



## **Marshall Multispread MDC App Loading Prescription Maps**

### **Background**

This document outlines how to load a fertiliser prescription map into the Multispread MDC app. The prescription map can be used to control the fertiliser application rate as the spreader moves within the field boundaries.

### **Prerequisites**

- To control the fertiliser rate from a map, Version 4.1 or later of the Multispread app is required. The current version number is shown on the app contacts screen. Update the app from the iTunes store if required.
- iTunes software running on a desktop or laptop computer
- Prescription map in JSON or shape file format
- iPad USB cable

## Notes on Map folder structure

In **GEOJSON** format the following structure is required :

Name	Date modified	Type	Size
Dowerin.json	8/12/2016 4:14 PM	JSON File	1 KB
Dowerin.zip	8/12/2016 4:14 PM	Compressed (zippe...	3 KB

**Figure 1 : GEOJSON file folder structure**

The .json file in the root folder contains the definition of the map layer attributes. The zip folder contains the GEOJSON file that contains geolocation data including GPS co-ordinates and the polygons that represent each of the different zones in the field.

## In **Shape** File Format

Name	Date modified	Type	Size
Dowerin.json	8/12/2016 4:14 PM	JSON File	1 KB
Dowerin.zip	8/12/2016 4:14 PM	Compressed (zippe...	3 KB

**Figure 2 : Shape file folder structure**

The .json file in the root folder contains the definition of the map layer attributes. The zip folder contains a .shp, .shx and .dbf file which each contain geolocation data including GPS co-ordinates and the polygons that represent each of the different zones in the field. (Fig 3)

New folder				
Name	Date modified	Type	Size	
Lime_-_Application.dbf	8/13/2016 9:54 AM	DBF File	1 KB	
Lime_-_Application.shp	8/13/2016 9:54 AM	AutoCAD Shape So...	2 KB	
Lime_-_Application.shx	8/13/2016 9:54 AM	SHX File	1 KB	

**Figure 3 : Shape file zip folder structure**

## To load prescription map

1. Connect the iPad to the computer, upon connection the iTunes program should automatically start. **ENSURE THE MARSHALL APP IS NOT RUNNING ON THE IPAD PRIOR TO CONNECTING THE IPAD TO THE COMPUTER. SHUTDOWN THE MARSHALL APP IF REQUIRED**
2. Select the iPad icon in top left of the iTunes screen. (Fig 4)
3. Select Apps in the Folder tree (Fig 4)
4. Scroll down to the bottom of the Apps pane (Fig 4)

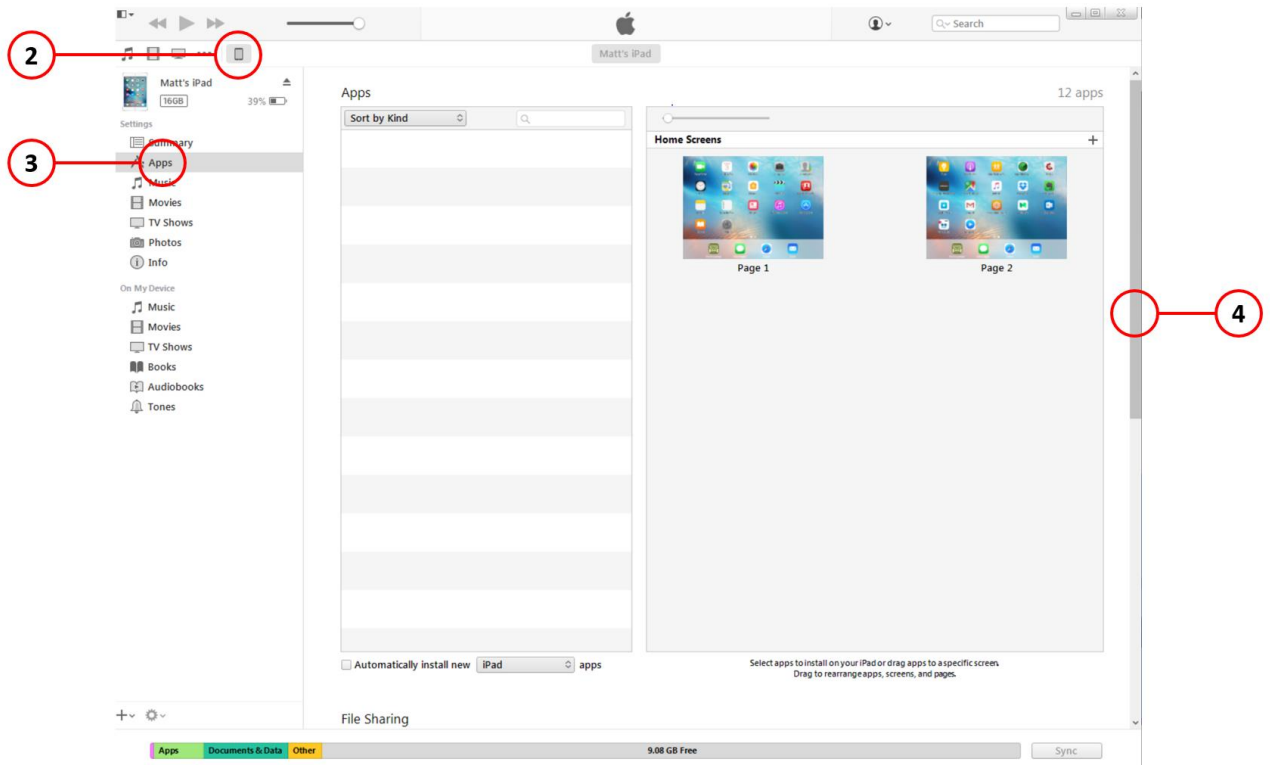


Figure 4 : iTunes screen (Steps 2-4)

5. Select the Multispread App from the file sharing list (Fig 5)
6. Drag and Drop the .json file and the zip folder from into the documents pane from your file browser (Fig 5). In the example case drag the file Dowerin.json and zip folder Dowerin.zip into the documents pane.
7. Click on Sync to copy the prescription file to the iPad. (Fig 5)

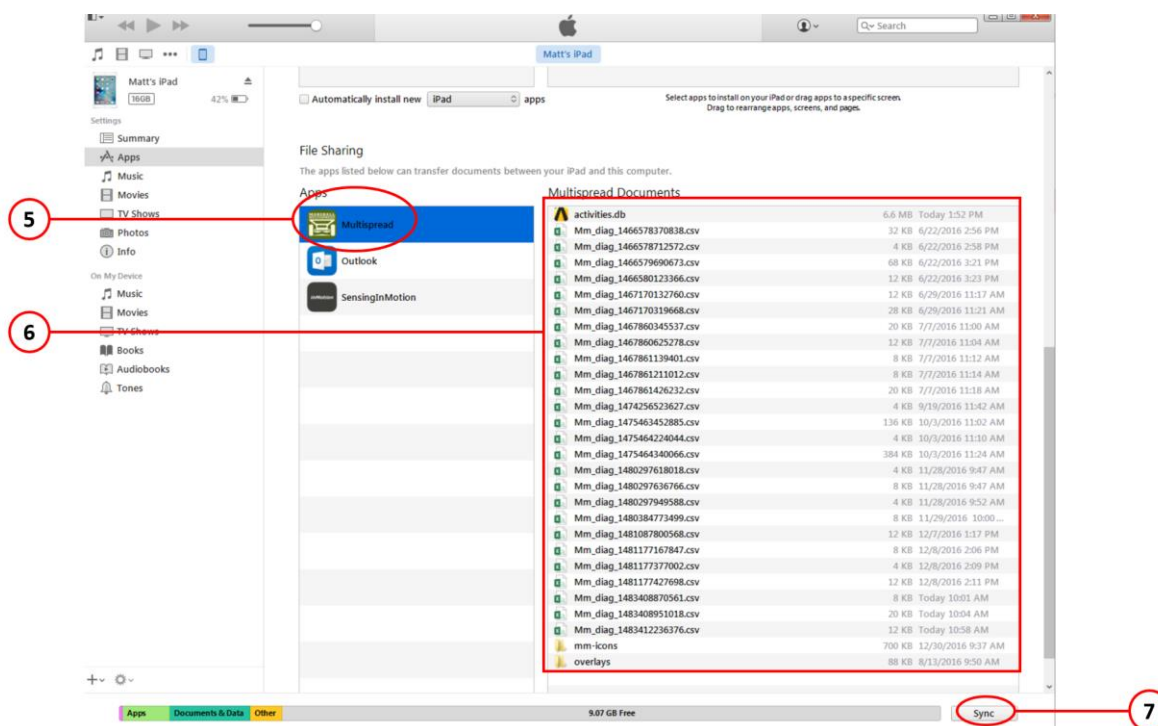


Figure 5: iTunes screen (Steps 5-7)

8. Disconnect the iPad from iTunes
9. Start the Multispread App on the iPad.

10. On the Operation Screen, tap the map folder and select Dowerin from the pull down list (Fig 6)
11. The prescription layer will be shown on the map screen (Fig 7)

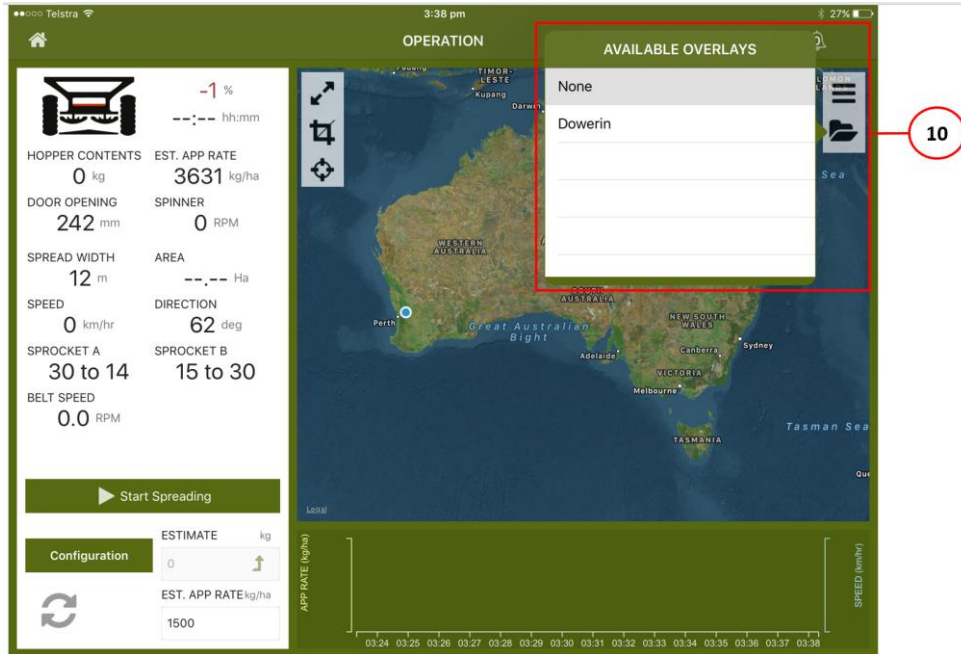


Figure 6: App Operation Screen (Step 10)

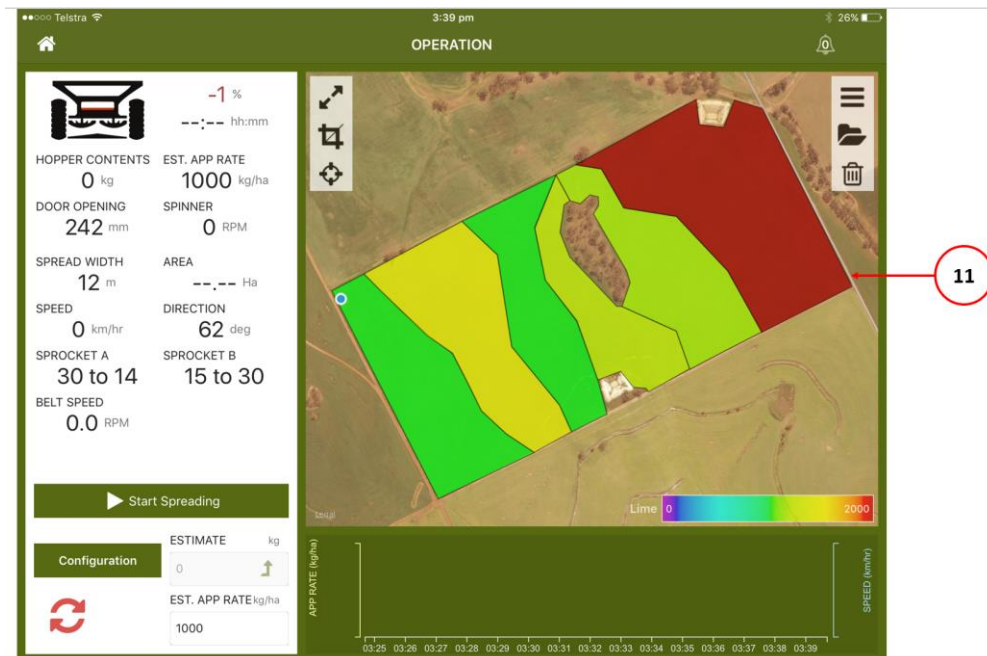


Figure 7: App Operation Screen (Step 11)

## Layer Definition File Format

The format for the .json file that is used for layer definition is shown below. File comments are shown in red.

```
{
  "name": "Dowerin", // Name of the Field
  "fileName": "Dowerin.zip", // Name of the zip folder that contains the Shape or GEOJSON data
  "mimeType": "application/zip", // mime type, must be application/zip
  "kind": "shapefile", // the file kind, Shape or GEOJSON
  "layers": [{
    "name": "Dowerin", // Field name
    "shapeName": "Dowerin", // Shape Name
    "profile": "coverage", // Coverage Name
    "variable": "Lime", // Name of Fertiliser/Variable
    "lower": 0.0, // Lower Rate limit (kg/ha)
    "upper": 2000.0 // Upper Rate limit (kg/ha)
  }]
}
```