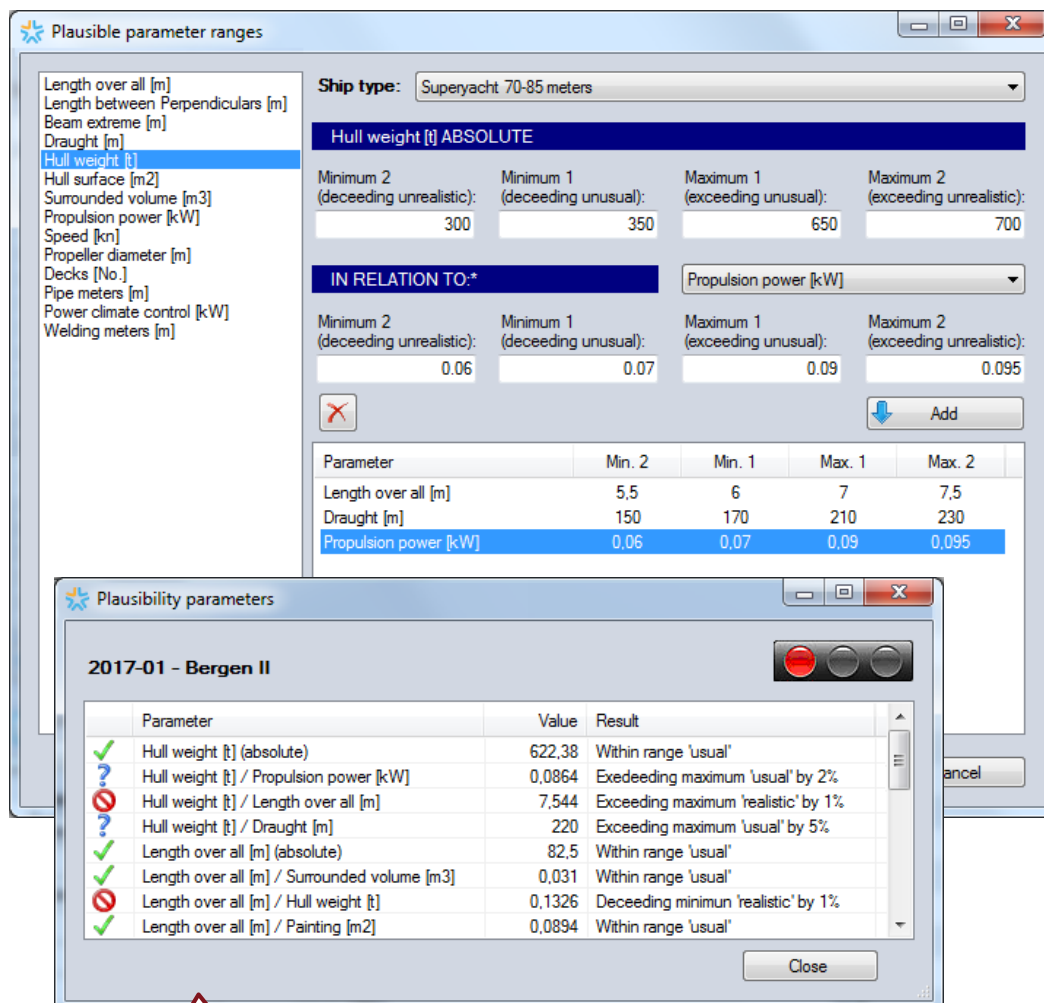


PLAUSIBILITY CHECK INDICATION CALCULATION

Controlling the Consistency of Cost Drivers in Parametric Calculation

Besides bottom-up calculation which is related to single cost items, CostFact supports parametric costing. When calculating an indication price in early bidding phases, the length of time and amount of work can be reduced enormously by estimating the cost based on a limited number of main cost drivers. However, this procedure carries the risk of mistakes: Incorrect entries of the attributes like confounding of values or wrong units like kilograms instead of tons can lead to wrong calculation results with economic consequences of dramatic magnitude if the mistake passes unnoticed.

CostFact's feature for plausibility checks helps to avoid such incorrect entries: For each technical parameter used for parametric cost prediction, expected ranges can be defined. Furthermore, it is possible to specify typical relationships between different parameters. Based on this information, the attributes of a specific project are analysed and the result is displayed to the user. Parameters which require a review are highlighted and a traffic light shows the total result at a glance.



The image shows two overlapping software windows. The top window, titled 'Plausible parameter ranges', is for configuring parameters for a 'Superyacht 70-85 meters'. It lists various parameters on the left, such as 'Hull weight [t]', 'Propulsion power [kW]', and 'Length over all [m]'. The main area allows setting absolute limits (Minimum 1, Maximum 1, Minimum 2, Maximum 2) and relative limits ('IN RELATION TO*'). A table at the bottom shows the configured ranges for several parameters.

Parameter	Min. 2	Min. 1	Max. 1	Max. 2
Length over all [m]	5,5	6	7	7,5
Draught [m]	150	170	210	230
Propulsion power [kW]	0,06	0,07	0,09	0,095

The bottom window, titled 'Plausibility parameters', shows the results for project '2017-01 - Bergen II'. It displays a table with columns for Parameter, Value, and Result, with a traffic light icon indicating the status of each parameter.

Parameter	Value	Result
Hull weight [t] (absolute)	622,38	Within range 'usual'
Hull weight [t] / Propulsion power [kW]	0,0864	Exceeding maximum 'usual' by 2%
Hull weight [t] / Length over all [m]	7,544	Exceeding maximum 'realistic' by 1%
Hull weight [t] / Draught [m]	220	Exceeding maximum 'usual' by 5%
Length over all [m] (absolute)	82,5	Within range 'usual'
Length over all [m] / Surrounded volume [m3]	0,031	Within range 'usual'
Length over all [m] / Hull weight [t]	0,1326	Deceeding minimum 'realistic' by 1%
Length over all [m] / Painting [m2]	0,0894	Within range 'usual'

After selecting a parameter in the list on the left, the user enters upper and lower limits for this parameter.

Besides absolute values, feasible ranges in relation to other parameters can be defined.

All inputs are optional. The plausibility test will be performed for those objects a value is given for. That means it is not mandatory to fill in values for all fields.

The report shows the result of the analysis and highlights the outliers.