ABSTRACT

PT ABC is a manufacturing company that has a warehouse finish good warehouse which is the object of the author's research. When making observations, researchers measuring the time of each activity, when the time of the activity has been obtained, the researcher processed the data until it was found that at the time of observation, there were activities that exceeded the standard time. There are activities that exceed the standard time and it is found that the activity that exceeds the standard time is the picking activity. activity that exceeds more is the picking activity caused by travelling time. time. After knowing the cause of the high picking time caused by travel time, after that the researcher caused by travel time, then the researcher checked the current storage allocation until it was found that the storage allocation that occurs today until it is found that the storage allocation is not correct. that is less precise. Based on the results of observations, the researcher conducted secondary data processing to find out the classification of each product until it is found class A,B,C of each product. After getting the product classification, researchers found that products included in the class A category were in a less strategic storage area. storage area that is less strategic. Based on the inappropriate storage allocation, researchers will allocation, the researcher will conduct data processing to get a new storage allocation to reduce the high picking time that exceeds the picking time. to reduce the high picking time that exceeds the standard time of 60%.

After knowing the classification of each product, the researchers then calculated the distance between storage areas to find out the storage area that has the closest distance to the I/O point. However, because this research focuses on reducing the high picking time, the distance between the storage area and the I/O point that has been obtained is calculated to estimate the travel time between the storage area and the I/O point, so that the closest to the farthest travel time between the storage area and the I/O point is obtained. Furthermore, researchers conducted an assignment problem to allocate products based on classification to the available storage areas, when all products have been allocated, researchers conduct

simulations to verify and validate if the proposals given can reduce the high picking time.

From the results of the data processing that has been explained, the researcher wants to provide a new storage allocation proposal by changing the storage policy and taking into account the travel time between the storage area and the I / O point using the heuristic greedy algorithm. From the results of the new storage allocation, it can reduce the picking time by 51%.

Keywords— [Warehouse Finish Good, Storage Allocation, Order Picking, Greedy algorthm]