

# HWM WebCorr App Support

## What is the app used for?

The app is designed to accurately speed up the process of site monitoring and product deployment. The app is designed to be used with a Bluetooth transceiver. All screenshots taken of the app in this document are taken using an Android device running Android 7.1 (Nougat), but the app will appear similarly on other Android versions.

This app is a condensed mobile version of the PermaNetPlus software, and it is currently designed solely for the PermaLog+ family, which includes the PCorr+ (**Note:** only the PCorr+ can perform sound recordings, and sound recordings can only be programmed/downloaded with the transceiver). Whilst the main functionalities are retained, the process has been simplified to allow a faster and smoother process from deployment to patrolling to correlating.

## How do I use the app?

The app can be configured to upload the patrolled data, device location, and sound recordings to Datagate. On Datagate, you will be able to easily navigate through the various sites, listen to recordings, view past data, and much more.

If you do not wish to have the app integrate with Datagate, please skip the next section, and read the section *In the field – Using the app*.

### In the office – Setting up Datagate

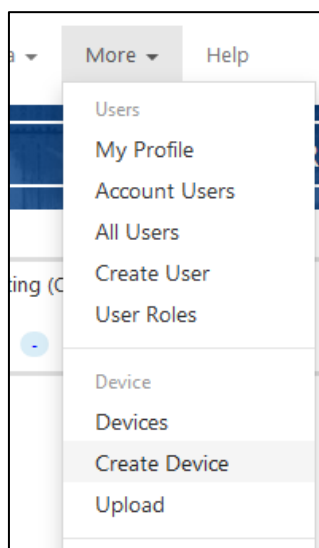
The app cannot integrate with Datagate if Datagate has not been setup to receive data from the app. The app on its own will function without having to upload data, but this means that the data will not be visible on Datagate, nor will the historical data of various sites be visible. To ensure the app can interact with Datagate, please read this section carefully.

The Device ID is the ID of the central location where the data will be sent to. Datagate will then sort the data out to separate devices and sites automatically, which all need to be manually set up. Please follow the steps below to ensure full App-Datagate functionality.

#### Device ID

To create a Device ID, a new site needs to be created. Please note that you will need to have a Master account for this process. To create a site on Datagate:

1. Go to <https://www.hwmonline.com/dg/> and log in using your Datagate credentials.
2. Go to **More**, and click **Create Device**.



- Under **SMS Number**, you will need to type in an SMS number to set it up. This can be the user's phone number. In this example, 447987654321 will be used. You will also need to assign the **Device Owner**. This is usually the parent account, but may differ across different setups. In this example, Engineering will be used.

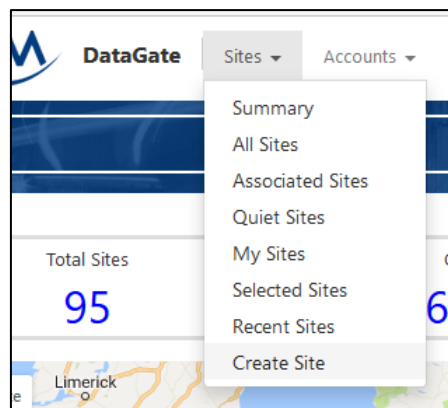
SMS Number: 447987654321

GSM Data Number:

Device Serial Number:

Device Owner: engineering (Engineering) Next List

- Once they have been completed, click on the **Create** button.
- Next, the newly created device needs to be assigned to a site. Go to **Sites**, and click **Create Site**.



- Look for the SMS number you created in the previous steps by clicking the **Serial/SMS lookup** button. If you carried out the previous steps correctly, it should appear in the list of available devices. Click on the **Link** button to link the new device to the new site.

Last CallIn	View	Link
26-Jan-2017 11:11	<a href="#">View</a>	<a href="#">Link</a>

- Set the **Owner Account** to the main parent account.

Device SMS Number: 447987654321 Serial/SMS lookup

Serial Number:

Owner Account: engineering (Engineering) Next List

Address:

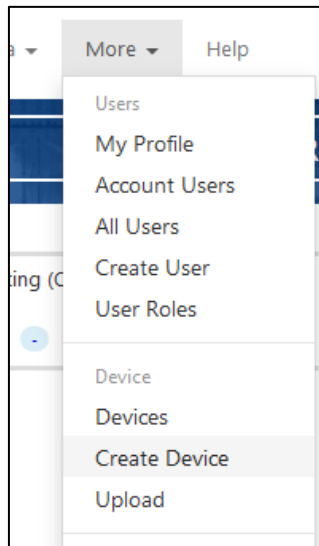
- (Optional) Set the Site ID. If left blank, a site ID will be automatically set.
- Click on the **Create** button.

Now that a new site has been create, take note of the SMS number. This SMS number is the Device ID to be used on the app.

## Devices

For each device (Permalog/PCorr) that will be issued to the technicians, a site needs to be created. A similar process to setting up the Device ID is required. Please follow the steps below to set up the devices on Datagate:

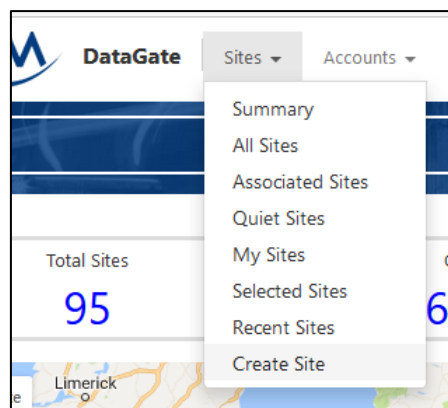
1. Go to <https://www.hwmonline.com/dg/> and log in using your Datagate credentials.
2. Go to **More**, and click **Create Device**.



3. In the SMS number field, type in "4406400" (no quotes) followed by the device serial number. Example: device serial number is 07162002, Datagate SMS number is 440640007162002. You will also need to assign the **Device Serial Number** and the **Device Owner**. The device owner is usually the parent account, but may differ across different setups. In this example, Engineering will be used.

A screenshot of the 'Create Device' form in the Datagate application. The form contains four input fields: 'SMS Number' with the value '440640007162002', 'GSM Data Number' (empty), 'Device Serial Number' with the value '07162002', and 'Device Owner' with a dropdown menu showing 'engineering (Engineering)'. A 'Next List' button is located to the right of the 'Device Owner' field.

4. Once they have been completed, click on the **Create** button.
5. Next, the newly created device needs to be assigned to a site. Go to **Sites**, and click **Create Site**.



6. Look for the SMS number you created in the previous steps by clicking the **Serial/SMS lookup** button. If you carried out the previous steps correctly, it should appear in the list of available devices. Click on the **Link** button to link the new device to the new site.

Last CallIn	View	Link
26-Jan-2017 11:11	<a href="#">View</a>	<a href="#">Link</a>

7. Set the **Owner Account** to the main parent account.

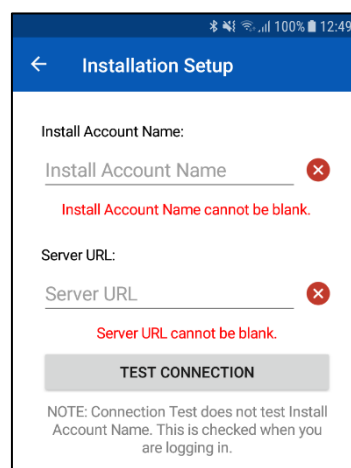
Device SMS Number	440640007162002	Serial/SMS lookup
Serial Number	07162002	
Owner Account:	engineering (Engineering) ▼	Next List
Address:		

8. (Optional) Set the Site ID. If left blank, a site ID will be automatically set.
9. Click on the **Create** button.
10. Repeat steps for every device.

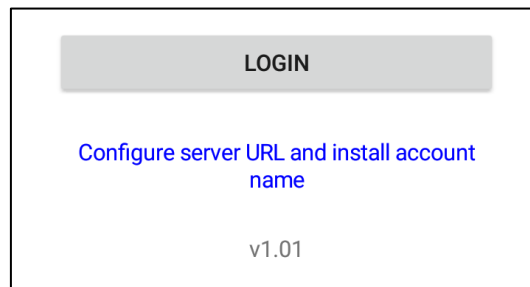
### In the field – Using the app

To use the app in the field, please follow the instructions below:

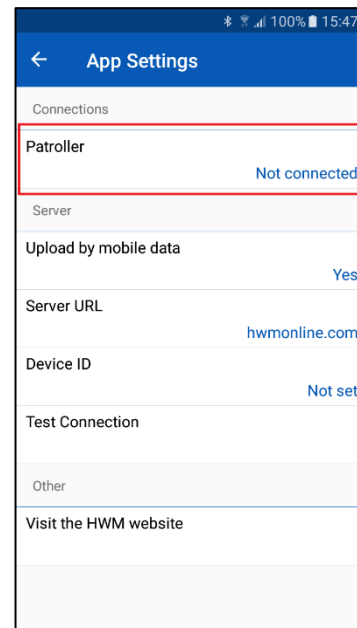
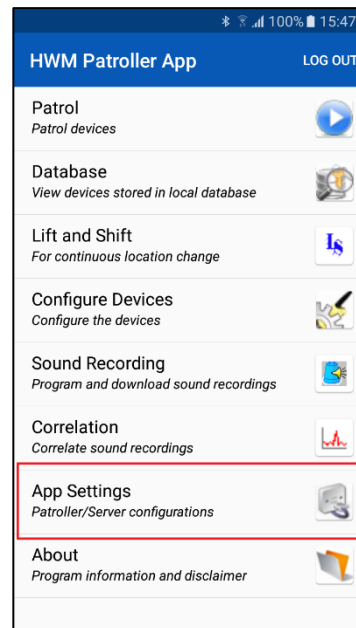
1. Pair your device with the Bluetooth transceiver. This is a one-off step, so once this step has been completed successfully, you may skip this whenever you need to use the app. Follow the following instructions to pair with the Bluetooth transceiver:
  - a. Make sure that the Bluetooth transceiver is powered up and within range.
  - b. Go to your device's Bluetooth settings.
  - c. Wait for the transceiver appears in the list of available devices. When it does, pair with it. The pairing code should be either 1234 or 0000.
  - d. Once successfully paired, you may launch the app.
2. On first start-up of the app, you will be prompted for an Install Account Name and server URL. Contact your system administrator for both of these, as they are issued to your system administrator by HWM. This is a one-off configuration, and you won't need to do this every time you open the app.



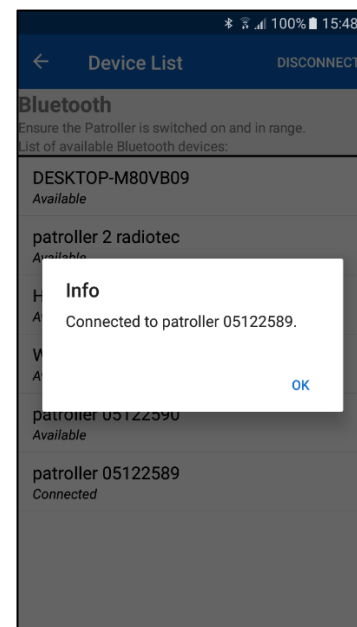
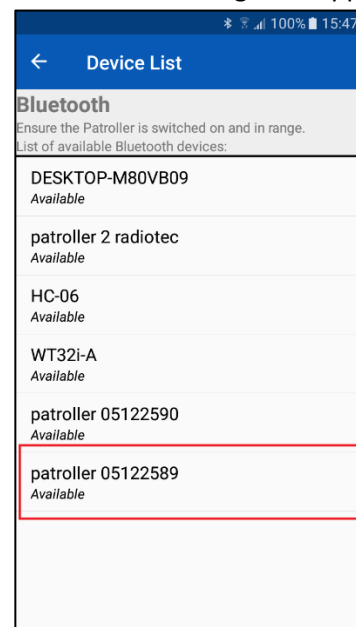
These settings can be changed by selecting the **Configure server URL and install account name** link on the login screen.



3. Log in using your credentials. Your username and password are also provided by your system administrator.
4. Once logged in, you will need to connect to the Bluetooth device. Tap on **App Settings**, and then tap on **Patroller**.



A list of paired devices will appear. Search for the Bluetooth transceiver's name, and tap it. If successful, a confirmation message will appear.



5. Navigate back to the **App Settings**.
6. If you are alright with using mobile data to upload to the server, leave **Upload by mobile data** to **Yes**. (**WARNING:** whilst the app shouldn't be uploading large amounts of data, heavy usage

of the app may lead to excessive mobile data.) Switching this option to **No** will save all the data to the local device, and can be uploaded when connected to a WiFi hotspot.

7. To change the server URL, you will need to log out of the app, change the server URL on the login screen, and log back in. This is a necessary security measure.
8. The Device ID should be issued by your system administrator. This is where all the data will be uploaded to. Without this ID, no data can be uploaded.
9. You can check that both the server URL and the device ID are correct by tapping **Test Connection**.

Server	
Upload by mobile data	Yes
Server URL	hwmonline.com
Device ID	447987654321
Test Connection	Server URL OK! Device ID OK!

### Patrol

1. From the Main Screen, tap the **Patrol** function.
2. When presented with the Patrol screen, tap the **Start** button to start patrolling.

The devices in the vicinity will be listed on the screen. The devices will be listed with the newest message at the top. The list can be ordered in ascending or descending order, and can be cleared. All patrolled data is automatically stored locally on the mobile device.

Device ID	State	Level	Spread
10081023	N	15	4
07162002	L	42	22
02165012	L	31	4
07162003	L	42	16
12999999	L	36	3
11160305	L	27	6
07162008	L	24	3
02165018	N	27	16
02042009	L	32	2

3. To view the stored data, navigate back to the Main Screen and tap the **Database** function.

## Database

1. From the Main Screen, tap the **Database** function.
2. The databases displayed show the stored Patrol data (obtained from a patrol), and the deployed devices from a Lift and Shift operation.

PATROLLED					DEPLOYED				
Serial	State	Level	Spread	Type					
14 Sep 2017									
02165011	L	24	8	P+	!				
02165012	L	31	4	PC+	!				
02260001	N	20	6	P+	!				
07162002	L	42	22	P+	!				
07162003	L	42	16	PC+	!				
07162008	N	5	3	PC+	!				
10081023	N	15	4	P+	!				
10131775	L	35	14	P+	!				
11160305	N	19	9	P+	!				
12 Sep 2017									
02165012	L	20	3	PC+					
07162002	N	25	18	PC+					
07162003	L	16	4	PC+					
07162008	N	18	4	PC+					
10081023	N	19	4	P+					
11 Sep 2017									
02165012	N	17	3	PC+					
07162002	N	14	5	PC+					

3. Where entries have a red exclamation mark ( ! ), that data has not been uploaded to the server.
4. To upload unsent data, tap the **Upload** button. **Note:** you will need the correct server URL and device ID for the data to be uploaded. Both of these can be set in the **App Settings**.

## Configure Devices – Program

1. From the Main Screen, tap the **Configure Devices** function.
2. This function allows you to configure the patrol and logging times for the devices.

Configure Devices

PROGRAM READ

Logger Time

Set logger time to: 14 Sep 2017 16:07

Patrol Times

Patrol Window: Day (6am-6pm)

Patrol Days: Weekdays

Logging

Set Logging Time: 02:00

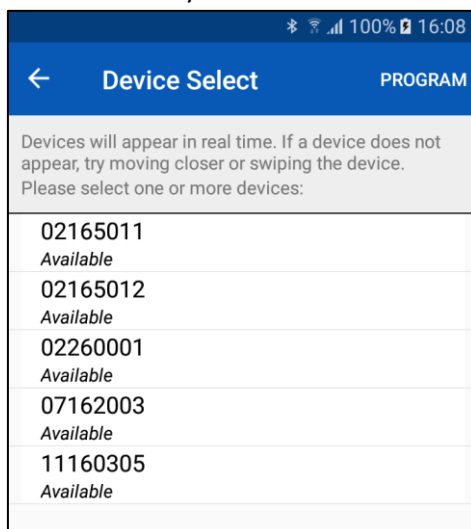
Set Confirmation Delay: 01:00

Set Logging Days: Weekdays

3. Tap **Patrol Window** to set the device's patrol window. You can select from the pre-defined timeslots, or choose a custom window.
4. Tap **Patrol Days** to set the days where patrolling will be active.
5. Tap **Set Logging Time** to set the time at which the device will take its first measurement.
6. Tap **Set Confirmation Delay** to set the confirmation delay. **Information:** when the first measurement goes into Leak mode, a second measurement is taken to confirm that there is

indeed a leak. The time delay between these two measurements is called the confirmation delay.

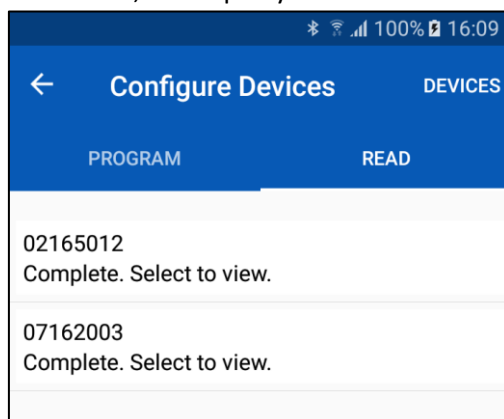
7. Tap **Set Logging Days** to set the days where measurements will be taken.
8. Once all the required fields are set, tap the **Devices** button. This will bring up a list of the available devices to program in the vicinity.



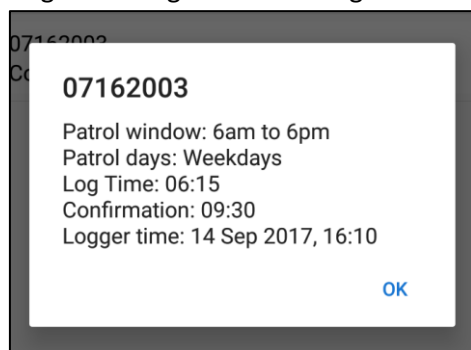
9. Select which devices to program, and tap the **Program** button. Please wait until the confirmation message appears, confirming all the selected devices were programmed.

#### *Configure Devices – Read*

1. From the Main Screen, tap the **Configure Devices** function.
2. Navigate to the **Read** tab, and tap on **Devices**.
3. Select the devices you wish to read the configuration from, and then tap **Read**. Please wait for the confirmation message to appear. This will confirm all selected devices have been read.
4. Navigate back to list of read devices, and tap any of them.



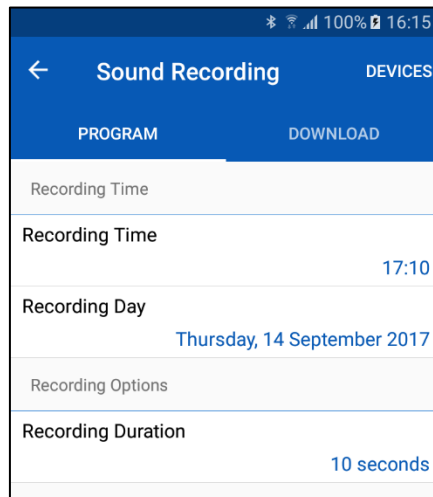
5. A popup box will appear giving the configuration message of the selected device.





### Sound Recording – Program (Bluetooth Transceiver only!)

1. From the Main Screen, tap the **Sound Recording** function.
2. This function allows you to configure a sound recording to your device.

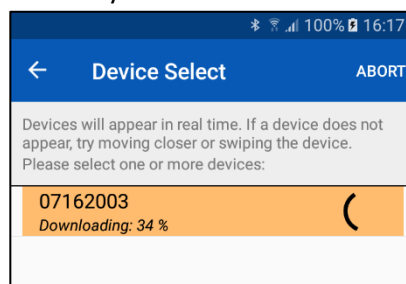


Sound Recording	
DEVICES	
PROGRAM	
Recording Time	
Recording Time	17:10
Recording Day	Thursday, 14 September 2017
Recording Options	
Recording Duration	10 seconds

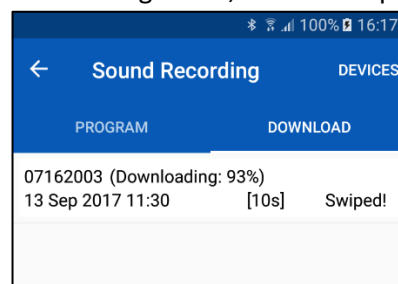
3. Tap **Recording Time** to set the time at which the device(s) should make a recording. If this time is set to soon, the app will automatically change the recording date to the following day. Minimum time allowance is 10 minutes.
4. Tap **Recording Day** to set the recording date. The only available choices are any day within the next week. Later days will result in loss of correlation accuracies.
5. Tap **Recording Duration** to set the recording duration. Currently, recordings can be either 10 seconds or 20 seconds long.
6. Once all the required fields are set, tap the **Devices** button. This will bring up a list of the available devices to program in the vicinity.
7. Select which devices to program, and tap the **Program** button. Please wait until the confirmation message appears, confirming all the selected devices were programmed.

### Sound Recording – Download (Bluetooth Transceiver only!)

1. From the Main Screen, tap the **Sound Recording** function
2. Navigate to the **Download** tab, and tap the **Devices** button.
3. Select the devices you wish to download the sound recordings from, and then tap **Download**.



Device Select	
ABORT	
Devices will appear in real time. If a device does not appear, try moving closer or swiping the device. Please select one or more devices:	
07162003	Downloading: 34 %



Sound Recording	
DEVICES	
DOWNLOAD	
07162003 (Downloading: 93%)	
13 Sep 2017 11:30	[10s] Swiped!

Please wait for the confirmation message to appear. This will confirm all selected devices have been read.

4. Navigate back to list of sound recordings, and tap any of them. This will play the sound. Tapping any other downloaded sound will stop the previous sound, and start playing the selected sound. **Note:** these sounds are saved to the mobile device.

### Correlation

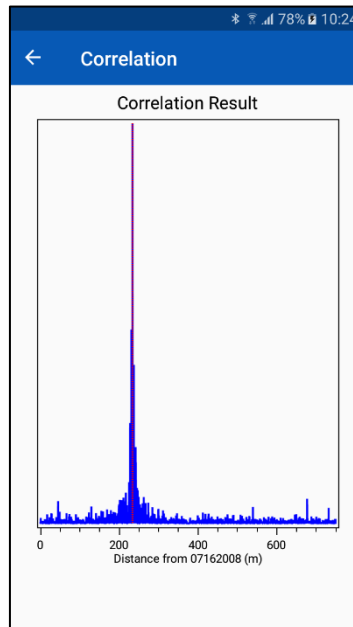
1. From the Main Screen, tap the **Correlation** function.
2. This function allows you to configure for a correlation between sound recordings.

Correlation	
PROPERTIES	RECORDINGS
Material	Ductile Iron
Diameter	3" (75mm)
Segment Length (metres)	750
Velocity (mtrs/sec)	1320

3. Select the pipe properties between two points where the devices were deployed. **Note:** not all pipe diameters are available for all materials. If your desired property is not available, select the closest matching type/value, or make the closest estimation.
4. Navigate to the **Recordings** tab.
5. Select two or more recording from the same time period. **Important:** if more than two recordings are selected, the correlation will take place across the same pipe properties for both. As such, it is recommended that correlation be done separately for more than two recordings.

Correlation		CORRELATE
PROPERTIES	RECORDINGS	CORRELATIONS
13 Sep 2017 11:30	07162003	Available
09 Sep 2017 14:15	02165012	Available
30 Aug 2017 08:40	07162008	Selected
	07162004	Selected
	07162003	Available
29 Aug 2017 14:30	07162008	

6. When two or more recordings are selected, tap the **Correlate** button. **Note:** when correlating, the sound recordings are sent to Datagate. As such, they can be accessed on Datagate any time after the first correlation.
7. Once the recordings have been correlated, navigate to the **Correlations** tab, and select the correlation you wish to view. This will bring up a graph, showing the correlation results.



### What permissions are required by the app?

The app needs access to the following:

- Files and Storage
  - o The app needs access to your storage to save the recordings downloaded from the devices. Additionally, it allows access to the recordings downloaded when performing a correlation.
- Internet
  - o The app will need access to an internet connection to upload to the server. This can be using either mobile data or WiFi.
- Location
  - o The app needs access to your location so that the accurate location of the deployed device can be saved and logged. You will not be tracked, but your device deployment may be.

### Why can I not log in?

It is possible that you have mistyped your Install Account Name, the server URL, your username, your password, and any combination of these. Please check your spelling for each one. If you are still having problems, please contact your system administrator.

### 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 there cannot be exceptions. If you are using mobile data, please find an area with good signal, and log in from there. If you are using WiFi, please connect to a secure WiFi spot.

All the data collected will be saved locally to the device. The data can be uploaded at any time when a valid internet connection can be made.

For other questions or problems, please contact your system administrator.