



TECHNICAL DOCUMENT

ABB Frontend Assignment

1 Objective

This is an assignment for Frontend ABB Digital Position. The goal is to demonstrate your skills on Frontend Technologies without devoting too much time to it, 2 to 3 hours...

You are free to use whatever you consider on terms of frameworks, libraries, environments...

The deliverable of the exercise will be the source code of it, some installation steps and any other documentation you might want to generate to demonstrate how you will finish this application.

The application need to be functional on frontend, backend doesn't need to be implemented unless you consider is necessary, but it need to be mocked.

2 Introduction

We are building a new frontend application that needs to run on low specs hardware on premise at the factory, consider this for your decisions.

This application has 3 or 4 screens but now we are only facing one.

The main body of the screen looks like this:

Part A

FEATURE'S NAME				FEATURE'S NAME				FEATURE'S NAME				FEATURE'S NAME			
Control	Dev	Dev Out Tol		Control	Dev	Dev Out Tol		Control	Dev	Dev Out Tol		Control	Dev	Dev Out Tol	
X	0	0		X	0	0		X	0	0		X	0	0	
Y	0	0		Y	0	0		Y	0	0		Y	0	0	
Z	0	0		Z	0	0		Z	0	0		Z	0	0	
Diameter	0	0		Diameter	0	0		Diameter	0	0		Diameter	0	0	
X	0	0		X	0	0						X	0	0	
Y	0	0		Y	0	0						Y	0	0	
Z	0	0		Z	0	0						Z	0	0	
Diameter	0	0		Diameter	0	0						Diameter	0	0	
X	0	0		X	0	0						X	0	0	
Y	0	0		Y	0	0						Y	0	0	
Z	0	0		Z	0	0						Z	0	0	
Diameter	0	0		Diameter	0	0						Diameter	0	0	

It show some measurements of every feature on a part.

Part is the produced piece

Feature is every one of the inspected elements of the part, it can be: Seam, Slot, Hole

Control is every parameter measured of every Feature like: position (x,y,z), length , diameter...

Measurements are:

Dev: is the deviation from the expected measurement of the control

Dev out total: is the total deviation outside measurement for the last N pieces measured.

The number of controls can be different on every feature, this is why the component might have different lengths and the control header is red, green, yellow based on if the feature is on expected quality.

Considering that the interface need to be refreshed every time a piece is produced, event received on the backend. You can simulate this event every 10 seconds, so you can fake data with random numbers on the measurement, even on the frontend or in the backend.

Please create the component/components needed to be used on this screen, considering that it will be used on another views.

Create also the main view and drop some of this components demonstrating how it behaves with different number of controls / sizes.

If you consider to explain what will be the next TODO's on the application/component, please feel free to add them on the README.md File

3 Deliverables

Please deliver the code on GitHub repository, install and running instructions and TODO on a README.md file

Send an email to victor.alvarez@es.abb.com when your assignment is completed with the GitHub repository URL.