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**DAIMLER TRUCKS NORTH AMERICA**

**VISUAL AID SYSTEM FOR PASS THROUGH ASSEMBLY**

**Version 1.0**

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**Version History**

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# Purpose

Intend for this document is to describe in detail the functionalities of Visual Aid System (VAS) for pass through assembly process.

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# Scope

The scope of work is to provide visual guide for the operator to refer and complete ‘Pass through Assembly’ process. User should be able to pull the kitting data for truck number and the visual aid system will provide step by step instructions along with schematic manifold to install switches and hoses. User will be able to navigate forward or backward to refer the instructions.

There are two types of manifold P3 and P4. The instructions and number of hoses/switches installation vary for truck to truck. Installation requirement for switch and hose is available in ShopTech system. The Visual Aid system will interact with ShopTech and extract kitting details specific for a truck.

# Acronyms and definitions

* 1. **Acronyms**

|  |  |
| --- | --- |
| DTNA | Daimler Trucks North America |
| HTL | Hinduja Tech Ltd |
| VAS | Visual Aid System |
| BRD | Business Requirement Document |
|  |  |
|  |  |

# Environment requirements

## System perspective

The VAS application will be implemented as web application using Microsoft ASP.net, C# and SQL Server.

## Operational environment

|  |  |  |
| --- | --- | --- |
| **Production** | **Development** | **Testing** |
|  |  |  |

# User details

**User**

* Pull kitting data for truck by entering truck number
* Choose the installation type Switch/Hose
* Retrieve the steps to install based on the selection
* Automatically move from one step to an another and complete the manual installation of hose/switch
* At any time, provision to move back or next step
* Once the installation is completed then mark it as completed

# Constraints & issues

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No** | **Constraint/Issues** | **Owner** | **Action** | **Status** |
| 1 | Setup process to read BOM data from ShopTech | DTNA |  | Open |
| 2 | Document and finalize the exclusions from BOM data for each manifold | DTNA/HTL |  | Open |
| 3 | Finalize the operator workstation (monitor size/resolution, network connectivity) details | DTNA |  | Open |
| 4 | Electronic schematic of P3 and P4 | DTNA |  | Open |
| 5 | Acceptance test cases | DTNA |  | Open |
| 6 | Sign-off on the BRD | DTNA |  | Open |

# Security & safety requirements

## Security requirements

Users are authenticated using username and password.

## Safety requirements

NA

# Assumptions, dependencies and risks

## Assumptions

* Visual Aid software will be a web application
* DTNA will provide credentials to access the SQL DB to get the Kitting Data. Truck number will be the input to get the Kitting Data
* The .Net code will be returned with the assumption that the Stored Proc will return the below field names
  + TRUCKNO
  + MODEL
  + BILLNO
  + CUST
  + PART
  + DESCRIPTION
  + QTY
* DTNA will explain(decrypt) the BOM document ( Exclusions and Business Rules )
* DTNA will provide schematic or 3D or quality image of manifold. It will be integrated with windows application to show location of hose / switch installation in the manifold
* No credentials or access roles defined to access the application.
* Onsite travel is planned only at the start of the project
* Resources will work out of HTL location

## Dependencies

* Availability of stakeholders during the workshop
* Finalize the wireframe and sign-off on the requirements document
* Multiple test BOM data and freeze business rules
* Providing final image of manifold (P3/P4) to be incorporated with the software
* Inputs regarding operator desktop and hosting server
* Acceptance test cases
* Availability of testing infrastructure and network connectivity

## Risks

* Delay in receiving all the necessary inputs and test cases from the DTNA team to begin the software build.
* Availability of all hardware components for testing as per DTNA test cases and optimization of Visual Aid Software build
* Frequent change of software requirements, scope and frequent reviews

# Requirements overview

## About the customer

Daimler Trucks North America is the leading commercial vehicle manufacturer in North America. Their portfolio of distinctive brands serves a multitude of industries and commercial vehicle applications. Through its affiliated companies like Detroit Diesel Corporation, the company also is a leading provider of heavy- and medium-duty diesel engines and components.

## Business overview

The purpose of the project is to provide visual aid system to help any operator assemble the hose and switches with manifold of P3 and P4 type in the Pass through assembly.

* Reduce dependencies on specialized personnel skills for hose assembly
* Reduce mistakes by referring to the visual instructions
* Standardize process of assembly (by defining holes for each cable)

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## List of deliverables

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No** | **Phase Name / Milestone** | **Deliverables Details** | **Acceptance Criteria** | **Expected date** |
| 1 | Requirement | Business Requirement Document | Sign-off on the functionalities explained | TBD |
| 2 | Technical Document | Design Document | Sign-off on the Wireframe and UI designs | TBD |
| 3 | UAT | Test Cases | Execute test cases on Staging/Testing environment and sign-off on the application functionalities | TBD |
| 4 | Go-live | Deployment on Production environment | Sanity check on the production environment and sign-off | TBD |

# Requirements description

## Requirements – Landing Page for User

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | | X |   Functional  Non-Functional  Interface |
| **Requirement statement** | Home page for User | |
| **Requirement description** | The operator (user) workstation will have shortcut to access the VAS landing page. Clicking on the shortcut will open the landing page and it will have search option to get kitting data for a truck number. | |

## Requirements – Search kitting data for Truck

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | | X |   Functional  Non-Functional  Interface |
| **Requirement statement** | Get kitting data for truck by entering truck number | |
| **Requirement description** | The search page will have text box to capture truck number and button to get kitting data. After entering “Truck No”, the user need to click on search button. The application will access with SQL Server DB and retrieve the kitting data for the given Truck number. If the information doesn’t exist then it will display an error “Kitting data not found” along with entered Truck number | |

## Requirements – Filter by Installation Type

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | | X |   Functional  Non-Functional  Interface |
| **Requirement statement** | Filter the kitting data by installation type Switch / Hose | |
| **Requirement description** | Upon successful execution and availability of kitting data for a truck number, the application will display the processed/filtered data. The user will have option to filter the data based on Switch or Hose or Both. In-case of both, the order of data display will be Switch and then Hose details | |

## Requirements – Filter by Installation Type

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | | X |   Functional  Non-Functional  Interface |
| **Requirement statement** | Filter the Truck kitting data by installation type Switch / Hose | |
| **Requirement description** | Upon successful execution and availability of kitting data for a truck number, the application will display the processed/filtered data. The user will have option to further filter the data based on Switch or Hose or Both. In-case of selection of “Both”, the order of data display will be Switches first and then to Hose details. | |

## Requirements – Display of Manifold Schematic with Installation Instructions (Switch)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | | X |   Functional  Non-Functional  Interface |
| **Requirement statement** | Display of Visual Guide for installation of switches | |
| **Requirement description** | Based on the model for the given truck number, either P3 or P4 manifold will be displayed on the left side. On the right side, display of Grid with installation instructions for switch assembly. Each instruction will be a step and will be automatically moved from one step to another until it reaches last step. The page will have option to navigate forward or backward to view at the previous or next step. | |

## Requirements – Finalize Installation of Switches

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | | X |   Functional  Non-Functional  Interface |
| **Requirement statement** | Mark and complete the installation of Switch for a Truck | |
| **Requirement description** | After completing the installation of switches, the user have an option to update that installation process of switch is completed for the given truck number. This detail will be captured by the system and will be used for reporting purpose. | |

## Requirements – Display of Manifold Schematic with Installation Instructions (Hoses)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | | X |   Functional  Non-Functional  Interface |
| **Requirement statement** | Display of Visual Guide for installation of Hoses | |
| **Requirement description** | Based on the model for the given truck number, either P3 or P4 manifold will be displayed on the left side. On the right side, display of Grid with installation instructions for Hose assembly. Each instruction will be a step and will be automatically moved from one step to another until it reaches last step. The page will have option to navigate forward or backward to view at the previous or next step. In this case, the sequence will be based on Tube Diameter ( “1/4”, “3/8” and “5/32” inches) | |

## Requirements – Finalize Installation of Hoses

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | | X |   Functional  Non-Functional  Interface |
| **Requirement statement** | Mark and complete the installation of Hoses for a Truck | |
| **Requirement description** | After completing the installation of hoses, the user have an option to update that installation process of hoses are completed for the given truck number. This detail will be captured by the system and will be used for reporting purpose. After completing the installation of hoses and switches, the status will be marked as completed. | |

## Daily Pass through Summary

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | | X |   Functional  Non-Functional  Interface |
| **Requirement statement** | Report of Daily Pass Through Summary | |
| **Requirement description** | This report will be kept in a different page and it will not be exposed to operators. Upon opening the page, the users will have an option to filter a date range and see the number of pass through completed. It will have list of truck numbers and data and timestamp of when a particular pass through was completed for a truck. | |

## About P3 Manifold

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | |  |   Functional  Non-Functional  Interface |
| **Requirement statement** | About P3 manifold | |
| **Requirement description** | If the model field of kitting data is prefixed with “PX”, it will be identified as P3. Each manifold has Pass through and non-pass through section. The pass through section has marking A, B, C, D, E, F, G, H, J, K, L, M, EX and OP. The EX slot should have 3/8’ diameter size hose and all the other ones will have ¼’ diameter in the Pass through section.  In the non-pass through section, the manifold has slots to assemble hose and switches. The P3 will have 4 slots to assemble switches and 12 slots to assemble ¾, ¼ and 5/32 diameter hoses. | |

## Business Rules for P3 Manifold

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | |  |   Functional  Non-Functional  Interface |
| **Requirement statement** | Business rules for P3 manifold | |
| **Requirement description** | Below are the module numbers and tube diameter to look in the kitting data for P3. If only available then the respective switches and hoses will be assembled in the manifest.   |  |  |  |  | | --- | --- | --- | --- | | **Section** | **Module #** | **Tube Dim** | **Colour** | | A | 878 | “1/4” | RED | | B | 198/878 | “1/4” | SIL | | C | 883 | “1/4” | SIL | | D or H | 372/878 | “1/4” | BLK | | E | 890 | “1/4” | GRN | | F | 890 | “1/4” | D GRN | | G | 883 | “1/4” | BLU | | H or D | 373/878 | “1/4” | BLK | | L | 888 | “1/4” | BROWN | | EX | 882 | 3/8 | SIL | | M | NOT USED | | | | J | NOT USED | | | | K | NOT USED | | | | OP | NOT USED | | |     In the non-pass through section, the manifold has slots to assemble hose and switches. The P3 will have 4 slots to assemble switches and 12 slots to assemble ¾, ¼ and 5/32 diameter hoses. | |
|  | | |

## About P4 Manifold

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | |  |   Functional  Non-Functional  Interface |
| **Requirement statement** | About P4 manifold | |
| **Requirement description** | If the model field of kitting data is prefixed with “PE” or “PT”, it will be identified as P4. Each manifold has Pass through and non-pass through section. The pass through section has marking A, B, C, D, E, F, G, OP, H, I, J, K, L, M, N and EX. The EX slot should have 3/8’ diameter size hose and all the other ones will have ¼’ diameter in the Pass through section.  In the non-pass through section, the manifold has slots to assemble hose and switches. The P4 will have 8 slots to assemble switches and 11 slots to assemble ¾, ¼ and 5/32 diameter hoses. | |

## Business Rules for P4 Manifold

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | |  |   Functional  Non-Functional  Interface |
| **Requirement statement** | About P4 manifold | |
| **Requirement description** | Below are the module numbers and tube diameter to look in the kitting data for P4. If only available then the respective switches and hoses will be assembled in the manifest.   |  |  |  |  | | --- | --- | --- | --- | | **Section** | **Module #** | **Tube Dim** | **Colour** | | A | 878 | “1/4” | SIL | | B | 883 | “1/4” | SIL | | C | 198 | “1/4” | SIL | | D | 878 | “1/4” | RED | | E | 883 | “1/4” | BLU | | F | 890 | “1/4” | GRN | | G | NOT USED | | | | H | 888 | “1/4” | BROWN | | I | 890 | “1/4” | D GRN | | J | NOT USED | | | | K or M | 880/873/372 | “1/4” | BLK | | EX | 882 | 3/8 | SIL | | M or K | 880/873/372 | “1/4” | BLK | | L | NOT USED | | | | N | NOT USED | | | | OP | NOT USED | | | | |
|  | | |

## Modules

## Module 372

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | |  |   Functional  Non-Functional  Interface |
| **Requirement statement** | About Module 372 | |
| **Requirement description** | The module # 372 comes in kitting data as “TUBE-NYL 12,1/4",BLA” and it will have varying length of 10.000 or 15.000 or 40.000.  Installation point : For P3, it will be installed in D/H and for P4, it will be installed in K/M  Case 1: if it has length of 10.000 or 15.000 then it will be installed as mentioned above.  Case 2: if it has length of 40.000 then the operator will have to use 2 tubes of length 7’. For P3, it will be in D and H. For P4, it will be K and M. | |

## Module 878

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | |  |   Functional  Non-Functional  Interface |
| **Requirement statement** | About Module 878 | |
| **Requirement description** | The module # 878 comes in kitting data as “TUBE-NYL 12,1/4"” with 3 different colors RED, WHITE and SILVER.  P3   * TUBE-NYL 12,1/4",WHI 5.000 - INT AXLE LOCK * TUBE-NYL 12,1/4",RED 5.000 - A * TUBE-NYL 12,1/4",SIL 5.000 - B   P4   * TUBE-NYL 12,1/4",WHI 5.000 - INT AXLE LOCK * TUBE-NYL 12,1/4",RED 5.000 - D * TUBE-NYL 12,1/4",SIL 5.000 - A | |

## Module 727

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | |  |   Functional  Non-Functional  Interface |
| **Requirement statement** | About Module 727 | |
| **Requirement description** | The module # 727 comes in kitting data as “TUBE-NYL 12,1/4"” with YELLOW, BLUE and BLACK.   * Consider only YELLOW and ignore all the other line items.   P3 & P4   * TUBE-NYL 12,1/4",YEL - PP AIR | |

## Module 880

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | |  |   Functional  Non-Functional  Interface |
| **Requirement statement** | About Module 880 | |
| **Requirement description** | The module # 880 comes in kitting data as “TUBE-NYL 12,1/4"” with YELLOW, BLUE and BLACK.   * Consider only YELLOW and ignore all the other line items.   P3   * Ignore the line items which are 3/8’ * TUBE-NYL 12,1/4",YEL - PP AIR * TUBING-NYLON,5/32" G – PRI Supply * TUBING-NYLON,5/32" R – SEC Supply   P4   * Ignore the line items which are 3/8’ * Ignore the tube which has length less than 1.000 * Ignore the 12-26964-001 PASSTHRU-SWITCH MANI * TUBE-NYL 12,1/4",YEL – PP AIR * TUBE-NYL 12,1/4",BLA – K (OR) M   P4 – Special Case   * If it has 48-00100-513 TUBING-NYLON,5/32" O then “23-14392-007 CONN-STR,5/32 PTC X” will be used in the Switch spot “PP SIGN” and the 5/32 Orange hose will be installed * In addition to the above 1/4 “ Black hose if it has “48-00100-510 TUBING-NYLON,5/32" B” then the 1/4 hose will be joined with 5/32 hose using Connector “23-14393-003” | |

## Module 888

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | |  |   Functional  Non-Functional  Interface |
| **Requirement statement** | About Module 888 | |
| **Requirement description** | The module # 888 comes in kitting data with below options.  P3   * TUBE-NYL 12,1/4",BLU will be installed in “SUB DUMP” * If it has additional switches apart from the ones mentioned under the module 486. In this case, these two switches will be manually tied with BLU hose using Tag   + FSC1749 1121 SW-PRES,NO,2-6PSI,2-   + FSC1749 1121 SW-PRES,NO,2-6PSI,2- * Ignore the below ones   + TUBE-NYL 12,1/4",YEL   + TUBE-NYL 12,1/4",PUR * if it has TUBE-NYL 12,1/4",BRO then it will be installed in “L”   P4   * If it has just “TUBE-NYL 12,1/4",BRO” <<48-25855-011>> then it will be just installed in the slot “H” * If it has “TUBING-NYLON,5/32" B” (BLUE) <<48-00100-516> and “TUBE-NYL 12,1/4",BRO” <<48-25855-011>> then it will be joined and installed in the slot “ H”. ( **Brown to Blue**) * If it has just “888 TUBE-NYL 12,1/4",BLU” <<48-25855-016>> then it will be installed on the **bottom blue slot**. In-addition, if it has “PRESSURE SWITCH, NO” <<12-27919-000>> then this switch will be attached with blue at the tail end of the hose. **( Blue to Switch ). It will be only for P4.** | |

## Module 882

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | |  |   Functional  Non-Functional  Interface |
| **Requirement statement** | About Module 882 | |
| **Requirement description** | The module # 882 comes in kitting data with below options.  P3 & P4   * 48-25811-010 TUBE-NYL 12,3/8",BLK - TRC-TRK Park * 48-25811-012 TUBE-NYL 12,3/8",RED – SEC Supply * 48-25811-013 TUBE-NYL 12,3/8",ORN –TRL Park * 48-25811-015 TUBE-NYL 12,3/8",GRN – PRI Supply * 48-25811-120 TUBE-NYL 12,3/8",SIL – EX ( Pass through ) | |

## Module 883

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | |  |   Functional  Non-Functional  Interface |
| **Requirement statement** | About Module 883 | |
| **Requirement description** | The module # 883 comes in kitting data with below options.  P3   * 48-25855-030 TUBE-NYL 12,1/4",SIL - C * 48-25855-016 TUBE-NYL 12,1/4",BLU – G * 48-25855-012 TUBE-NYL 12,1/4",RED – SEC Supply   P4   * 48-25855-030 TUBE-NYL 12,1/4",SIL – B * 48-25855-016 TUBE-NYL 12,1/4",BLU – E   If available in two line items with different size then it will be recommended to install One 5' footer Blue in E   * 48-25855-012 TUBE-NYL 12,1/4",RED – SEC Supply * In very rare case, P4 will have additional below line items   + 48-25855-010 TUBE-NYL 12,1/4",BLA   If the above is available then T Connector will be used with 882 TUBE-NYL 12,3/8",BLK - TRC-TRK Park   * + 48-25855-013 TUBE-NYL 12,1/4",ORA   If the above is available then T Connector will be used with 882 TUBE-NYL 12,3/8",ORN –TRL Park | |

## Module 890

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | |  |   Functional  Non-Functional  Interface |
| **Requirement statement** | About Module 890 | |
| **Requirement description** | The module # 890 comes in kitting data with below options.  P3   * 48-25855-015 TUBE-NYL 12,1/4",GRE - E * 48-25855-031 TUBE-NYL 12,1/4",DK - F   Most of the cases in P3 will have only GREEN but if the kitting data has “DK” then “T” connector will be used in addition at the 882 TUBE-NYL 12,3/8",BLK (Trailer park). The Black tube will be cut into two and T connector will be used to connect the 3/8 tubes and additional 1/4 black tube will also be used. This is very specific to P3 manifold only.  P4   * 48-25855-015 TUBE-NYL 12,1/4",GRE - F * 48-25855-031 TUBE-NYL 12,1/4",DK - I   There is no need to use “T” connector in P4 for this case. | |

## Module 873

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | |  |   Functional  Non-Functional  Interface |
| **Requirement statement** | About Module 873 | |
| **Requirement description** | The module # 873 comes in kitting data with below options.  P3   * TUBE-NYL 12,1/4",BLA – D or H   If “48-00100-510 TUBING-NYLON,5/32" B 1.000 “ is also available then it will be connected as Black to Black using connector “ 23-14393-003 “  P4   * TUBE-NYL 12,1/4",BLA - K or M   If “48-00100-510 TUBING-NYLON,5/32" B 1.000 “ is also available then it will be connected as Black to Black using connector “ 23-14393-003 “ | |

## Module 198

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | |  |   Functional  Non-Functional  Interface |
| **Requirement statement** | About Module 198 | |
| **Requirement description** | The module # 198 comes in kitting data with below options.  P3   * TUBE-NYL 12,1/4",SIL 9.000 – B   P4   * TUBE-NYL 12,1/4",SIL 9.000 - C | |

## T Connector

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | |  |   Functional  Non-Functional  Interface |
| **Requirement statement** | About T Connector | |
| **Requirement description** | P3  If ”48-25855-031 TUBE-NYL 12,1/4",DK” found in the kitting data then “T” connector will be used in the Trailer Park slot.  Usually the TP slot will be installed with module # 882 “48-25811-010 TUBE-NYL 12,3/8",BLK”. The ”48-25855-031 TUBE-NYL 12,1/4",DK” hose will be installed in “F” of pass through section.  The kitting data will also have 890-C00477 48-25855-010 TUBE-NYL 12,1/4",BLA 2.000. This 1/4 tube will be used with T Connector  P4  Refer the Requirement # Module 883 | |

## Y Connector

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | |  |   Functional  Non-Functional  Interface |
| **Requirement statement** | About Y Connector | |
| **Requirement description** | P3  It is applicable only for P3 manifold.  In the kitting data, the first line item will be 372 module 3/8’ with 3.000 BLK. It is indicating that “Y” should be used in the P3 at the TP slot. Usually the operator cuts the 882 which usually goes to the TP and add another 3/8’ Black and forms the “Y” tube. | |

## Configuration

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Requirement ID** |  | |  | | --- | | X | |  | |  |   Functional  Non-Functional  Interface |
| **Requirement statement** | Configure and manage the display of Visual Aid system | |
| **Requirement description** | The admin page will be maintained separately. The configuration should allow the user to manage the manifold design, module number and description/message to be shown to end user/operator | |

# Other requirements

## Statutory and regulatory requirements

Not Applicable

## Legal requirements

Not Applicable

## Interface requirements

TBD

# Project acceptance criteria

1. All the functions intended for project are completed as per the requirement provided
2. Successful execution of test cases provided by HTL and DTNA

# References

|  |  |
| --- | --- |
| **Description** | **Reference Documents** |
| Notes collected and shared with AL team for review |  |
| Minutes from the workshop |  |