

# Maps 1900: Instructions for Viewing Large Scale Historic Mapping on a GPS Enabled Device Using the Locus Map 4 App

Ray Wilson 31 October 2022 Version 1 (DRAFT) ray.wilson@coaley.net

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## 1. Introduction

The Ordnance Survey (OS) Maps at 25 inches to the mile (1:2500) for England and Wales published between 1873 and 1922 have for many years proved invaluable for local historians and archaeologists. This is particularly true for industrial archaeologists where these maps often include a wealth of detail regarding mills, canals, railways, roads, quarries and factories and such like.

Where sites have not been built over it can be very instructive to visit the area with a large scale map from say circa 1900, although due to past clearance of the site it may not be easy to relate the map precisely to the location.

The National Library of Scotland have recently permitted the reuse of some of these maps [1] so it is now possible to create custom maps for use in the field with a GPS enabled device [2]. This enables features shown on the map to be located to a typical accuracy of 3-5 metres.

There are a number of file formats that can be used for custom maps but the present discussion is restricted to the MBTiles format [3].

Locus Map 4 [4] is a free app which has paid-for versions. The free version displays a small banner advert across the top of the screen but it is not highly intrusive. Unfortunately, the app is only available for Android devices. It can work with many maps of various kinds and has many features which makes it less easy to use for simply displaying custom maps. While the online documentation for Locus Map 4 is excellent, given the number of features it is not always easy to find quickly the required information. These notes have therefore been produced to assist potential users of historic custom maps on the Locus Map 4 app.

The free app previously recommended for both Android and iOS devices was withdrawn in mid 2022 and it appears that iOS users may require a paid app as discussed in Tips and Updates on the [Maps 1900 website](#).

## 2. Installation of the Locus Map 4 App

The App is only available for the Android operating system and should be downloaded from the Google Play Store and installed in the usual way on your device. At the time of writing, the current Version is 4.11.0.

### 3. Obtaining Custom Maps

At present, users will probably need to create their own custom maps and the Mobile Atlas Creator software (MOBAC) is recommended [5]. Full details of how to produce custom maps using mapping from the National Library of Scotland and MOBAC are available [2]. Alternative software does exist to create MBTiles custom maps (e.g. QGIS, MAPC2MAPC and MBTilesGenerator) but they will not be considered further here.

In time, it is hoped that organisations with an interest in field work might build up a library of "atlases" (the term, Mobile Atlas Creator uses for a custom map file) for areas of particular interest. These could be made available for download from the organisation's website.

### 4. Viewing a Custom Map on Your Device with the Locus Map 4 App

- Open the app.
- A map will normally be displayed and which one depends on how the app was used previously. If no map is displayed on opening you should still be able to access the map screen by some other route.
- Tap the "three line" icon in the bottom left hand corner of the map to open the main menu
- Tap "Map Manger" in the main menu to display the "Maps" screen which has three tabs "ONLINE", "OFFLINE" and "WTS/WMTS".
- Tap on the "OFFLINE" tab to display a list of the offline raster and vector maps installed on the device. MBTiles is a raster format and these will appear (without the .mbtiles extension in the upper section of the list.
- Tap on the name of the required map and it will open along with a set of icons (controls) overlaid on the map.
- A notification may appear that the "Selected map is out of current view Center? NO YES". Tap "yes" ensure your custom map is visible on the map screen.

The two most important icons are Location and Menu.

Tap the Menu icon [≡] to load a different custom map.

Tap the Location icon [📍] to centre the map at your current location.

- Pinch two fingers together or apart to adjust zoom or use the zoom in (+) and zoom out (-) icons.

Other icons include Map content menu, Magnifier and Search for Place (see Section 6 for the details).

Beware that your custom map will only be displayed if your zoom is set to one of the zoom levels in your custom map. While this is automatically set when the map loads, it is clearly possible to adjust the controls in use so that the custom map won't be displayed. The quick remedy is to return to the "Maps" screen by tapping the "Maps" icon and reloading the map.

## 5. Installing a Custom Map on Your Device for use with the Locus Map 4 App

First ensure that the custom map you wish to install has been transferred to your phone or tablet and note the location where it is stored.

- Open the Locus Map 4 App (a map will normally be displayed).
- Tap the "three line" icon [≡] in the bottom left hand corner of the map to open the main menu. If no map is displayed you should still be able to access the main menu by some other route.
- Tap "Map Manager" in the main menu to display the "Maps" screen which has three tabs "ONLINE", "OFFLINE" and "WTS/WMTS".
- Tap on the "OFFLINE" tab to display a list of the offline raster and vector maps installed on the device.

MBTiles is a raster format and thus any MBTiles maps that have been installed will appear (without the .mbtiles extension) in the upper section of the list. Note that the maximum number of maps that can be installed in the free edition is ten.

- To install a new custom map tap on the large red plus (+) icon at the bottom of the screen.
- This will show three red icons.
- Tap on the "**Import map**" option.
- This will open the "**Select source**" dialog box.
- Tap on the relevant source which will normally be "**Local**".
- The next step will depend on your device and software installed.
- Locate the mbtiles file corresponding to the custom map you wish to install and tap on it. [In some instances this might be in the "Downloads" folder].
- The Import dialog box will appear with the file name and target directory preloaded.
- Tap on the "**Import**" option.
- Close the "**Local file**" dialog box by tapping anywhere outside it.

The newly installed map should now be listed in the "OFFLINE" tab of Maps.

To use the map simply tap on its entry in the "OFFLINE" tab of Maps.

If you wish to open the map centred in the display, open the map by tapping on the "3 line" menu icon [≡] associated with it and tap on "**Centre map**".

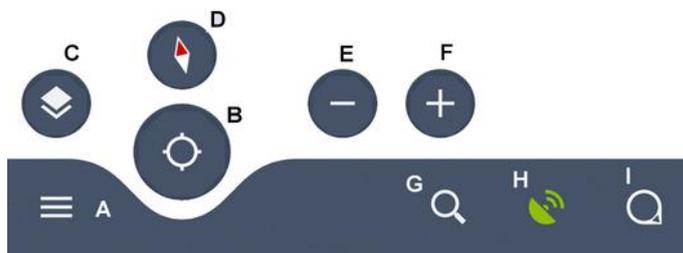
To delete an item in the list (maximum number allowed is ten) tap on the "3 line" menu icon [≡] associated with it and tap on delete and confirm deletion. This will not delete the map from your phone and it can be reinstalled later if you are within the allowed 10 maps.

## 6. Explanation of the Icons on the Map View of the App

The Main menu icon [A] is used to install and select the custom maps to use as described in Sections 4 and 5. The Main menu also gives access to numerous features of the Locus Map 4 app and their settings that are beyond the scope of these notes.

Tapping the Location icon [B] will centre the map at the user's present location.

The Map screen content menu icon [C] will not normally be needed as the default settings are usually adequate.



- A Main Menu
- B Location
- C Map screen content
- D Compass |(may not be displayed)
- E Zoom out
- F Zoom in
- G Search for place
- H Display map of the satellites in use
- I Magnifier (for a small region of the map)

## 7. Concluding Remarks

The release of large scale georeferenced historical mapping from the National Library of Scotland has enabled custom maps to be created for GPS enabled devices as a valuable tool for use in fieldwork.

Detailed instructions have been produced for the use of custom maps with the Locus Map 4 app. They cover all the necessary stages including installing the app, and obtaining, loading and viewing maps.

### Disclaimer

Please take suitable care if you use these apps in the field for the purposes described in these notes, as clearly, we accept no liability for any loss or damage, that might occur.

## 8. Notes and References

- [1] National Library of Scotland Map Images website  
<https://maps.nls.uk/guides/georeferencing/>

- [2] Wilson, R., Mobile Atlas Creator (MOBAC): Maps 1900: Notes on Creating Atlases (Custom Maps) available from [[coaley.net/maps1900](http://coaley.net/maps1900)] October 2022.
- [3] MBTiles is an open specification based on the SQLite database.  
<https://docs.mapbox.com/help/glossary/mbtiles/>
- [4] Locus Map 4, <https://www.locusmap.app/>
- [5] Mobile Atlas Creator (MOBAC) <https://mobac.sourceforge.io/>