

## **ABSTRACT**

*PT.XYZ is a manufacturing company which produce of cylinder block and small part for car. Storage system in the PT.XYZ warehouse appears floorstack. Problems that occur in this warehouse is the delivery of raw material to production floor is delayed. Delivery time is above the standard set by the company that is 20 minutes for two picking list. The delay occurs by searching for raw material location. This activity becomes longer due to raw material that is often stored randomly and occupies the aisle and then the company not have a storage policy.*

*To overcome the problems contained in PT.XYZ then designing of storage allocation. The first step is to classify for each raw material using the FSN Analysis method, perform a rectilinear distance calculation to determine the raw material storage closest to the I/O, as well as to verify the codefication where the raw material is stored.*

*To generate a valid storage allocation, then simulation result of improvement that is simulating the distance calculation to calculate the activity time to locate the raw material after the proposed repair. Through the calculation of sampling is comparing the picking list contained in the observation with the calculation of the distance that has been proposed. Therefore, the raw material search time is shorter.*

*Based on the results obtained, the proposed proposal get the result of decreasing time on the activity of put away for 191.33 seconds and picking activity for 310.45 seconds*

*Keyword : Class Based Storage, Rectilinear Distance, FSN Analysis*