Fleet Manager User Acceptance Testing Guide

Ben Formosa 11429074

Contents

1 Introduction

This document outline the User Acceptance Testing procedure and test cases for the Fleet Manager project.

1.1 Project overview

Fleet Manager (FM) is a web-based system for recording travel in company vehicles.

1.2 Scope

Tests should cover all end-user and system administrator activities.

1.3 Testers

Most tests can be carried out by anyone with basic computer skills.
Tests of the system procedures should be carried out by someone with system administration skills, who is familiar with GNU/Linux, LDAP, HTTPS, and TCP/IP networking.

1.4 Assumptions

- An LDAP directory server is available.
- Each tester has details for at least one account on the directory server.
- Each tester has access to the Fleet Manager User Guide.

2 Test cases

2.1 Scripted installation

2.1.1 Preconditions

- The tester has systems administration skills.
- A computer is prepared with a Debian or Ubuntu operating system.
- An LDAP server is prepared with required users and groups.

2.1.2 Actions

1. Follow the instructions in the *Installing Fleet Manager with the installer* section of the FM User Guide.
2. Confirm FM is running by following *Checking if Fleet Manager is running* from the FM User Guide.
3. Connect to FM in a web browser.

2.1.3 Postconditions

- FM is installed and running.
- FM's Sign in page is displayed.

2.2 Manual installation

2.2.1 Preconditions

- The tester has systems administration skills.
- A computer is prepared with a Debian or Ubuntu operating system.
- An LDAP server is prepared with required users and groups.

2.2.2 Actions

1. Follow the instructions in the *Installing Fleet Manager manually* section of the FM User Guide.
2. Confirm FM is running by following *Checking if Fleet Manager is running* from the FM User Guide.
3. Connect to FM in a web browser.

2.2.3 Postconditions

- FM is installed and running.
- FM's Sign in page is displayed.

2.3 Scripted uninstallation

2.3.1 Preconditions

- The tester has systems administration skills.
- Fleet Manager has been installed as per either the Scripted Installation or Manual Installation tests.

2.3.2 Actions

1. Follow the instructions in the *Uninstalling Fleet Manager with the uninstaller* section of the FM User Guide.

2. Confirm that the FM service is not running.

   ```
   sudo /etc/init.d/fm status
   sudo ps aux | grep passenger
   ```

3. Confirm that the application directory has been removed.

   ```
   ls /srv/rails/fm
   ```

2.3.3 Postconditions

- The FM service is not running.
- The FM application directory is removed.

2.4 Manual uninstallation

2.4.1 Preconditions

- The tester has systems administration skills.
- Fleet Manager has been installed as per either the Scripted Installation or Manual Installation tests.

2.4.2 Actions

1. Follow the instructions in the *Uninstalling Fleet Manager manually* section of the FM User Guide.

2. Confirm that the FM service is not running.

```
sudo /etc/init.d/fm status
sudo ps aux | grep passenger
```

3. Confirm that the application directory has been removed.

```
ls /srv/rails/fm
```

2.4.3   Postconditions

- The FM service is not running.
- The FM application directory is removed.

2.5   Change SSL certificate

2.5.1   Preconditions

- The tester has systems administration skills.
- FM is installed and running correctly.

2.5.2   Actions

1. Connect to FM in a web browser and confirm the serial number of the SSL certificate.

2. Obtain a new SSL certificate and private key.
   E.g.

   ```
   openssl req -x509 -newkey rsa:2048 -keyout key.pem -out cert.pem -days 365 -nodes
   ```

3. Confirm the serial number of the new SSL certificate. E.g.

   ```
   openssl x509 -in cert.pem -serial -noout
   ```

4. Follow the instructions in the *Using your own SSL certificate* section of the FM User Guide.

5. Connect to FM in a web browser and confirm the serial number of the SSL certificate.

2.5.3   Postconditions

- The serial number of the SSL certificate used in the web browser matches that of the new SSL certificate.

2.6   HTTP

2.6.1   Preconditions

- The tester has systems administration skills.
- FM is installed and running correctly.

2.6.2 Actions

1. Connect to FM in a web browser using HTTP and confirm that it does not load.
2. Connect to FM in a web browser using HTTPS and confirm that it loads.
3. Follow the instructions in the *Disabling HTTPS* section of the FM User Guide.
4. Connect to FM in a web browser using HTTP and confirm that it loads.
5. Connect to FM in a web browser using HTTPS and confirm that it does not load.

2.6.3 Postconditions

- FM can only be accessed via HTTP.

2.7 Sign in user

2.7.1 Preconditions

- FM is installed and running correctly.
- Tester has an account in the FM user group.

2.7.2 Actions

1. Connect to FM in a web browser.
2. Sign in using a directory account.

2.7.3 Postconditions

- The user is signed in.
- The message *"Signed in successfully"* is displayed.

2.8 Sign in admin

2.8.1 Preconditions

- FM is installed and running correctly.
- Tester has an account in the FM admin group.
- The text *"Signed in as: username"* is displayed in the footer.

2.8.2 Actions

1. Connect to FM in a web browser.
2. Sign in using a directory account.

2.8.3 Postconditions

- The user is signed in.
- The message *"Signed in successfully"* is displayed.
- The text *"Signed in as admin: username"* is displayed in the footer.

2.9   Add car

2.9.1   Preconditions

- The tester is signed in to FM.

2.9.2   Actions

1. Follow the instructions in the *Adding a car* section of the FM User Guide, using the values:

Field	Value
Name	Test car
Enable	Checked
Fleet	Checked
Make	Test
Model	Test
Rego	ABC 123
State	Test
Initial Odometer reading	100
Initial location	Test

2. Click *Test car* and confirm the details.

2.9.3   Postconditions

- The new car is listed on the **Cars** page.
- The Rego displayed on the **Car details** page is *ABC · 123*.

2.10   Add car with invalid data

2.10.1   Preconditions

- The tester is signed in to FM.
- A car has been created as per the Add car test.

2.10.2   Actions

1. Follow the instructions in the *Adding a car* section of the FM User Guide, using the values:

Field	Value
Name	Test car
Enable	Checked
Fleet	Checked
Make	Test

Field	Value
Model	Test
Rego	ABC 123
State	Test
Initial Odometer reading	100
Initial location	Test

2.10.3 Postconditions

- Creating the car does not complete.
- The message *"Name has already been taken"* is displayed.

2.11 Edit car

2.11.1 Preconditions

- The tester is signed in to FM.
- A car has been created as per the Add car test.

2.11.2 Actions

1. Confirm that the car is listed on the **Cars** page.
2. Follow the instructions in the *Editing a car* section of the FM User Guide to update the values:

Field	Value
Name	Test truck

1. Confirm that the car is listed on the **Cars** page.

2.11.3 Postconditions

- The car's name is displayed as *"Test truck'"*

2.12 Disable car

2.12.1 Preconditions

- The tester is signed in to FM.
- A car has been created as per the Add car test.

2.12.2 Actions

1. Confirm that the car is listed on the **Cars** page.

2. Follow the instructions in the *Disabling a car* section of the FM User Guide.
3. Confirm that the car is not listed on the **Cars** page.
4. Click *Show inactive cars.*
5. Confirm that the car is listed on the **Cars** page.

2.12.3 Postconditions

- The disabled car is listed on the **Cars** page only after clicking *Show inactive cars.*

2.13 Log trip

2.13.1 Preconditions

- The tester is signed in to FM.
- A car has been created as per the Add car test.

2.13.2 Actions

1. Follow the instructions in the *Logging travel* section of the FM User Guide, for the Car *Test car*, using the values:

Field	Value
End location	Here
End odometer reading	200

2.13.3 Postconditions

- The trip is displayed with a distance of 100.

2.14 Log trip with invalid data

2.14.1 Preconditions

- The tester is signed in to FM.
- A car has been created as per the Add car test.

2.14.2 Actions

1. Follow the instructions in the *Logging travel* section of the FM User Guide, for the Car *Test car*, using the values:

Field	Value
End location	Here
End odometer reading	5

2.14.3 Postconditions

- Creating the trip does not complete.
- The message *"Odometer reading must be greater than the car's Initial Odometer reading."* or *"Odometer reading must be greater than the reading from the last trip"* is displayed.

2.15 Log personal trip

2.15.1 Preconditions

- The tester is signed in to FM.
- A car has been created as per the Add car test.

2.15.2 Actions

1. Follow the instructions in the *Logging personal travel* section of the FM User Guide, for the Car *Test car*, using the values:

Field	Value
End location	There
End odometer reading	250
Personal	Checked

2.15.3 Postconditions

- The trip is displayed with a distance of 50.

2.16 View report

2.16.1 Preconditions

- The tester is signed in to FM.
- A car has been created as per the Add car test.
- A trip has been logged as per the Log trip test.
- A personal trip has been logged as per the Log personal trip test.

2.16.2 Actions

1. View the *Distance per car* report, by following the instructions in the *Reports* section of the FM User Guide.
2. Confirm the data in the report.
3. Click *Download CSV*
4. Open the CSV and confirm that the data matches that displayed in the report web page.

2.16.3 Postconditions

- The report and CSV show the following:

Car	Trip Count	Business	Personal	Total
Test car	2	100	50	150