Picking visualization

1. Purpose

The purpose of picking visualization is to reduce the amount of time workers spend finding the totes from which to pick goods for picking by graphically representing the picking stations and highlighting the picking locations.

2. Functional requirements

In this section are described requirements for the use of a visualization application cooperating with data from WMS/MFC:

1. The tablet on which the visualization will be switched must be able to read data regarding the locations from which the product is to be picked up, along with the quantity.
2. Display a counter of picked lines in relation to the total number of picks (e.g. 1 of 12).
3. Synchronize the application with the automation control system so that confirmation of product picking on the automation from the picking location is automatically marked on the visualization by graying out the tote with the picked product and to update the counter.
4. Color match between the highlighted tray icon on the visualization and the color of the light at the physical picking location.
5. Display the highlighted login and employee's name in the application while matching the colors assigned to picking.
6. Neighboring stations cannot use the same colors.

3. Data exchange between WMS and MFC

The WMS and automation control system is the source of information for the application to visualize information such as:

- the login, including the name of the employee logged in at the picking station;
- the location of the products that are needed for picking;
- the number of products to be picked;
- the total number of lines to be picked relative to one employee
- the execution of a picking at picking station after it has been physically confirmed.

4. Process description

The picking process will be optimized by using an application to visualize the picking at the picking station. Scanning a tote at the picking station triggers two actions at the same time:

- highlighting on the tablet the locations from which the worker is to pick the goods, along with the required quantity, and displaying the total number of lines to be picked;
- highlighting the lamp assigned to the tote from which the worker is to physically pick the goods along with the required quantity.

The color of the lamp at the picking station should match the color of the highlight on the tablet.

When the employee picks the product and confirms it, with the light on the tablet going out, the location from which the employee picked the product will be grayed out and the counter of picked lines will be updated.

5. Possible cases

1. The possibility of picking one list by one worker - the application highlights everything in one color matching the color used at the picking station.
2. The possibility of picking one list by two workers - the application uses two colors for highlighting that match the colors used at the picking station.