



SeaTrust-TM Ver 2.0 User's Manual

Korean Register of Shipping

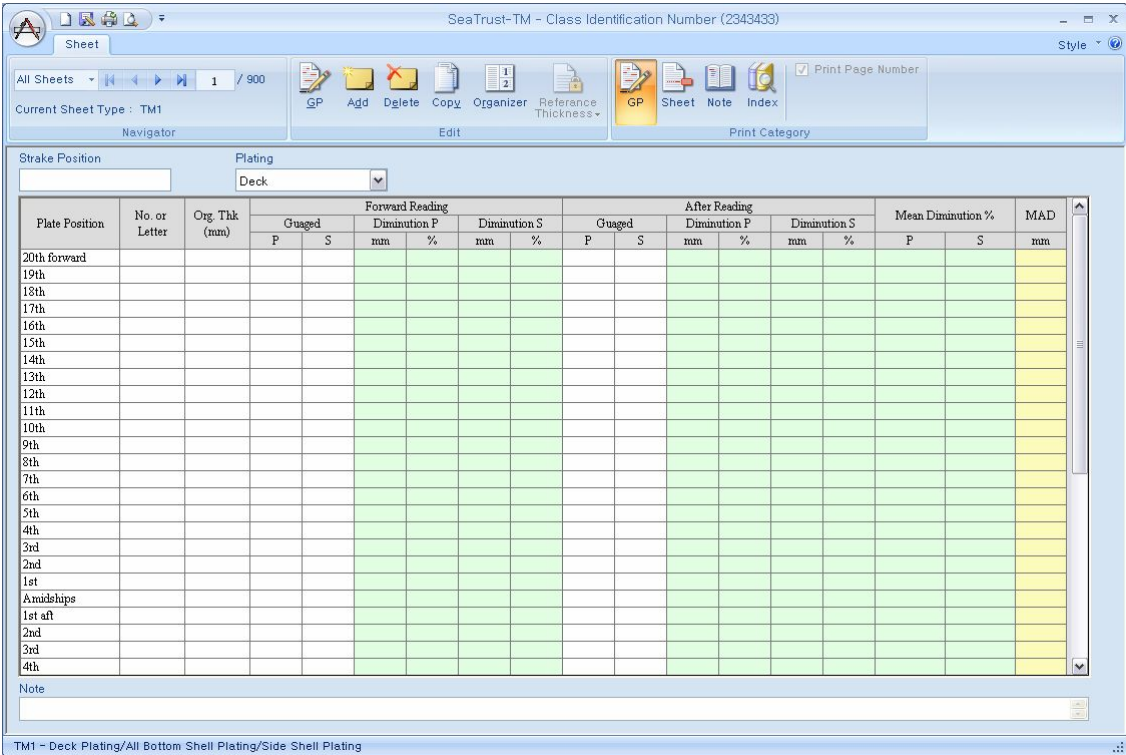
1. Introduction

For the aged ship, corrosion is one of the major causes to weaken hull strength. Therefore, the thickness measurement data are to be carefully considered during survey. The thickness measurement data give information for the assessment of hull strength as well as for the maintenance of the hull. To manage the thickness measurement data safely, it is necessary to be computerized.

‘SeaTrust-TM’ provides easy input/output of the thickness measurement data and convenient data management, which supports ‘Microsoft Windows’ operating system such as Windows 2000, Windows XP, Windows Vista, and Windows 2003 Server.

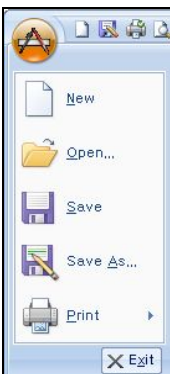
2. Software Configuration

2.1 Program Layout



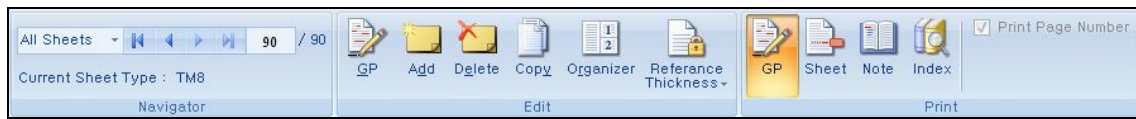
'SeaTrust-TM' adopts Ribbon UI type with 'Microsoft Office 2007'. Layout of this program consists with 'File Menu Button', 'Ribbon Menu Bar', and 'Sheet Area'. The upper end of layout displays 'Class Identification Number' of the working document and the lower end displays description of the current working sheet.

2.2 File Menu Button



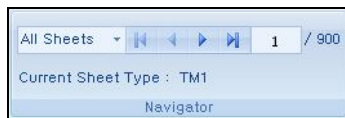
'File Menu Button' is located in the left top side of layout and contains menus related to document creation, file, and print.

2.3 Ribbon Menu Bar



Main function of 'SeaTrust-TM' consists with the 'Ribbon Menu Bar', which is classified by each function. Each function is described as following.

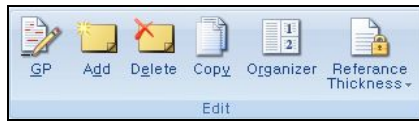
2.3.1 Navigator



The thickness measurement data is managed by various forms of many sheets. 'Navigator' provides high accessibility for many sheets.

- **Sheet Filter :** Filter can choose the current sheet forms and make some functions such as the related 'Navigator' and 'Print' to operate only for the selected filter.
- **First Sheet :** Move to the first sheet.
- **Previous Sheet :** Move to the previous sheet
- **Next Sheet :** Move to the next sheet
- **Last Sheet :** Move to the last sheet
- **4 / 5 :** Show the 'Current Page / Total Pages'. 'Current Page' enables to be corrected and to move to related concerned the page.
- **Current Sheet Type :** Show the current sheet type.

2.3.2 Edit



- **GP** : 'General Particulars' can be edited, as following dialog.

General Particulars

Property	Value
General Information	
Ship Name	
IMO Number	
Port of Registry	
Gross Tons	
Deadweight	
Date of Build	2009- 7 -08
Flag	
Grade of Wear Limit	Class II
Classification Society	Korean Register of Shipping
Information of Company for Thickness Measurement	
Company Name	
Certificate Number	
Certificate Valid from	2009- 7 -08
Certificate Valid to	2009- 7 -08
Company Certified by	Korean Register of Shipping
Information of Current Thickness Measurement	
Report Number	
Type of Survey due	Intermediate Survey
Place of Measurement	
First Date of Measurement	2009- 7 -08
Last Date of Measurement	2009- 7 -08
Details of Measurement Equipment	
Qualification of Operator	
Name of Operator	
Name of Surveyor 1	
Name of Surveyor 2	

OK Cancel

- **Add** : Sheet can be added, as following dialog.

Add New Sheets

Sheet Form

☒ 1 - DECK PLATING / ALL BOTTOM SHELL PLATING / SIDE SHELL PLATING

☐ 2a - SHEERSTRAKE AND DECK PLATING (one, two or three transverse sections)

☐ 2b - SHELL AND BOTTOM PLATING (one, two or three transverse sections)

☐ 3 - LONGITUDINAL MEMBERS (one, two or three transverse sections)

☐ 4 - TRANSVERSE STRUCTURAL MEMBERS in the cargo oil and water ballast tanks within the cargo tank(length)

☐ 5 - W.T/O.T TRANSVERSE BULKHEADS within the cargo tanks or cargo hold spaces

☐ 6 - MISCELLANEOUS STRUCTURAL MEMBERS

☐ 7 - CARGO HOLD TRANSVERSE FRAMES

☐ 8 - CARGO HOLD SIDE SHELL FRAMES (BC - URS31)

Position of New Sheet

☒ Next to Last Sheet

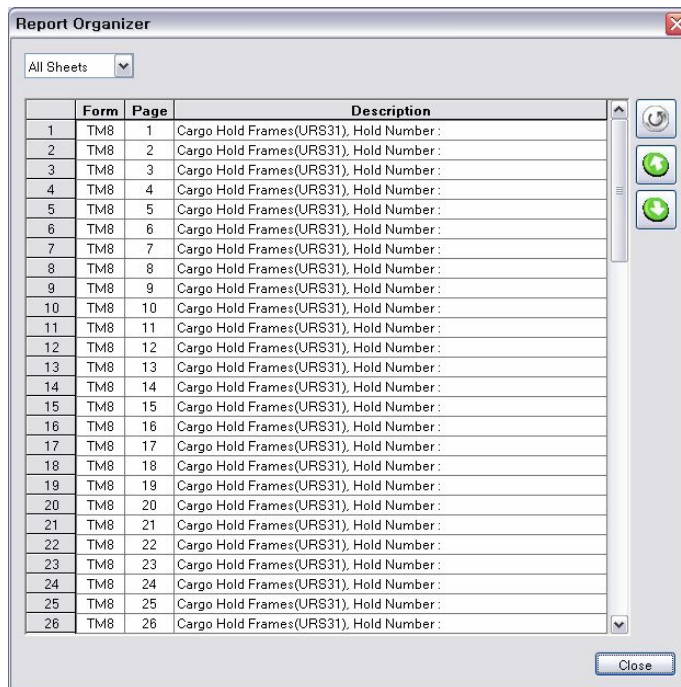
☐ Next to Current Sheet




Number of Sheets: 1

OK Cancel

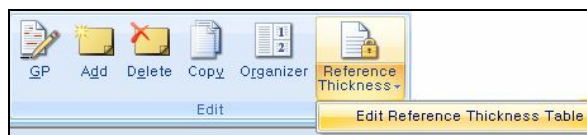
- **Delete** : Delete the current sheet.
- **Copy** : Copy the current sheet.

- **Organizer** : Enable to reorganize the sheet sequence.



Click on the  or  button to change the sheet sequence. Click on the  button to reorganize sheet sequence.

- **Reference Thickness** : Enable to use 'Renewal. Thk.' and 'Coating. Thk' for 'TM sheet 8'



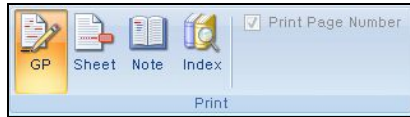
'Reference Thickness' is operated like toggle and is activated on 'TM8 sheet'. 'Edit Reference Thickness Table' enables to input thickness data designated by KR.

	Frame No.		Renewal Thickness				Coating Thickness			
	Start	End	Zone D	Zone C	Zone B	Zone A	Zone D	Zone C	Zone B	Zone A
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										

'Frame No. / Start' in the Table should be the same value at 'Frame No. / End' If 'Reference

Thickness' is used, the 'Frame Number' cell in 'TM8 sheet' can be input in the range of 'Frame No.' as input under the 'Reference Thickness Table'.

2.3.3 Print



The 'Print Ribbon Menu Bar' allows you to decide the print target. 'Print Page Number' check box is valid when 'Sheet' is selected.

2.4 Sheet Area

Frame 1		Frame 2				Frame 3																									
Strake Position	No. or Latter	First Transvers Section at Frame 1								Second Transvers Section at Frame 2								Third Transvers Section at Frame 3													
		Org. Thk	MAD		Gaaged		Diminution P		Diminution S		No. or Latter	Org. Thk	MAD		Gaaged		Diminution P		Diminution S		No. or Latter	Org. Thk	MAD		Gaaged		Diminution P		Diminution S		
		mm	mm	P	S	mm	%	mm	%		mm	mm	P	S	mm	%	mm	%		mm	mm	P	S	mm	%	mm	%		mm	%	
Stringer Plate																															
1st strake inboard																															
2nd																															
3rd																															
4th																															
5th																															
6th																															
7th																															
8th																															
9th																															
10th																															
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15th																															
16th																															
17th																															
18th																															
19th																															
20th																															
centre strake																															
sheer strake																															
TOPSIDE TOTAL																															
Note																															

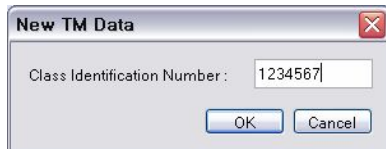
There are 9 'Sheet Area' for each type, such as TM1, TM2a, TM2b, TM3, TM4, TM5, TM6, TM7, and TM8. The colored cell can not be corrected whose value is automatically calculated. If the cell value is over maximum diminution, the cell text is to be shown with red color, and if the cell value is in the range of critically wore down (maximum diminution limit 75%~100%), the cell text is to be shown with orange color, which allows you to distinguish its diminution range quickly.

In the 'Sheet Area, items such as 'Frame' and 'Structural Item' are related to the whole sheet data and the set of each row is not allowed.

3. Quick Start

3.1 New Document

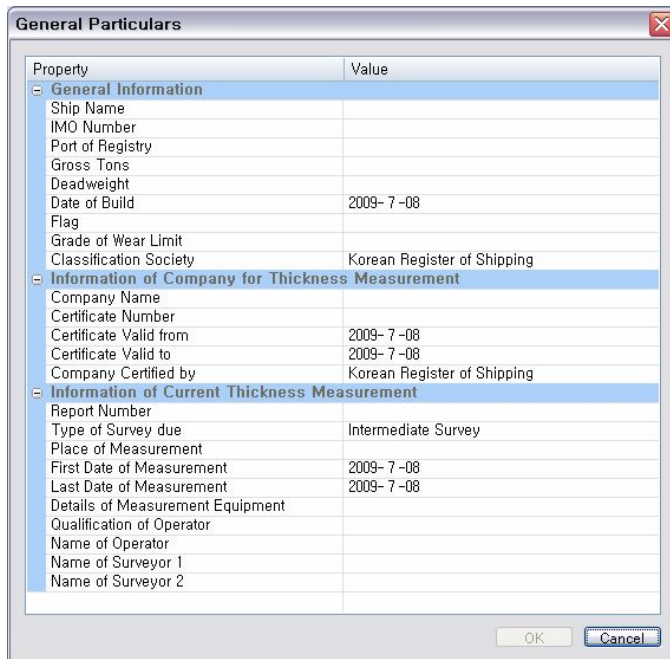
Click on the 'File Menu Button > New' menu to create new document as the following 'Class Identification Number' dialog.



The 'New TM Data' dialog box has a title bar with a close button. It contains a label 'Class Identification Number :', a text input field with the value '1234567', and two buttons at the bottom: 'OK' and 'Cancel'.

The 'Class Identification Number' is to be input as integer. Input the seven integers to activate the 'OK' button. **The initial input 'Class Identification Number' can not be changed later.**

Click on the 'OK' button and follow the 'General Particulars' dialog.



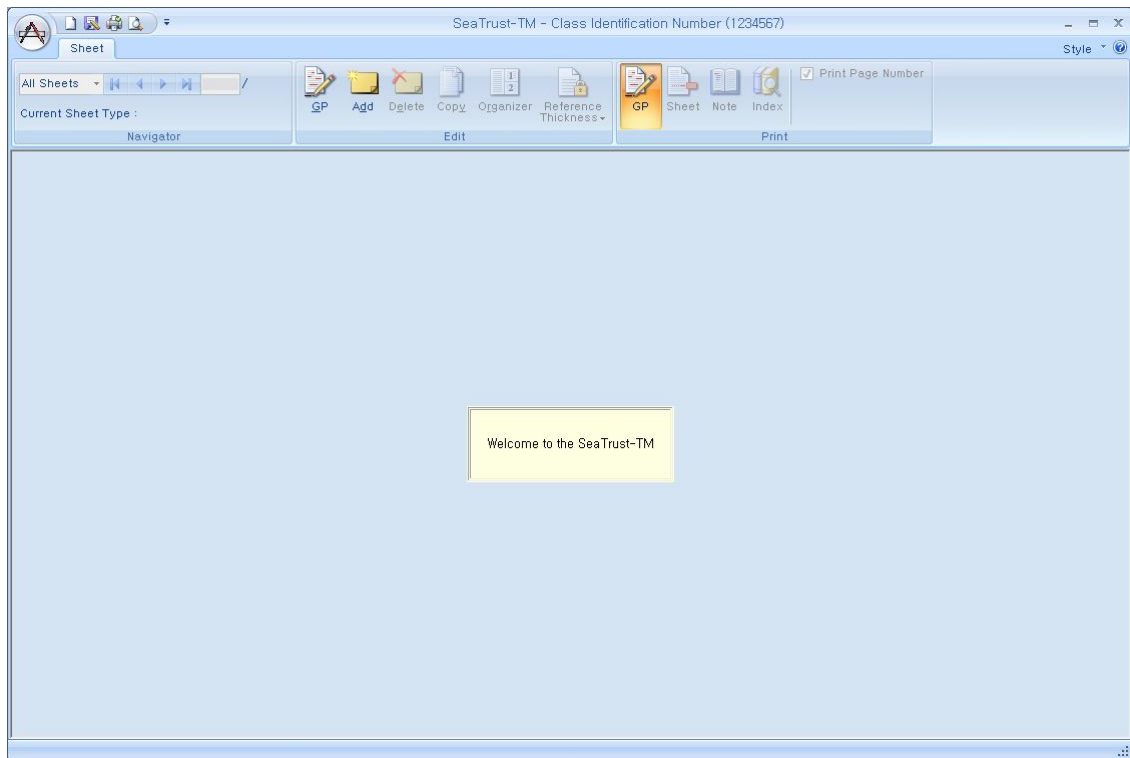
The 'General Particulars' dialog box has a title bar with a close button. It contains a table with two columns: 'Property' and 'Value'. The table is divided into three sections: 'General Information', 'Information of Company for Thickness Measurement', and 'Information of Current Thickness Measurement'. The 'General Information' section is pre-filled with data for a KR classed ship. The 'Information of Company for Thickness Measurement' and 'Information of Current Thickness Measurement' sections are empty.

Property	Value
General Information	
Ship Name	
IMO Number	
Port of Registry	
Gross Tons	
Deadweight	
Date of Build	2009- 7 -08
Flag	
Grade of Wear Limit	
Classification Society	Korean Register of Shipping
Information of Company for Thickness Measurement	
Company Name	
Certificate Number	
Certificate Valid from	2009- 7 -08
Certificate Valid to	2009- 7 -08
Company Certified by	Korean Register of Shipping
Information of Current Thickness Measurement	
Report Number	
Type of Survey due	Intermediate Survey
Place of Measurement	
First Date of Measurement	2009- 7 -08
Last Date of Measurement	2009- 7 -08
Details of Measurement Equipment	
Qualification of Operator	
Name of Operator	
Name of Surveyor 1	
Name of Surveyor 2	

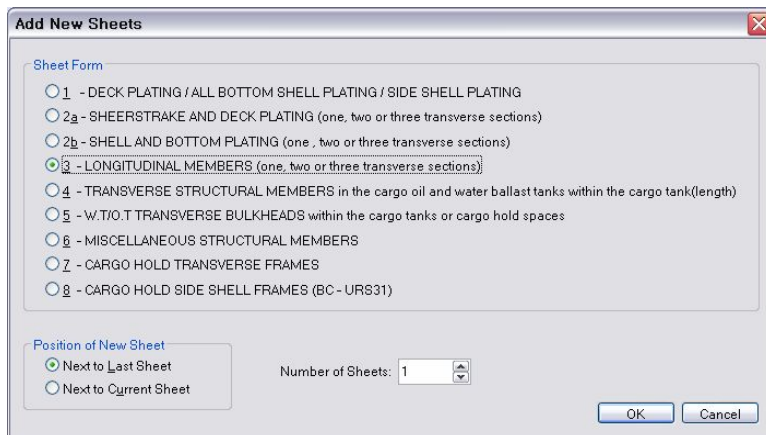
The item of 'General Information' is automatically filled for KR classed ships. Otherwise, 'General Information' will be empty when the information is not correct.

'Grade of Wear Limit' is important item to decide maximum diminution and must be selected correctly. After the 'Grade of Wear Limit' decided, the 'OK' button will be activated. The 'GP' button allows you to edit 'General Particulars'.

3.2 Add Sheet



When click the 'OK' button in the step '3.1', the 'Class Identification Number' will be displayed in the upper end of layout and 'Add' button will be activated.



Click on the 'Add' button to add necessary sheet and the position and the number of sheets can be decided.

SeaTrust-TM - Class Identification Number (1234567)

Sheet

All Sheets

1 / 1

Current Sheet Type : TM3

Navigator

Edit

Print Page Number

Print

GPAddDeleteCopyOrganizerReference Thickness

GPSheetNoteIndex

Frame 1292

Frame 2280

Frame 3274

Structural Items

Inner Bottom Longitudinals

Structural Member	Item No	First Transverser Section at Frame 1								Second Transverser Section at Frame 2								Third Transverser Section at Frame 3										
		Org. Thk mm	MAD mm	Gauged P S	Diminution P mm %	Diminution S mm %	Org. Thk mm	MAD mm	Gauged P S	Diminution P mm %	Diminution S mm %	Org. Thk mm	MAD mm	Gauged P S	Diminution P mm %	Diminution S mm %												
Slope bot longi.web											1	11.0	2.2	11.0	11.0	0.0	0.0	0.0	1	11.0	2.2	11.0	11.0	0.0	0.0	0.0	0.0	
Slope bot longi.fbar											1	16.0	3.2	15.9	15.8	0.1	0.6	0.2	1.3	1	16.0	3.2	15.9	15.8	0.1	0.6	0.2	1.3
"											3	12.0	2.4	12.0	12.0	0.0	0.0	0.0	0.0	3	12.0	2.4	12.0	12.0	0.0	0.0	0.0	0.0
"											3	17.0	3.4	16.8	16.9	0.2	1.2	0.1	0.6	3	17.0	3.4	16.8	16.9	0.2	1.2	0.1	0.6
"	5	12.0	2.4	12.0	12.0	0.0	0.0	0.0	0.0	0.0	5	12.0	2.4	12.0	12.0	0.0	0.0	0.0	0.0	5	12.0	2.4	12.0	12.0	0.0	0.0	0.0	0.0
"	5	17.0	3.4	16.8	16.9	0.2	1.2	0.1	0.6	5	17.0	3.4	16.8	16.8	0.2	1.2	0.2	1.2	5	17.0	3.4	16.9	16.8	0.1	0.6	0.2	1.2	
"	7	12.0	2.4	12.0	12.0	0.0	0.0	0.0	0.0	0.0	7	12.0	2.4	12.0	12.0	0.0	0.0	0.0	0.0	7	12.0	2.4	12.0	12.0	0.0	0.0	0.0	0.0
"	7	17.0	3.4	16.9	16.8	0.1	0.6	0.2	1.2	7	17.0	3.4	16.8	16.9	0.2	1.2	0.1	0.6	7	17.0	3.4	16.8	16.9	0.2	1.2	0.1	0.6	
"	9	11.5	2.3	11.5	11.5	0.0	0.0	0.0	0.0	0.0	9	11.5	2.3	11.5	11.5	0.0	0.0	0.0	0.0	9	11.5	2.3	11.5	11.5	0.0	0.0	0.0	0.0
"	9	16.0	3.2	15.9	15.9	0.1	0.6	0.1	0.6	9	16.0	3.2	15.9	16.0	0.1	0.6	0.0	0.0	9	16.0	3.2	15.9	15.8	0.1	0.6	0.2	1.3	
"	11	11.5	2.3	11.5	11.5	0.0	0.0	0.0	0.0	0.0	11	11.5	2.3	11.5	11.5	0.0	0.0	0.0	0.0	11	11.5	2.3	11.5	11.5	0.0	0.0	0.0	0.0
"	11	16.0	3.2	16.0	16.0	0.0	0.0	0.0	0.0	0.0	11	16.0	3.2	16.0	16.0	0.0	0.0	0.0	0.0	11	16.0	3.2	16.0	16.0	0.0	0.0	0.0	0.0
"	13	23.0	4.6	23.0	23.0	0.0	0.0	0.0	0.0	0.0	13	23.0	4.6	23.0	23.0	0.0	0.0	0.0	0.0	13	23.0	4.6	23.0	23.0	0.0	0.0	0.0	0.0
"	15	23.0	4.6	23.0	23.0	0.0	0.0	0.0	0.0	0.0	15	23.0	4.6	23.0	23.0	0.0	0.0	0.0	0.0	15	23.0	4.6	23.0	23.0	0.0	0.0	0.0	0.0
Side shell plate	1	19.0	3.8	19.0	19.0	0.0	0.0	0.0	0.0	0.0	1	19.0	3.8	19.0	19.0	0.0	0.0	0.0	0.0	1	23.0	4.6	23.0	23.0	0.0	0.0	0.0	0.0
"	2	18.0	3.6	18.0	18.0	0.0	0.0	0.0	0.0	0.0	2	18.0	3.6	18.0	18.0	0.0	0.0	0.0	0.0	2	19.5	3.9	19.5	19.5	0.0	0.0	0.0	0.0
"	3	18.5	3.7	18.5	18.5	0.0	0.0	0.0	0.0	0.0	3	18.5	3.7	18.5	18.5	0.0	0.0	0.0	0.0	3	18.5	3.7	18.5	18.5	0.0	0.0	0.0	0.0
Side shell longi.web											9	11.5	2.3	11.5	11.5	0.0	0.0	0.0	0.0	9	11.5	2.3	11.5	11.5	0.0	0.0	0.0	0.0
Side shell longi.fbar											9	16.0	3.2	16.0	16.0	0.0	0.0	0.0	0.0	9	16.0	3.2	16.0	16.0	0.0	0.0	0.0	0.0
"	h	11.0	2.2	11.0	11.0	0.0	0.0	0.0	0.0	0.0																		
"	h	16.0	3.2	16.0	16.0	0.0	0.0	0.0	0.0	0.0																		
"											10	12.0	2.4	12.0	12.0	0.0	0.0	0.0	0.0	10	12.0	2.4	12.0	12.0	0.0	0.0	0.0	0.0
"											10	17.0	3.4	17.0	17.0	0.0	0.0	0.0	0.0	10	17.0	3.4	17.0	17.0	0.0	0.0	0.0	0.0

Note

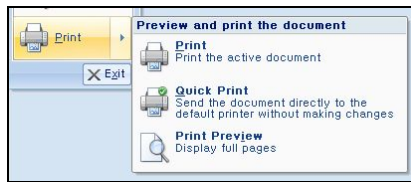
TM3 - Longitudinal Members (one, two or three transverse section)

If you input the thickness measurement data to the added sheets, the Max. Allowable. Diminution and the related diminution values are to be automatically calculated.

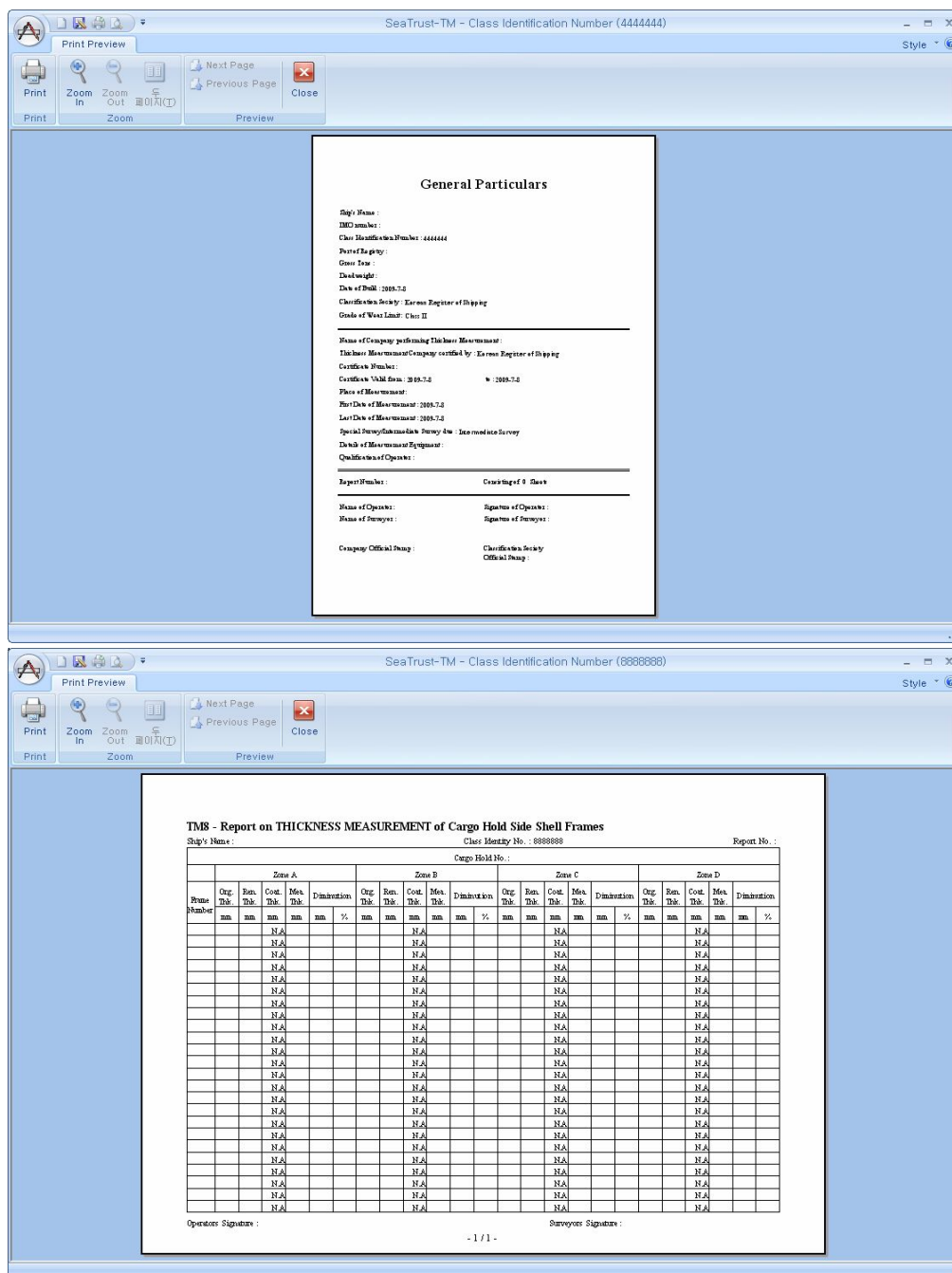
!!! CAUTION !!!

Maximum allowable diminution is decided by 'Grade of Wear Limit' in 'General Particulars' and 'TM3 Sheet', 'TM6 Sheet', and 'TM7 Sheet' of 'Structural Item'. When these items are changed, the Max. Allowable. Diminution and the related diminution value can be changed in the sheets. Therefore, these items are to be carefully edited.

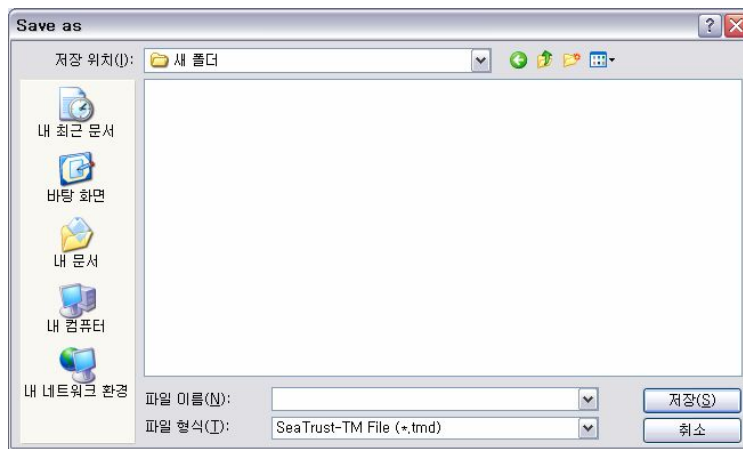
3.3 Print



Click the 'File Menu Button > Print' menu to print. Printing can be done for the selected target in the 'Print Ribbon Menu Bar'. Click on the 'Print Preview' menu to preview the printing configuration.



3.4 Save



Click the 'File Menu Button > Save and Save As' menu to save and the file extension is to use 'tmd'.

4. Others

For any problem with the software please contact Kim, Jong-oh (Mail : jokim@krs.co.kr).