ABSTRACT

The present invention provides a means for efficiently removing datasets containing values measured under unusual circumstances from a group of datasets to obtain datasets containing measured values showing a reproducible relationship among items of measured values. Each dataset contains values of different items measured in a same time period during a voyage of a ship a performance of which is analyzed. Item Selection Receiving Unit 102 accepts selections of items for analysis and items for filtering. Dataset Extracting Unit 103 extracts datasets containing values of the items for filtering within a limited range set for each of the items for filtering. Relational Expression Calculating Unit 105 calculates a relational expression among the items for analysis based on values of the items for analysis contained in the datasets extracted by Dataset Extracting Unit 103. Condition Sufficiency Judging Unit 104 judges which group of datasets extracted by Dataset Extracting Unit 103 for each of the items for filtering should be selected for the subsequent processes based on a number of datasets of each group of datasets and on a statistical variation in values of the items for analysis contained in each group of datasets. Condition Sufficiency Judging Unit 104 uses the relational expression calculated by Relational Expression Calculating Unit 105 for calculating the statistical variation. Processing End Judging Unit 106 judges whether an end condition is satisfied, and terminates a series of processes for obtaining datasets containing measured values showing a reproducible relationship among the items for analysis.

Figure 2