FCS™ | The Sound Choice for Leak Detection.™

User Guide: HWM Deployment app.
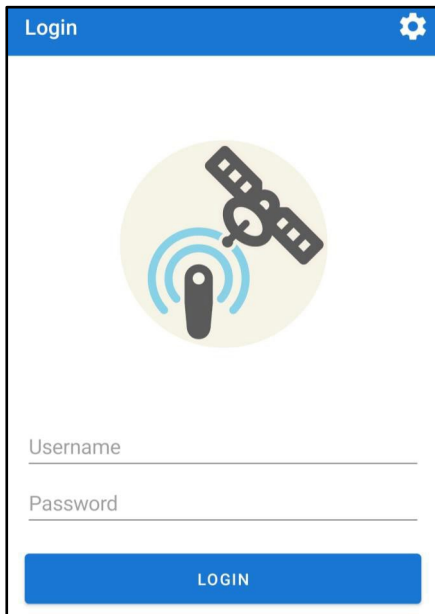(& On-line Help)

Login ⚙

Username
Password

LOGIN

Local Map ‹ ⋯

Select or create a site to deploy to.

📍 Site with device

📍 Site without device

CMLG155056

X

Create new site at this location

Local Map ‹ Set ⋯

Please refine your position.

X

TABLE OF CONTENTS

1 QUICK-START:

The HWM Deployment App allows installers to collect information for and subsequently update the HWM DataGate logger and site database.

1. Install the HWM Deployment App on your phone or tablet.
   (Visit the Play Store for Android devices or the Apple App store for Apple devices. Alternatively, scan one of the QR codes shown below).

(For Play Store)   (For Apple App Store)

2. Obtain a Username and Password for HWM DataGate server from your supervisor or system administrator. You will also need server URL details.

3. Enter the details from (2) into the app. Then log-in.   (See section 3.2)

4. Set the 'Environment type'.   (See section 4.5)

5. Tap the 'sync with server' control.   (See section 4.6)
   Repeat the 'sync' every few hours.

6. Decide what type of task you are going to be using the app for:

   - New logger installations.   (See section 3.3)
   - Replacement of an installed logger with a new one.   (See section 3.4)
   - Moving a logger from one site to another site.   (See section 3.5)

   Each task requires you to link (or unlink) a logger from a deployment site.
   You will need to use the logger 'SMS number' or bar-code to identify loggers.
   You will need to add various details for any new sites created.

7. Refer to the relevant part of the user-guide, as shown above.

8. When finished, do a final 'sync' and (when completed) log out.

9. Your logger data can later be accessed via the DataView website.

2 INTRODUCTION

The HWM deployment app is for use by installers of logging equipment (a logger and any attached sensors).

The loggers acquire measurement data, which is to be sent to the server for storage in its database. (This user-guide shall refer to the server (and its software) as "DataGate").

The server also requires details of where the logger is installed, so that it can link the data from the logger to an installation site. The entry of this information could be done by administrators of the DataGate server, but this would require the installer to make accurate records for the administrators to work from.

The Deployment app is designed to help an installer acquire the relevant information about the logger and its installation site. Furthermore, the app can also directly update the server with these details automatically, thereby reducing the workload for the administrators.

The app will speed up the administrative tasks that are part of the process of product deployment:

- Scanning the barcode of the product will allow instant device recognition.
- The location of the site that the logger is deployed to can be accurately recorded using the mobile phone to obtain a GPS location; this can show a map of the local area. Positioning a cursor onto the map (to show the site location) will capture the exact GPS coordinates.
- Address details are suggested; these can be revised if needed.
- All the other required details for the deployment can be entered into the app.
- The details are then used by the app to update the server.
- Data from the logger will be available to view earlier (without any delay from administrative processing of the site details).

The Deployment app does not need to communicate with the logger. However, certain tools that are used for logger setup (e.g., The IDT mobile phone app) may hand control over to the Deployment app following setup of the logger. Where the IDT (mobile phone app) is not being used, the Deployment app can be started manually from the icon on the mobile phone.

The app can be pre-set by the user to suit the application of the logger installation. The user can select between use in one of the following environments:

- Clean water.
  (The supply of potable water through the water supply pipe network).
- Gas.
  (The supply of gas through the gas supply pipe network).
- Waste water.
  (Pipe networks handling waste water).

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- Other
  (Any other application of the logger).

The app will vary the data it collects during the installation, according to which of the pre-sets is selected.

The app can be employed for the following situations:

- Initial deployment of a logger (new installations).
- Replacing logger devices at a site (swapping logger devices).
- Removing a logger device and installing it elsewhere (moving a device).
  (This is also known as 'Lift & Shift').

2.1 MOBILE PHONE PERMISSIONS REQUIRED TO USE THE APP

The app needs access to the following phone resources (the user must grant access to the app as and when it makes requests):

- Camera.
  The app needs access to the camera so that barcodes can be scanned, and photos of the installation can be taken.
  These photos will be saved to your device and will also be saved onto the server.

- Files and Storage.
  The app needs access to the phone's storage facilities to save new photos. Additionally, in the event that you have photos you have previously taken using the standard phone camera, you may upload these from your Photo Library.

- Internet
  The app will need access to an internet connection to upload to the server; this can be using either mobile data or Wi-Fi.

- Location
  The app needs access to your location so that the accurate location of the deployed device can be saved. You will not be tracked, but your device deployment may be.

2.2 SERVER PERMISSIONS REQUIRED TO USE THE APP

The app requires a user account to be set up on the DataGate server. The account will have credentials (a Username and Password) associated with it, in order for the app to be able to inter-work with the server. These should be provided by your supervisor or HWM representative. (The server requires someone with administrative rights to create the account).

These server details, Username and Password must be entered into the app in order for it to exchange data with the server.

2.3 APP OPERATION (WHY FREQUENT USE OF 'SYNC' IS IMPORTANT)

The HWM Deployment app communicates with the DataGate server. This is called a 'Sync' operation (short for 'synchronize'). It is important to frequently perform a sync between the app and the server.

For security purposes, the app will only attempt to make administrative changes to the location of the loggers that it has permission to use. If it has no permissions for a logger, it will reject the selected logger, and will not proceed. Initially, the database of the app is empty, so all loggers will be rejected.

During a sync, the app will load the list of loggers that it is permitted to use. It also loads their current location details; initially, this is typically on a dummy site (partially complete) which is located within a "Storage Account" on the DataGate server; the storage account typically represents a bulk store, such as an installer's van, and not an actual installation area.

Note: Use of a "Storage Account" is optional. Where not used, the un-deployed loggers will be held on dummy sites within the "Install Account".
Details of loggers within both the Install Account and the Storage Account are obtained during a sync.

The app database fills during the sync with the server's view of where all the loggers are. (All loggers have to be linked with a site; uninstalled loggers are linked to dummy sites, which have incomplete details; installed loggers are linked to real sites, which have completed details).

After the sync, the app knows what loggers the user has permission to access. It is therefore able to accept the loggers for subsequent deployment tasks. The loggers will be deployed to sites held in the "Install Account"; if required, dummy sites can be moved from the Storage Account into the Install Account and then completed as part of deployment.

After deployment, the app initially stores the new location details for the logger in the mobile phone memory. This will include a start time for when the logger was deployed; only data collected after this start time is valid for the logger at the newly deployed at the installation site. Each item of new information is tagged as an unsent data item. The server requires a further sync operation in order to exchange data with the app; this updates the server on the new deployment(s) since a 'sync' was last performed. (i.e., It updates DataGate with new details of where the loggers are now installed).

Note: It is good practice to synchronize the app with DataGate frequently. Deployment data held within a phone that becomes mis-placed (without it being synchronized) cannot be recovered.

3 USING THE DEPLOYMENT APP

3.1 INTRODUCTION

The Deployment app can be used as a stand-alone mobile-phone app, or alternatively it can sometimes be used in conjunction with a logger programming tool (the HWM 'IDT' app for mobile phones). When used with IDT (which can hand control over to the deployment app at the end of the logger programming process), certain functions (such as scanning the logger barcode to identify it) may be skipped by the Deployment app; the IDT app gives details of the logger identity to the Deployment app during handover of control.

The Deployment app can use an SMS number or a serial number to identify the logger. The app is compatible with most HWM loggers. However, for PCorr+ and PermaLog+ type loggers, the use of the HWM "WebCorr" app is strongly advised; it is designed specifically for these types of loggers, including programming features for them.

3.2 LOGGING IN AND INITIAL ACTIONS

The HWM Deployment App is launched by tapping on the HWM Deployment app screen icon.

The initial splash-screen is shown.

Followed by a series of permission requests … these must all be allowed for the app to function correctly.

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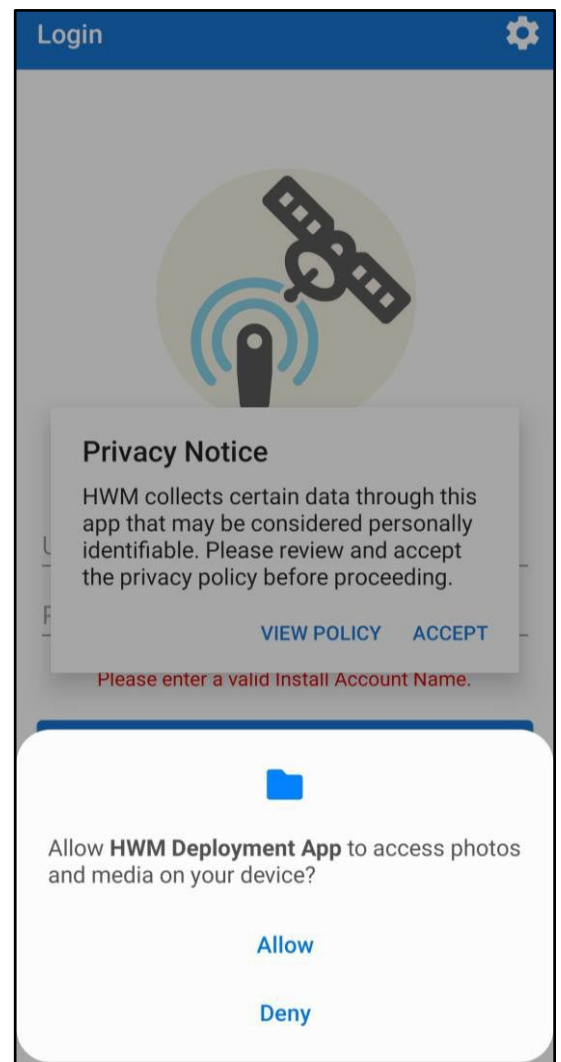
Also, read and accept any legal notices … if you accept the terms of use.

Login ⚙

After several seconds, the "Log In" screen appears.
… Do not attempt to log in yet.

Note any warnings of issues (red text) on the screen and attend to the issue.
(e.g., The picture opposite is highlighting that a valid Install Account name has yet to be entered).

After launching for the first time, the app must be configured to point to the correct server. It must also be given details of certain 'accounts' (which, in this context, is a 'container' within the server database that is used to group your sites together).

Username

Password

Please enter a valid Install Account Name.

LOGIN

To fix any issues, tap on the settings icon; this will load the "Installation Setup" screen.

← **Installation Setup**

Any mandatory fields that do not yet contain valid information will show as an error in red text.

Install Account Name

❌

Install Account Name cannot be blank.

Enter the Install Account, and (optional) any Storage Account being used.
(These will be provided by your system administrator; they must not refer to the same account; check they have different names).
e.g. Install Account   = Fleet 1
       Storage Account = Van 1

Storage Account (optional)

Server URL

❌

Server URL cannot be blank.

Enter the URL of the DataGate server being used. (This will be provided by your system administrator).

Test Connection

NOTE: Connection Test does not test Install Account Name or the Storage Account name. This is checked when you are logging in.

To verify the server details are valid, tap on the "Test Connection" line. This tests the URL, to verify it is valid and that a server is
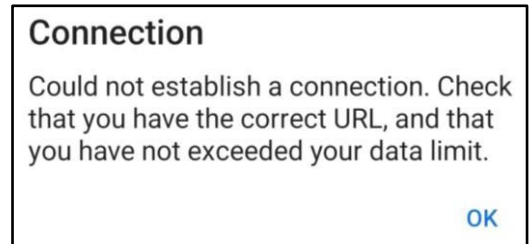
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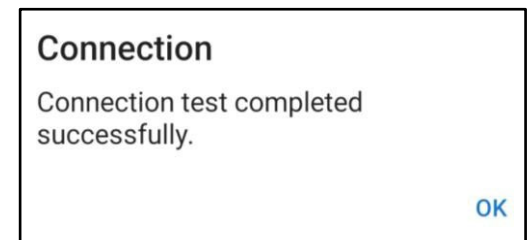reachable using the entered details. (Note that it does not authenticate the app or its user for using the system).

The test will run, and the result will be displayed.

A failed connection result is shown opposite.

Check the URL if there is an error.

Connection

Could not establish a connection. Check that you have the correct URL, and that you have not exceeded your data limit.

OK

A successful connection result is shown opposite.

Connection

Connection test completed successfully.

OK

Login ⚙

← Tap the back-arrow to return to the "Login" window.
The URLs previously entered will be saved.

Enter the DataGate username and password that has been allocated for your mobile phone app.
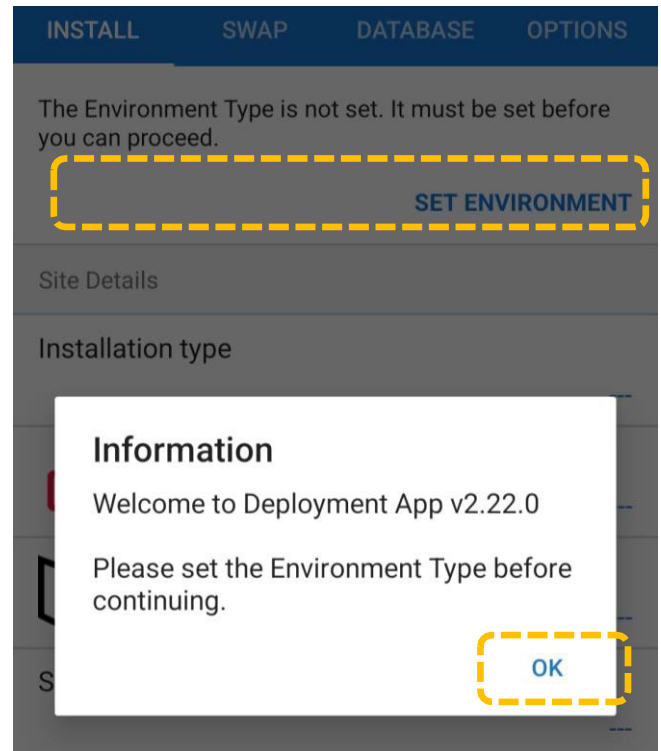
Username

Password

Then tap the "LOGIN" button, and the app will attempt to log into DataGate as an authenticated user.

LOGIN

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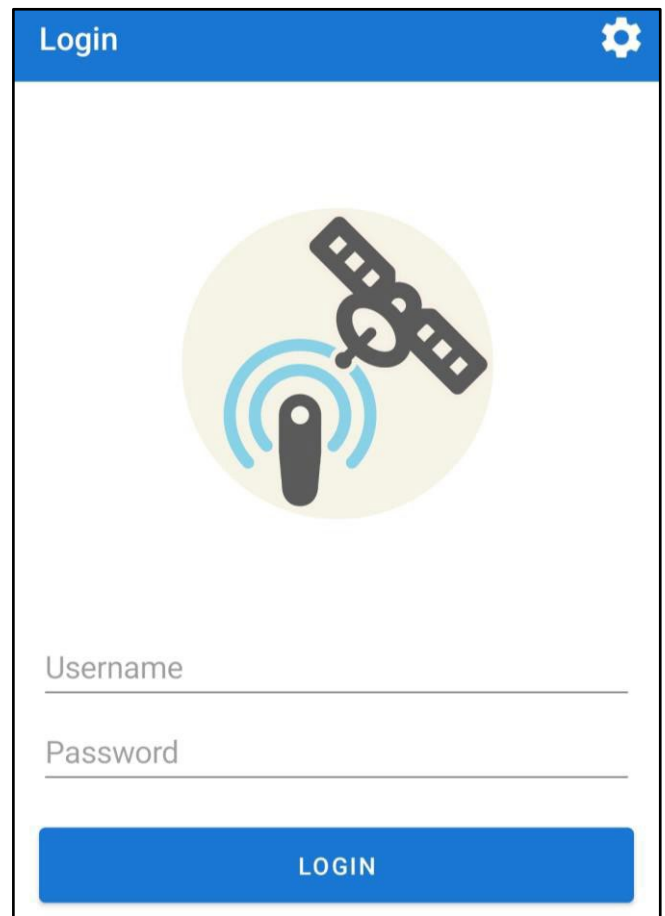
If authentication was successful, the app will show the "HWM Deployment App" main window.

The first time the user logs in,
an "environment type" is required to be set by the user.

Tap the OK button.
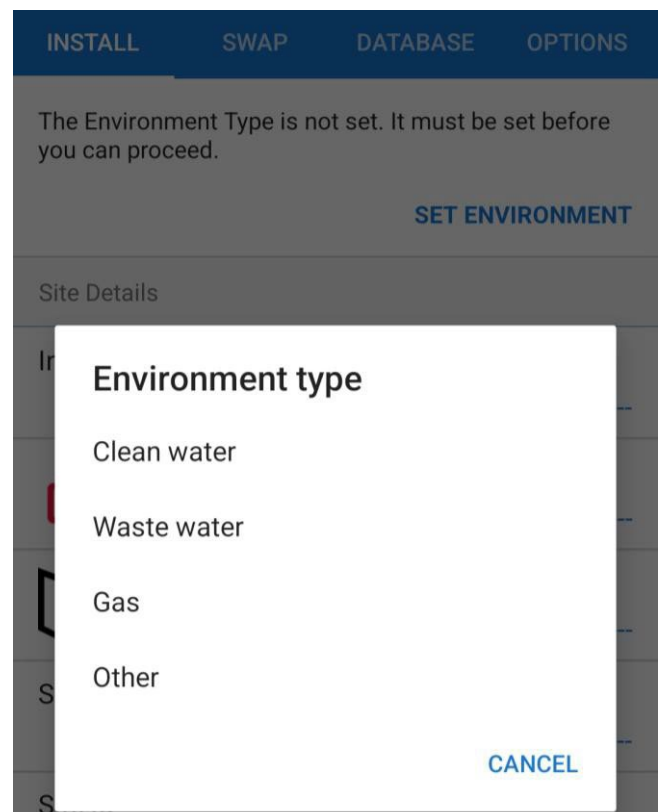Then tap on the "Set Environment" line.

To decide on the appropriate environment, refer to section 4.5.

Select the environment that the logger is being used in.

(This will have an effect on the type of data collected).

This selection only needs to be made once, as the app will store the setting for subsequent use. (It can also be changed, if required, using the Options tab).

Note: The user may also wish to set other application program settings at this point.
          (Refer to section 4).

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After making the selection, the app will show the "HWM Deployment App" main window.

(The picture opposite shows the main window after "Clean Water" was selected).

This window has four tabs:

- Install   (See section 3.3)
- Swap   (See section 3.4)
- Database   (See section 3.7)
- Options   (See section 4)

Prior to proceeding, it is recommended to do a 'sync' on first use of the Deployment app. (Details of why this is necessary are discussed in section 2.3).

It is recommended to sync frequently, particularly at the end of one day or start of a new day.
(Details of how to begin a sync on the app are given in section 4.6).
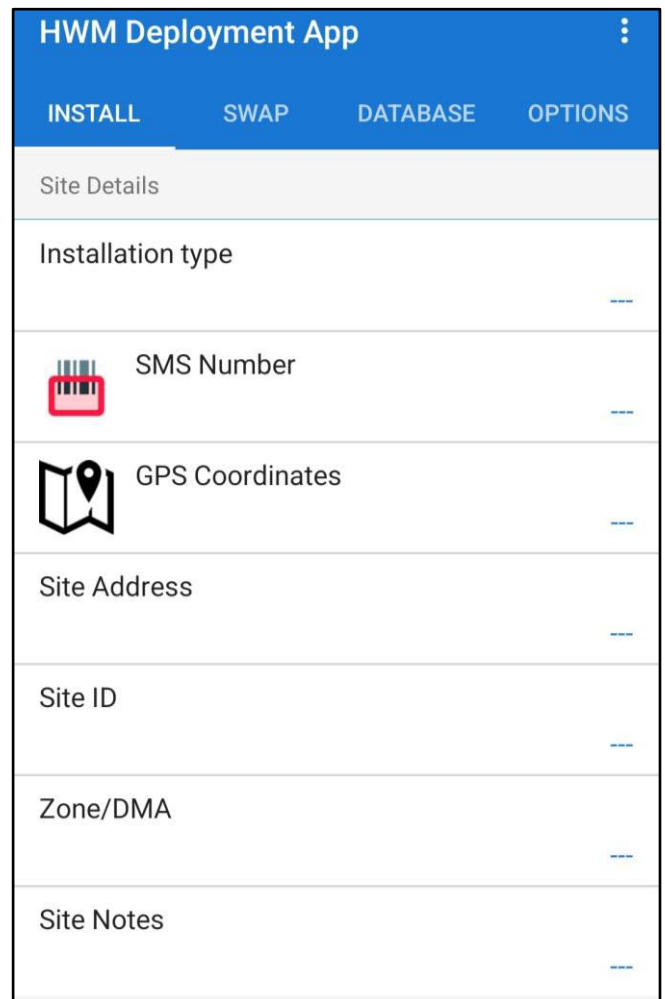
3.3 NEW LOGGER INSTALLATIONS

The app can be used to install devices in new locations. Please follow the instructions below to successfully deploy new devices to new locations.

Navigate to the Install tab.

The Site Details area will include an 'Installation Type' line.
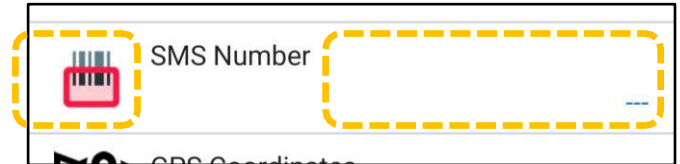
Tap the line and select 'New Install'.

(A new installation will cause the app to complete the information for the site the logger is linked to when shipped by the factory).
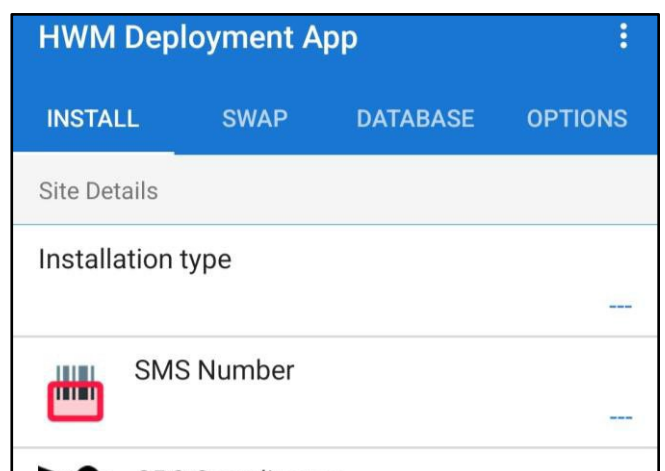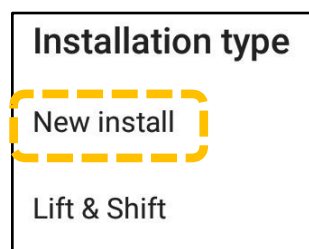
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Press the Scan button;
this is located near the SMS Number entry.

(This line has two controls:
 - Left-hand side is to scan for an SMS.
 - Right-hand side is to manually enter SMS).

Move the camera until you can see the
barcode on the screen.

Note: You may need to move the camera
          backwards and forwards to focus
          clarity of the barcode.

          If you cannot scan the
          barcode, you may tap
          on the Search button
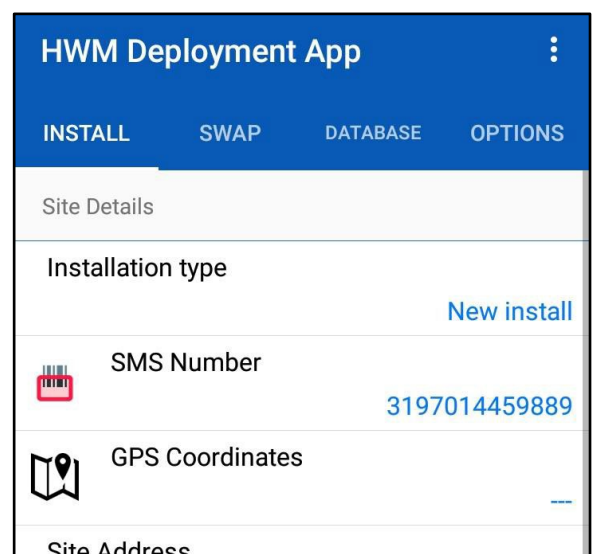   to search for the device.
          (See section 5.6).
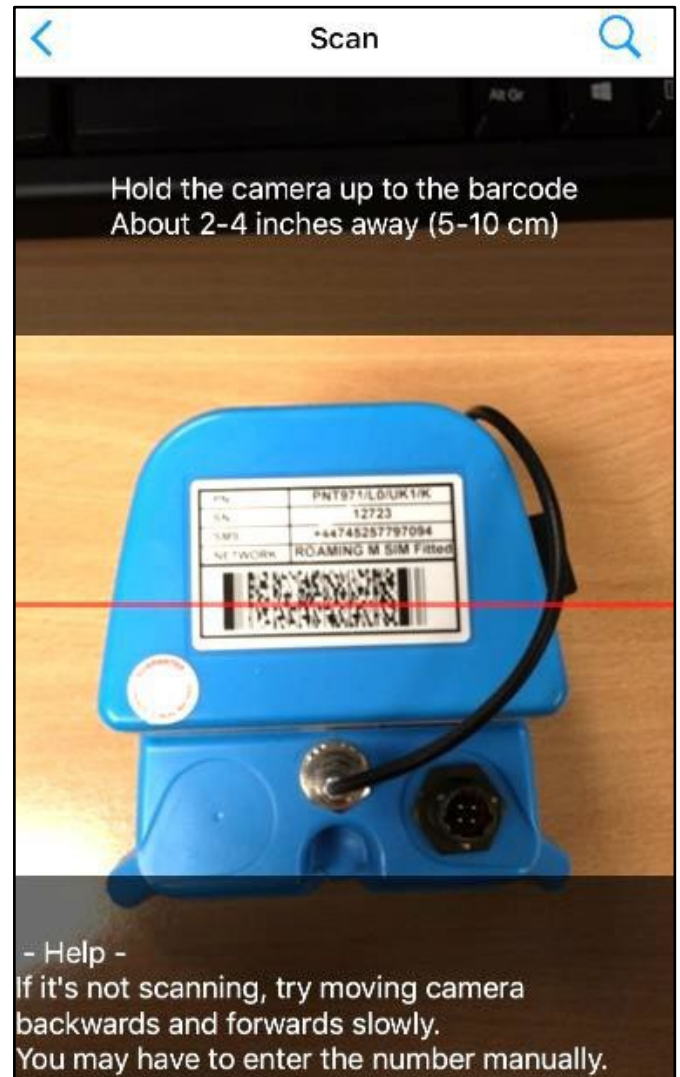
On successfully scanning the device, the SMS
number will be obtained and added to the screen.

(Optional).
To confirm the
Deployment App has
permission to deploy
the logger…

Tap on the SMS Number line. Then tap OK.
… If the logger is found, there will be no error
message.

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The location (GPS coordinates) of the installation site of the logger should now be entered…

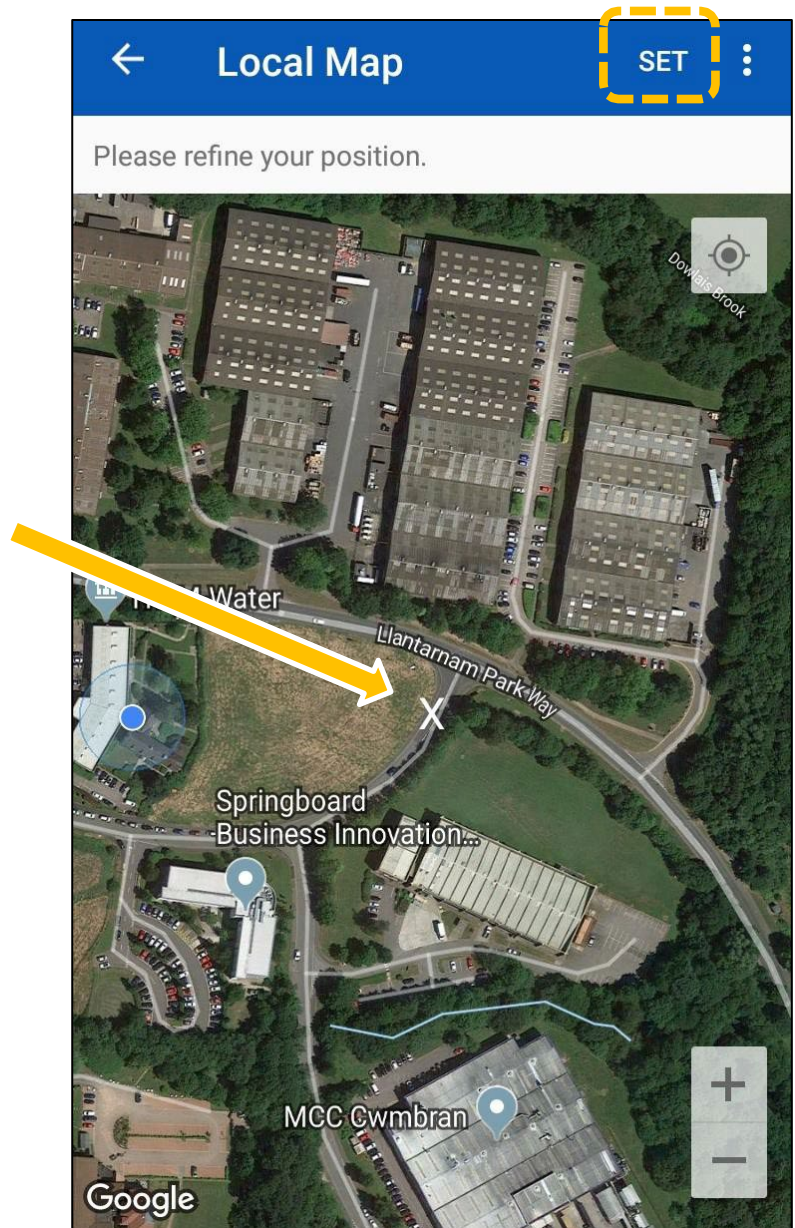Tap on the map icon on the "GPS Coordinates" line.

Wait for the map page to load.

The blue dot gives an approximate location of the phone, for reference purposes.

Locate the "X" cursor onto the position of the installed logger. Then tap on "SET".

(You can use regular phone screen control methods to zoom or move the map).

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The GPS coordinates are completed.

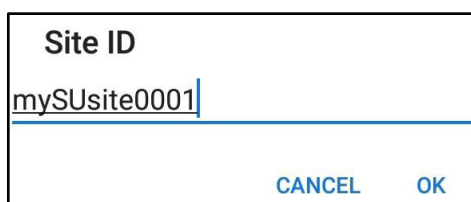Next enter an address for the site.

This can be manually entered, or the user can enable some of the app's helper functions. (Refer to section 4.8).

The app can provide an *estimate* of the address of the site (obtained from the internet).

(This can be manually adjusted – Tap on the address to edit it, if required).

The app can also include a user-entered pre-fix for the address.

Tap on "Site ID" and enter a unique Site ID.

Site ID

mySUsite0001

CANCEL   OK

This can be manually entered, or the user can enable some of the app's helper functions. (Refer to the discussion within section 4.9).

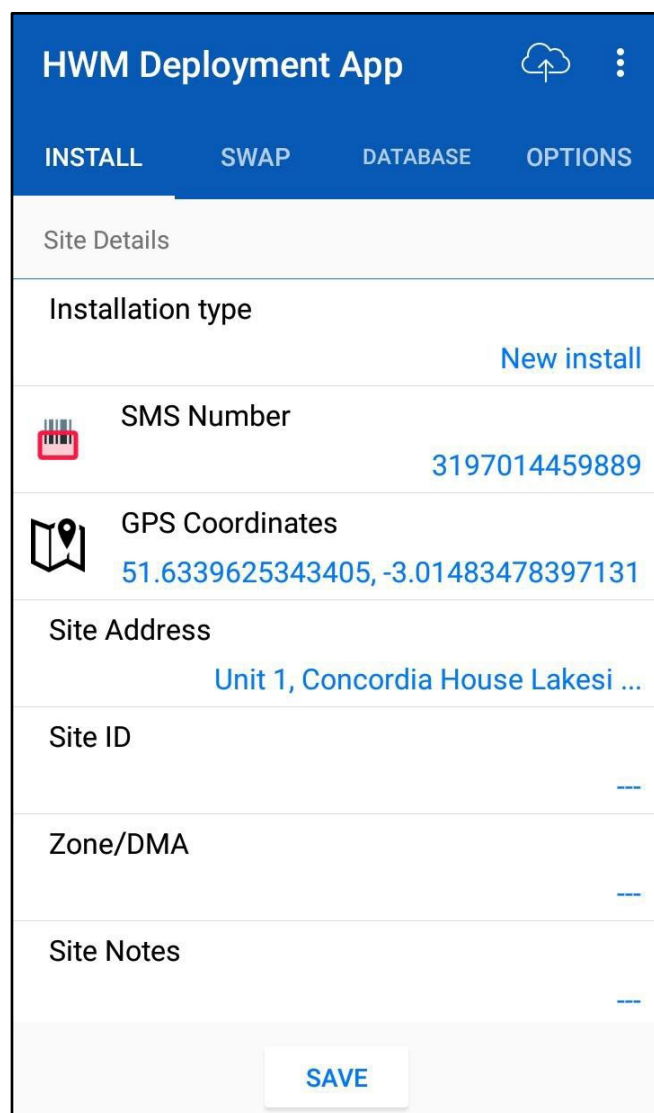Tap on "Zone / DMA" and select a DMA from the list of available DMAs.

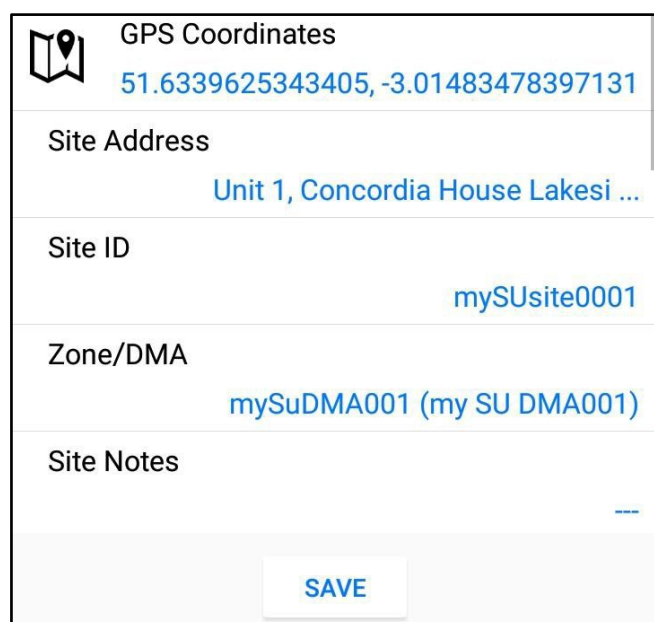(The list is obtained by the app after DataGate login and sync occur).

← **Zone/DMA**

mySuDMA001 (my SU DMA001)

Note: This line may show a different terminology (e.g., 'Sub-account'), depending on the app's environment type setting. (Refer to section 4.5)

HWM Deployment App

INSTALL   SWAP   DATABASE   OPTIONS

Site Details

Installation type
New install

SMS Number
3197014459889

GPS Coordinates
51.6339625343405, -3.01483478397131

Site Address
Unit 1, Concordia House Lakesi ...

Site ID

Zone/DMA

Site Notes

SAVE

GPS Coordinates
51.6339625343405, -3.01483478397131

Site Address
Unit 1, Concordia House Lakesi ...

Site ID
mySUsite0001

Zone/DMA
mySuDMA001 (my SU DMA001)

Site Notes

SAVE

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To enter additional information, move the list upwards.

The additional information required will depend on the app's environment type setting. (Refer to section 4.5)

The list shown opposite is for Clean water.

…   Complete details for the pipe and chamber type (pick from lists).

Pipe and Chamber	
Pipe Material	N/A
Pipe Diameter	N/A
Chamber Type	N/A
Photos	

(The list shown opposite is for Waste water)

…   Complete details for the pipe diameter (pick from lists).

Enter chamber dimensions in mm.

If the chamber has a pump installed to move the sewage to another location, tap on the Pumping Station line to show a tick (check)

Pumping Station ☑

Pumping Station	☐
Pipe and Chamber	
Chamber length	---
Chamber width	---
Chamber depth	---
Pipe Diameter	---
Photos	

(The list shown opposite is for Gas)

…   Complete details for the each of the fields listed.

Meter	
MPRN	---
Meter Serial Number	---
Number of Billable Dials	---
Photos	

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After completing the additional information, some photos will usually need to be taken of the installation.

(The minimum number of photos is a DataGate setting for your account, however additional ones can be made).

Ideally, the photos should show the logger, the antenna, the closed chamber, and its location.

Pipe and Chamber	
Pipe Material	Cast Iron
Pipe Diameter	2" (50mm)
Chamber Type	FH (Fire Hydrant)
Photos	
New photos	No photos selected

SAVE

Tap on "New photos". To add photos, select the camera icon and take some photos of the installation.

Photos are listed.

When finished, tap on "DONE".

← Photos   DONE

Photo selection

Add photos either from your photo library, or take pictures directly.

Add from camera   Add from saved
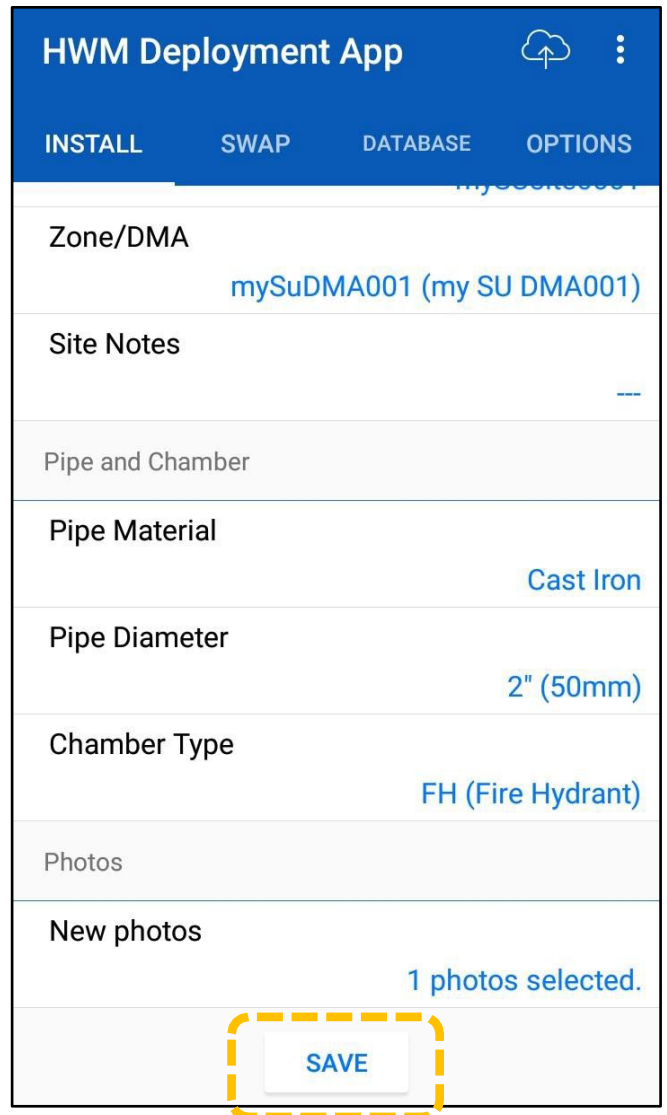
mySUsite0001_1555340271_0

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When all the data for the installation has been completed, tap on "SAVE".

The deployment details will then be listed within the "Database" tab, which shows all deployments made by the app. If an exclamation mark is displayed on the line, it indicates the data is waiting for upload (or a sync) to DataGate.

The deployment data can be uploaded to Datagate using the Upload icon (shown). This will upload the location details and also any photographs.

However, it is also possible to set the app to do this automatically after the Save button is tapped.
(see section 4.7).

You have now completed your site installation.

You may now move on to the next device/site.

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3.4 SWAPPING LOGGER DEVICES ON A SITE

The app can be used to swap (replace) an existing logger device that has been deployed at a site with a new device that is to be deployed on the same site.

Please follow the instructions below to perform a swap on the selected site:

Tap on the 'SWAP' tab to navigate to the Device Swap page.
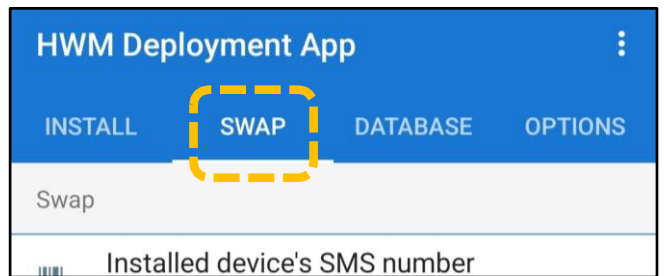
Scan the barcode of the older device first (by tapping the first Scan button).

If it is successful, a short summary of the site will be displayed.
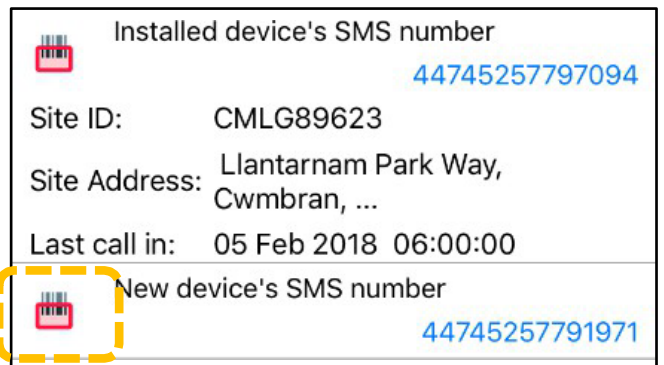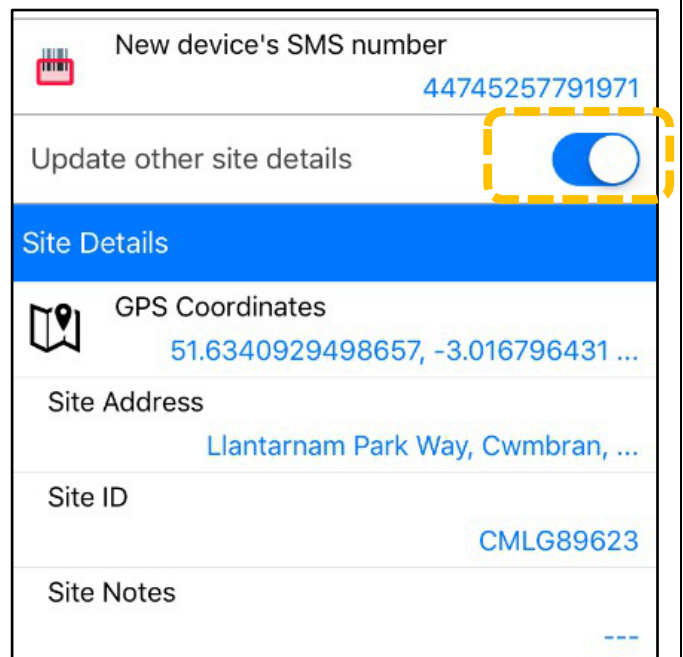
Scan the barcode of the new device to deploy (by tapping the second Scan button).

If this is successful, you will have the option to update the site's details.
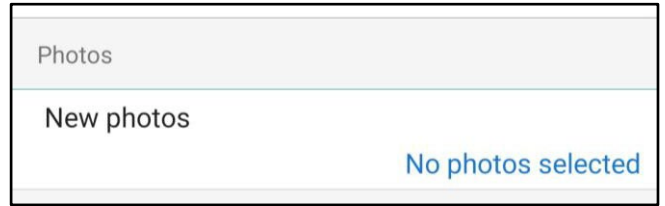

If you wish to update the site details, turn on the Update other site details switch.

Changes may include a more precise GPS coordinates/address, etc.

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You will have to upload new photos for every swap operation carried out.

(The minimum number of photos is a DataGate setting for your account, however additional ones can be made).

Photos	
New photos	
	No photos selected

Ideally, the photos should show the logger, the antenna, the closed chamber, and its location.

Tap on "New photos". To add photos, select the camera icon and take some photos of the installation.

The selected photos are listed.

When finished, tap on "DONE".

← **Photos**　　　　　　　　**DONE**

Photo selection

Add photos either from your photo library, or take pictures directly.

Add from camera　　　　Add from saved

mySUsite0001_1555340271_0
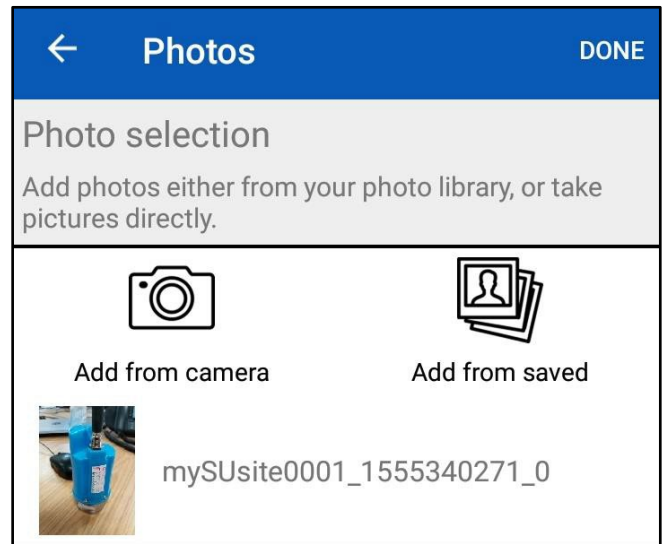
Once completed, press the 'Swap now!' button.

Swap now!
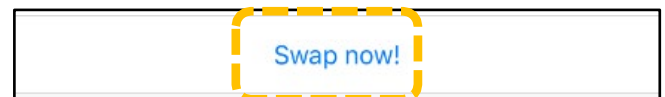
Note: The logger that has been removed from the installation will be tracked (for administration purposes) by moving it into the Storage Account (if one is being used). Otherwise, it will remain within the Install Account.

In either case, the logger will no longer be linked to the site which has had the logger exchanged. It will be linked to a newly created 'dummy' site, so it can be later re-deployed).

3.5 RE-LOCATING LOGGER DEVICES TO A NEW SITE (LIFT & SHIFT)

The Deployment app can be used for loggers that are to be removed from one site and re-deployed at another site. This process is known as Lift & Shift (or L&S).

It is a similar process to that described for new installations, however it makes additional database changes required to close off the 'logger recording' for the old site, so that any newly produced logger data can now be associated with the new site.

Follow the instructions below for carrying out a device move operation:

Firstly, remove the logger from the old site. Then drive to the new installation site.

Note: Whilst in transit the logger may be recording non-sense data that is still going to be associated with the old deployment site unless the logger data recording has been stopped whilst removing it from the old site.
(Refer to your logger user guide or IDT user-guide for guidance on how to do this).

Navigate to the Install tab.

The Site Details area will include an 'Installation Type' line.

Tap the line and select 'Lift & Shift'.
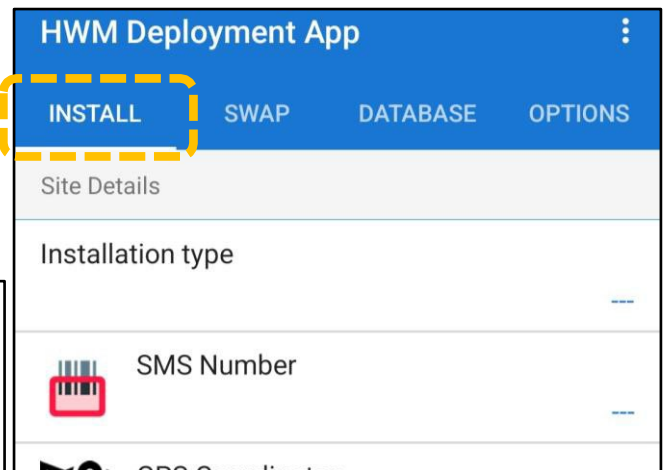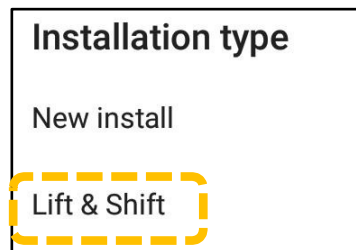
Press the Scan button;
this is located near the SMS Number entry.

(This line has two controls:
 - Left-hand side is to scan SMS.
 - Right-hand side is to manually enter SMS).

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Move the camera until you can see the barcode on the screen.

Note: You may need to move the camera backwards and forwards to focus clarity of the barcode.

If you cannot scan the barcode, you may tap on the Search button to search for the device. (See section 5.6).

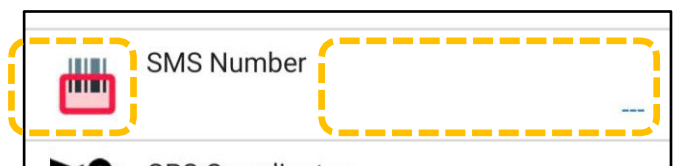On successfully scanning the device, you will be able to either select an existing site to deploy to, or to create a new site with the Map.

If deploying to an existing site:

Markers on the map will show the available (known) sites close to your area. You can only use a site that is not currently occupied by a logger. To select the site, tap once on a location marker to select it, and then tap again to confirm.

If deploying to a new site:

You can create a new site by moving the map to your desired location and tapping the Create new site at this location button. The new site's coordinates are determined by the white X in the center of the screen.

Sites marked with a light blue pin marker denote a site where a device is already deployed.

Sites marked with a purple pin marker denote a site without any deployed device.

(If these are incorrect, there might be a mistake in the database, and you should probably contact your account manager).

Select an existing site or create a new site.

Then complete the database requirements (site details) …

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On returning from the Map, the GPS coordinates and estimated address should automatically be filled in. You may correct the address, or further refine it (if required).

Site Details

Installation type

Lift & Shift

SMS Number

441104500044972

GPS Coordinates

51.635444, -3.016917

Site Address

46 John Baker CI, Cwmbran NP44 ...

Site ID

CMLG155056

Zone/DMA

ControllerComInstalled (Contro ...

Site Notes

All fields need to be completed.
If an existing site has been selected, the site ID will be automatically filled in, otherwise it will be left blank for the user to complete. (See also section 4.9).

The Site Notes field is optional, but any additional deployment information should be included.

New photos might be required for the site. This is to check that the device installation is acceptable, can be seen remotely, and can be found again if repair or replacement is necessary.

Remove any older installation photos and take new ones.

When finished, tap on "DONE".

← **Photos**　　DONE

Photo selection

Add photos either from your photo library, or take pictures directly.

Add from camera　　Add from saved

mySUsite0001_1555340271_0

Save

When all the data for the installation has been completed, tap on "SAVE".

Upload the deployment data to Datagate using the Upload icon (shown). This updates the server as to the location change of the logger, uploads the new location details and also any new photographs.
(Only required if the Automatically upload on save" option is disabled).

Note:　Prior to leaving the new site, install the logger and **re-start the logger recording** using IDT.

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3.6 SCANNING DATA LOGGERS (HAVING A SERIAL NUMBER, BUT WITHOUT SMS)

Some HWM loggers include a module known as a modem for communications over the cellular mobile network. They also contain a SIM card which has a telephone number associated with it. For historic reasons, HWM refers to this as the 'SMS number' of the logger. (Early data communications was over the text service, SMS). Each SMS number is unique, and it is sometimes used as a method to identify a specific logger.

Other HWM loggers have no modem for communications over the cellular mobile network, but other methods can be used to send their data to the server (DataGate). These loggers can be identified by combining the logger type and serial number. (Serial numbers are not unique; HWM can use the same serial number for different logger models; the combination of logger model and serial number is however unique).

The Deployment app is able to handle the collection of deployment location details for both loggers with an SMS number and also those with just a serial number.
In the case of those that have just a serial number, follow the instructions below to scan the data loggers:

Navigate to a scan page (from a new install, Lift & Shift, or swap operation), and bring the barcode up to scan.

If the app finds multiple logger devices exist with matching serial numbers, you will be prompted to select the device (logger type) that you have just scanned.
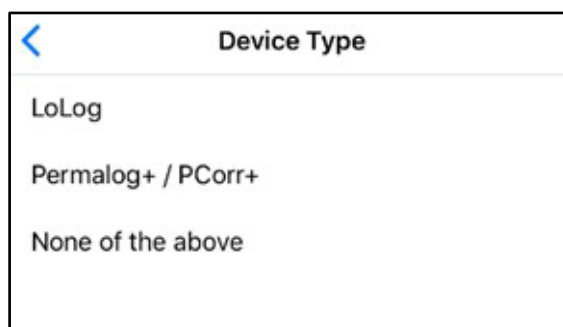
This selection will help the app tell the server which device is being installed / moved / swapped.

From here onwards, continue your installation process as normal.

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3.7 CHECKING UPLOADS / DATABASE RECORDS

You can check the contents of the database and the upload status of each entry as follows:

Navigate to the Database tab.
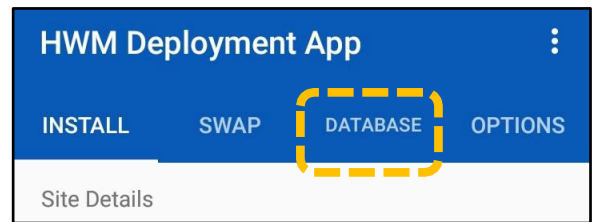
A list of deployment details will be shown, arranged in the order of their deployment date.

The list shows only deployed loggers, not those removed from a site.

- Replacement loggers have '[SWAP]' after the SMS number.
- New installs have nothing after the SMS number.
- Moved loggers (Lift & Shift) have '[MOVE]' after the SMS number.
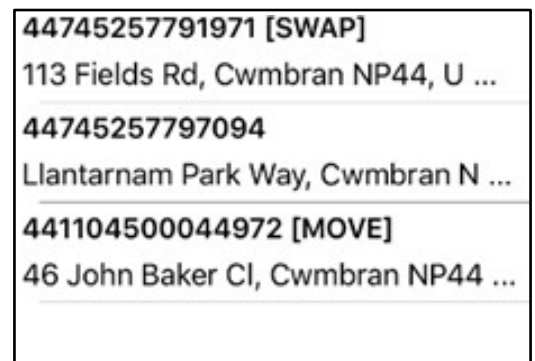
(There is also a search tool available to select a site using the SMS number of the logger).
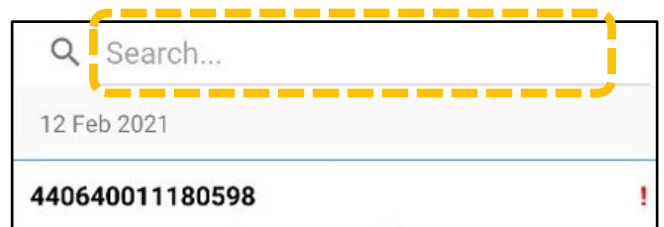
Entries marked as 'Unsent' and that have a red exclamation mark (!) are entries that have not yet been uploaded to the server.

Entries that have been uploaded to the server are simply marked as 'Sent'.

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Tapping on an entry will allow you to display details of the deployment.

Tapping on the 'upload' button will upload only the changes for this site to DataGate.

Tapping on the small map image will show the site location on a full-screen map.

Tap the back-arrow to close this page.

← 440640011180598

*** Some of the components of this entry have not been uploaded ***

SMS Number:	440640011180598
GPS Coordinates:	51.5364787149493, -3.13538566231728
Site Address:	1 Baltimore Cl, Pontprennau, Cardiff CF23 8PX, UK
Site ID:	testsote
Zone/DMA:	rec test dma (test dma)
Site Notes:	---
Pipe Material:	N/A
Pipe Diameter:	N/A (N/A)
Chamber Type:	N/A (N/A)
Photos:	0

Tapping on the menu button in the database list screen will produce a local menu (shown opposite).

This gives filters to upload unsent entries.

In addition, there are menu options to show all of the sites on a map, or just the unsent sites.
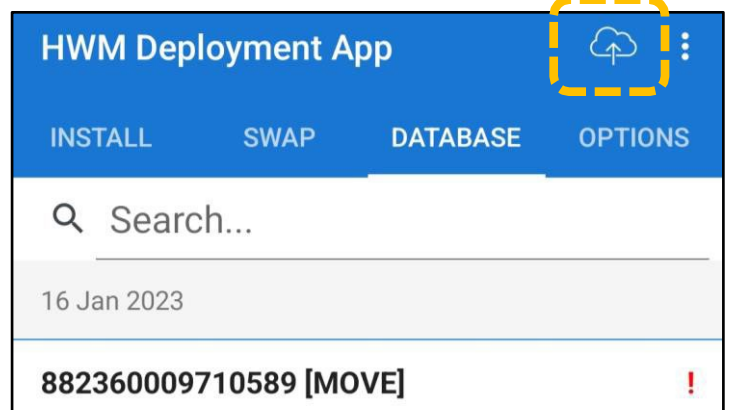
HWM Deployment App

INSTALL
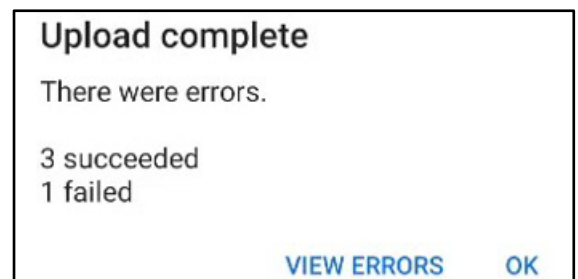
HWM Deployment App

INSTALL   SWAP

Q Search...

16 Jan 2023

View map of all sites

Show unsent

Clear database

Log out

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To upload unsent entries, tap on the 'upload to cloud' icon.

After attempting to upload the data, the app will give an indication of success (or any failures).

Tap on 'View Errors' for details of any problem records.

The app provides some details which can assist in identifying the problem.
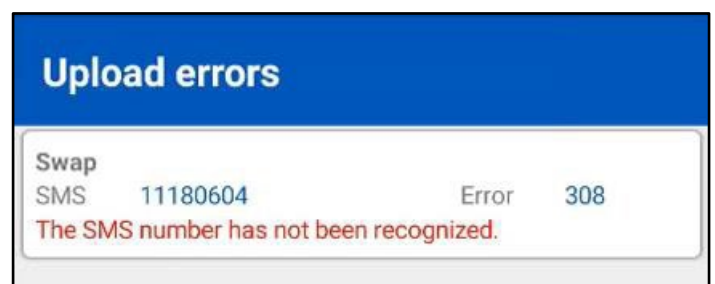
Note: Persistent errors may require a manual deletion of the record from the database, and then the deployment re-done.

A 'long-press' on one of the listed sites will cause the site to be selected and also an additional set of buttons to appear (for actions related to the selected site only).
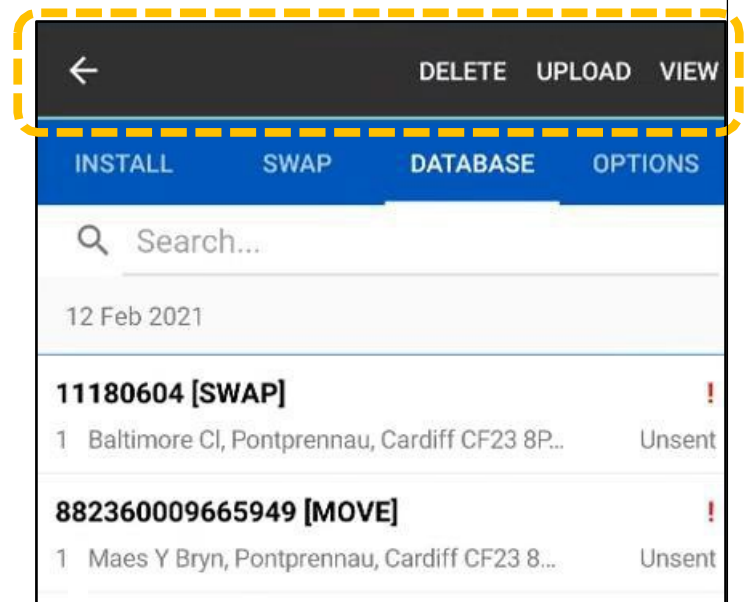
Note: The actions include the option to *delete the entry*.

If an unsent record is deleted, this effectively means DataGate will never see the update; it is suitable method to correct a recent deployment error within the app.

However, if the record has already been sent to DataGate, this will only delete the record from the phone's local database; DataGate will not have the change reversed.

Any error on DataGate will have to be corrected via DataGate administrators.

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The app gives a warning whenever deletion is attempted.

To continue with the action, tap on 'Yes'.

Database

You are about to permanently delete a device entry from the database. This will remove the site details and its corresponding photos permanently. Continue?

NO   YES

3.8 SITE-TO-SITE NAVIGATION FOR MAINTENANCE

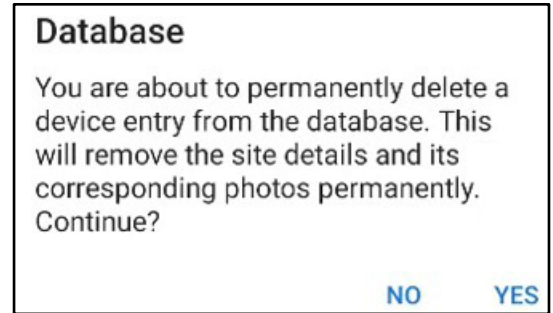The deployment app includes a feature to assist in navigating between sites. This can be of particular use when conducting site visits for maintenance purposes, such as to investigate why a number of devices have not recently called in to the server. When navigating between sites, drivers often use a 3rd party navigation app. The deployment app can help with providing location details that are compatible with the navigation app.

To begin the process, select the "Database" tab.

Tap on the local menu button to show the menu options. Select "View map of all sites".
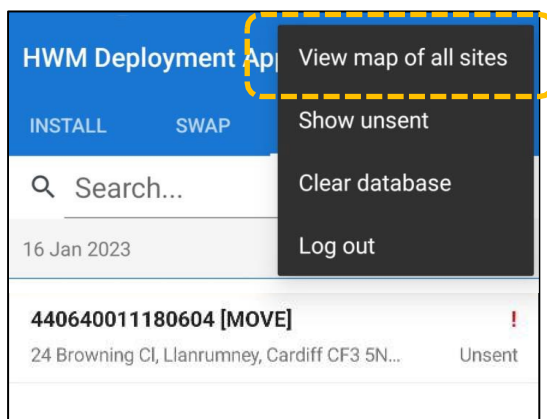
The deployment app produces a Local Map page which shows the location of sites within the local area.

A color-key is shown, which describes the characteristics of the site.

- **Sites with** no logger device deployed.
- **Sites with** a logger device deployed (and is calling in OK).
- **Sites with** a logger device deployed (and is 'quiet'; it has not called in for some time, typically 3 days or more).

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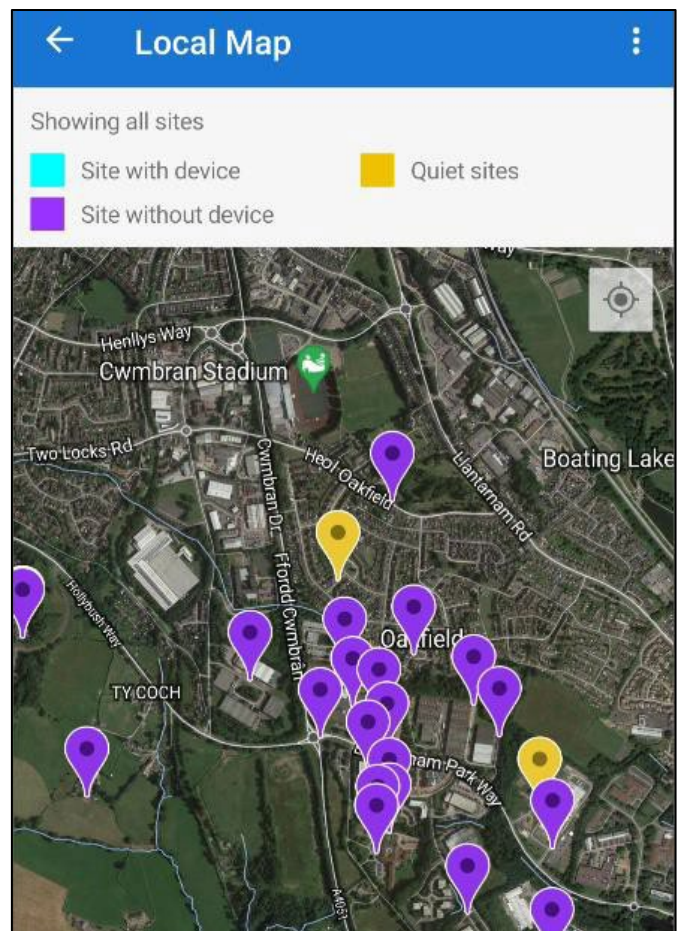
The map area can be manipulated by using tools offered on the display or the regular image controls of the mobile device. Pinch to Zoom in/out, reticle to recenter on current location, and finger drag to pan the map.

Locate and tap on the icon representing the site you wish to navigate to in the map.

A pop-up will appear which shows the site name or ID.

Confirm you have selected the correct site or tap on a blank area of the map to cancel.

An address will be shown on a panel on the lower part of the screen.

Note: The address is provided by a 3rd party address service and may not match the address saved on DataGate (which is user-definable).
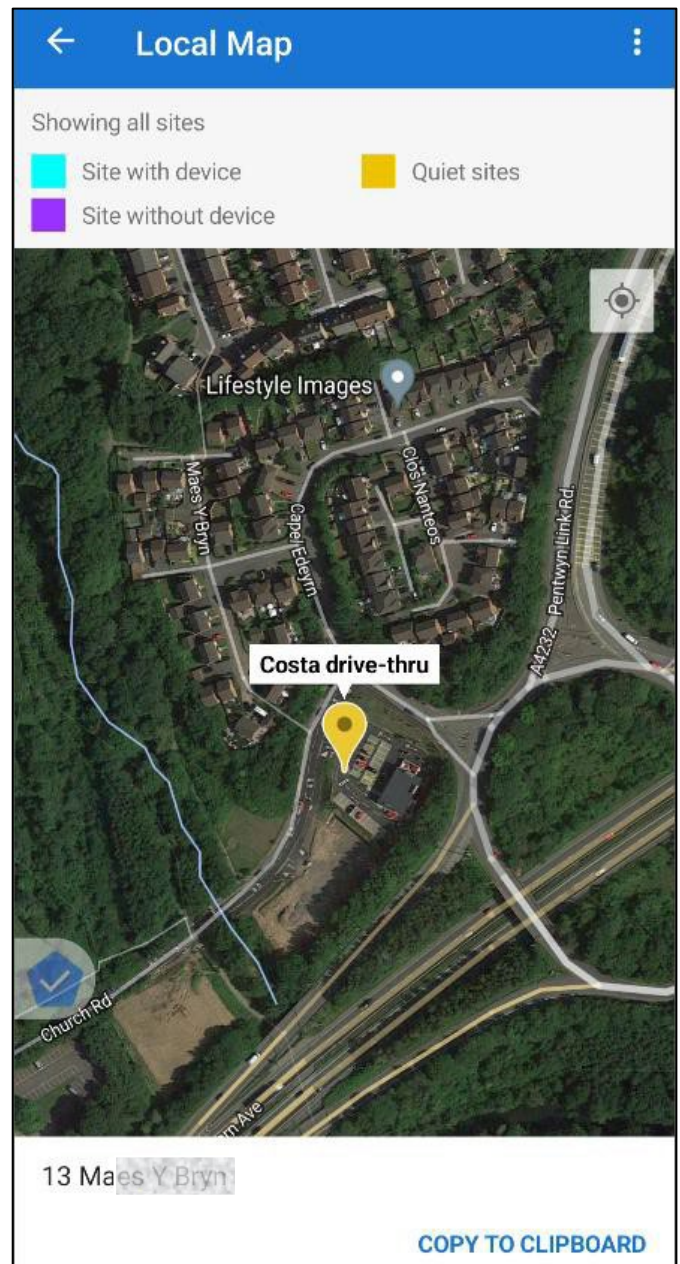
Tap the "copy to clipboard" control on the address panel. The address estimation provided by the 3rd party address service will be copied to the clipboard of the mobile device.

A temporary pop-up will confirm the clipboard contains an address.
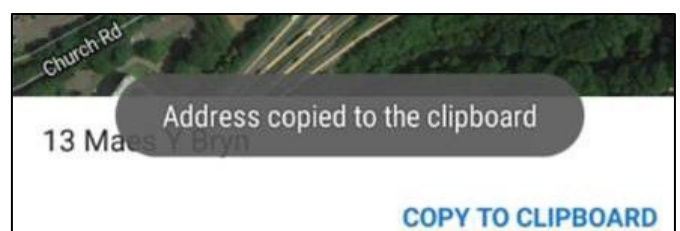
Switch to your navigation app and paste in the address details. The navigation app can then provide you with an appropriate route to your destination.

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4 DEPLOYMENT APP – OPTIONS (PROGRAM SETTINGS)

The Options tab holds a variety of settings that control the behavior of the app.

These include settings to enable various installer 'helper' features.

HWM Deployment App

INSTALL   SWAP   DATABASE   **OPTIONS**

Data Upload

Note: The user can set various options from this screen and also log-out.

4.1 'LOG OUT' BUTTON

Log-out when you have finished using the app, to prevent unauthorized use.

To log out, tap anywhere on the "Log out" line.

Log out

4.2 'VIEW HELP DOCUMENT' BUTTON

A help document is available for the Deployment app.

To function, the phone must have an app which is capable of displaying pdf files.
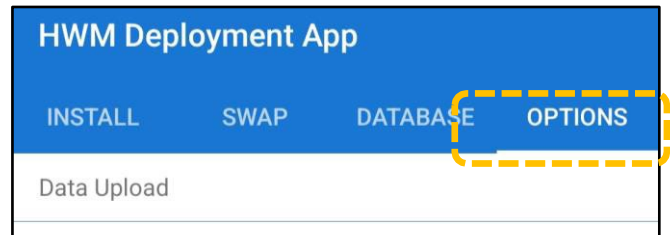
Tap anywhere on the "View help document" line.

View help document

Depending on your phone, this will either open the document so you can view it straight away or it will download a file.

If your phone downloads the file, the document will usually be located within the "downloads" folder of your phone.

Use the phone's file-managing app to locate the downloaded file.

My Files
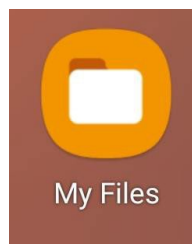
e.g., Tap on the Downloads button.

🕐 Recent files

Categories

🖼 Images   ▷ Videos   ♪ Audio

🗎 Documents   ↓ Downloads   APK Installation files

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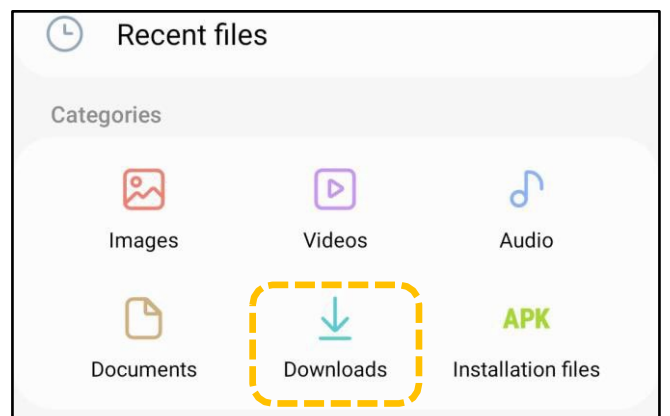
Tap on the file that was just downloaded.
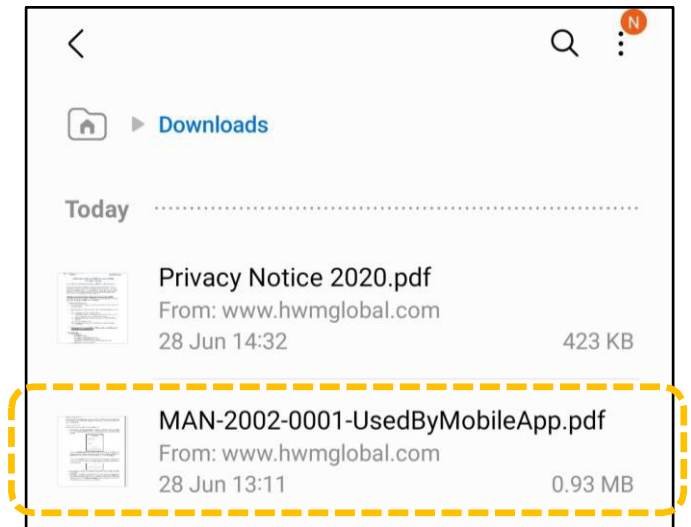
The phone will offer you a choice of any available pdf viewers it may have.
(The selection will vary according to what apps are loaded onto your phone).

Select a viewer according to your preference.

Tap also on "just once".

The help document will load into the viewer.
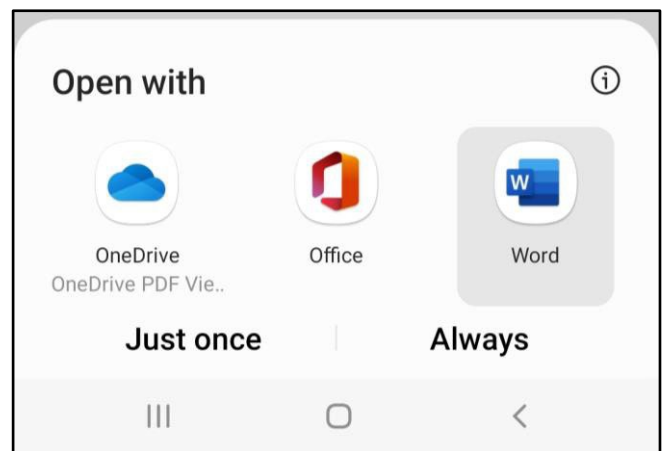
4.3 'VIEW PRIVACY POLICY' BUTTON

If you wish to re-examine the HWM app privacy policy, tap anywhere on the "View privacy policy" line.

View privacy policy

4.4 'APP INFORMATION' BUTTON

To provide technical details of the app (e.g., if requested by HWM for a support call) tap anywhere on the "App Information" line.

App Information

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The page shows technical details regarding the app version number, the software version of the server it is communicating with, etc.
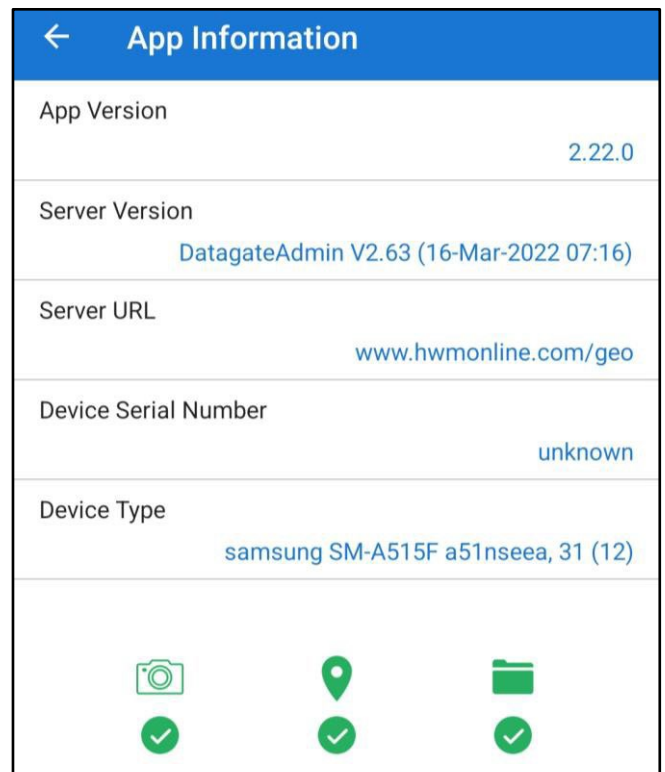
The screen also confirms that the app has been given all the access privileges it requires to operate.

4.5 'ENVIRONMENT TYPE' SETTING

The "Environment Type" is an important setting within the app. This was first introduced in section 3.2, where it was shown that the app would not proceed until the user has made a selection for this control.

Its importance is based on the fact that for each of the offered selection choices, different information may need to be gathered for the deployment. In addition, the terminology used can vary slightly between the various user-groups that can use the Deployment app.

The 'Environment type' line shows the current setting.

Tapping on the line allows the setting to be changed.

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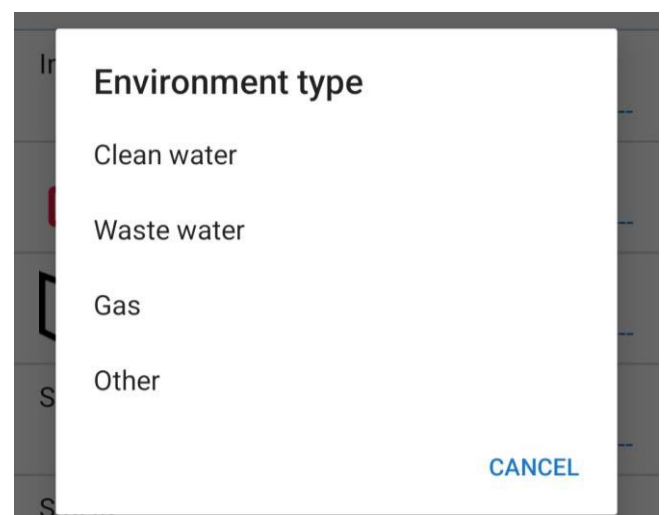
The environment type determines the data that needs to be complete on the Install page.

For **Clean water** selection, the following are required:

- Pipe material
- Pipe diameter
- Chamber type

Typically, this selection is used for loggers which detect leaks in pressurized water pipes. These require pipe characteristics for possible leak location / correlation use.

For **Waste water** selection, the following are required:

- Pumping station indication (checkbox)
- Chamber length
- Chamber width
- Chamber depth
- Pipe diameter

Typically, this selection is used for loggers which detect a potential risk of sewage spill. The pumping station indicator can be used, for example, for sewage storage tanks that include a pump; the indicator can be utilized by the data viewing tool to show a different icon from non-pumped sites.

For **Gas** selection, the following are required:

- MPRN
- Meter serial number
- Number of billable dials

Typically, this selection is used for loggers which are used in Automated Meter Reading of the flow (consumption) of Gas through a meter.

For all other environments, select "Other", or consult your HWM representative.

4.6 'SYNC WITH SERVER' CONTROL

The "Last sync with server" line is a control that can initiate the sync process (see also section 2.3).

The control shows the last date and time that a sync was made with the server; when the app is initially run, it shows 'Never'.

Other	
Last sync with server	Never

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To sync: Tap on
"Last sync with server".

Sync should complete successfully.

Synchronisation

Synchronisation completed
successfully.

OK
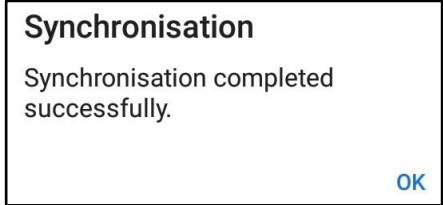
The last sync date and time is updated.

Last sync with server   25 Apr 2019
                                      10:37

Failure to sync regularly can lead to errors later on
as the user tries to record details of an installed
logger.

Error

Could not retrieve site information
for this SMS number. Check
your internet connection, or try
synchronising your database (found
in the Options menu).

OK
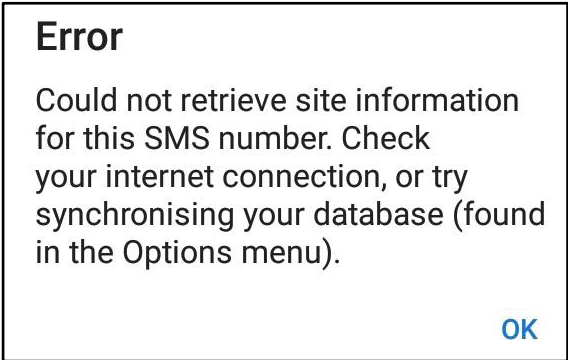
4.7 'DATA UPLOAD' SETTINGS

The "Upload site details on Save" control can
be turned on (green) or off (grey).

When on, the app will upload the logger
deployment changes to the server at the
earliest opportunity after the data has been
acquired by the app (i.e., when the user has
saved the changes).

Data Upload

Upload site details on Save

Allow upload by mobile data
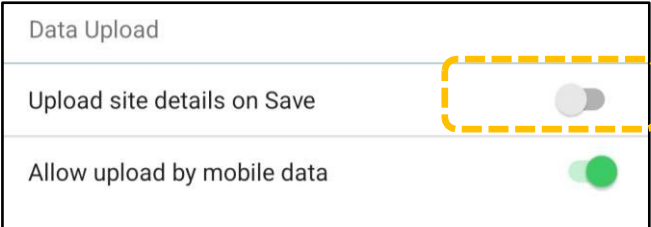
(There is a facility to cancel changes within the app, but only if the data has not yet been
sent to the server. Once data is sent, the changes can no longer be cancelled).

The "Allow upload by mobile data" control
can be turned on (green) or off (grey).

When on, the app will use the data facilities
of the mobile (cellular) network, when a
signal is available, to upload the logger
deployment changes to the server.

Data Upload

Upload site details on Save

Allow upload by mobile data
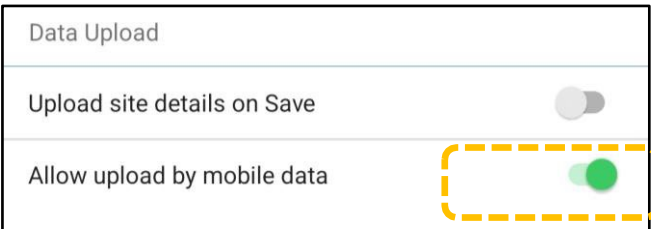
When off, the app waits until a Wi-Fi connection becomes available before it will
communicate with the server.

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4.8 'Address' settings

The logger equipment is installed within an installation site. The site (which could even be hidden from view, such as an under-ground chamber) can be accurately located by using its GPS coordinates. However, these are somewhat cumbersome for people to use; a postal address is a more familiar way of communicating a location.
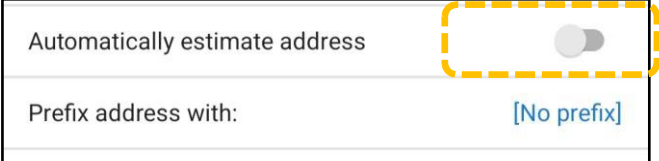
The installer can manually type in an address for a site that is on the premises of a property or immediately outside the property boundary. The app also has a helper feature that suggests an appropriate address (but which the installer may not agree with and can subsequently edit).

The "Automatically estimate address" control can be turned on (green) or off (grey).

When on, the app will suggest an address for the site. When off, the installer has to enter the address manually.
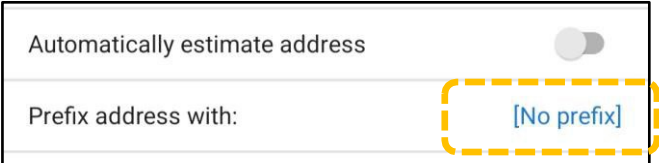

Note: If there are no near-by properties, it may not be possible for the automatic address feature to suggest an address.

There is a facility within the app to add a prefix to the address.

This could be used, for example, to add a manually applied postal area / ZIP code prefix to the address.

Another example would be to prefix the address with a road identifier (for facilities installed next to major roads). The installer can use the facility for whatever purpose they require.

4.9 'Site ID' settings

As discussed in section 4.8, GPS coordinates are cumbersome for people to use to identify sites. An address field exists in the app (and on the server), but these may also have some limitations (in rural areas, many installation sites may have to refer to the same address because of the sparseness of properties). A "Site ID" field is provided in order to distinguish between sites. Site ID can also be used as a shortened reference to a site.

Note: It is possible for addresses to be *non-unique*. For example, there are many streets named "High Street" within the UK. Similarly, many sites may have to bind

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to the same address in rural areas. The app (and server) therefore make no attempt to ensure the address is unique.

There is a facility provided by the app to generate *unique* site IDs, but this must first be enabled by the user before it will operate.
The feature is only available for New Installs, and only if the app database has no information previously saved regarding installations of the logger.
(i.e., The user must not have previously installed the logger).

The "Site ID" field can be manually entered by the installer.

It is recommended that the installer should have some useful scheme to follow prior to commencing, such as prefixing the site ID with a postal area / ZIP code.

Each Site ID should be unique; this is best practice to avoid confusion rather than being a software requirement; the app makes no attempt to enforce such a rule.

The app offers helper facilities to partially automate the generation of a Site ID.
The installer is **recommended to use** these features. It avoids many confusing situations from arising in the first instance (e.g., many sites may be produced with a blank or duplicated site ID if the installer does not follow any scheme or skips entering one).

The "Add an auto-generated site ID" control can be turned on (green) or off (grey).

When on, the app will generate a **unique (numeric) site ID** for the installer.

Prefix site ID with: [No prefix]

Add an auto-generated site ID   ◯
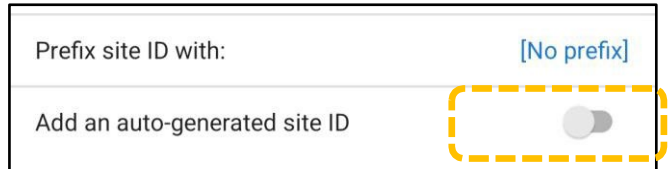
(Unique site IDs are downloaded for each site as part of an earlier sync with the server. The app saves them but does not make use of them unless the installer has actually switched the feature on prior to loggers being installed).

Another control, called 'Prefix site ID with', allows a character string (entered here) to be used as a prefix to any auto-generated or manually entered site ID.

Prefix site ID with: [No prefix]

Add an auto-generated site ID   ◯
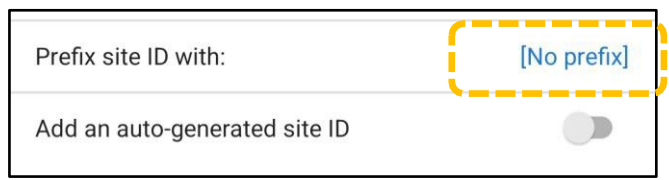
The effect of the selections are summarized below:

Prefix	Unique ID	Auto-generate	Result – Site ID
(Empty)	2406	(Off)	(Empty)
(Empty)	2406	(On)	"2406"
"HWM_"	2406	(Off)	"HWM_"
"HWM_"	2406	(On)	"HWM_2406"

4.10 'CLEAR DATABASE' CONTROL

If you wish to clear the contents of the entire database held by the app in the phone's memory, you can do so by tapping on the 'Clear Database' button.

Clear database

Note: Caution is required to ensure data is not lost; be sure to have uploaded all recent data by doing a sync with the server prior to commencing this operation.

5   TROUBLESHOOTING

5.1 DOCUMENTATION AND SUPPORT OF PRODUCT

HWM provides support (documentation) by means of our customer support webpages:

https://www.hwmglobal.com/help-and-downloads/

Should you have any questions that are not covered by this manual or the system's online help, please contact the HWM Technical Support team on +44 (0) 1633 489479, or email   cservice@hwm-water.com

The subsequent sections deal with the most likely problem scenarios …

5.2 DIFFERENCES BETWEEN PHONE OPERATION (ANDROID VS IOS)

This user-guide was written using an Android-based phone for screenshots and descriptions of user-operations. Phones using iOS (e.g., Apple iPhone) may present information in a slightly different way or location on the screen.

The following differences exist for iOS devices (non-exhaustive list):

- A "long press" of a line (on Android)
  … may be replaced by a "swipe to the left" (on iOS).

5.3 WHAT IF MY BATTERY IS LOW, OR THE PHONE IS IN "LOW POWER MODE"?

Phone operating systems can use various methods to keep the phone operating when power from the battery is running low. These include restricting the availability of certain functionality on the phone, such as allowing dis-allowing an internet connection.

As a general rule, if the app appears to be working in an irregular manner, or is producing irregular error messages, the user should check the battery level in the phone and re-charge it if needed. Ensure the phone is sufficiently charged to take it back into normal mode (not in a low-power mode); for some phones this requires it to be re-charged to over 80%.

5.4 THE USER CANNOT LOG IN

- Ensure the correct server URL exists (Test connection).
- Ensure the correct username and password are being used.
   (Check for typing errors. Check with your Supervisor or System Administrator).
- Ensure (System Administrator check) the user is correctly set-up on DataGate.

5.5 WHY CAN THE DEPLOYMENT DETAILS NOT BE SAVED?

- It may be that you have not filled in all the fields required.
   Please check that all fields are filled in. If necessary, scan the device again.

5.6 WHY IS THE BARCODE NOT SCANNING?

- The app may not be able to recognize the barcode. This can be caused by several factors, including a scratched barcode, partially faded barcode, a damaged camera, dirt on the lens / barcode, or the camera is out of focus.
   If the barcode does not get scanned automatically, the SMS number should be manually entered.

Should the SMS number be unreadable, you can open the scan page (by tapping the Scan button), and then tap on the Search button to search for the device.
In the search field, you may enter part of the SMS number or the serial number.
Once you have found the device, tap it to carry on with the deployment process.
Please note that you will have to synchronize with the database
(go to Options -> Last sync with server).

5.7 WHAT DO I DO IF I HAVE NO INTERNET CONNECTION?

- For security reasons, you will need an internet connection to log in; this is mandatory and without any exceptions.
   If you are using mobile data, please find an area with good signal, and log in from there.
   If you are using Wi-Fi, please connect to a secure Wi-Fi spot.

You will have the option to synchronize to the server database
(go to Options -> Last sync with server).
This will synchronize your device with the server database and reduce the amount of internet usage required for every deployment. It should also speed up your deployments.
(Please note that synchronizing over mobile data may consume a large amount of data. It is recommended to do this over Wi-Fi instead periodically).

If you are in a location with poor signal service, and you are deploying a device, whilst the device will not upload to the server at that moment, the details will be saved. The next time you are connected to the internet (via mobile data or Wi-Fi) and you deploy a device, any unsent data will then be uploaded.

5.8 I MADE A MISTAKE, AND UPLOADED IT. HOW CAN I CORRECT IT?

Mistakes can only be corrected if the deployment has not been uploaded yet. In that case, the user can delete the deployment item from the Database page, then repeat the deployment using the correct details.

The app is unable to correct any details that have already been sent to the server. In that instance mistakes must be corrected on DataGate.

5.9 HOW DO I WORK OFFLINE?

For security reasons, you will need an internet connection to log in. To work offline, after logging in you will have to download a copy of the database onto your device (synchronize). The database may be large, so it is recommended to carry out this process over a secure Wi-Fi connection. It is also recommended to synchronize with the server at least once a week, but ideally every day.

Go to the Options page and tap 'Last sync with server' line. The sync process should start. The time taken will depend on the size of the database.

Once you have finished synchronizing the app with the server database, you may want to switch the 'Upload site details on Save' option to 'off', so that the app does not try to upload to the server immediately. You may now turn off your mobile data and carry out your normal deployment.

Remember to upload all unsent items to the servers when a good internet connection is available.

Whilst offline, the app will not have access to the map and will not be able to estimate the address of your deployments. The GPS coordinates of the phone will be unaffected.

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