

**SECTOR:**  
NAVAL SYSTEMS

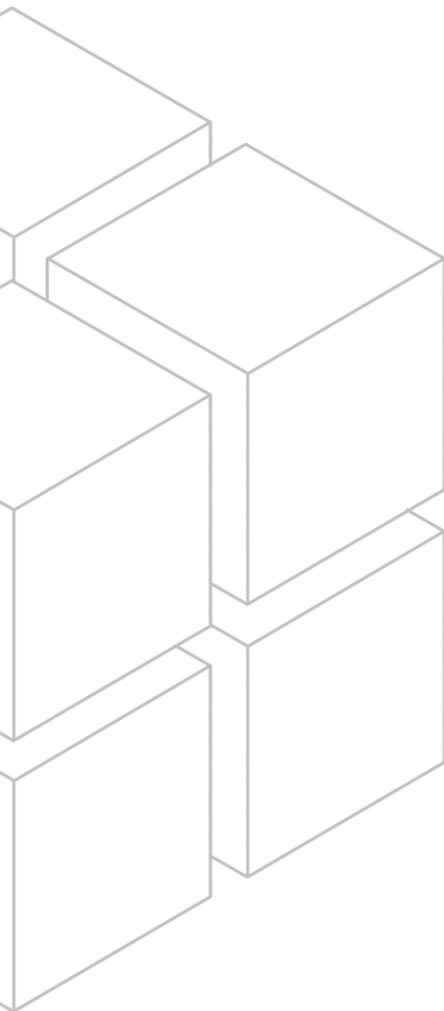
**OFFERINGS:**  
CUSTOM ENGINEERING  
SOFTWARE

**TECHNOLOGY:**  
SOFTWARE DEVELOPMENT

## SUPPLY OF EXTENDED THICKNESS MEASUREMENT SOFTWARE MODULE

Our customer is an international organization for ship classification and certification. The customer is involved in developing software for various aspects of merchant ship quality assurance. The customer has developed Thickness Measurement Software, TMS in short, that assists surveyors in verifying the compliances of thickness measurement of various metal structures on a ship. Zeus Numerix was engaged in developing an extended version of TMS by adding capabilities for handling smaller classes of vessels.

Existing TMS code, its structure and function of the TMS were studied and the data structure understood. Changes in GUI and code were made to add new options for selecting non-CSR (common structural rules) vessel types in the TMS. Modifications were made to the particulars forms, for accommodating requirement of non-CSR vessel type. Software is modified for adding entries of ship details for later use in Longitudinal Strength calculations. Back-end logic is implemented for each new form for handling all the calculations to perform various entries.



Strike Position	761	Plate Position	Number or Letter	As Built Thickness mm	Voluntary Thickness Addition mm	Renewal Thickness mm (a)	Forward Reading						Aft Reading				
							Gauged Thickness mm(b1)		Remaining Corrosion Addition, mm(c1)-(b1)-(a)		Thickness As Renewed (mm)		Gauged Thickness mm(b2)		Remaining Corrosion Addition, mm(c2)-(b2)-(a)		Ths
							P	S	P	S	P	S	P	S	P	S	
12th Fwd	A	40.00	4.00	35.00	34.00	35.00	-1.00	0.00	36.00	40.00	38.00	39.00	3.00	4.00			
10th Fwd	C	36.00	1.00	30.00	31.00	32.00	1.00	2.00	34.00	36.00	36.00	18.00	6.00	-12.00			
7th Fwd	F	45.00	9.00	40.00	38.00	39.00	-2.00	-1.00	50.00	50.00	45.00	40.00	5.00	0.00			
6th Fwd	G	50.00	0.00	40.00	28.00	32.00	-12.00	-8.00	50.00	50.00	50.00	49.00	10.00	9.00			

Figure 1: Diminution Summary of a particular vessel

The customer was delivered with an updated version of the TMS. The extended version could generate reports for non-CSR vessel types automatically in PDF format. The report contains date and time stamp and gets stored in a repository. Software was delivered as standalone GUI package with licensing controlled by the customers. The software was deployed at many locations of the customer.