Wifi Installation for ICM

Set-up Guide for the ICM 2.0 and ICM 4.0

PASSION TO PERFORM

MPFILTRI®

Step-by Step Guide to installing the WFXI Wifi extender

- **Before ordering a ICM-WFXI device you must check your ICM serial number and contact us at technical@mpfiltri.co.uk to ensure it is possible to upgrade**

- Download latest firmware from the MP Filtri website: www.mpfiltri.co.uk

- To install the latest firmware onto an existing ICM 2.0 you will need to be using an ICM-USBi connection, attached through connection 2 - the RS485 connector (see illustration below)

- Power Cable must be repositioned into connection

- The ICM-WFXI can now be fitted securely into Connection 2

- Follow the standard installation for Wifi (see page 4)

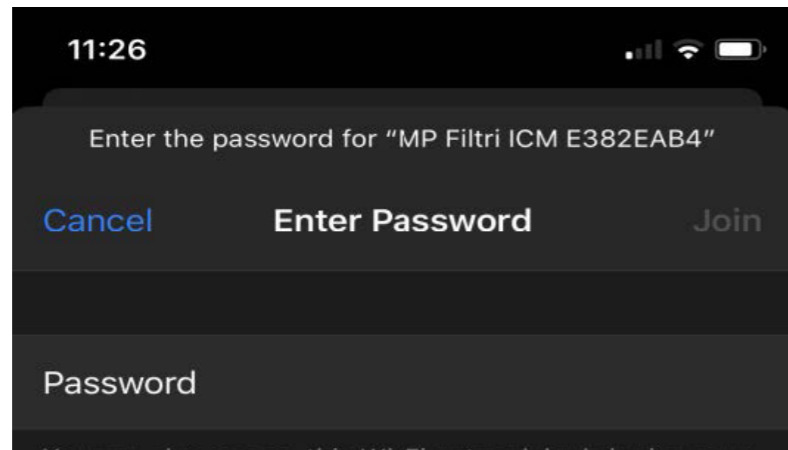## Connecting to Wifi (ICM 2.0 and ICM 4.0)

Make sure that the ICM is situated in a position that has adequate signal of the required Wi-Fi network.

- Power up the ICM as normal – 9-36v DC, this can be done via ICM-USBi with connection to mains supply via the adaptor or the wiring the flying leads of the supplied 3m cable to 9 - 36v – See ICM2.0 quick start guide or user guide for further details.

- Upon start up the Wi-Fi module which is integrally mounted to the ICM4.0 or the fitted WFXi sends a Wi-Fi network signal

- To connect to this signal - open the Wi-Fi options on a phone or tablet, usually by a long hold on the Wi-Fi icon - see below circled in yellow. This will search for available networks.
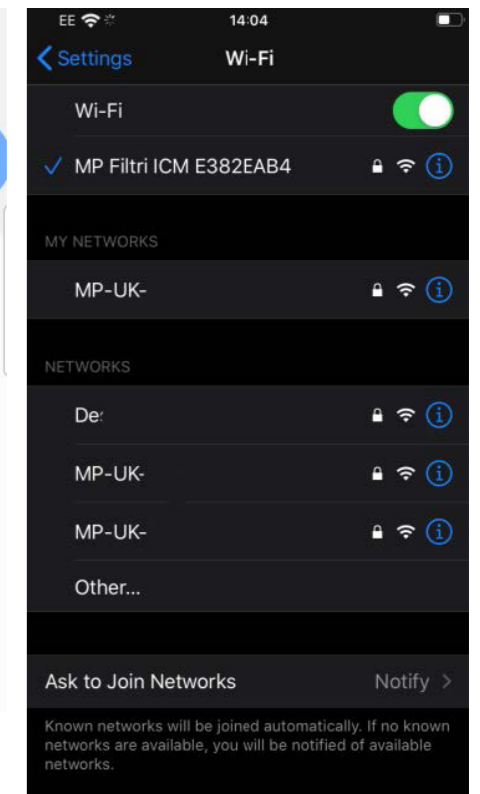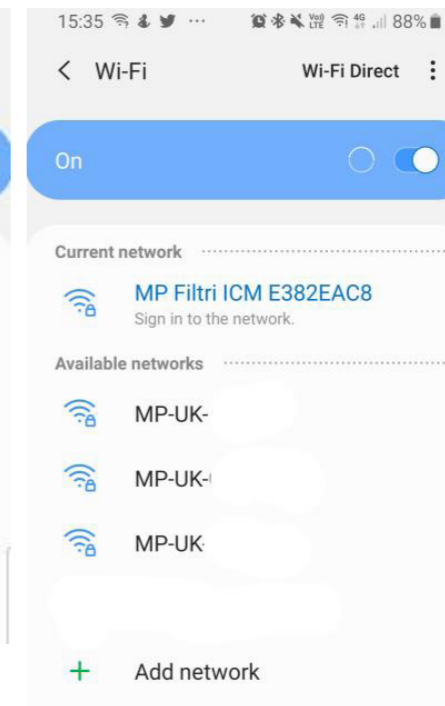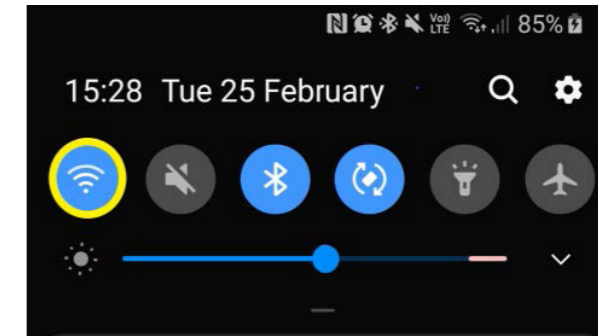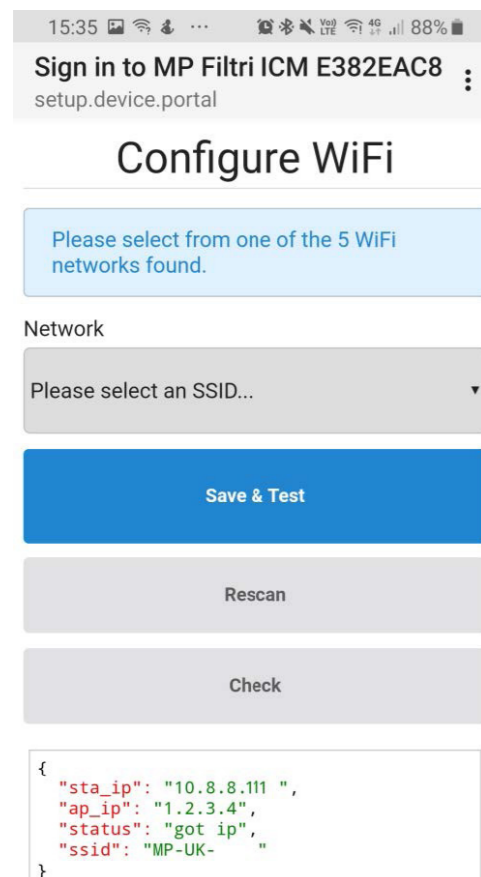
- The network should be displayed as 'MP Filtri ICM ******** usually in the format of ABC12345.
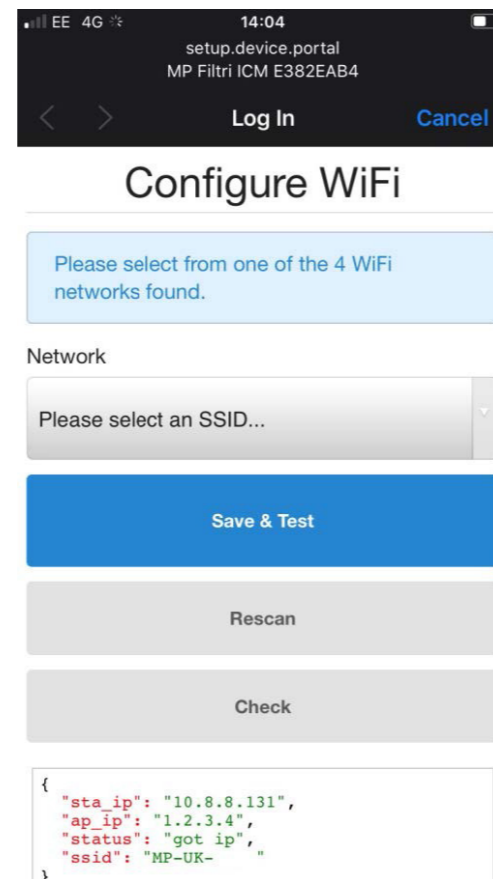
- Connect to this network, it will take you to the configure Wi-Fi setup portal – or for first time set up of a specific ICM4.0 Wi-Fi module a password is required - password is **mpfiltri** , this is a one time password when setting up on a new phone/tablet and for each new ICM4.0. Once input this will take you to the portal page.

11:26

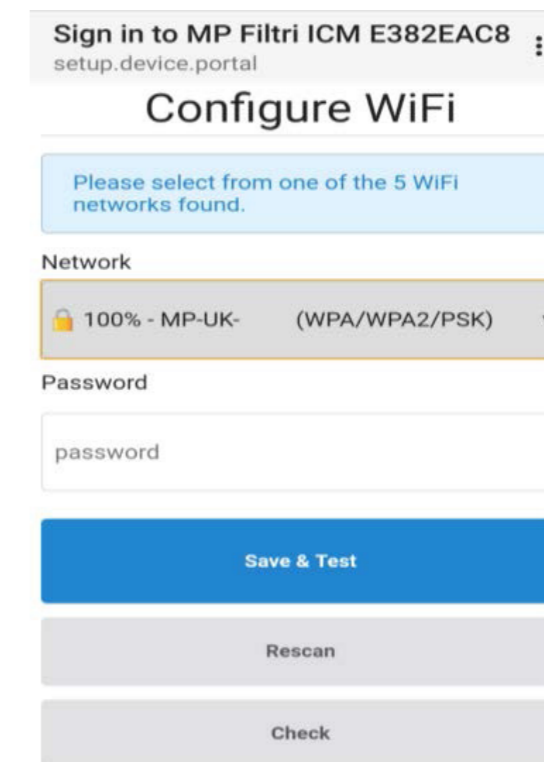Enter the password for "MP Filtri ICM E382EAB4"

Cancel   **Enter Password**   Join

Password

Android device

15:35   88%
Sign in to MP Filtri ICM E382EAC8
setup.device.portal

Configure WiFi

Please select from one of the 5 WiFi networks found.

Network

Please select an SSID...   ▼

Save & Test

Rescan

Check

```
{
  "sta_ip": "10.8.8.111 ",
  "ap_ip": "1.2.3.4",
  "status": "got ip",
  "ssid": "MP-UK-    "
}
```

Apple device

EE 4G   14:04
setup.device.portal
MP Filtri ICM E382EAB4
<   >   Log In   Cancel

Configure WiFi

Please select from one of the 4 WiFi networks found.

Network

Please select an SSID...   ▼

Save & Test

Rescan

Check

```
{
  "sta_ip": "10.8.8.131",
  "ap_ip": "1.2.3.4",
  "status": "got ip",
  "ssid": "MP-UK-    "
}
```
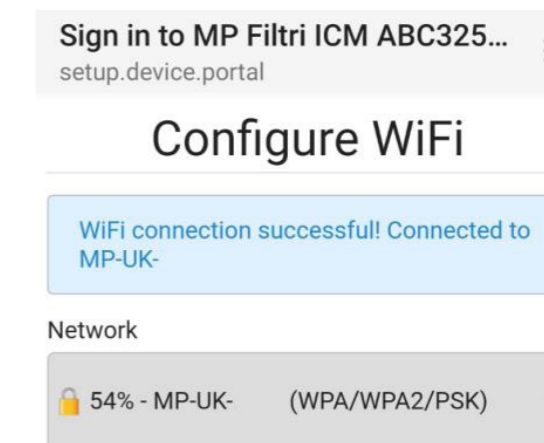
Example phone connection pages

- Chose the relevant SSID (service set identifier) network – the Wi-Fi network that the ICM4.0 is to be connected to.

- Dependant on the setup of the selected network you may need to input the network password now.

Sign in to MP Filtri ICM E382EAC8
setup.device.portal

Configure WiFi

Please select from one of the 5 WiFi networks found.

Network

🔒 100% - MP-UK-   (WPA/WPA2/PSK)   ▼

Password

password

Save & Test

Rescan

Check

Press **Save & Test** this will then test the signal connection and advise if the configuration has been successful.

Sign in to MP Filtri ICM ABC325...
setup.device.portal

Configure WiFi

WiFi connection successful! Connected to MP-UK-

Network

🔒 54% - MP-UK-   (WPA/WPA2/PSK)   ▼

- The linked SSID and the assigned IP address are shown at the bottom dialogue status box

```
{
  "sta_ip": "10.8.8.210",
  "ap_ip": "1.2.3.4",
  "status": "got ip",
  "ssid": "MP-UK-   "
}
```

- Once an IP address is assigned the LED on the front of the ICM flashes cyan every 5 seconds.

The ICM is now configured to the desired SSID network

Communication Platforms

The various platforms on which to view/communicate with the ICM4.0 over are now available to use.

- MP FILTRI CONNECT STATUS – Networking software for viewing numerous supported units on one platform.
- MP FILTRI CONNECT – Phone application, suitable for Android and iOS supported devices.
- Web page via IP address
- LPA-View Software – standard software that is supplied with all Contamination Monitoring Products.
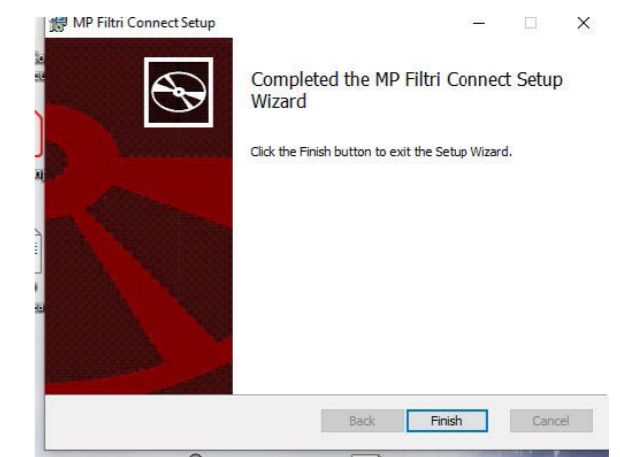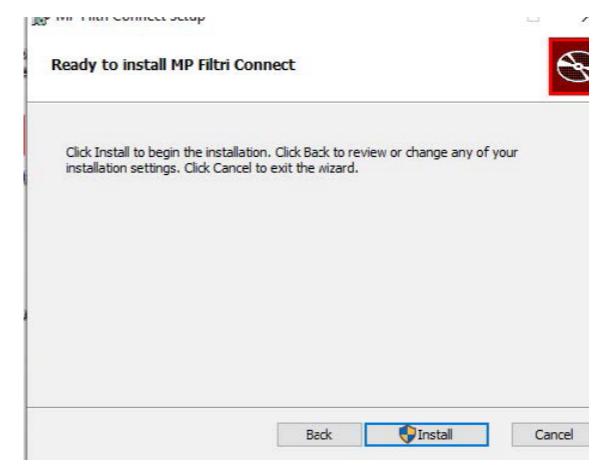
MP Filtri Connect Status
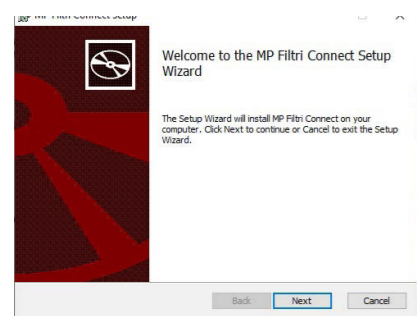
MP FILTRI CONNECT STATUS software allows the viewing of the status of each unit that is connected on a specific network.

- To Install MP FILTRI CONNECT STATUS software - insert the supplied memory stick.
- Open the WIFI – ICM4.0 – WFXI folder
- Open the file MP_Filtri_Connect file – this opens the MP Filtri Connect Setup Wizard.
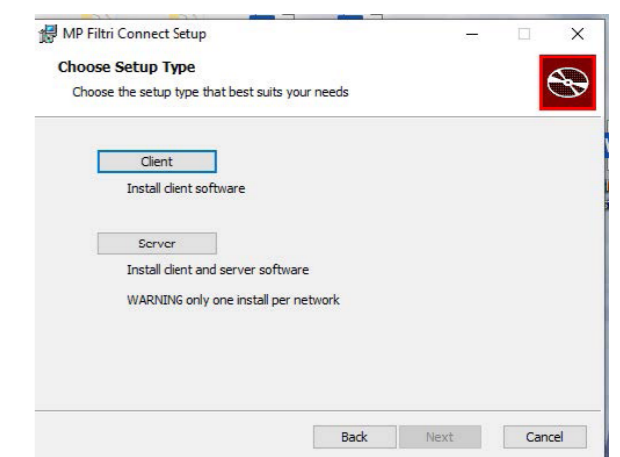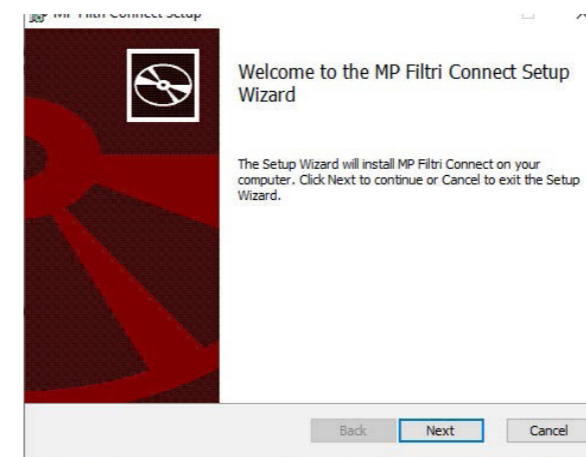
There are two options available to install on a network – the Client – this can be installed onto all computers where the status is to be viewed and the Server option – this is to be installed onto one computer only. The Client programs gather and display the information from the server install.
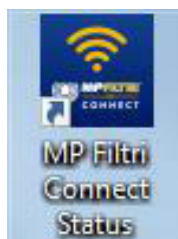
These Client installs along with the Server program must use or be connected to the same Wi-Fi network as the ICM4.0

The install wizard completes the installation and pastes a shortcut onto the desktop.

The Server option installs three programmes –

• MP FILTRI CONNECT STATUS,

• MP FILTRI CONNECT SIMULATOR and

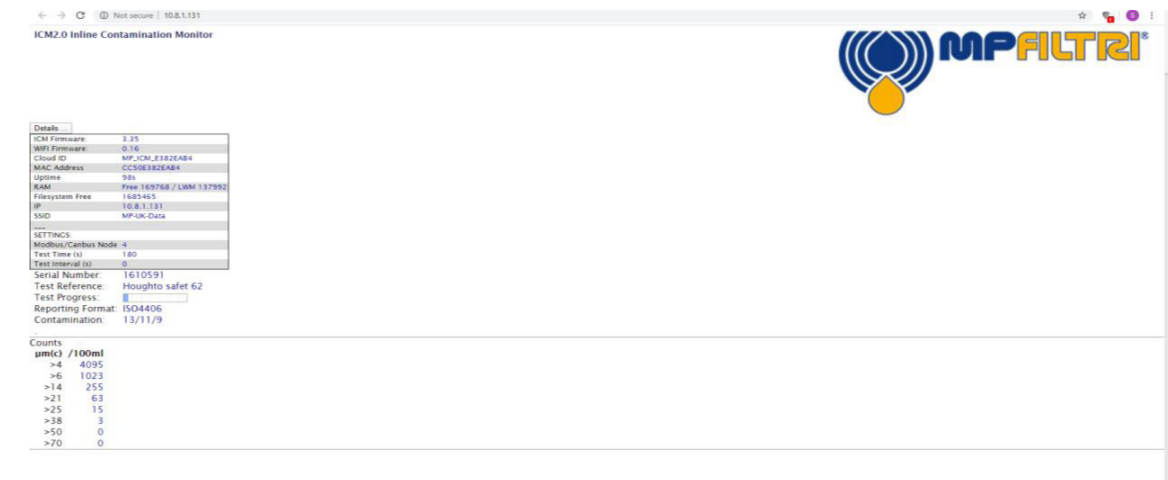• MP FILTRI CONNECT CONSOLE

MP Filtri Connect
Simulator

• The MP FILTRI CONNECT STATUS – software program allows the viewing of the status of each unit on a specific network. See below for further details.

• MP FILTRI CONNECT SIMULATOR – This programme allows simulation units to be added to the status software to assist in demonstration of the unit – and to check functionality. This is not normally used in day to day running of the STATUS software.

• MP FILTRI CONNECT CONSOLE. This is the programme that communicates with the ICM4.0 Wi-Fi module and the STATUS programme, it also displays the dialogue between them and writes the results into a temporary files – these files are automatically uploaded to the LPA-View software once this is opened – or writes directly to LPA-View (see below) if already opened. This needs to be running for the STATUS programme to function correctly.

WEBPAGE Monitoring

Webpage via IP address – the IP address can be found on the ICM4.0 units diagnostic page - Right arrow from start up screen then scroll up/down to get to the page as shown below.
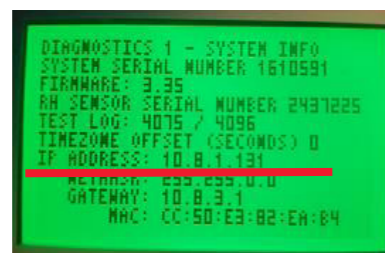
Type this IP address into a web browser (the computor or laptop must be on the same SSID network as the ICM4.0) – this then connects to the webpage of the selected ICM4.0 unit.
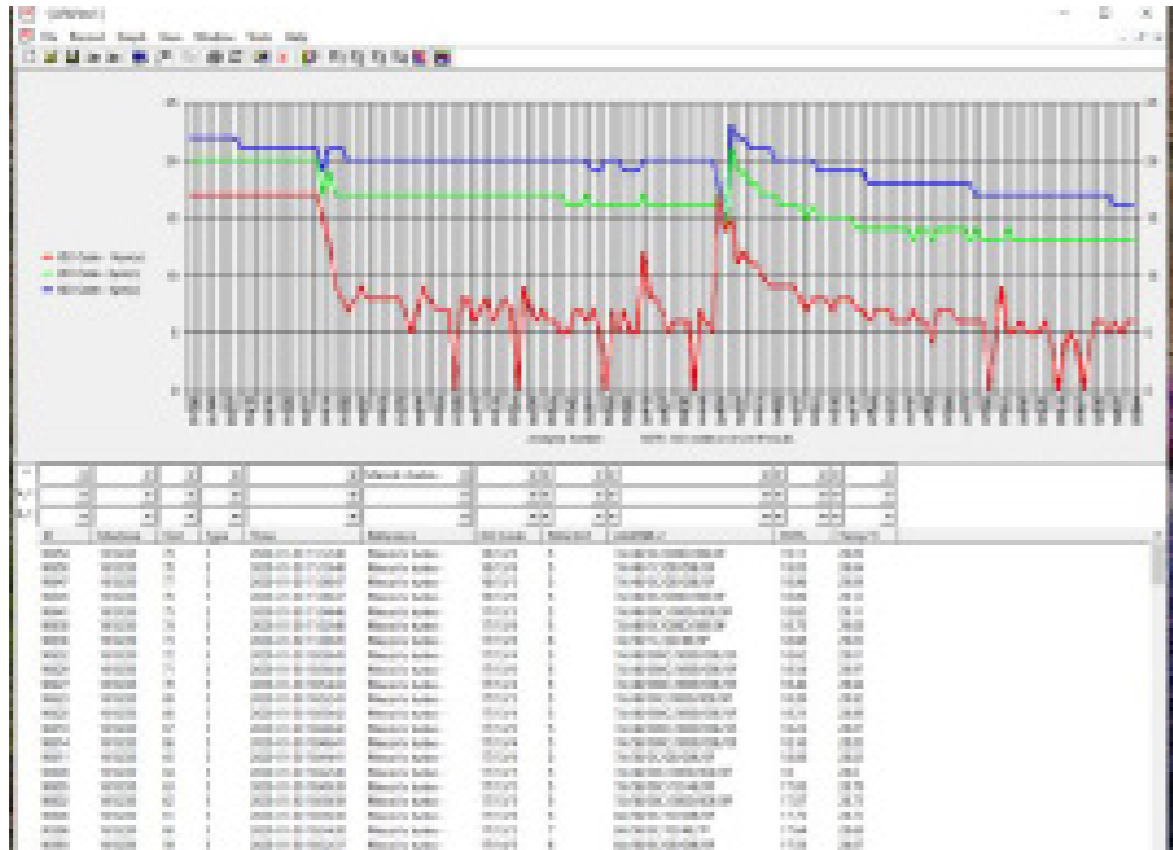

Details of the ICM and Wi-Fi firmware, the MAC address for the Wi-Fi module along with the settings of the ICM – serial number/test reference, test progress, reporting format and last completed test details, can be found.
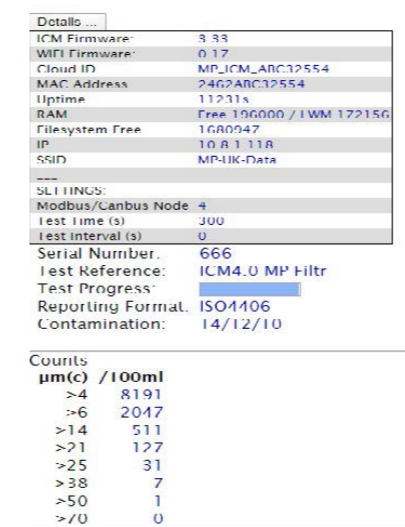
MP Filtri Connect Status

LPA-View software – The general software that is supplied with all contamination monitoring products (CMP).

MP FILTRI CONNECT PROGRAMS

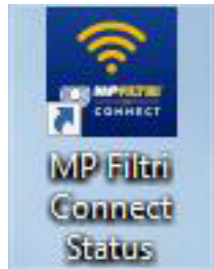### MP FILTRI CONNECT CONSOLE.

This is the programme that communicates with the ICM4.0 Wi-Fi module and the STATUS programme, it also displays the dialogue between them and writes the results into a temporary files – these files are automatically uploaded to the LPA-View software once this is opened – or writes directly to LPA-View (see below) if already opened. This needs to be running for the STATUS programme to function correctly.

It logs, time and date of communication and completed tests of the ICM4.0 see below dialogue box for an example.
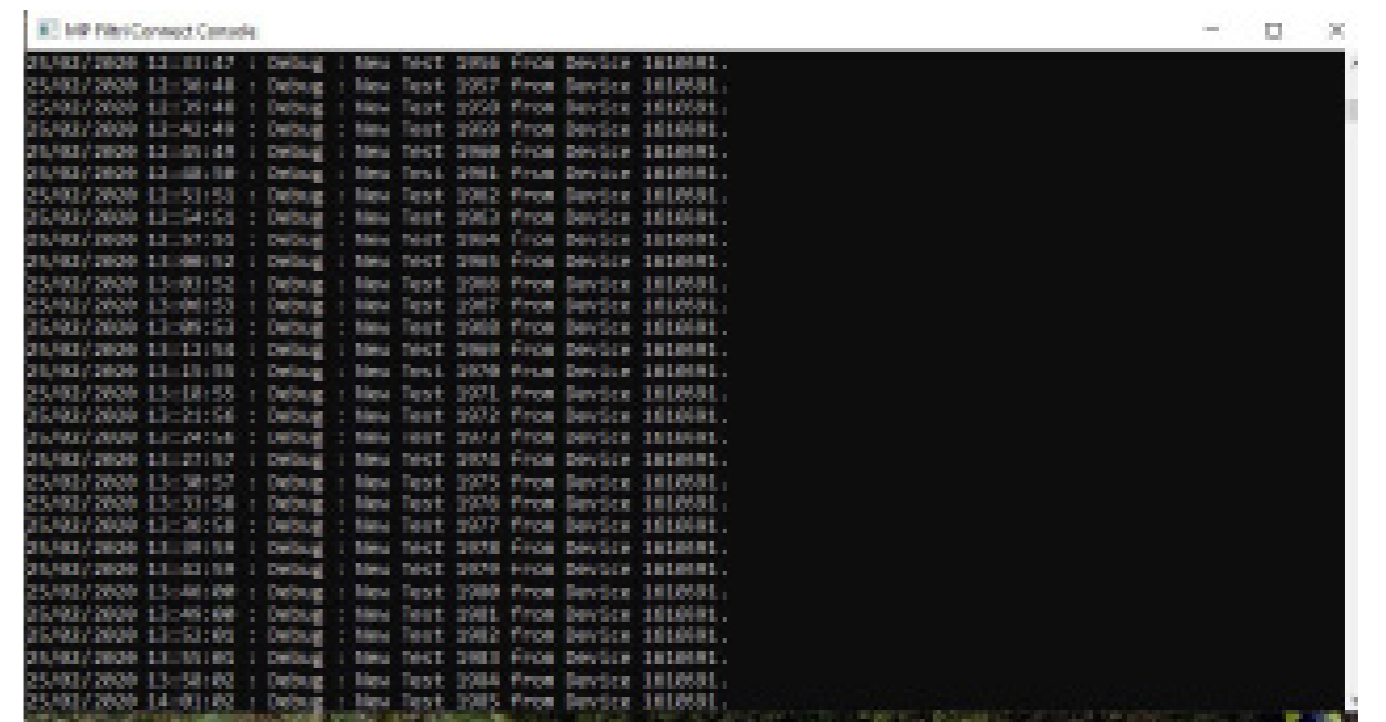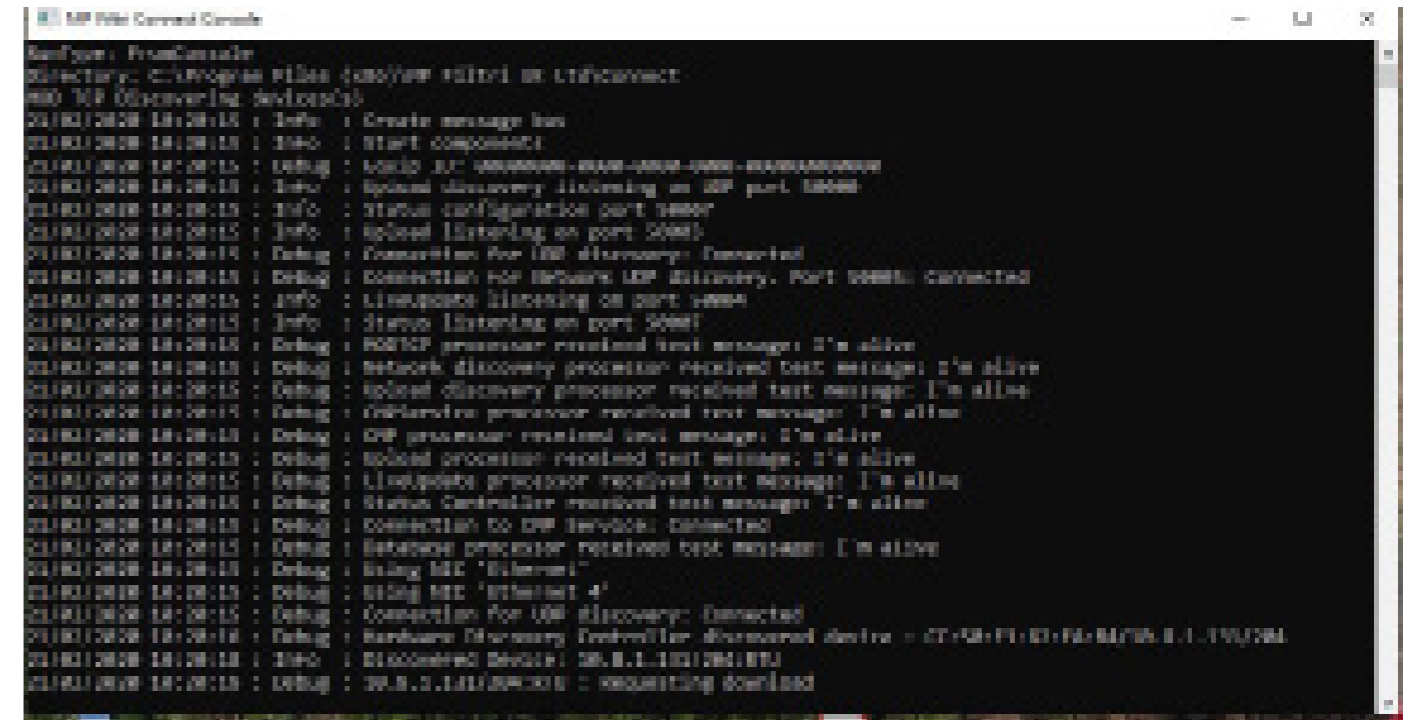

These test results are automatically logged into a temporary file on the computer and uploaded to LPA-View once this software is running. See ICM2.0 user guide for further details.

MPFILTRI CONNECT STATUS

Once installed click onto the shortcut as shown above. This opens the status window – see below. This detects the server and devices running on the server taking this information from MP Filtri Connect Console program which must be running as well.
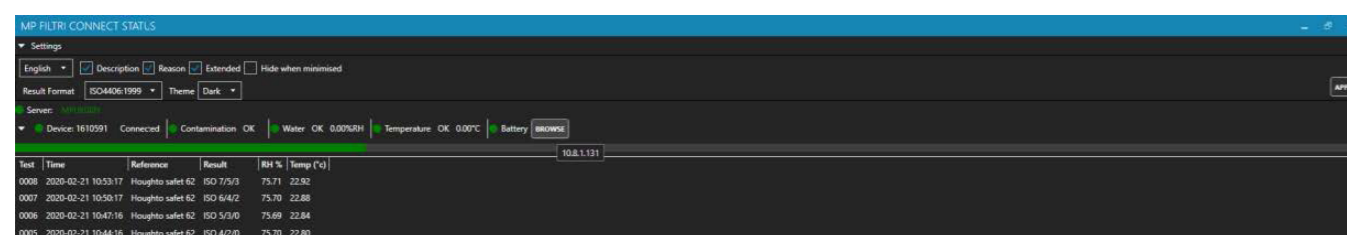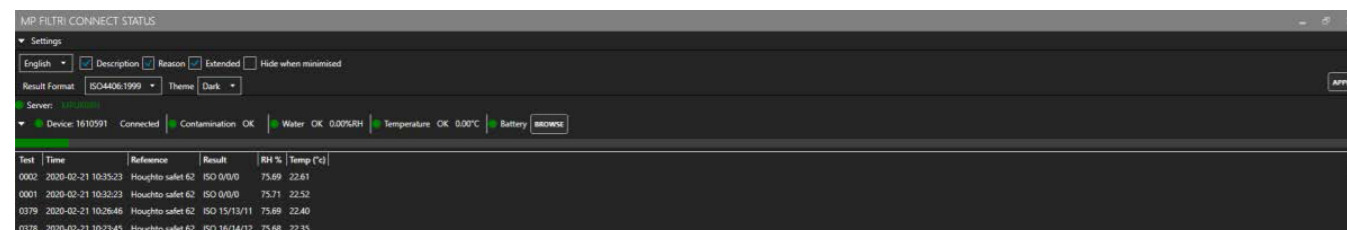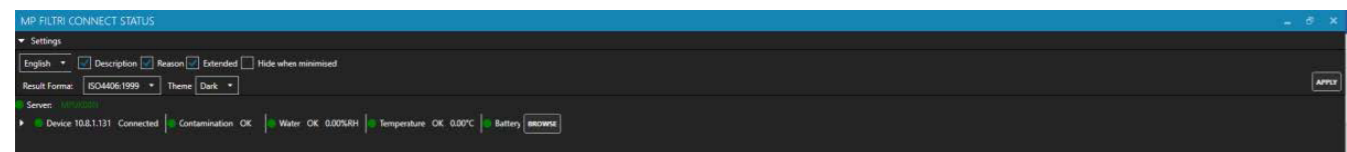

There are drop-down expansions to the interface – click on the arrows on the left hand side to expand the settings options – where tick boxes are used for the display options, once any changes are made click the APPLY button on the right hand side – this will save the selected options.

Each unit that has communicated with the console program will be shown on the connect status window, whether connected or disconnected - until the program is closed.

The previous/live tests can be viewed by clicking on the left-hand side arrow next to the device which expands the view. The last 200 tests are stored here – for older test results use LPA-View Software.
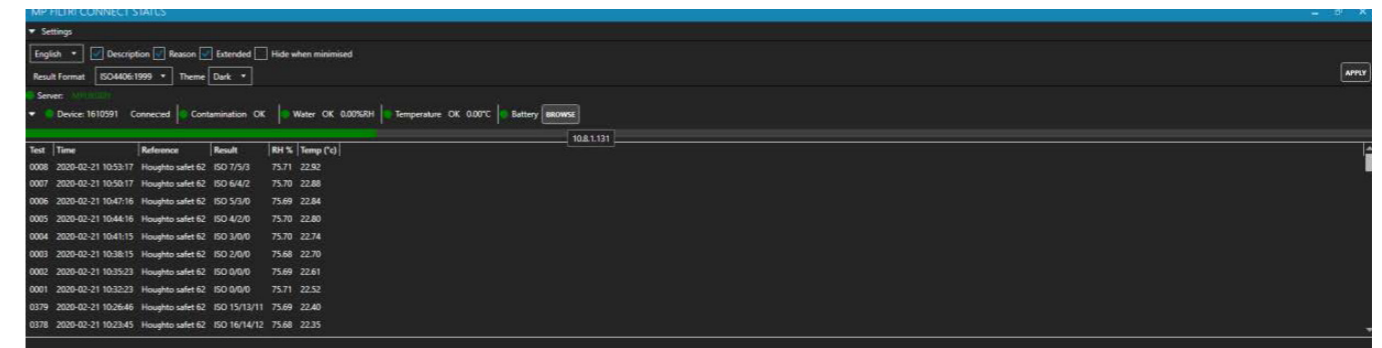
To open the web information page press the Browse button at the end of the device details line, or alternatively input the IP address of the specific ICM4.0 device directly into a web browser. This must be using the same Wi-Fi network as the device.
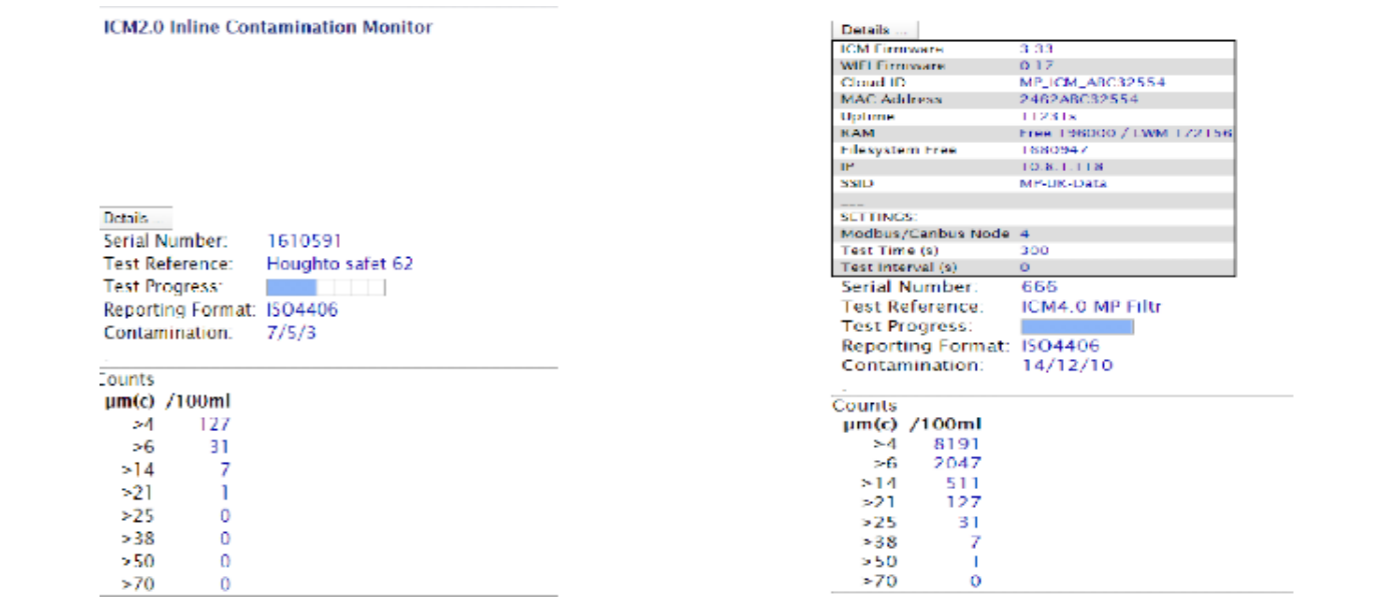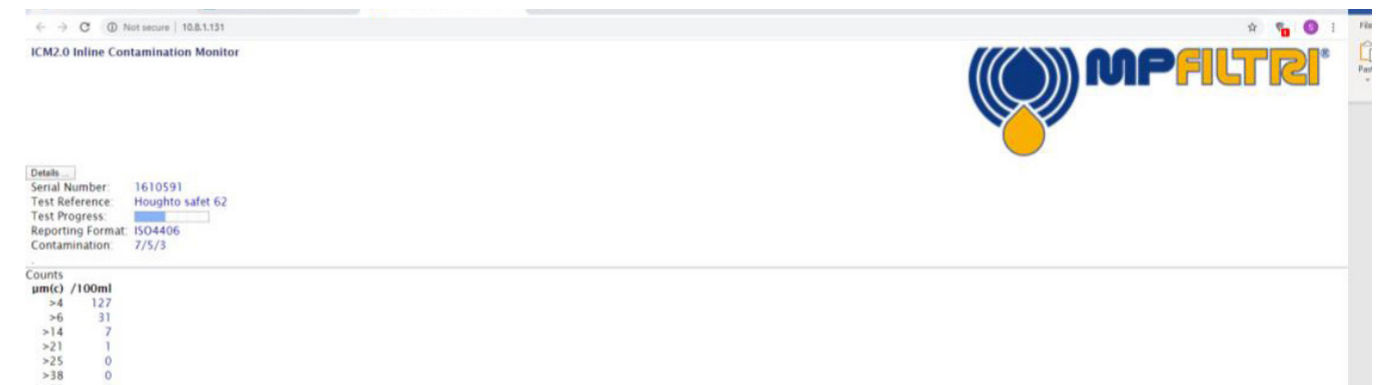
The web information page gives general details on the unit and the last completed tests. Click on details to expand the information available – this includes details on

1. The installed ICM firmware version
2. The Installed Wi-Fi firmware
3. Cloud ID
4. Mac address
5. IP Address
6. Current connected SSID network
7. Modbus/canbus node address of the ICM4.0
8. Test time the ICM4.0 is set to
9. The set test interval time

MOBILE MP FILTRI CONNECT APP

The mobile application is available on Google Play and the App Store

MP Filtri Connect
MP Filtri UK Ltd · Productivity
✔ Installed
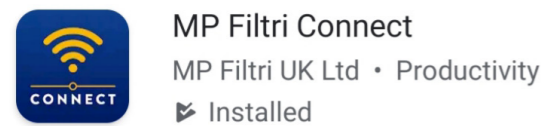
- Install the CMP-Mobile App in the normal way. The app is currently being updated and renamed to MP Filtri Connect. Once installed open the application.
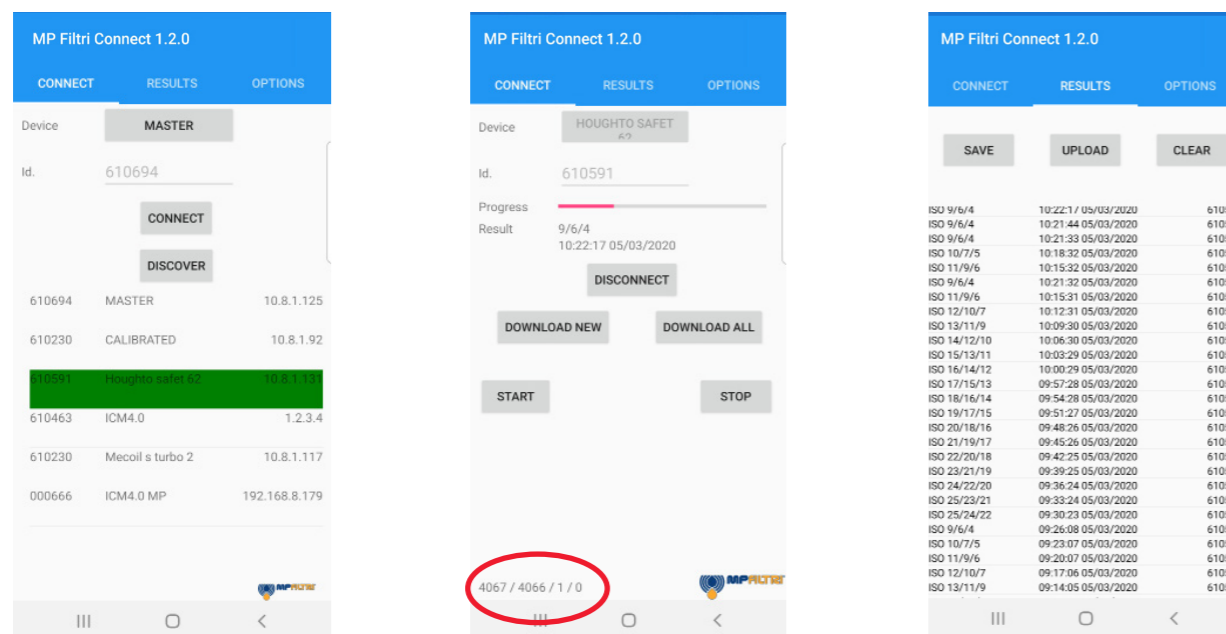
Discover button

- This will discover all available units connected to a specific wifi network.
- Once a unit is discovered it will be highlighted in green – press on this or press connect button.

Connect Page

There are various functions that can be performed :-

- **Disconnect** - Disconnect from the current ICM and return the the home page.
- **Download new** - Download all previously non downloaded tests from the ICM.
- **Download All** - Downloads all tests in the memory of the ICM.
- **Start** - Starts a new test on the ICM unit.
- **Stop** - Stops any current test on the ICM unit.

When download new or all buttons are pressed the download starts and can be seen scrolling in the bottom left corner of the page – see highlighted in red circle.

The Results page can be accessed by pressing on the Results tab middle of the top of the page (Android phones) or at the bottom of the page on an iOS phone. All results will be displayed here in time order and can be scrolled through.

- **Save** - Saves data to phone memory. Results will not be retained when application is closed down unless they are saved.
- **Upload** - Uploads the phone memory to the MP Filtri Connect Server (when the phone is on the same wifi network) – Required for downloading of results to a phone from a unit that is offsite / remote site with a different wifi network then to be uploaded to the main server
- **Clear** - Clears the phone memory.

The Options page is accessed by pressing the Options tab right hand side of the top of the page (Android phones) or at the bottom right hand side of the page on an iOS phone.
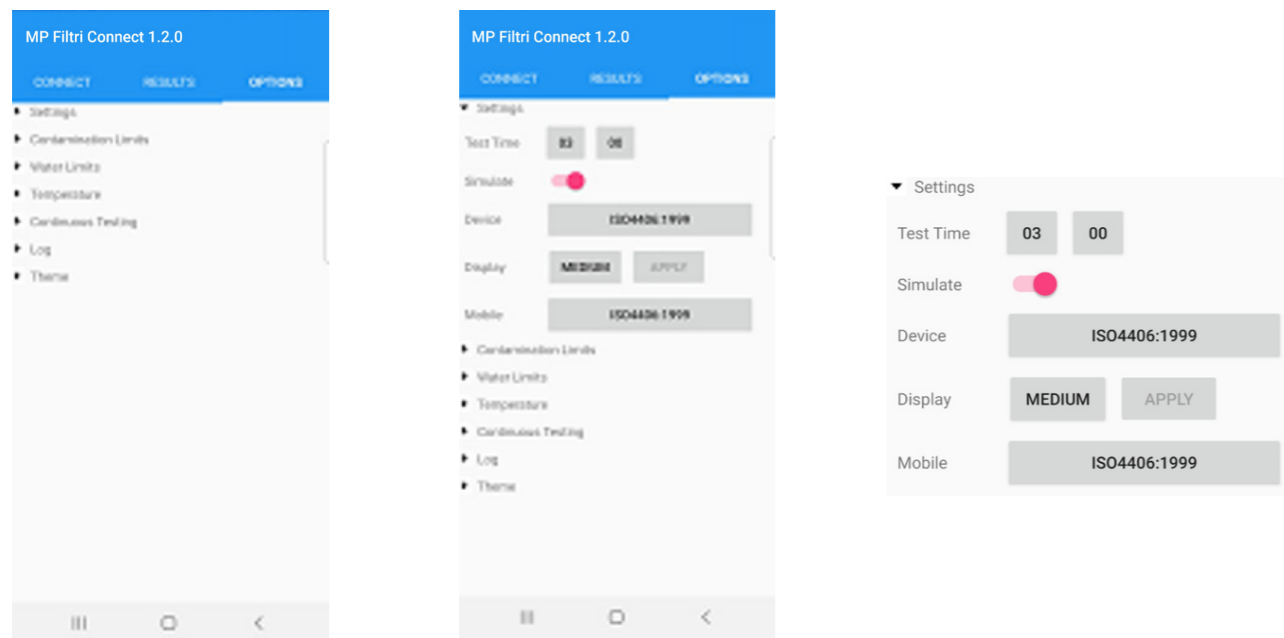
Options Page

The options page has drop down menus on the left hand side – press on a heading to access the actions. Settings page shown above

- Test time– Changes test time on connected ICM unit

- Simulate – Toggles simulate mode on or off

- Device – The test report standard format shown on the ICM chose from all list of available standards – ISO4406, NAS1638, AS4059E tables 1 & 2, AS4059F tables 1 & 2 and ISO11218

- Display – Changes the format of the test result format from short ie NAS6 to Long NAS6 (5-6-4-6-4)

- Mobile - The test report standard format shown on the phone chose from all list of available standards – ISO4406, NAS1638, AS4059E tables 1 & 2, AS4059F tables 1 & 2 and ISO11218

Multi-user guideline – it is recommended that the number of users operating the phone/mobile application at any one time be kept to a minimum

WIFI ROUTER

Usually the ICM 4.0 and the associated CMP-View software packages will use an existing customer network.

However below gives an example of how to setup a wi-fi router device. It may be useful for demonstrations and evaluations where an existing network is not easily available for this.

Note: The GL-MT300N-V2 router used here is a very small inexpensive travel router, it has limited range and may not be the best choice for a permanent factory installation

This is an example router. Not for sale.

Router Initial Setup Procedure

For demonstration use (where security is not a concern) there is no particular setup required other than plugging it in. The default network and password can be used.

- On the back of the router is a label with the information needed for access.

- Power up the router using the included micro USB cable. This can be connected to a computer USB port, charger port or any USB charger plug etc. This cable is not used for data, just to provide power to the router.

- The router will broadcast a network with a name (called an "SSID") looking like "GL-MT300N-V2-XXX". This name is also written on the routers label.

- It should be possible to connect computers, phones and ICM4.0 hardware to this new network using the credentials given on the sticker (e.g. password "goodlife").

- If demonstrating an ETHi board this could be plugged into the LAN socket.

TECHNICAL SUPPORT

For further information please visit our website mpfiltri.com or mpfiltri.co.uk
For further questions email: technical@mpfiltri.co.uk

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