

## O-MAF REQUIREMENT LIST

### 1. USER

- 1.0 Shall acknowledge consent and click button.
  - 1.0.1 Shall click login button.
- 1.1 Shall enter a Username for authentication.
- 1.2 Shall enter the assigned Pin with its Username.
- 1.3 Can View reports.
- 1.4 Can Initiate MAF
- 1.5 Can order parts if needed.
- 1.6 Collateral Duty Inspectors (CDI) shall inspect other worker's work.
- 1.7 QA shall inspect QA required inspections.
- 1.8 MC shall verify MAFs for completion.
- 1.9 MC shall submit contingency MAF to system upon coming back online.

### 2. SYSTEM

- 2.0 Authenticate User
- 2.1 Verify input username
- 2.2 Verify input pin and match with username
- 2.3 Verify Initiate before approving the MAF for distribution.
- 2.4 Create MAF that passed input validation.
- 2.5 Must verify the source and the destination of the parts.
- 2.6 Once a worker signs off a MAF, send notification to the available Inspector within their respective shop.
  - 2.6.1 The system shall verify that the Inspector have the proper qualification to be an inspector.
- 2.7 Once an Inspector signs off MAF for a QA required job, send a notification to the available QA.
  - 2.7.1 QA can be in any shop.
  - 2.7.2 The system shall verify that the QA have the proper qualification to be a QA.
- 2.8 System shall verify that all fields are filled out by all parties.
- 2.9 Once CDI and or QA signs off MAF and validated by the system for completion, send a notification to the duty Maintenance Controller.
  - 2.9.1 MC can be in any shop.
  - 2.9.2 The system shall verify that the QA have the proper qualification to be a MC.

### 3. SOFTWARE

- 3.0 Requirements will be implemented using an online platform that is capable of CRUD operations.
- 3.1 List of software that will be used are the following:
  - 3.1.1 ASP.NET
  - 3.1.2 SQL Server or the lite version like MySQL
  - 3.1.3 C#
  - 3.1.4 JavaScript Object Notation (JSON)
  - 3.1.5 Hosting platform like iPage.com

### 4. TESTING

- 4.0 Test ID #1.0. Inspection test for clicked button before showing the login page.
- 4.1 Test ID # 1.1. Use Entity Validation to check username to match if there is an account in the database. Ref: <https://www.intertech.com/Blog/unit-test-net-entity-validation>.
- 4.2 Test ID # 1.2. Same as par. 4.1.
- 4.3 Test ID # 1.3. Verify connection with SQL server.
- 4.4 Test ID # 1.4. Validate all input from the database for proper assigning of maintenance codes.

- RTM
  - Requirement Traceability Matrix
    1. Unit Testing
      - The testing of individual software components.
    2. Integration Testing
      - Testing performed to expose defects in the interfaces and in the interactions between integrated components or systems.
      - Component integration testing: Testing performed to expose defects in the interfaces and interaction between integrated components.
      - System integration testing: Testing the integration of systems and packages; testing interfaces to external organizations (e.g. Electronic Data Interchange, Internet).
    3. System Testing
      - The process of testing an integrated system to verify that it meets specified requirements.
    4. Acceptance Testing
      - Formal testing with respect to user needs, requirements, and business processes conducted to determine whether a system satisfies the acceptance criteria and to enable the user, customers or other authorized entity to determine whether or not to accept the system.

Test	1 Unit Testing	2 Integrate Testing	3 System Testing	4 Accept Testing
1.0 Acknowledge Consent	X			X
1.1 Username	X	X	X	
1.2 Pin	X	X	X	
1.3 View Reports	X	X		X
1.4 Initiate MAF	X	X		X
1.5 Order Parts	X	X		
1.6 CDI	X	X		
1.7 QA	X	X		

Test	1 Unit Testing	2 Integrate Testing	3 System Testing	4 Accept Testing
1.8 Maintenance Control	X	X		X
1.9 Contingency	X	X	X	X
2.0 Authenticate User	X	X		
2.1 Username	X	X		
2.2 Pin	X	X		
2.3 Approve MAF	X	X		
2.4 Create MAF	X	X		
2.5 Source and destination of parts	X	X		X
2.6 Notify CDI	X	X	X	X
2.7 Notify QA	X	X	X	X
2.8 Validate for completion	X	X	X	X
2.9 Notify MC	X	X	X	X

- RTM 90% TDD