click [Browse].

2) "Open" dialog is displayed. Select back up data (zip file). Then, click [Open].

(4)-2 In case the back up data is not compressed (just back up folder)

1) Uncheck "Compressing (zip)". Then, click [Browse].

2) Select back up folder. Then, click [OK].

(5) Select [Restore] button.

(6) After making restore, completion message is displayed.

Then, select [OK]. PMS will restart automatically.

<Note> If PMS does not restart due to the message "It is not possible to multiple start", please close the message and start PMS manually.

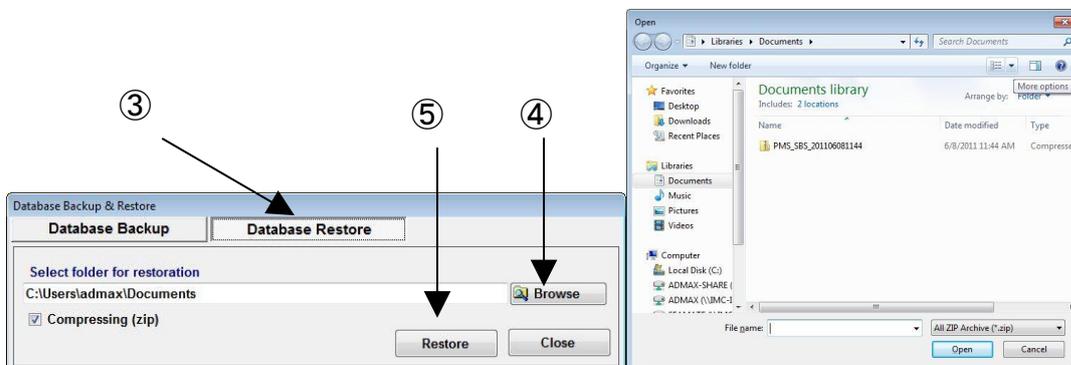


Fig.15-4 Backup & Restore Dialog

## 16. Common Utility Functions

### 16.1 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.16-1).
- (2) Select [+]mark of equipment to expand tree.

Then, select object maintenance item and select [OK].

- (3) Selected data is displayed on top of data list.

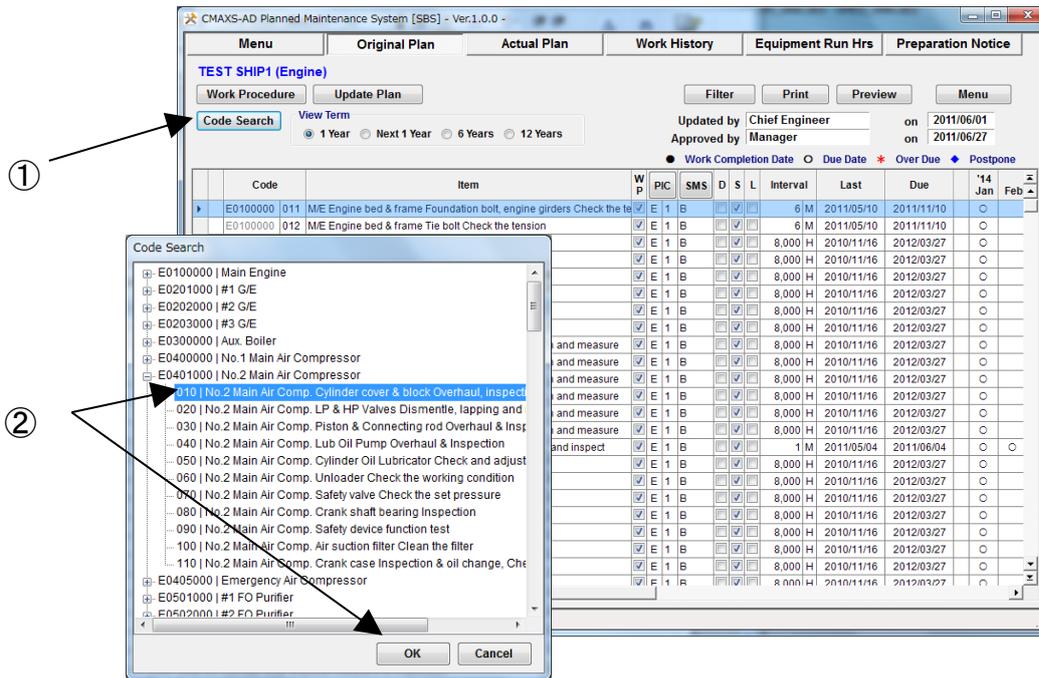


Fig.16-1 Original Plan Screen

## 16.2 Filter Function

On the “Original Plan Screen”, “Actual Plan Screen” and “Work History Screen”, “Filter” function can be used for extracting by setting of extraction conditions.

Following process is for Original Plan screen, but it is same to filter on the other screens.

1. Select [Filter] button on the “Original Plan Screen”(Fig.15-3).

2. Select or enter extracting conditions.

Then, select [OK].

Multiple extracting conditions can be set at the same time.

3. Extracted data are displayed.

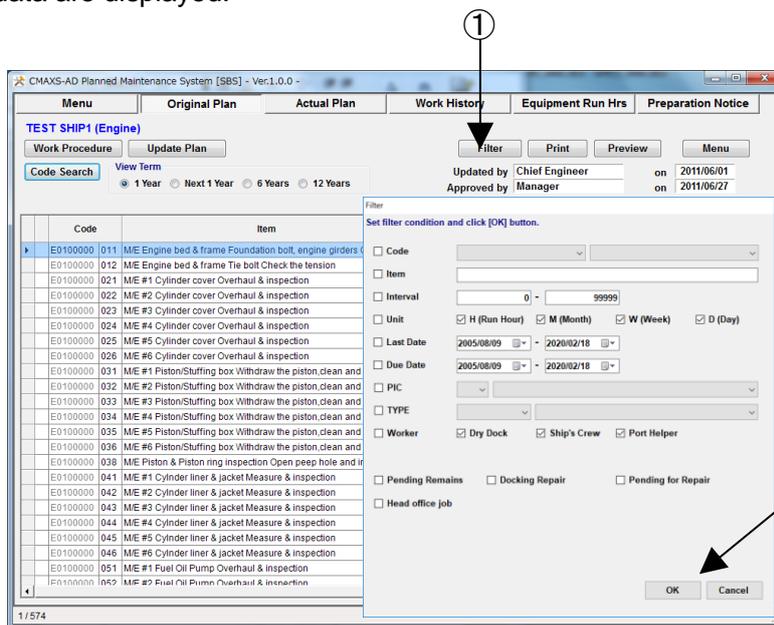


Fig.16-2 Original Plan Screen

<Extracting conditions[Long Term Plan screen/ Short Term 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) Head office job : Job for Head office

Fig.16-3 Filter Screen

< 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

### 16.3 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.16-5).

(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.

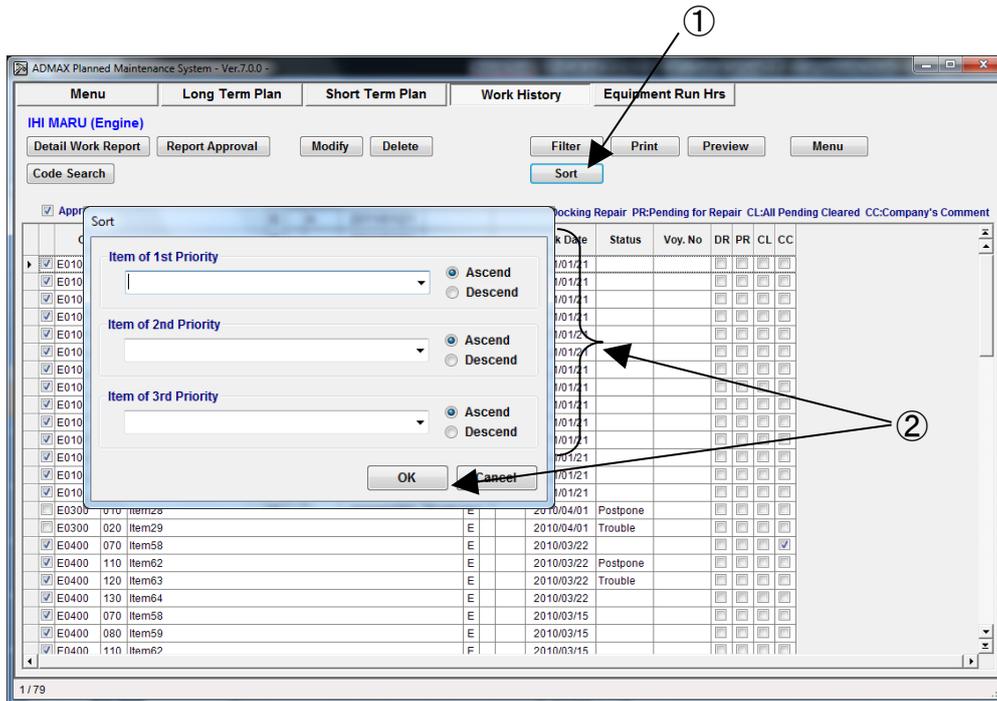


Fig.16-3 Work History Screen

## 16.4 History of Outstanding for last 12 months

You can refer the history of Outstanding Rate for 12 months.

- (1) On the “Menu”screen(Fig. 16-4) Select “Outstand’g Rate” in “Import & Export History” area.

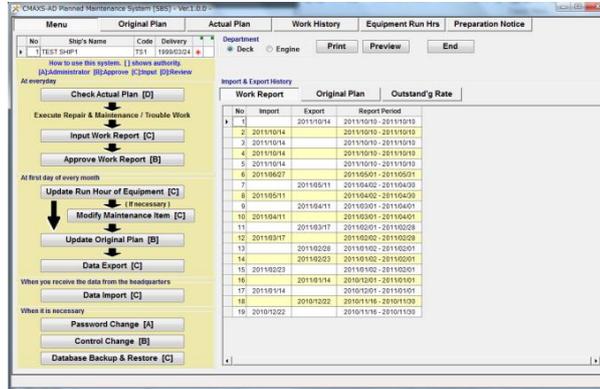


Fig.16-4 Menu Screen

- (2) Select the “Non-Critical” or ”Critical” button to display “Outstanding Rate for last 12 month” screen.
- (3) You can preview and print the “Outstanding Rate History for last 12 months” of “Non-Critical” and “Critical”(Fig.16-5).
- (4) You can switch history of “Non-Critical” / “Critical” by tabs bottom of Outstand’g Rate History dialog.
- (5) You can output the “Outstanding Rate History” by Excel format

OutStanding Rate History		Date:2011/11/11																	
IHI Maru (Engine)		ABC company																	
Outstanding Rate History (Non-Critical)		Upper:Outstanding Lower:Planned																	
Code	Item	W/P	PIC	SMS	D	S	L	2010	2011	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
			Interval	Nov	Dec														
E0100	M/E Engine																		
000																			
E0100	test																		1
011																			1
E0100	test																		1
012																			1
E0100	Item02																		0
020			1,000 H																1
E0100	Item03																		1
030			1,000 H																1
E0100	Item04																		1
040			1,000 H																1
E0100	Item05																		1
050			2,000 H																1
E0100	Item06																		1
060			2,000 H																1
E0100	Item07																		1
070			2,000 H																1
E0100	Item08																		1
080			2,000 H																1
Total										0	0	0	0	0	0	0	0	0	61
Outstanding										0	0	0	0	0	0	0	0	0	62
Planned										0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	98.39
%																			

Fig.16-5 Outstanding Rate History for last 12 months Screen

### 16.5 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".

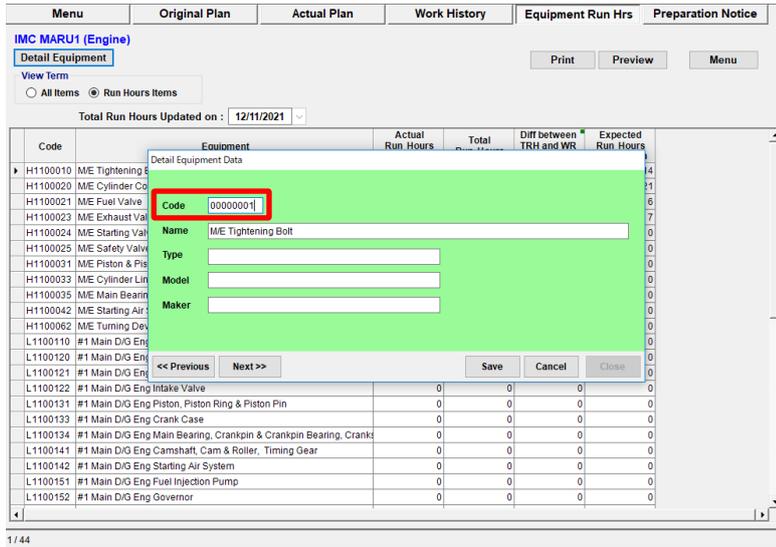


Fig.16-8 Expected Run Hrs Screen

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".

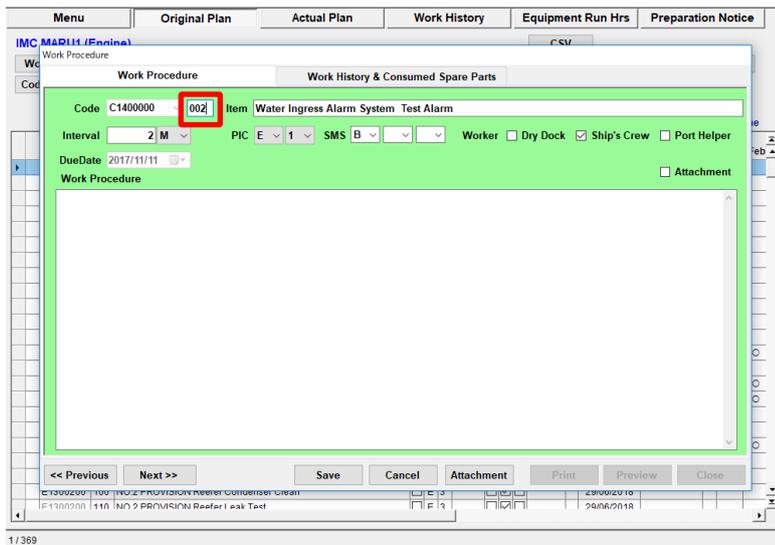


Fig.16-9 Work Procedure Screen

## Appendix A. Sample Screen

### A.1 Original Plan

IHI MARU (Engine)

Date: 2010/04/01

ABC company

#### Long Term Plan (1 Year)

Updated by Captain on 2010/04/01

Approved by Manager on 2010/04/01

● Work Completion Date ○ Due Date \* Over Due ◆ Postpone

Code	Item	W/P	PIC	D	S	L	Last Due	'10 Jan	Feb	Mar	'10 Apr	May	Jun	'10 Jul	Aug	Sep	'10 Oct	Nov	Dec
E0100 000	M/E Engine		E																
			XX																
E0100 010	Item01		E				2010/03/01			●	○	○	○	○	○	○	○	○	○
			A	1,000	H		2010/04/29												
E0100 020	Item02		E				2010/03/01			●	○	○	○	○	○	○	○	○	○
			A	1,000	H		2010/04/29												
E0100 030	Item03		E				2010/03/01			●	○	○	○	○	○	○	○	○	○
			A	1,000	H		2010/04/29												
E0100 040	Item04		E				2010/03/01			●	○	○	○	○	○	○	○	○	○
			A	1,000	H		2010/04/29												
E0100 050	Item05		E				2010/03/01			●		○						○	
			A	2,000	H		2010/06/28												
E0100 060	Item06		E				2010/03/01			●		○						○	
			A	2,000	H		2010/06/28												
E0100 070	Item07		E				2010/03/01			●		○						○	
			A	2,000	H		2010/06/28												
E0100 080	Item08		E				2010/03/01			●		○						○	
			A	2,000	H		2010/06/28												
E0100 090	Item09		E				2010/01/01					○							○
			A	3,000	H		2010/05/06												
E0100 100	Item10		E				2010/01/01					○							○
			A	3,000	H		2010/05/06												
E0100 110	Item11		E				2010/01/01					○							○
			A	3,000	H		2010/05/06												
E0100 120	Item12		E				2010/01/01					○							○
			A	3,000	H		2010/05/06												
E0100 130	Item13		E				2010/01/01					○							
			A	4,000	H		2010/06/16												

### A.2 Actual Plan

IHI MARU (Engine)

Date: 2010/05/01

#### Short Term Plan (Monthly Plan)

ABC company

(\*) Monthly Outstand'g of Apr. 2010

Critical 5 / 5 100.00 % Non Critical 25 / 26 96.15 %

Period: 2010/04/01 - 2010/04/30

● Work Completion Date ○ Original Plan \* Over Due ◆ Postpone

Code	Item	W/P	PIC	D	S	L	Last Due	(*) Out stand'g	Apr 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	
E0100 012	Item012		E				2010/01/01	1 / 1	●	○																													
			A	1	M		2010/02/01																																
E0300 010	Item28		E				2010/03/01		◆	○																													
			A	1	M		2010/07/31																																
E0300 020	Item29		E				2010/04/01	0 / 1	○	●																													
			A	1	M		2010/05/01																																
E0300 030	Item30		E				2010/03/01	1 / 1	●	○																													
			A	1	M		2010/04/01																																
E0300 040	Item31		E				2010/03/01	1 / 1	●	○																													
			A	1	M		2010/04/01																																
E0300 090	Item36		E				2010/01/01	1 / 1	●	○																													
			A	3	M		2010/04/02																																
E0300 100	Item37		E				2010/01/01	1 / 1	●	○																													
			A	3	M		2010/04/02																																
E0300 110	Item38		E				2010/01/01	1 / 1	●	○																													
			A	3	M		2010/04/02																																
E0300 120	Item39		E				2010/01/01	1 / 1	●	○																													
			A	3	M		2010/04/02																																
E0400 010	Item52		E				2010/03/01	1 / 1	●	○																													
			A	1	M		2010/04/01																																
E0400 020	Item53		E				2010/03/01	1 / 1	●	○																													
			A	1	M		2010/04/01																																

Total 30 / 31

### A.3 Work Procedure

IHI MARU (Engine) ABC company  
Date:2010/05/01

**Work Procedure**

Code	E0100000	Item	M/E Engine		
Interval		PIC	E	SMS	XX
Worker <input type="checkbox"/> Dry Dock <input type="checkbox"/> Ship's Crew <input type="checkbox"/> Port Helper <input type="checkbox"/>					

**Work Procedure**

### A.4 Work Report (Repair & Maintenance)

IHI MARU (Engine) Date :2011/02/10  
ABC company

**Work Report (Repair & Maintenance)**

Reported By	Captain	<input type="checkbox"/> Approved By		<input type="checkbox"/> Confirmed By	
Code	E010003B	PIC	E	SMS	
Item	M/E #2 Fuel oil valve Test of injection				
File No.		Voy. No.		Total Run Hrs	49,036
( Main Engine (Kobe Diesel 7UEC50LSII) )					
Place		Trouble Parts (Maker/Model)			
Machinery Name		Trouble Point			

**Outline of Repair & Maintenance**

**Ship's Comment & Desired Articles**

Ship's Hand Working Hours	0	<input type="checkbox"/> All Pending Cleared
Ship's Hand Nos Working Member	0	<input type="checkbox"/> Docking Repair
		<input type="checkbox"/> Pending Repair

**Company's Comment**

## 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	M/E #2 Fuel oil valve Test of injection										
File No.		Voy. No.		Total Run Hrs	49,036						
Place	( Main Engine (Kobe Diesel 7UEC50LSII) )										
Machinery Name		M/E Stop Hours									
Reason		M/E Speed Reduction Hours									
Outline of Trouble											
Presumed Cause											
Countermeasures & Disposal											
Ship's Comment & Desired Articles											
	Ship's Hand Working Hours	0	<input type="checkbox"/>	Repair by Ship's Hand	<input type="checkbox"/>	All Pending Cleared					
	Ship's Hand Nos Working Member	0	<input type="checkbox"/>	Repair by Shore	<input type="checkbox"/>	Docking Repair					
Company's Comment											

## A.6 Work Report (Postpone)

IHI MARU (Engine)

Date :2011/02/10  
ABC company

### Work Report (Postpone)

Reported By	Chief Engineer		<input checked="" type="checkbox"/>	Approved By	Chief Engineer		<input checked="" type="checkbox"/>	Confirmed By	Manager		
Code	E010002B	PIC	E	SMS		Reported Date	2010/10/01				
Item	M/E #2 Cylinder cover Cleaning & Checking (every pull out piston)										
File No.		Voy. No.	112-B	Total Run Hrs	48,763						
	( Main Engine (Kobe Diesel 7UEC50LSII) )										
	Original Due Date	2010/09/23		Postpone	2010/10/19						
Ship's Comment & Desired Articles											
Company's Comment											

## A.7 Equipment Run Hours (Type A)

IHI MARU (Engine)

Date : 2010/05/01

### Equipment Run Hours

ABC company

Total Run Hours Update On : 2010/03/01

Code	Name	Average Run Hours per Month	Total Run Hours	Expected Run Hours Next Month
E0100	M/E Engine	517	1,000	517
E0200	#1 D/G	517	1,000	517
E0350	#3 D/G	517	1,000	517
E0400	Main Air Compressor	517	1,000	517

## A.8 Equipment Run Hours (Type B)

IHI MARU (Engine)

Date : 2011/11/01

### Equipment Run Hours

ABC company

Total Run Hours Update On : 2011/11/01

Code	Name	Actual Run Hours Prev. Month	Total Run Hours	Expected Run Hours Next Month
E0100	M/E Engine	500	9,000	500
E0200	#1 D/G	500	9,000	500
E0350	#3 D/G	500	9,000	500
E0400	Main Air Compressor	500	9,000	500