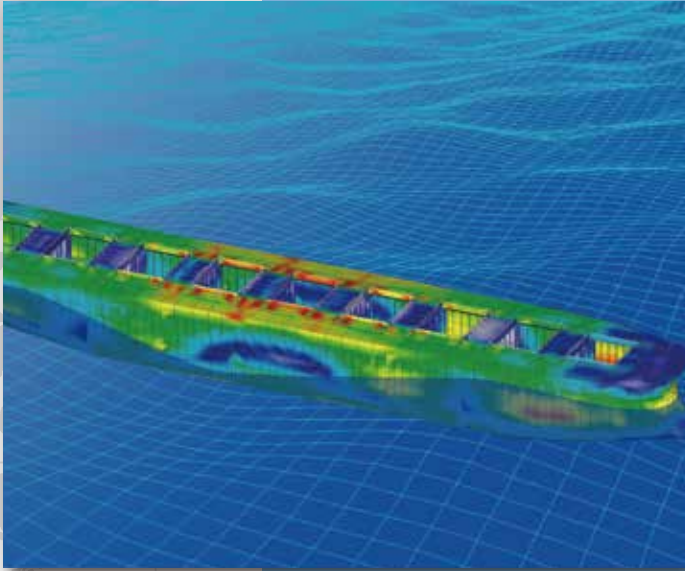


# HULL (DSA)

Direct Strength Assessment System



## Key Features

- ◆ Simple and efficient direct strength assessment system in compliance with ClassNK Rules and the IACS CSR.
- ◆ Automatic identification of structural members and compartments
- ◆ User friendly interface

PrimeShip-HULL (DSA) is a specialized software program for performing direct strength calculations of ship structures in accordance with ClassNK Rules and the IACS CSR.

PrimeShip-HULL (DSA) helps make ship design an easy and efficient process by allowing users to quickly conduct complicated structural strength analysis for a wide variety of loading conditions.

## Comprehensive technical expertise

PrimeShip-HULL (DSA) is an advanced calculation system based on ClassNK's extensive experience in ship classification and the results of cutting edge research and development.

Based on Altair Engineering's HyperWorks system, PrimeShip-HULL (DSA) utilizes both the powerful function of HyperWorks software and incorporates new dedicated functions for direct strength assessment.

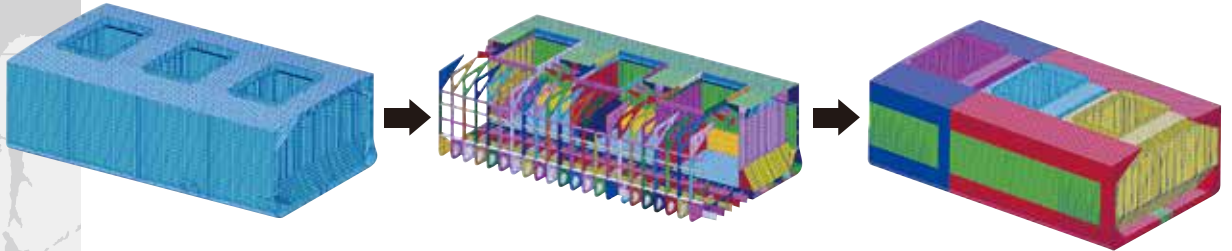
## Composition of PrimeShip-HULL (DSA)

PrimeShip-HULL (DSA) offers software programs for specific rules sets.

- ◇ PrimeShip-HULL (DSA)/HCSR  
CSR BC&OT
- ◇ PrimeShip-HULL (DSA)/CSR  
CSR for Bulk Carriers and CSR for Oil Tankers
- ◇ PrimeShip-HULL (DSA)/Container Carriers  
Container Carriers edition in accordance with ClassNK Rules.
- ◇ PrimeShip-HULL (DSA)/Vehicle Carriers  
Vehicle Carriers edition in accordance with ClassNK Guideline.
- ◇ PrimeShip-HULL (DSA)/Liquefied Gas Carrier Structures having Independent Prismatic Tanks (IPT)
- ◇ PrimeShip-HULL (DSA)/Gas Carriers (Independent Spherical Tanks)  
Gas Carriers edition in accordance with ClassNK Guideline.
- ◇ PrimeShip-HULL (DSA)/Hatch Covers  
Hatch Covers edition in accordance with ClassNK Rules and the IACS CSR.

## Automatic identification of structural members and compartments

By simply inputting a few parameters, hull construction, structural members and compartments can automatically be identified in an FEA model. This makes applying loads and corrosion margins easy, and allows for strength assessments to be carried out efficiently.



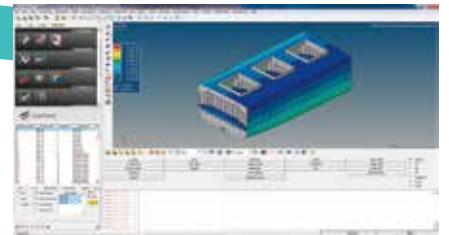
## User friendly interface

Analysis procedures are displayed step-by-step, and necessary parameters are easy to input, so even novice users can easily carry out a series of operations from importing FEA models to evaluating yielding, buckling and fatigue strength.

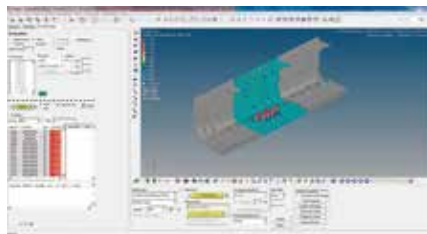
### Importing FEA



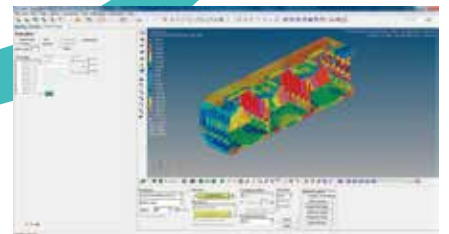
### Load Setting



### Structural Assessment



### Stress Analysis



## Superior Support

ClassNK's dedicated PrimeShip-HULL support email service ensures that user questions are answered quickly and completely. Updated programs, FAQs and other materials are also available via ClassNK's PrimeShip-HULL support website.



\* PrimeShip-HULL(DSA) requires properly installed and licensed copies of HyperWorks.

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