



User manual addendum for GBM Mobile

Installer build 5.10.0089

This documentation presents extracts from the new GBM Mobile user manual that describe some of the new features of GBM Mobile V5.10.0089. Not all new features are described here. A summary of software changes is provided in the V5 Power Point presentation and further details are available in the release notes and the updated user manual.

1 Hotlink Tool

 This tool button works the same way as the tool with this icon in MapInfo Professional. It is most commonly used to present photographs (.bmp, .jpg etc) or view documents (e.g. Word, Excel or Acrobat files).

 To set-up hot linking, enter a file name as data in a column in a MapInfo .tab file, and define that column as the hotlink column through the MapInfo Professional layer control tool.

Filename Expression: Use one of the .tab file field names as the Filename Expression. GBM Mobile does not support the MapInfo “Expression” option.

Activate HotLink on:


Labels

Objects

Labels & Objects

GBM Mobile supports linking from map objects. It does not work with labels.

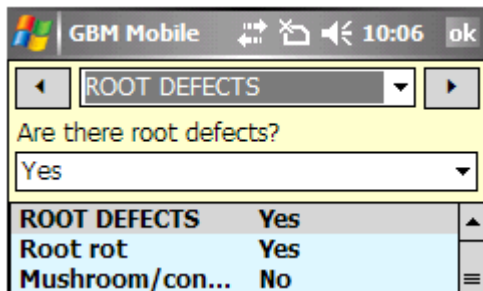
Save options to table metadata Be sure to save options into the table metadata before loading the .tab file onto the PDA (load data through the normal load data option described in section 2.2.2).

 When you click on a Map Object with the hot-link tool, GBM Mobile will pass the file name entered into the relevant .tab file data field to the Windows Mobile default viewer for files with the corresponding file extension (e.g. .jpg for JPEG images and .pdf for Acrobat PDF files). The viewer must be installed on the PDA.

GBM Mobile will first attempt to find the file in the folder \My Documents\Hotlinks. This first search ignores any file path information. For example, if the data was entered as Pictures\photo1.jpg, GBM Mobile will look in \My Documents\Hotlinks for photo1.jpg.

File locations are relative to table location If the file is not found in the My Documents\Hotlinks folder, GBM mobile will use the full pathname to find the file. It will use an absolute path name or search relative to the .tab file location depending on the file searching option set in the MapInfo Layer Control.

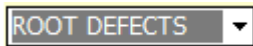
2 Custom Form Grouping



Grouping makes it easy for operators to jump to the top of a section in a long custom form.



The arrow keys allow an operator to move forward and back through the groups.

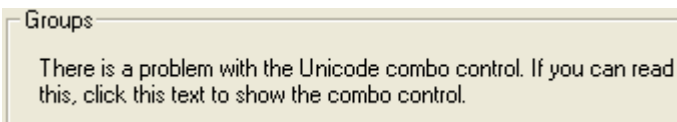


The drop down list is used to move to the start of a specific group.

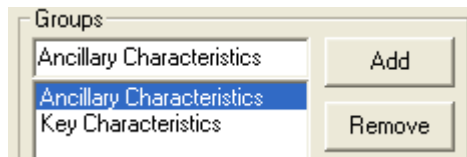


To define groups, click the *Groups...* button on the Custom Forms *Data* tab.

Separate data field into defined groups Click this check box to activate the group control.



Depending on the software environment on your machine, the area below the check box may show this message or may show the group definition panel. If the panel does not appear immediately, click on the above text to display the group edit panel.



Use this panel to build a list of groups. Type in a group name and click Add to include add entries to the group. Select a group and click the up and down buttons to change the group order, or click the delete button to remove a group from the list.



To assign custom form data fields to a group, first select a group from the list in the top panel, then select one or more custom from data fields in the lower panel and click the *Group* button.

3 Manual Reference Data Installation

We strongly recommend using the load data wizard described above to install all data sets onto mobile devices. That software ensures both data files and resources such as custom forms and reference images are loaded into the correct locations. More importantly it checks that the data sets are complete and that all files are up to date.

Version checking of reference data files uses the GBM Mobile Data Change Index. For each file, GBM Mobile compares the value of the change index stored on the PDA with the value calculated dynamically for the corresponding file on the support PC. If the two files have a different index value, the wizard will prompt to update the file on the PDA with a new copy from the support PC.

As data files are loaded onto the PDA the GBM Mobile Manager Load Data Wizard re-calculates the change index for each file. Index values are stored in a file called Gbminindex.cache. There is one copy of Gbminindex.cache for each folder on the PDA that lists all files that have been loaded into that folder by GBM Mobile Manager along with their index values.

On subsequent data loads the wizard checks the value of the change index on the PDA with that on the support PC to establish whether files on the PDA need updating.

Manual data transfer through external utilities such as Windows Explorer does not automatically update the change index. In this case GBM Mobile Manager will still detect version mismatches if the files on the PDA and support PC have different file sizes, but file size checking is not as rigorous as that provided by the change index.

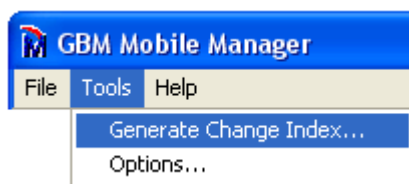
The change index is necessary as traditional version checking methods that rely on file dates (such as the date of file creation or modification) are unreliable on windows mobile devices. Indices are pre-calculated and stored on the PDA as dynamic calculation on PDA hardware is very slow.

The methodology offered by GBM Mobile is very robust provided data is installed through the GBM Mobile Manager Load Data Wizard described above or the change index is updated externally.

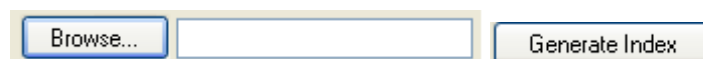
The only occasion where it is appropriate to copy files other than through GBM Mobile Manager is when large sets of reference data need to be loaded onto external storage cards (e.g. CF or SD cards). These file can be copied directly onto memory cards inserted into a card reader that has been added as removable memory on a support PC. Copying data directly onto external memory is significantly faster than loading through Windows Active Sync or Windows Device Manager but requires manual update of the change index.

Run the GBM Mobile Manger change indeed update utility whenever files when preparing data sets for copying onto external memory through card readers.

Create a separate folder on the PC for each folder of data that will be loaded onto the memory card. Copy files into those folder and then run the index generation utility for each folder.



Start the utility through the GBM Mobile Manager *Tools* menu.



After copying files to memory card folders, browse to each folder in turn and click *Generate Index* to update index values for each file in that folder.

Re-run the index generation utility each time files are updated or new files are added. There is no need to run this utility if files are loaded or updated through GBM Mobile Manger.

These procedures are only useful for speeding up the copying of reference data files to external storage cards that are mounted directly onto a support PC as removable media. If the PDA is connected to the support PC through Active Sync or Windows Mobile Device Manager, install data through the GBM Mobile Manager Load Data Wizard as described in section 2.2.2 above.

4 Custom Form Pick Lists

For text data, there is an option for selecting a value from a dropdown list.

Edit this data field by:
Choosing from a list of possible values



Click the List... button to edit the list of options to be presented to the mobile device user.

Possible values:

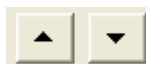
3	Strong	Add
Value	Description (Optional)	
1	Weak	Remove
2	Medium	

▲ ▼

Enter new values in the top boxes and click *Add* to include them in the list. Select a value in the bottom box and click *Remove* to delete that entry.



The import and export functions allow values to be read from external files or saved to a text file for re-use in another form.



Click the up and down arrow keys to set the order in which values will be listed in the drop down combo box on the mobile device.

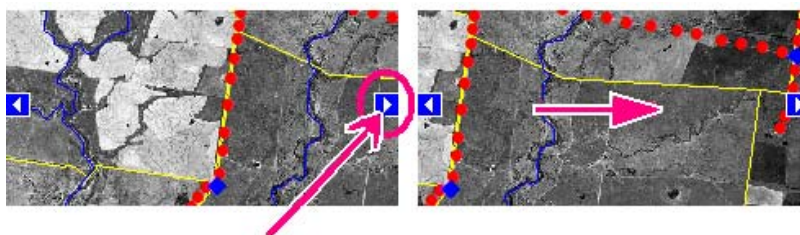
5 Map Extents



Map *Zoom* and *Pan* operate in a similar fashion to the tool buttons in MapInfo Professional.



You can also move the map by clicking on one of the re-centring points. The map will be moved so that the clicked point is in the centre of the new map.



The *Map Extents* tool, also available from the *zoom* menu, supports explicit setting of the map centroid and width in geographic units.

6 Additional Automatic Entry Option for Custom Forms

Unique Value – an auto generated unique number. May be used with text and integer data types. Ensure uniqueness by using long data fields (e.g. using a 2 character integer field gives a chance of 1 in 99 that two records will be assigned the same number, but using a 15 character integer field will ensure there is only one chance in 999,999,999,999,999 of two records being assigned the same number.)

7 Drawing Lines and Polygons with the GPS

Precision GPS navigation mode allows the operator to choose the location of each vertex that makes up the line or region/polygon map feature.

This method allows the operator to choose the location for each vertex to be added to the new map feature. It is an alternative to the automated tracking option where tracking options trigger the addition of vertices to the line or polygon feature.



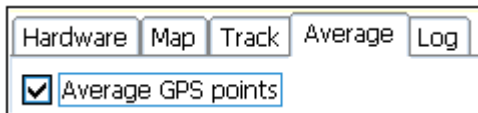
Move to the start location and select the required feature type from the *Create at Location* menu to add the first vertex. If GPS averaging has been activated, wait at that location until sufficient GPS fixes have been received and averaged.



Next Vertex Move to the location where each successive vertex is required and click *Next Vertex* from the *Create at Location* menu.



Last Vertex Select *Last Vertex* at the end of the feature.



GPS averaging may be used in this mode. It can be activated through the *Average* tab on the *GPS Settings* menu.