ABSTRACT

A system for picking out cargo (100), comprising: a plurality of conveying robots (20), and a plurality of cargo racks (30), which are used for storing cargo and which are conveyed by the robots; the cargo racks (30) are arranged in a cargo rack area in a cargo rack array having a plurality of rows and a plurality of columns, empty rows/columns (60) constituting channels through which the conveying robots (20) pass; at least part of the cargo racks (30) are blocked cargo racks, the blocked cargo racks not being adjacent to any channel, rather being surrounded by other cargo racks (30), while other cargo racks besides the blocked cargo racks are referred to as unblocked cargo racks; in the cargo rack area, cargo rack-moving robots (40) may operate under instructions from a control system (10) so as to move the cargo racks (30) to change a certain blocked cargo rack into an unblocked cargo rack. The system also comprises: an operating station (50) and the control system (10), which is configured to determine and recognize whether cargo to be picked out, to which an order to be processed relates, relates to a blocked cargo rack, and if related to a blocked cargo rack, determining a removal strategy and commanding a cargo rack-moving robot (40) to move the cargo racks (30) according to the removal strategy. The present invention may increase cargo storage density, making full use of a physical space and maintaining picking-out efficiency which meets requirements.

[FIG. 1]