

ELICITATION DOCUMENT

Version 1.0

26 September 2017

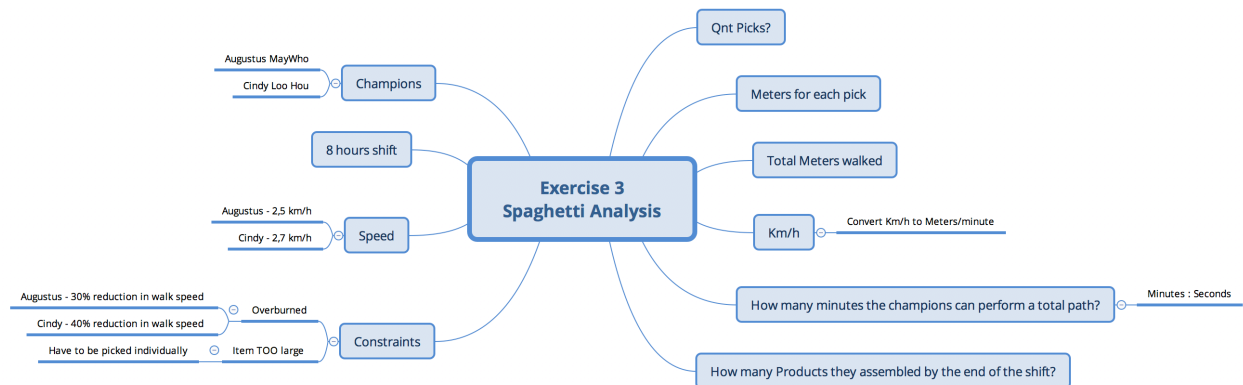
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ELICITATION DESIGN DOCUMENT

OBJECTIVE

This document contains instructions that must be followed to create the Spaghetti Analysis Exercise 3.

BRAINSTORM



DATA WILL BE COLLECTED AS FOLLOWS:

- Measuring the distance Augustus and Cindy makes from their individual assembly lines to each of specific shelf row and bay areas where they pick components.
- Making use of the length tool using Meters as unit.
- Record distance in meters.
- Total working time (minutes and seconds) in a day.
- Number of complete picks on a working day.
- Recording and storing the data in Excel.

APPROACH

- Using VISIO you will create a Spaghetti Analysis in the template given (Figure 1)
- All measurements and path should be used the Visio Measurement Tool (Figure 2).
- All items must be picked in the sequence written.
- Small items (items with no constraint) can be picked together if they are sequentially ordered.
- If there is an item with a constraint (size/weight) then an individual trip is required to bring those products back to the start point.
- Should be used the logical and closest path.
- Measure to the 'center' of each bay for each complete pick.
- Follow the paths for each champion that are listed on "BP - Exercise #3 Spaghetti Analysis.docx".
- The listing the individual timings have to recorded on an excel file.

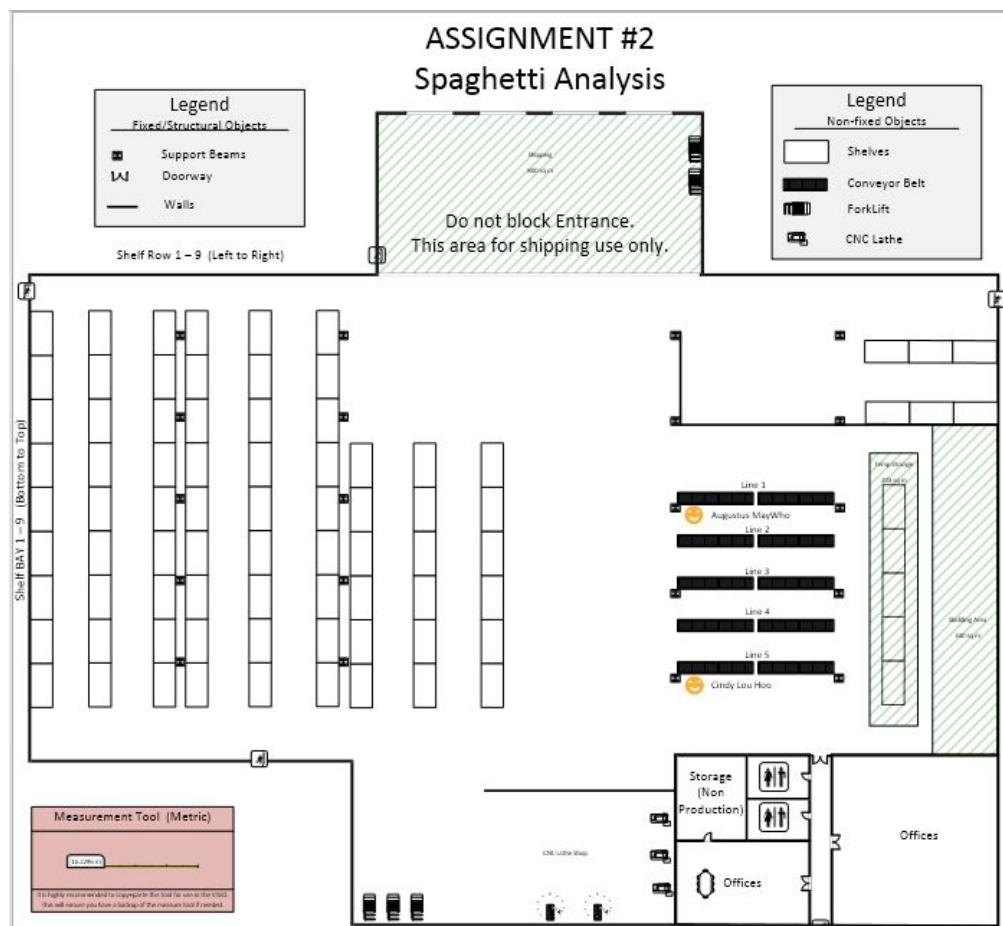


Figure 1

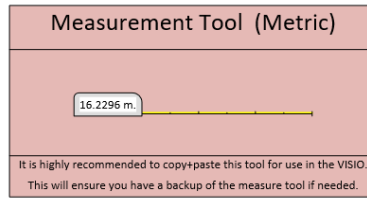


Figure 2

PATHS

Champion Augustus MayWho

SEQUENCE OF PICK	Row	Bay	Constraint ³
1	9	3	
2	3	6	
3	2	1	
4	4	7	Item TOO large
5	4	4	
6	1	2	Overburdened Item TOO Large
7	8	5	

Champion Cindy Loo Hou

SEQUENCE OF PICK	Row	Bay	Constraint
1	1	1	
2	9	6	
3	6	9	
4	4	5	Overburdened
5	4	5	Overburdened
6	3	3	
7	7	1	

CALCULATIONS

- Convert speed from km/h to m/min
- $\text{Time} = \text{Distance} / \text{Speed}$
- Total time to complete one pick is calculated in minutes:seconds
- Convert Working hours in 1 day into minutes in 1 day

- Total number of picks in 1 day= Working minutes in 1 day/total time to complete 1 pick
- Champions speed:

Name	Normal Walk Speed	Overburdened ¹² Walk Speed
Augustus MayWho	2.5 Km/h	30% reduction in speed
Cindy Lou Hoo	2.7 Km/h	40% reduction in speed

CONSTRAINTS

- Overburdened Walk Speed – When the champion is carrying on object that is too heavy.
- If no constraint has been stated then there are no constraints on that specific item.
These items can be picked at the same time, if they are sequentially ordered.

REFERENCE DOCUMENTS:

1. BP - Exercise #3 Spaghetti Analysis.docx
