PrimeShip
Total Ship Care

IPCA
Integrated System for Ship Performance Capability

HULL
ENVIRONMENT PrimeShip MACHINERY
MAINTENANCE OPERATION

Key Features

◆ **User friendly Input and Output**
◆ **Statutory compliant calculation (including 2008 IS Code)**
◆ **Easy creation of documents for approval**
◆ **Transferred Design IPCA data is available on Onboard-IPCA Engine**

PrimeShip-IPCA(Integrated Program for Determining Ship Performance Capability) is a PC Windows-based program developed by ClassNK for determining trim, stability, longitudinal strength, freeboard, grain heeling moment, and other similar factors pertaining to ship performance capability.
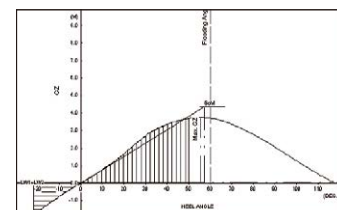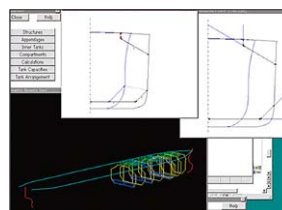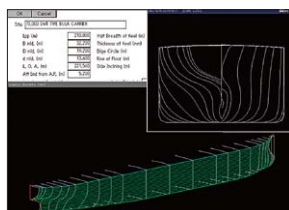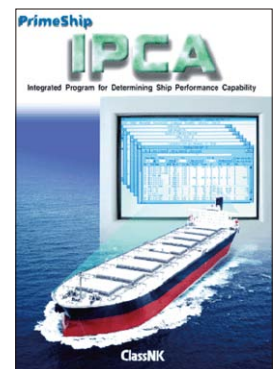
IPCA consists of two types of specialized applications: Design-IPCA for use in evaluating performance characteristic during ship design, and the Onboard-IPCA Calculation Engine which is used as a base calculation program for onboard loading instruments. IPCA is a convenient and powerful tool for shipbuilders and designers, ship owners, ship operators and other users.
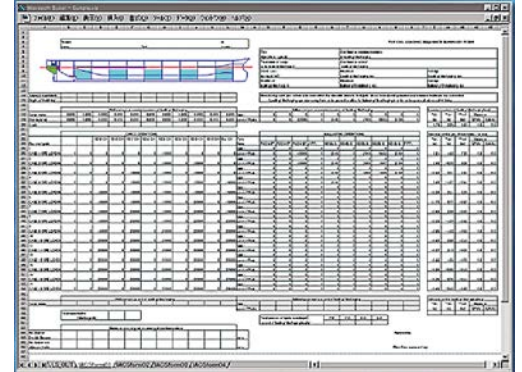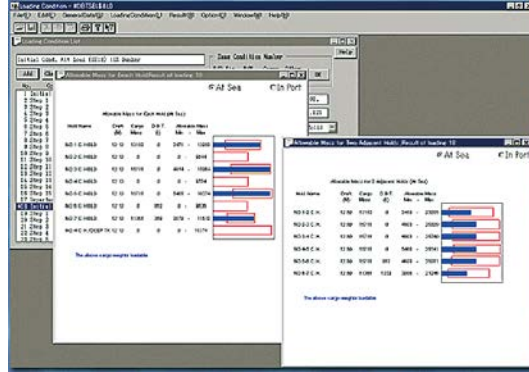

Main Functions

Complete calculation of all elements of ship performance capability

◇ Ship lines, hydrostatics, tank capacity, trim (Fixed/Free-trimming), stability, longitudinal strength
◇ Deterministic damage stability (D-SDS)
◇ Probabilistic damage stability (Chapter II-1/B-1 of SOLAS) (P-SDS)
◇ Freeboard calculation (ICLL1966, JG Rule)
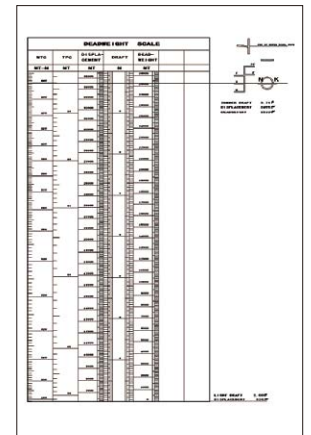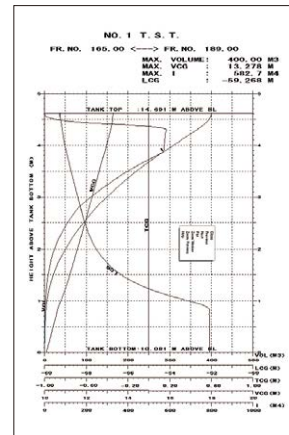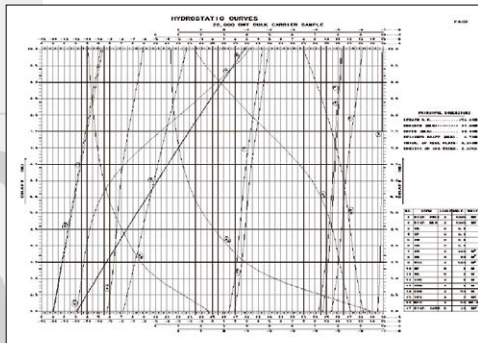◇ Grain heeling moment

ClassNK

Bulk Carrier Safety (Chapter XII of SOLAS) related functions

◇Damage stability and longitudinal strength calculations in case of flooding any cargo hold
◇Determination of allowable loads for each cargo hold in keeping with changes in draft
◇Determination of allowable loads for adjacent cargo holds in keeping with changes in draft
◇Preparation of loading and unloading sequences (based on IACS standard form)

Detailed calculations for final documents

◇Highly accurate detailed calculations for final documents
◇Final documents such as correction tables of displacement due to trim, volume curves, sounding/ullage tables, deadweight scales, amongst others

Interface with other systems

◇Supply of base data and calculation results to other program systems via CSV file

Basic Program Package

■Design-IPCA: Basic Set+Optional Set (D-SDS, P-SDS, Lines Generator, Container Arrangement, Grain Heeling Moment)

■Onboard-IPCA (Only calculation engine)：Basic Set (including the function of intact stability calculation)+Optional Set (including the function of damage stability calculation)