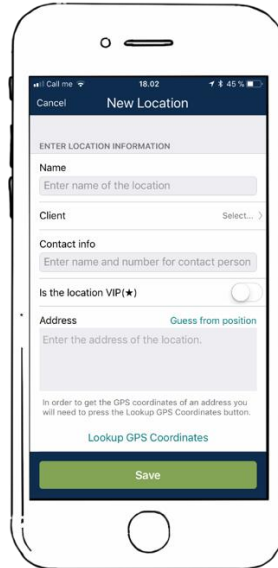




USER INSTRUCTIONS

Rev11.0 05-12-2022

RATMO QUICK START GUIDE.



2. Mount the RATMO to the trap with the cable tie included.

1. Log in*, create a CLIENT and create a LOCATION



4. Scan the QR code on the RATMO and register the trap details.

3. Arm the trap with magnet key

**Log in name and password are created in the Web Terminal interface*

CAGE TRAPS

There are 2 mounting options for cage traps **DOOR** and **TOP MOUNT**. For cage traps with hinged door the best solution is to attach the RATMO on the **DOOR**, the RATMO will sense the shock from the door closing, the cheese logo should be as far from the hinge as possible see pictures below. For cage traps with a falling door, there is the option to have the RATMO mounted on the **TOP** of the cage, here the RATMO will sense the shockwave that goes through the trap as the door falls in to its final position.



TOP MOUNT A run through cage trap with the RATMO mounted top side close to the door.



DOOR MOUNT The RATMO mounted on the cage door, note the position of the “cheese” logo on the RATMO, this should always be as far away from the hinge as possible.

EXPERIENCE MEETS TECHNOLOGY

THE FUTURE IS NON-TOXIC



From my 20 years on the front line of rodent control its clear to see that times are changing. We have for too long based our businesses on rodenticides.

I believe in a non-toxic future, and to do that the Arctic Systems team have been focusing on creating a professional system for professionals.

We hope that you enjoy using our system and that it will help you in your endeavours.

We are committed to constant improvement and your feedback matters.

Contact us with any questions or comments.



Rune Barslund, CEO, Arctic Systems

WARNING

RATMO is a professional product and should not be used by children.

When mounted on a rodent trap there is the danger of trapped fingers, follow the rodent traps operating instructions for setting and making the traps safe.

Areas with Explosive Atmospheres.

Using the device in areas containing explosive gases shall be avoided. The device is not approved for use in areas where explosive gasses can be found. Sparks from the device or any trap mounted may cause fire resulting in personal injury or death.

Signal

Whilst every effort has been made to ensure good signal reception, metal clad buildings and structure such as underground parking cellars may have poor signal reception. Poor reception requires more power to push the signal out, and will have an effect on the battery life of the product.

Electro Magnetic Radiation.

The RATMO device is a radio transmitter and receiver. When in operation and when communicating via the 2G, 3G or NB-IOT network (depending on model and country), the unit operates in the range 890MHz to 915MHz for 2G and at 2100MHz for 3G. The RATMO is designed to operate within the exposure guidelines set by national and international authorities

Battery

The RATMO device is designed to use 3 regular alkaline AA batteries. Do not expose the batteries to extreme temperatures, never above +60°C(+140°F) or under -25°C(-4°F). A battery life of two years can be expected when using the device in the temperature range 10 – 20 deg. Battery life will be reduced at extreme temperatures. For changing the battery see the instructions in this manual. Used batteries must not be disposed of in regular waste and must be delivered to the relevant local facility.

Protection

Always wear safety glasses when dealing with armed traps.

Armed traps can be dangerous, always follow the instructions of the trap provider for setting and disarming the traps. Always assess if a trap is still armed, and follow the aforementioned traps instructions for a safe disarm. Always dis-arm a mounted trap before handling for service or removal.

Pathogens

Bacteria, pathogens, and micro- or macro-parasites can be present on rats, mice and other rodents, always use a mask, glasses and rubber gloves when removing them from traps. Follow

the local laws for disposal. Disinfect all traps by washing with a lukewarm weak bleach solution before changing the battery.

Do not place RATMO in the dishwasher.

Run Away Protection

When using the device without a box, make sure the device is tethered, so that any rodent not killed cleanly does not leave the area with the trap. Also be aware that Arctic Systems during testing have witnessed larger heavier bait boxes been moved due to tails and rear legs of larger rats becoming food for foxes or such other predators that pull the potential food source in the direction of their den.

Marking

Mark your traps, please follow local by-laws as to the marking of traps. Many countries require as minimum the name and address of the company responsible for setting the trap.

Trapping

Please follow the local laws in your country as to the trapping and killing of rodents.

Low Power

Do not place a device in the field that is indicating a status of low power.

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Glossary

Smart City APP App	The Mobile application for iPhone and Android developed by Arctic Systems
Backend	This is the database where all the information is stored. The RATMO communicates with the backend to retrieve new instruction and to report status
Daily Check in	The RATMO device will check in once every day. Normally the check in can be expected 24 hrs after the trap was set out. Some countries may require a more frequent check-in in which case Arctic Systems would be happy to help with the set up.
Web Terminal	The Web terminal developed by Arctic Systems to give a good overview and administer the clients, locations and traps.
Snap	The action of the trap closing by the mechanical force of the spring when the activation paddle is presses.
Registered E-mail Address	Each user registered with their e-mail address via the Web Terminal
Registered Password.	Each user registered is given a password in the Web Terminal.
User Account	In the Web Terminal users can be set up with different privileges. The user can just have access to the APP or may be an administrator and have more access and control of system set up.
Technician	A person that will set the RATMO devices out as well as servicing them. The technicians can be assigned to different Locations (by Administrators on Web Terminal) over the ones they create themselves in the Smart City App.
Administrators	Administrators have access to both the Web Terminal & APP. They have the rights to assign technicians to different locations as well as the ability to delete locations and clients within the Web Terminal.
Clients	The customer that will receive the invoice.
VIP Clients	Clients that get first priority.

False Positive	<p>If the traps are located near moving objects such as bins, cars, or children, a kick or bang on the box giving a large vibration in some cases can trigger the RATMO to call in and indeed also the trap to snap. Poor selection of location can lead to traps reporting false positives.</p> <p>Always place you trap sensibly, in a stable way on a solid vibration free surface. Remember Sensible -- Solid – Stable</p>
Last Visit	<p>A term used to describe the time since the last scanning of the RATMO device when set on a location</p>
Location	<p>The Site where the smart traps are located</p>
Device	<p>The RATMO device by itself, once a trap is mounted it become a smart trap.</p>
Grace period.	<p>As the RATMO is a vibration sensor-based device, picking the trap up to remove a dead animal or scan the trap will cause the trap to wake up. The grace period is a period of time the user has to service and reset the trap before the trap communicates with the back end. In the same way if an animal goes into the trap and the trap snaps, the trap will wait for the set grace period before calling the back end.</p>

SYSTEM SPECIFICATION

Purpose	Remote monitoring device for rodent control	Check in	Once a day
Weight	201g		
Size	77x163x24.5mm working height 17mm		
Sensor	Shock and vibration	Housing	Impact resistant PC
Waterproof	1m for 24 hrs.	Impact tested to	MIL-STD-810
Batteries	3 x Alkaline AAA.	QR CODE	Individual Serial Number.
Battery life	2 years +	Fixation	Pins or lanyard
Temp	-22 to +50 °C -4 to 122 °F	Fixation to trap	250mm Cable tie
Modem	Quectel LPWA BG95 Cat M1/Cat	Number Traps per site	Unlimited
Antenna	Quectel Antenna - YC0017BA	Number Traps per user	Unlimited
Frequencies	Cat M1: B1/ 2/ 3/ 4/ 5/ 8/ 12/ 13/ 18/ 19/ 20/ 25/ 26/ 27/28/ 66/ 85 Cat NB2: B1/ 2/ 3/ 4/ 5/ 8/ 12/ 13/18/ 19/ 20/ 25/ 28/ 66/71/ 85		

Software versions *(At time of writing)*

RATMO Firmware Version	270
Smart City App Version	1.1.0
Web Terminal Version	2

Limited Warranty

Subject to the conditions of this limited warranty Arctic Systems warranty this product to be free from defects in the design, materials and workshop at the time of its original purchase by the customer and for a subsequent period of one year. Should your device need warranty service please return it to the dealer from whom it was purchased or contact Arctic Systems ApS.

DECLARATION OF CONFORMITY



Arctic System ApS declare under their sole responsibility that the product:

RATMO AC-01

Conforms with the provisions of the following EC Directives, including all amendments, and with national and legal legislation implementing these devices

Low Voltage Directive 2006/95/EC
EN3001 489-1 V.2.2.0 Immunity and Emission
EN 55032 Electromagnetic Compatibility of Multimedia Equipment
& 55024 I Information Technology Equipment – Immunity Characteristics – Limits and Methods for Measurement

The said product complies with RoHS Directive *2011/65/EU* Restriction on Hazardous Substances

This product carries the CE Mark, which was first affixed in Oct 2017

Place

Date

Signature

Hvidovre, Denmark

10/10/2017



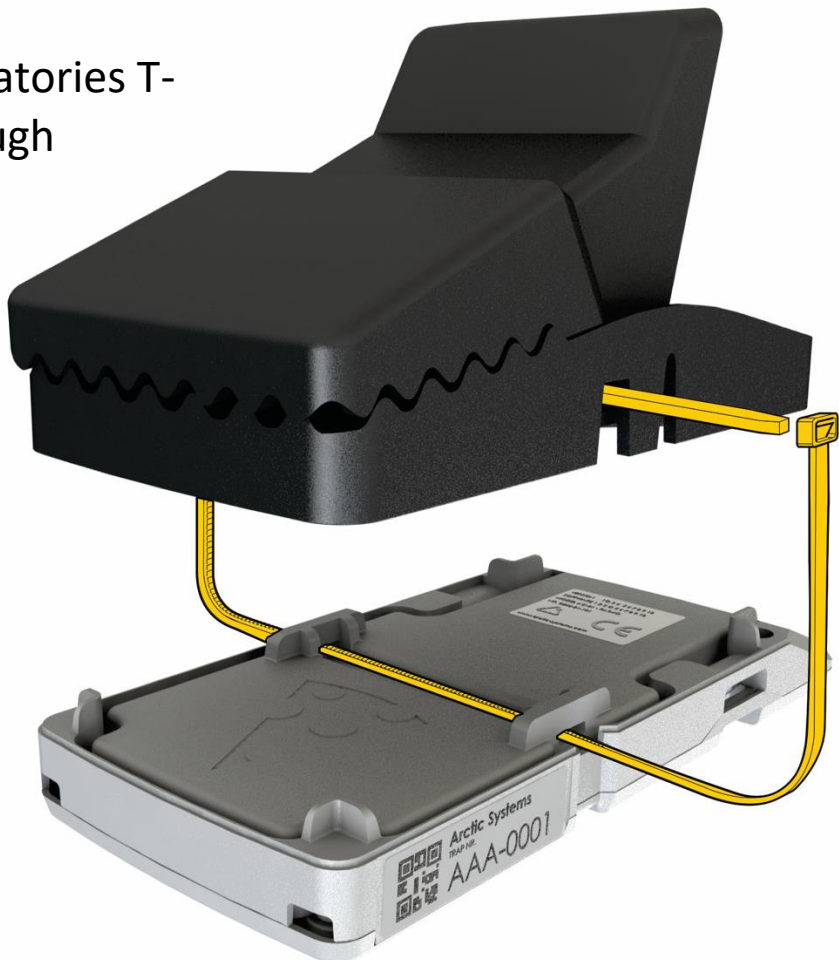
Rune Barslund.
CEO Arctic Systems Aps

RATMO MEETS TRAP

MOUNTING TRAPS – Bell laboratories T-Rex.

The first thing to do with your new RATMO device(s) is to mount a rodent trap. The RATMO performs best when mounted to a Bell Laboratories T-Rex or similar. The method of mounting is to use a standard 350mm cable tie round the body of the trap, either through the hoops, as for the T-Rex, or round the RATMO for other brands.

Bell Laboratories T-Rex. Through hoops



MOUNTING TRAPS – Kness Big Snap-E

A cable tie works best on the Big Snap-E going in the channel around the body



Trim the cable tie with a pair of sharp cutters
Tip – a pair of pliers can help to pull the cable tie tight before cutting

THE RATMO

The RATMO is designed to give the user the information required, these include, Status, Battery Level, Signal Level.

QR CODE ID

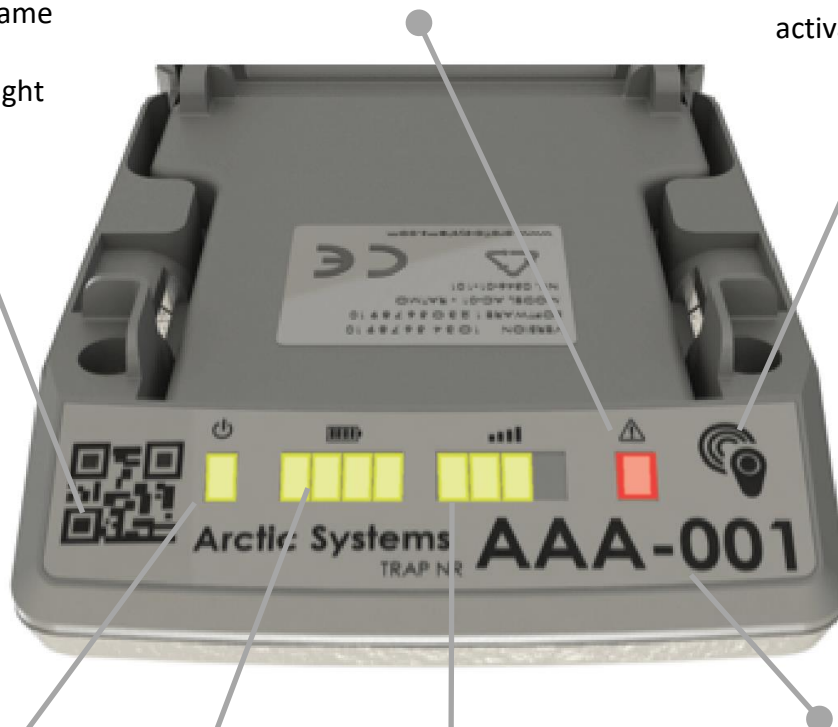
This is the unique RATMO number that is used to identify the device, is it the same as the numerical number on the right hand side.

ARMED LIGHT

This red LED is used to show the user that the unit is armed, when armed the Led turns when in monitoring mode

ACTIVATION POINT

The area around this symbol is where the RATMO is turned on, re-armed, and turned off with the magnetic activation key.



POWER INDICATION

This LED indicates that the unit is powered up when the unit is turned on

BATTERY LEVEL

These LEDS display the battery level of the unit. Units with one level of battery should have the batteries replaced within 4 weeks.

SIGNAL LEVEL

These LEDS display the signal level at the location. This highlights areas of poor signal quality when placing the traps.

NUMERICAL ID

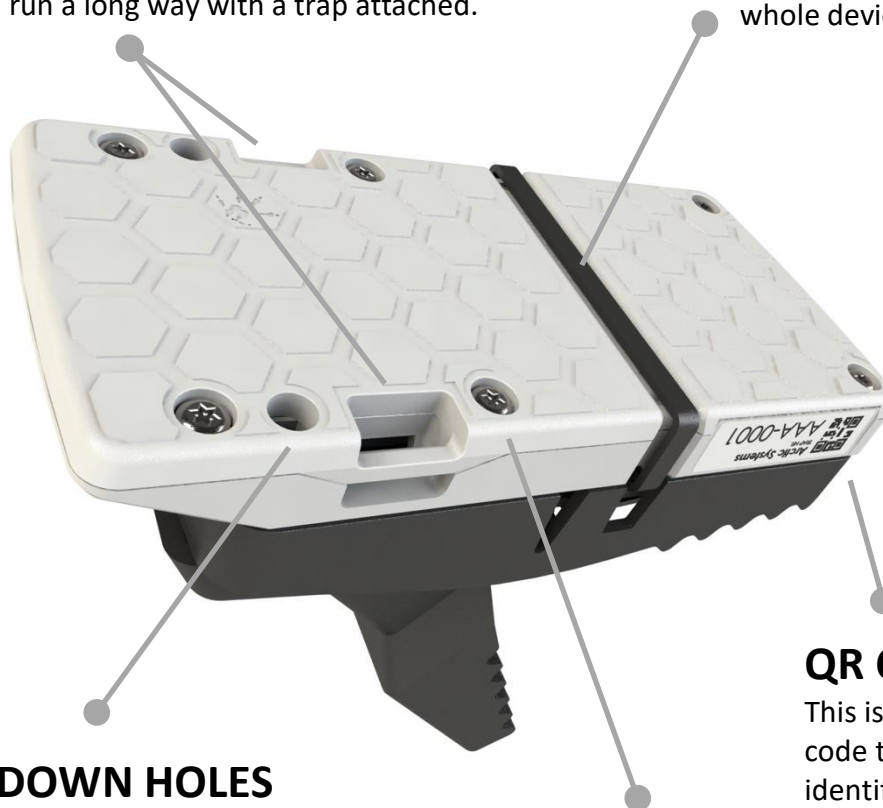
This is the unique number used to identify the trap. The QR code when scanned delivers this number to the APP.

LANYARD ATTACHMENT POINTS

This bar on each side of the device can be used to tie the traps to objects when been used out of the box for example in a building under a shelf system, or when trapping under a floor. Remember in rare circumstances a rodent can run a long way with a trap attached.

CABLE TIE CHANNEL

For attaching traps when the cable tie needs to go round the whole device



TIE DOWN HOLES

The tie down holes allows the device to be attached to different surfaces, using, screws, wire, string, pegs or cable ties. Let your imagination fly!

QR CODE

This is an extra QR code to scan and identify the device.

BATTERY ACCESS SCREWS

There are 6 tx10 screws that hold the battery door closed. These will need access approximately once every 2 years for a battery change.

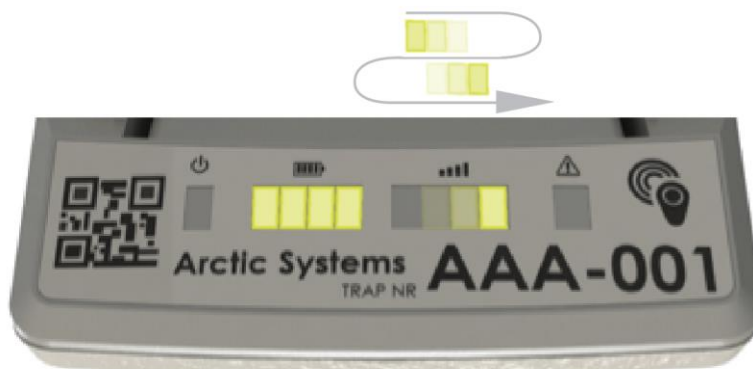
USER INTERFACE OVERVIEW

TURN ON AND ARM

Holding the magnet key over the activation symbol for 2 seconds will start the RATMO unit up. After which the below sequence will run as the RATMO runs a self test and contacts the Smart City Platform.



1. Before turning the trap on, make sure the bait is in the trap and the trap is ready to be placed.
The magnet key is held for 2 seconds this first shows the battery status then after 2 seconds shows all the lights and makes a single short tone, remove the magnetic key, a second short tone will be heard to confirm start up.



2. The Ratmo will now look for a signal, this can take between 5 and 20 seconds. If the RATMO is in an area with no signal the trap will not arm.



- When the RATMO has found a signal the power light will light up to indicate a connection to the Smart City Platform. The signal indicator will show the level of the signal and the arming light will now begin to flash. There is now approx. 20 seconds to place the trap in its monitoring position.
(Note if the final armed tone, from the next step is heard, simply repeat step one, by holding the magnet key over the activation symbol and the start sequence will run once more.)



- After the short tones, the RATMO will arm, only the arming light will show, and one long tone will be heard. After the long tone, the arming light will be visible for 20 seconds. After this all the LEDs will turn off and the RATMO will go into low power monitoring mode.
 As mentioned above if the final arming tone is heard before you are ready simply use the magnet key as in step one to restart the process.

STATUS

You can check which state the RATMO is in by flashing the magnet key over the activation zone.

BATTERY STATUS WHEN OFF

Starting **off**. When Holding the magnet key over the activation symbol for 1 second the RATMO will flash the status of the battery, this is useful for quickly identifying units that are in need of a battery change. Holding the magnet key for longer, 2 sec, will turn the unit on.

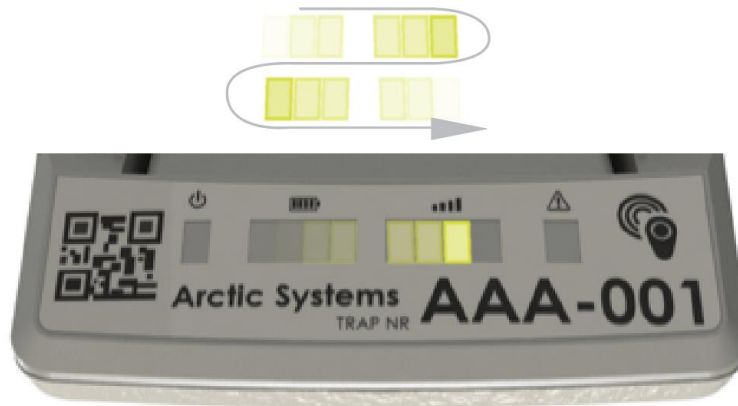


STATUS WHEN ARMED

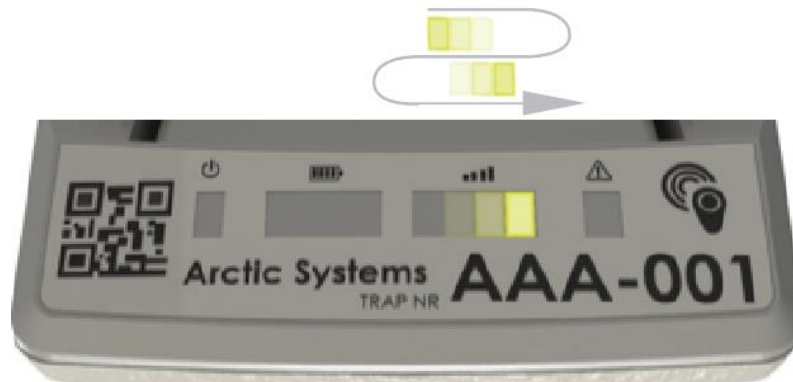
Status **Armed**: When the trap is armed you can see the status by holding the magnet key over the activation zone for one second, the power light will light up. Holding the magnet key for longer, 9-10 sec, will cause a reset of the trap.



SEQUENCE WHEN SNAPPED



1. When the trap has snapped or if the trap has been nudged hard the trap will wake up and enter the grace period of around 30 seconds. During this time the 8 LEDs in the 2 centre sections will display a cycle pattern. This is the “grace period” where the trap can be re-armed or powered down without sending a snapped message to the Smart City Platform.



2. The signal lamp will now cycle until a signal is found.



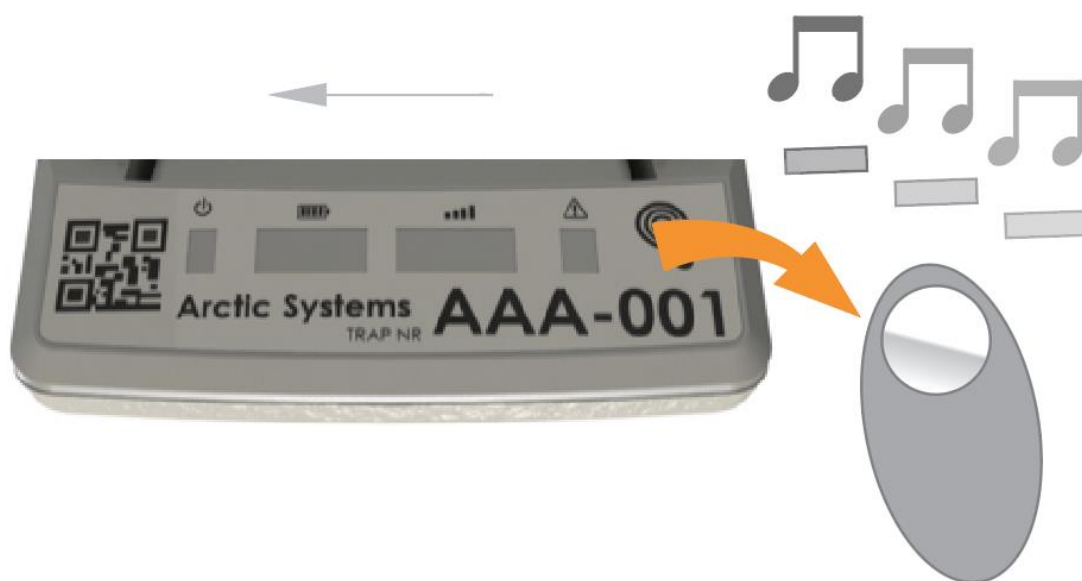
3. Once a signal is found the strength is indicated in the signal window and the power light is lit to show the data connection to the Smart City Platform. After this the trap will go into monitoring mode and the LEDs will go out.

TURNING THE RATMO OFF

The RATMO can be turned off at any time and in any state. Simply hold the magnet key over the activation zone to start with.

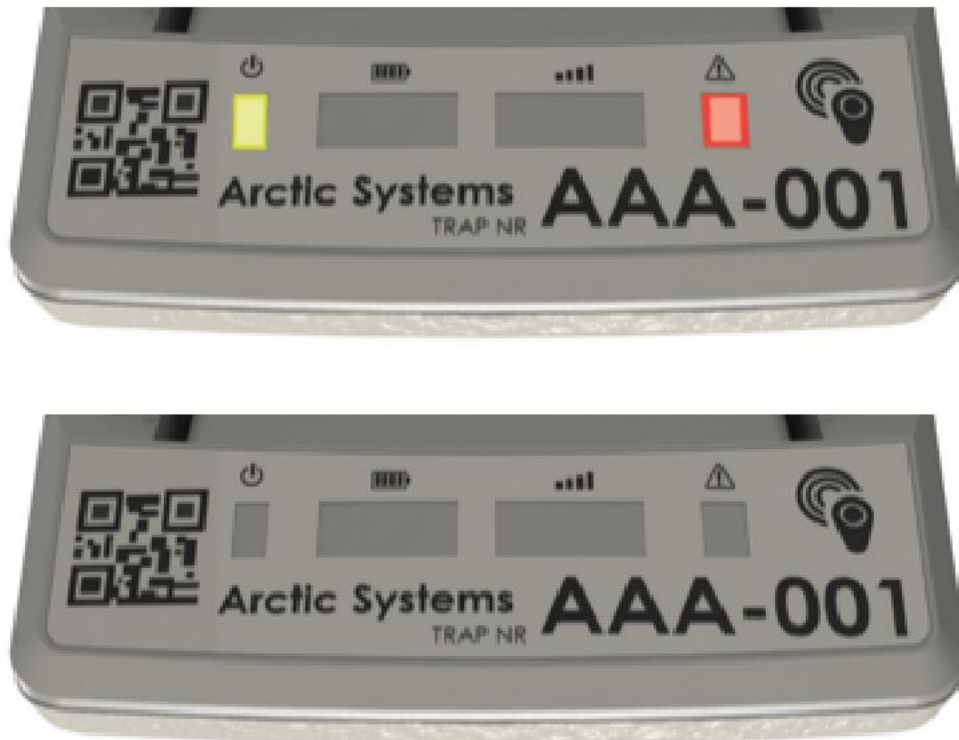


Holding the magnet key over the activation zone, this will cause the middle 8 LEDs to light up and a single tone to be given. Hold the key in position for 3 seconds while the lights count down one by one.



When all the LEDs are extinguished remove the key, 3 tones will be heard in a down going tone sequence, the turn off procedure is now started. The RATMO will ring to the Smart City Platform and log itself off the system.

WHEN NO SIGNAL CAN BE FOUND / REMOTE POWER DOWN



When arming the trap, the following situation may arise.

There can be 2 reasons for this.

1. If there is no signal the unit will display the LEDs as shown in the top image followed by a power down as in the lower image.
2. When the traps have been retired from the handheld device via the Smart City App, or if they have been retired via the Web Terminal then you may experience a check in and power down. This power down occurs either after the 24 hours check in, or if the user collects the trap before then the power down will happen if the RATMO is nudged hard.

Remote update.

3. If the power light is alternating between low and high levels of illumination, then this is an indication that the RATMO is updating. This can occur in any process where the RATMO has called the back end.

FROM CLIENTS TO TRAPS

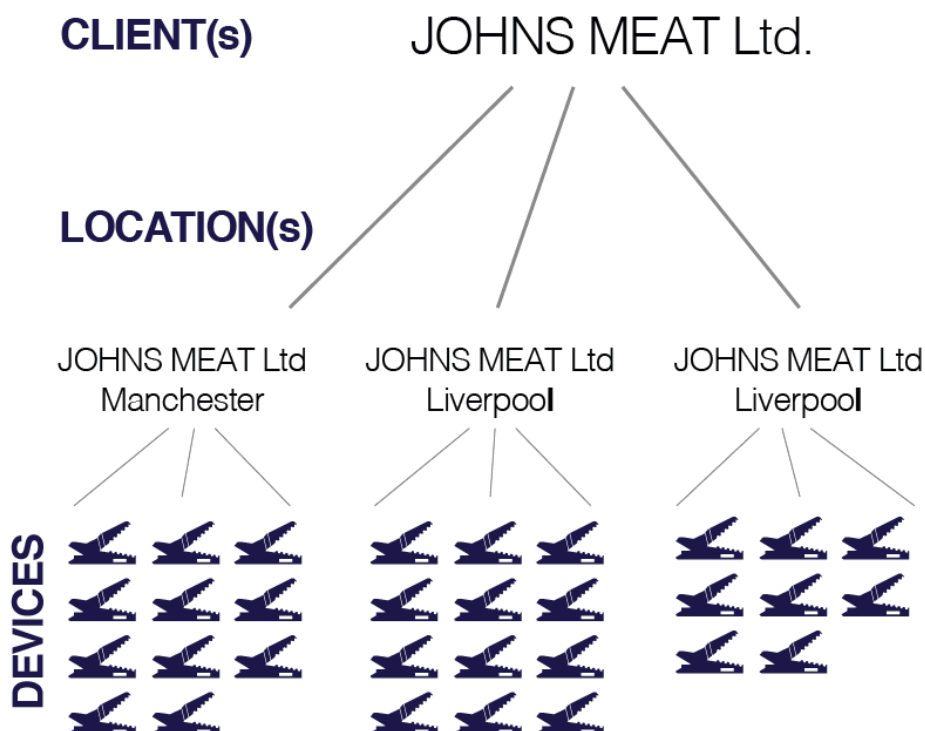
System overview

After preparing the smart traps, the next thing to look at is how the RATMO System is built up. At the top of the tree there is always one or more **clients**, the client is ultimately the one receiving the invoices and site reports. A **client** can have one or more **locations**.

Locations are the sites where pest monitoring & prevention work will take place

For example, the **client** Johns Meat Ltd is the head office that takes care of 3 **locations** where production is done. Alternatively, the Client could have been Johns meat Ltd Liverpool, in which case the location would have the same address as the client.

Each location can have one or more RATMO devices monitoring activity



APP OVERVIEW

Note: to log on to the app the user must be set up in the Web Terminal.

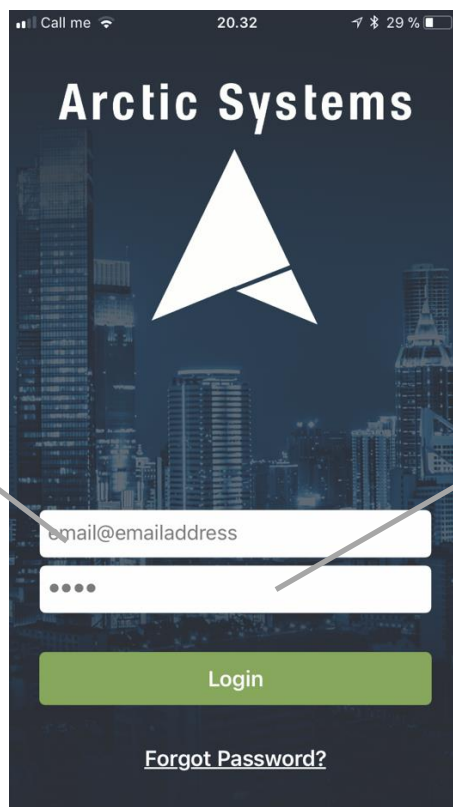
The APP gives the overview for the crew in the field. Clients, sites and trap status can all be set-up and access from within the app.

Download the App from Apples APP Store. Search for Arctic Systems Smart City APP.

Arctic Smart City

Once the app has started, log on using the e-mail and password that has been assigned to your User Account in the Web Terminal. Contact your System Administrator for this.

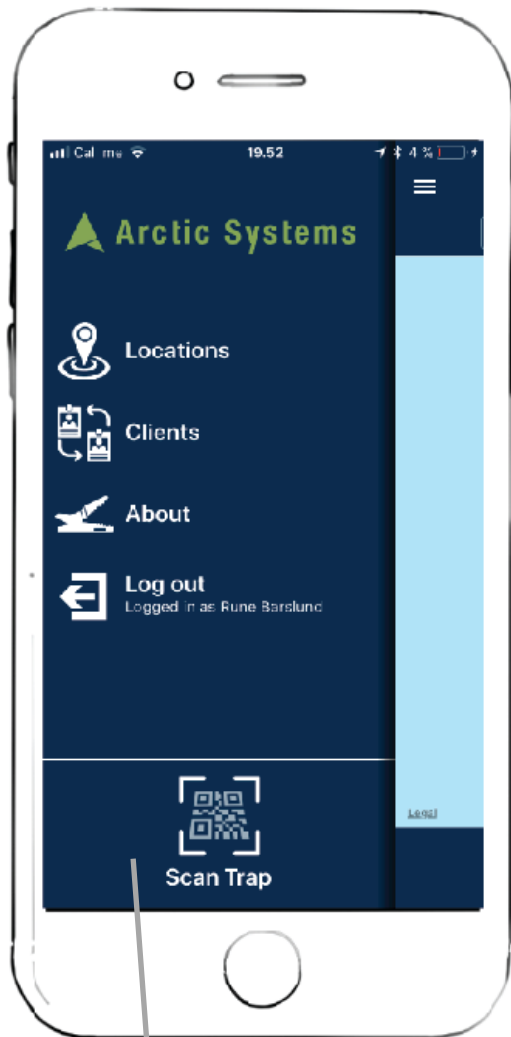
REGISTERED E-MAIL ADDRESS



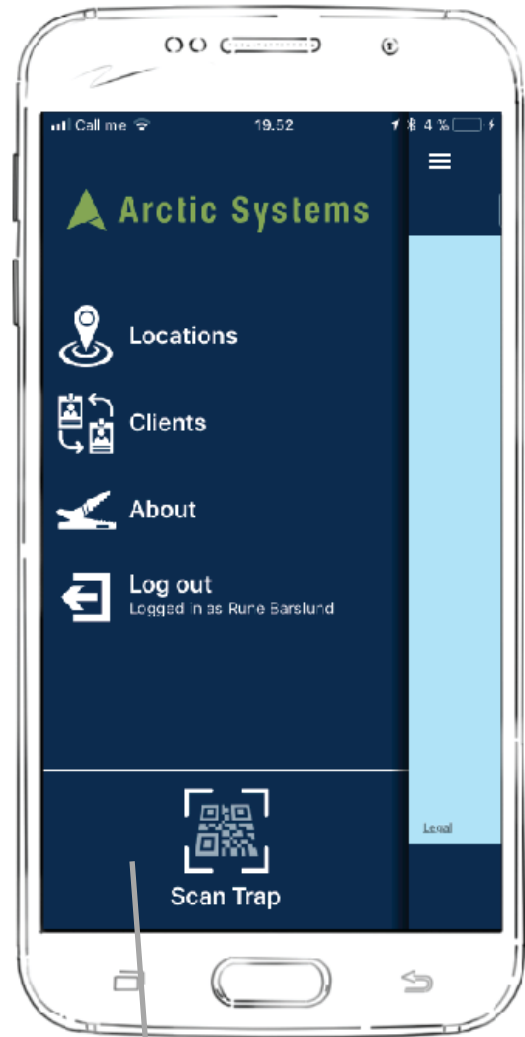
REGISTERED PASSWORD

ANDROID AND IPHONE

The APP is designed for the 2 different operating systems. This manual will use the iPhone to explain how to use the APP. Where there is a difference in the operating system this will be highlighted with an illustration of the Android version.



● **APP AS SEEN ON
IPHONE**

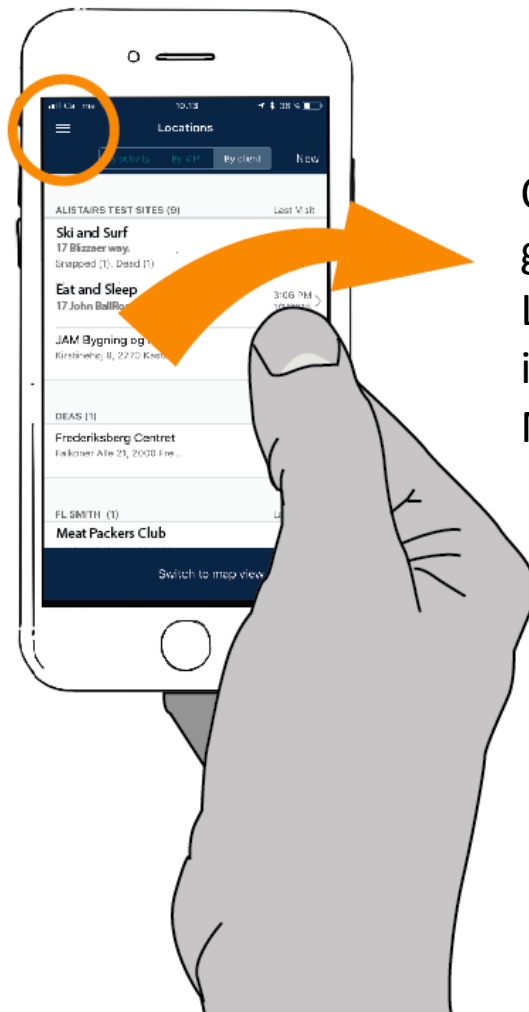


● **APP AS SEEN ON
ANDROID**

MAIN MENU

When entering the APP, you will always be greeted with a list of the active locations in the LOCATIONS MENU. This is to give you a quick overview of your locations and traps.

Click on the
MAIN MENU
Icon....



Or swipe right to
go from the
LOCATIONS menu
into the MAIN
MENU

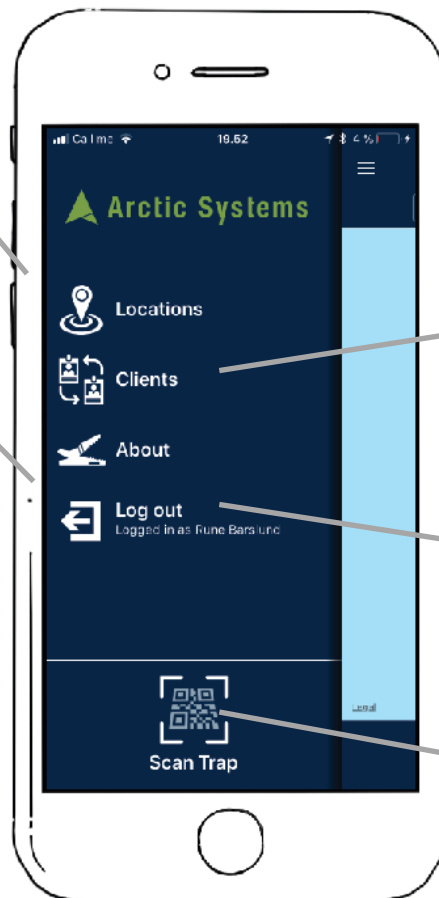
To access the mail menu swipe to the right, this will bring you into the main menu, alternatively you can press the main menu logo in the top right-hand corner.

LOCATION MENU

For access to location date

ABOUT

All about the APP version and setup



CLIENTS MENU

For access to client dates and settings

LOG OUT

Log out and protect client data

SCAN TRAP

If your anywhere you can pick a trap up and scan it and go to work!



Adding a client is the first thing to do in the process of set up. The CLIENTS MENU is where you can manage your clients, this includes also adding and removing clients. A Client is the one who will receive the invoice and the reports. A client may have one or more locations.



Adding locations is the second thing to do in the overall process, however the LOCATION MENU will be the menu that is used most in service. In the LOCATION MENU you can add one or more locations to a client. The locations generally will be different addresses belonging to the client but we will talk more about this in the LOCATION MENU chapter.



The ABOUT MENU is where you can see which application version you are using.



LOG-OUT is used for simply logging out of the system. Logging out is recommended when you are not working to protect the data in the system.



SCAN TRAP is a log you will see in a few places around the APP. By using this tool and scanning any trap you be brought either to the place in the system the trap is regestered, ie the location you are standing in. Or if the trap is not regestered you will be asked to regester the trap to a site.



THE CLIENT'S MENU

In the CLIENT'S MENU it is possible to see all of your clients. These clients may have been set up by yourself, or assigned to you by the Administrator from the Smart City Terminal web interface.

Under each client's name is the number of locations each client has.

MAIN MENU

To return to the MAIN MENU click here

CLIENTS NAME

Usually the company name

No. LOCATIONS

The number of locations



NEW CLIENT

Click here to set up a new client

ADDING A CLIENT

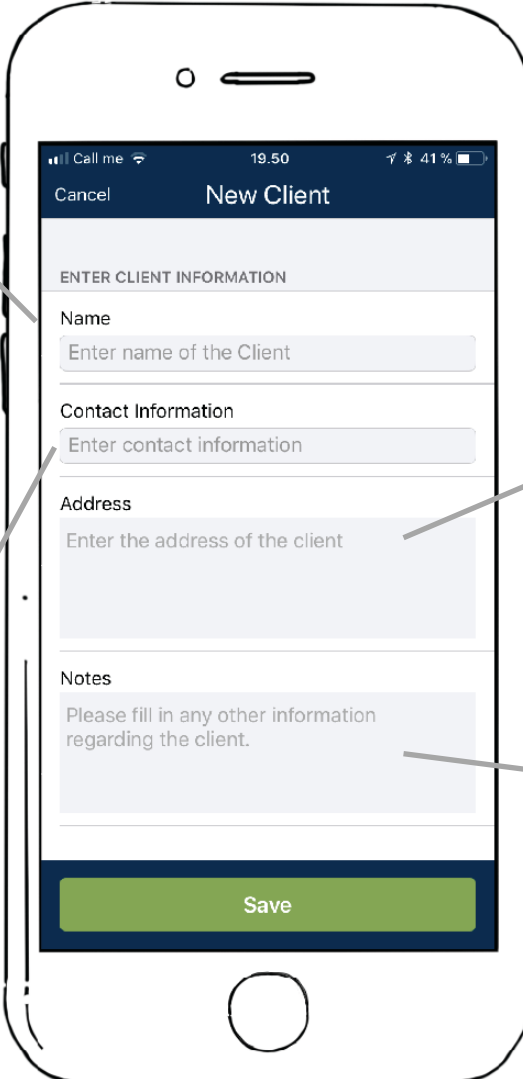
To access the NEW CLIENT form, click NEW in the upper right window of the clients menu, see the previous page.

CLIENT NAME

This is the name of the client that will be paying the bills, eg,
Daves Butchers
Yorkshire bank
Mrs Brown

CONTACT INFORMATION

Name of Contact and telephone number,



ADDRESS

This is the address where the invoice and audit report will be sent.

NOTES

Any special extra info on the client. How best to contact them, any special agreements etc.

There are 3 important pieces of information for setting up a client out in the field.

1. The name of the client, this should be the name of the company you will be working for.
2. The address, this should be the address where the invoice and reports will be sent
3. Contact Info, the name and number of the contact person.
(e-mail info can be added in the Smart City Terminal)
4. Notes, any notes about preferences, or past suppliers or infestations can be written here.

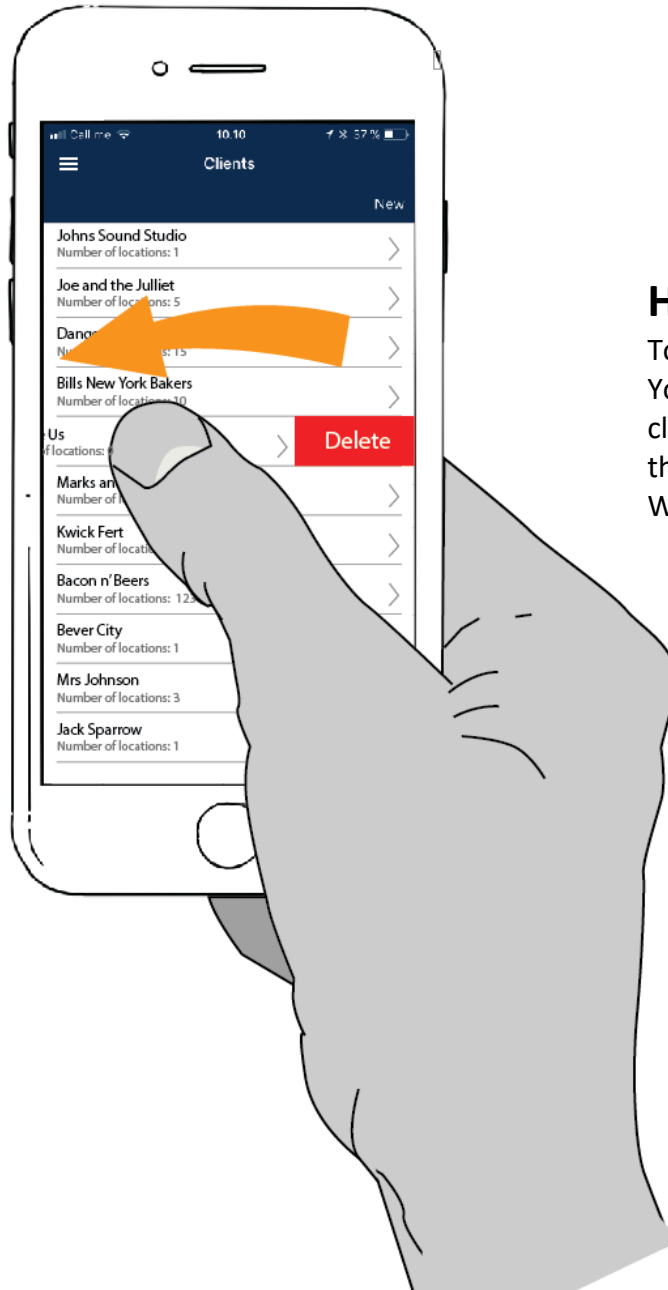
The information written here can be edited via the WEB TERMINAL by any user with administrator privileges.

DELETING A CLIENT

To delete a client, simply swipe left to show the delete button and press delete, the client will be removed from the list on the APP, but the information will be retained in the WEB TERMINAL.

SWIPE LEFT

On a client to access the delete button



HIT DELETE

To clear the client from Your working list. The client will still exist in the back end on the Web Terminal



THE LOCATION MENU

The location menu is where an overview of trap activity can be made.

MAIN MENU

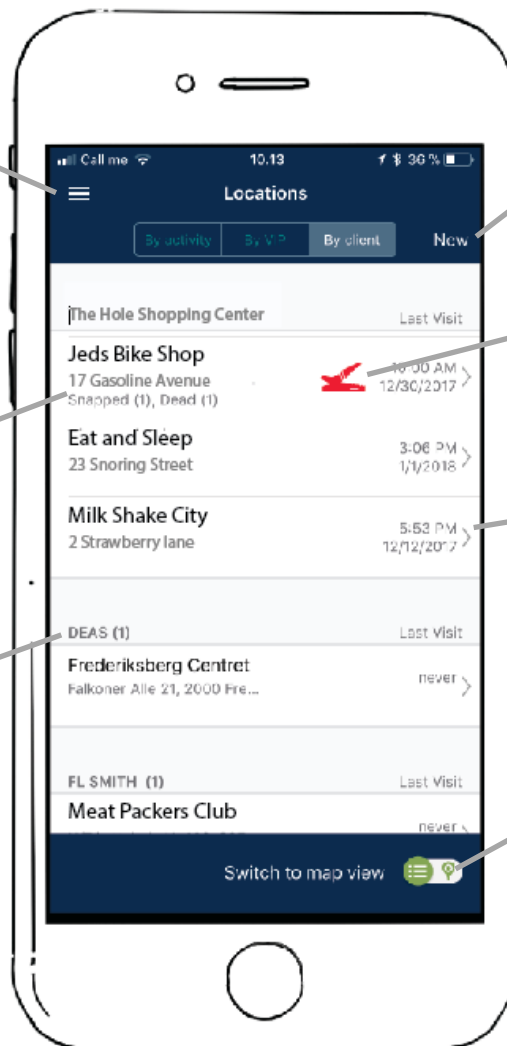
Short cut back to the MAIN MENU

ADDRESS+STATUS

Below the location name is the first line of the address and an overview of the active traps

CLIENT NAME

The client name is shown in the bar above the locations.



NEW LOCATION

Click here to add a new location

ACTIVITY LOGO

A red trap highlights Activity on this location

LAST VISIT

This is the date of the last visit.

MAP VIEW

If you press this switch a full overview of all the traps and activity can be seen on google maps.

The locations can be filtered in 3 ways

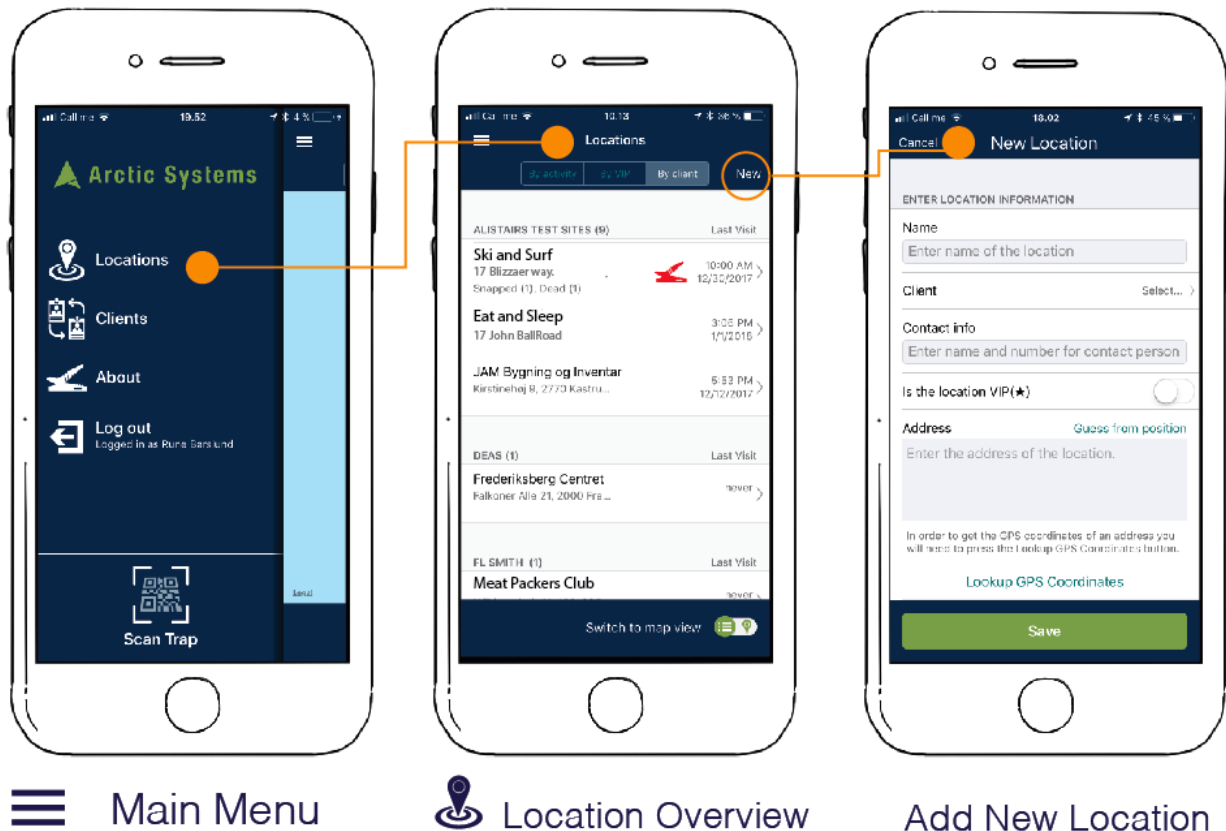
Activity - By Activity will show the sites with the most activated traps

Clients - By Client will list the location by Client alphabetically

★ **VIP** - This will always put the important clients to the front of the list, VIP clients will receive a yellow background and a star icon in the list .

ADDING A NEW LOCATION

To add a new location, go from the MAIN MENU by selecting the LOCATION menu, then in the upper right corner click NEW to select the NEW LOCATION form.



ADDING A LOCATION OVERVIEW



Cancel **New Location**

ENTER LOCATION INFORMATION

Name
Enter name of location

Client Select

Contact Info
number and number of the contact person

Is the location VIP ()

Address **Guess from position**
Enter the name and number of the contact person

In order to get the GPS coordinates of an address you will need to press lookup GPS Coordinates button

Lookup GPS Coordinates

Save

NAME

This is the name of the location where the traps will be placed. In the case of a Client with more than one location then this will name one of the satellite locations. In the case of a Client with only one location then could be the same location as the billing address.

CLIENT

This menu allows you to select the client that will own this location.

CONTACT INFO

This will be the contact info for the gate keeper to this site, it could be a caretaker, facility manager or the owner of the site. Write the name and number here.

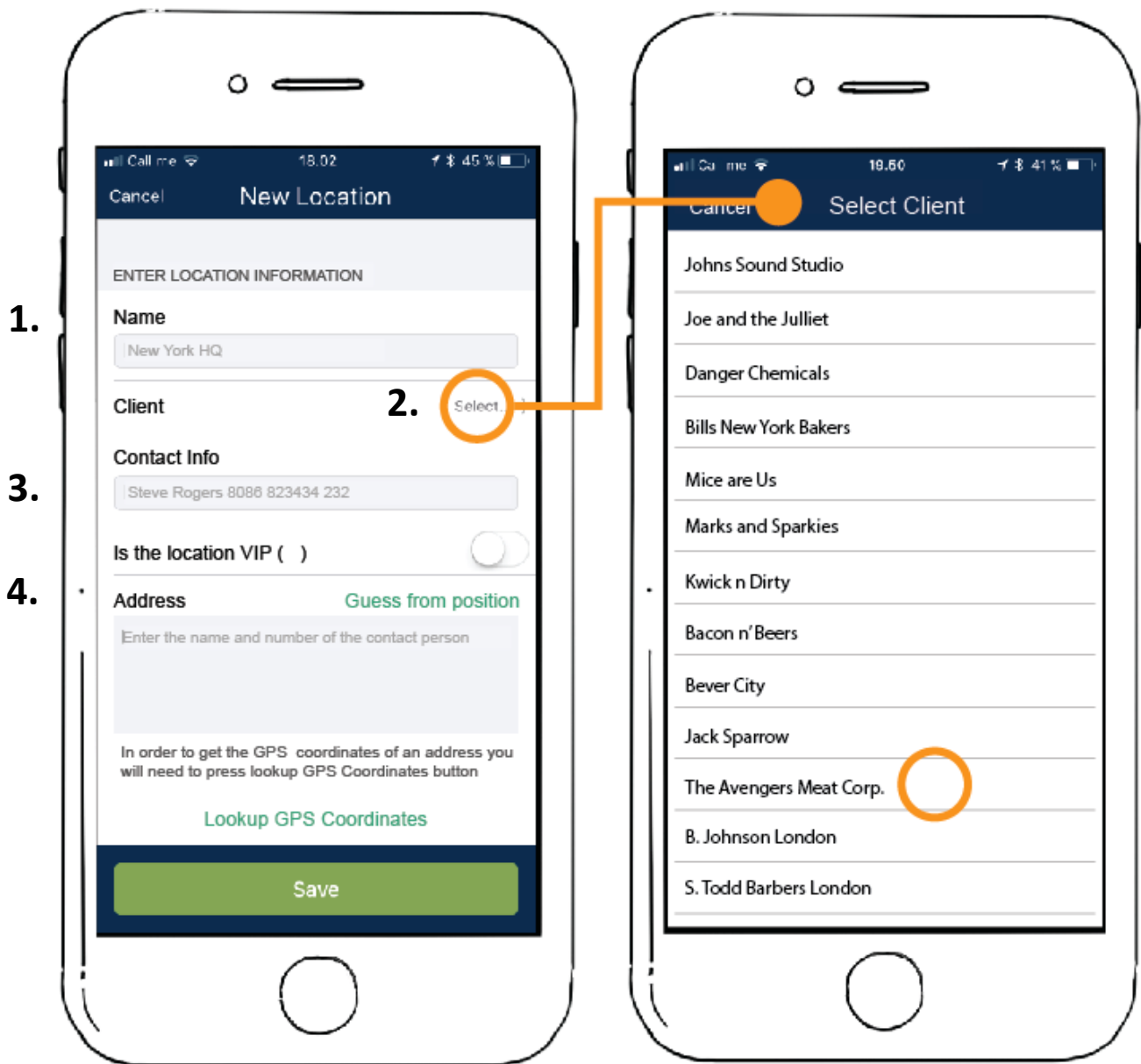
VIP

Selecting this allows a Location to have VIP status, this could be a food production facility, pharmaceutical factory or restaurant where immediate action is required.

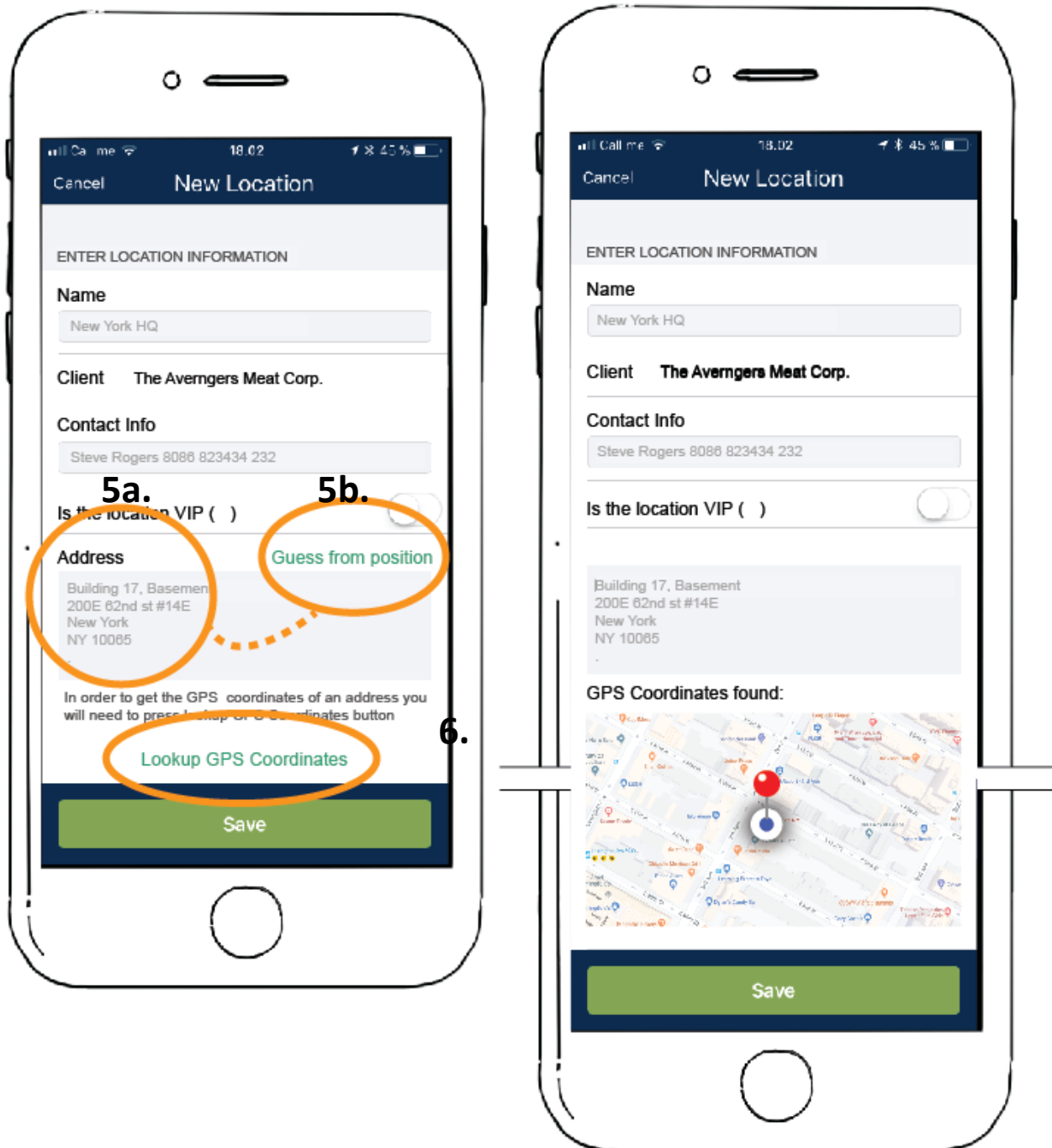
ADDRESS

This is where the address of the location will be recoded, see the next section for more information. Write the address in, or guess from position then press lookup GPS coordinates to add to map.

ADDING A LOCATION PROCESS



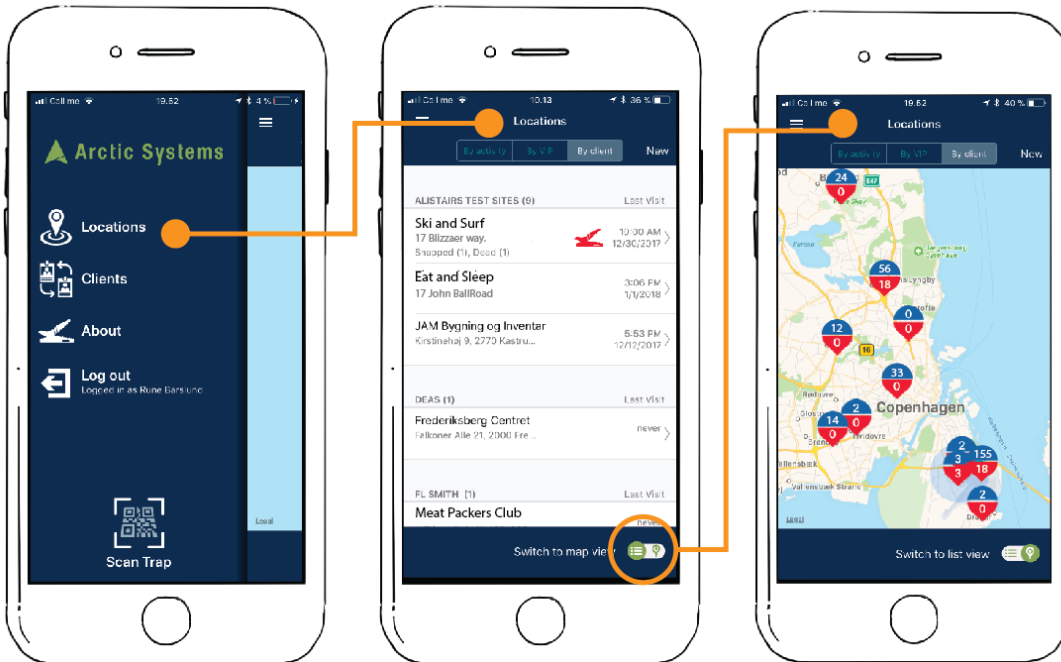
1. Add the name of the Location by typing this in the NAME box.
2. Select the client from the SELECT CLIENT MENU as illustrated above.
3. Write the site contact name and number in the CONTACT INFO box.
4. Select if the site should have VIP status.



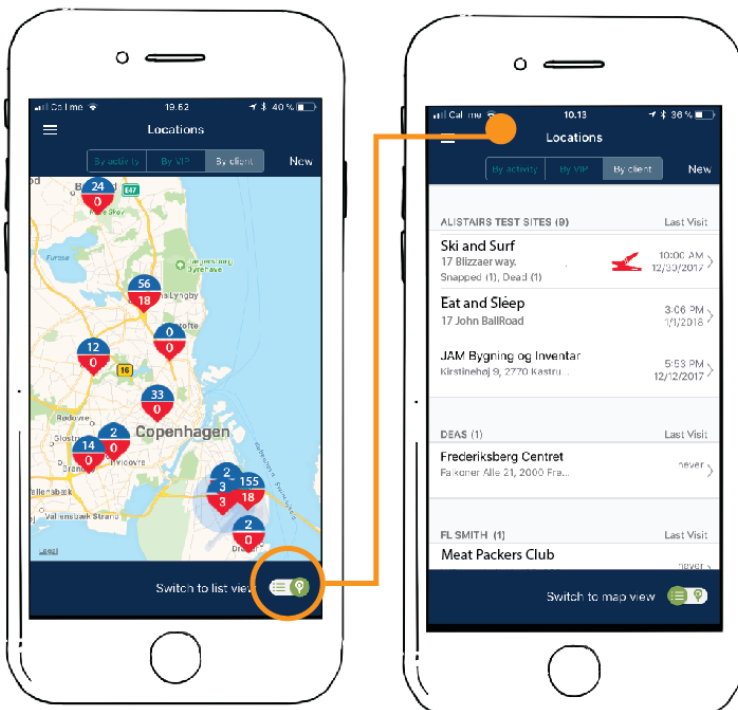
5. a. The first option is to type the location address in manually.
- b. The second option is to guess the location address from the GPS in the phone, to do this press the green text button GUESS FROM POSITION. This can always be corrected manually if there is a slight error, for example if you are close to a location boundary and it takes the neighbours address.
6. One this address is correct press LOOK UP GPS COORDINATES and the location will be stored on the map.
7. Press SAVE to complete registering a new location.

LOCATION MAP ACCESSING

The LOCATION MAP OVERVIEW can be accessed from the LOCATION LIST by pressing MAP TOGGLE BUTTON, your LOCATIONS can now be seen marked with a marker, Note IPHONE and ANDROID are different for this feature. (See the next pages).



To return to the LOCATIONS LIST press the MAP TOGGLE BUTTON one more time.



MAP OVERVIEW (IPHONE)

The map overview is used to get an overall impression of where things are happening. This can be on a large scale over an area of the city or on a smaller street scale if there is more than one location on a street. Note due to programming differences these are displayed differently on Iphone and Android.

MAIN MENU

Short cut back to the MAIN MENU

FILTER SELECTION

The overview can be displayed according to Activity, Clients or VIP.

STATUS BALLS

Each status ball represents the status at one location. Zooming out will cause the status balls to merge. Zoom in again to split them. Clicking* on the ball will bring you to the location overview the with the selected client.
 (* in next software release)

TRAPS ON LOCATION

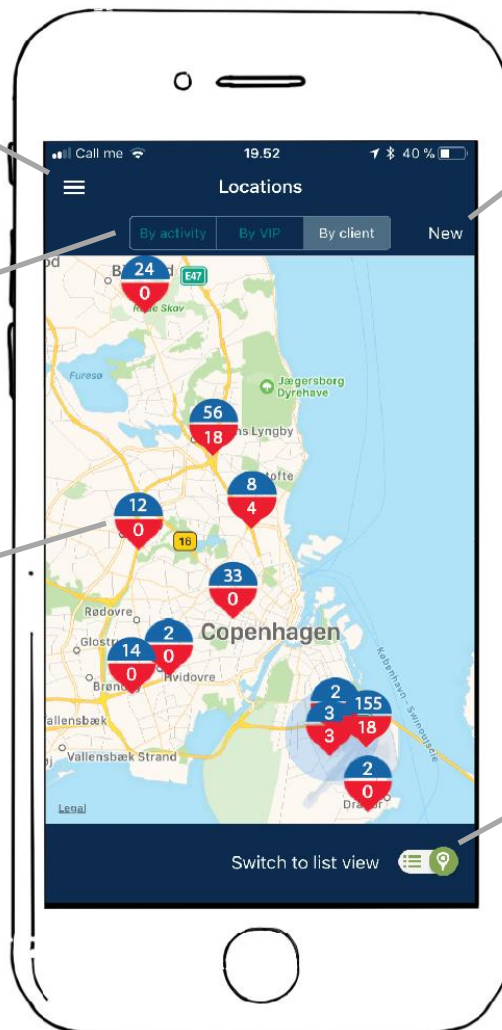
The number show in blue represents the number of RATMOs on the given location

X MARKS THE SPOT

Well not quite X, but the point marks the location on the map where the RATMOs are located

NEW LOCATION

Short cut back to the MAIN MENU



MAP VIEW
 To go back to the location menu, press this switch



ACTIVATED TRAPS

The number in red shows the number of RATMOS that have snapped or that require attention

MAP OVERVIEW (ANDROID)

The map overview is used to get an overall impression of where things are happening. This can be on a large scale over an area of the city or on a smaller street scale if there is more than one location on a street. Note due to programming differences these are displayed differently on Iphone and Android.

MAIN MENU

Short cut back to the MAIN MENU

FILTER SELECTION

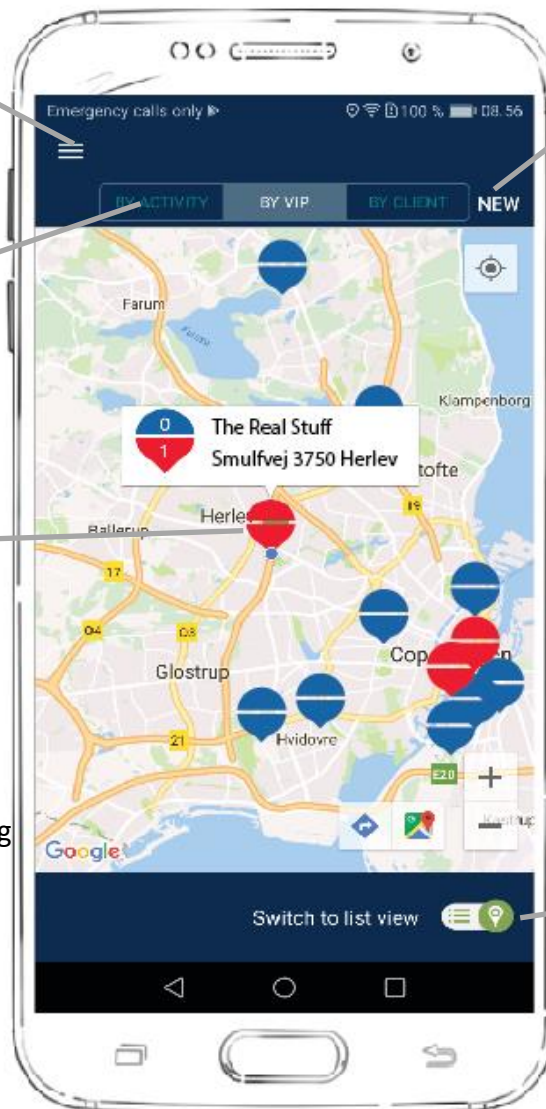
The overview can be displayed according to Activity, Clients or VIP.

STATUS BALLS

On the android version the Status Balls are blue when all the RATMOs on site are OK and not snapped. If a trap required attention, then the ball will turn red. Clicking on the ball will bring up the status and the address

NEW LOCATION

Short cut back to the MAIN MENU

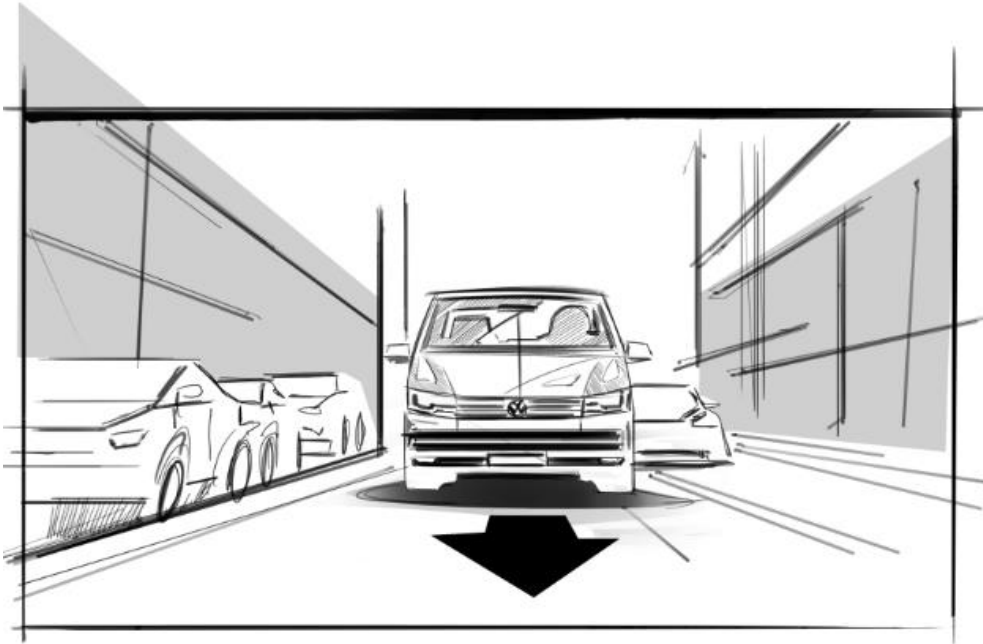


MAP VIEW

To go back to the location menu press this switch

WORKING THE RATMO.

In this section, we will share with you our best tips for traps placement, monitoring and emptying and removal.

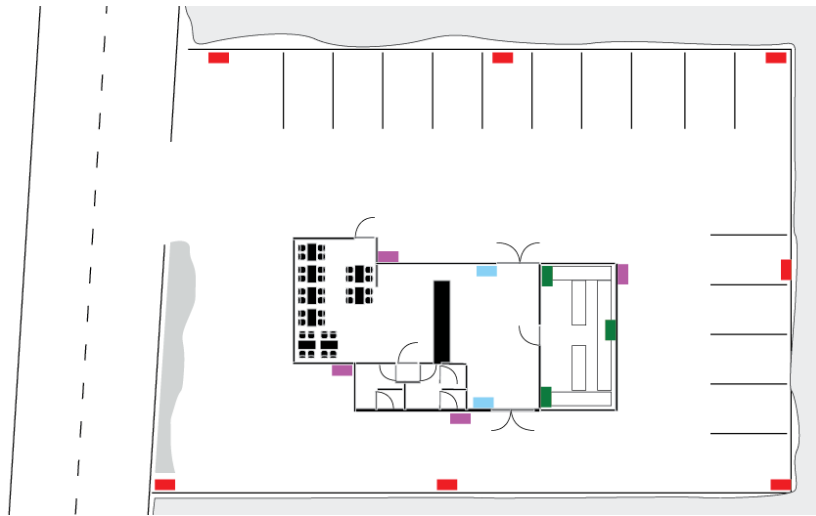


Pack your kit with care.

Good preparation and planning is the best way to approach a job. To help with this we have put together our recommended equipment list for site work.

- Ratmo Traps (mounted with traps & ready)
- Magnet key for activation of traps, a spare in the car is always recommended
- Bait boxes for traps out side, See the list of approved bait boxes in the Appendix
- Wire or cable ties for rats in roof locations
- Several types of bait depending on location
- Torch – for getting into those dark corners.
- iPhone or Android Phone for access to the App.
- Cable cutters for removing traps tied to pipes or beams
- Gloves – for hygiene
- Alcohol Spray or gel – Great for disinfecting hands after removing a rat.
- Plastic bags – for packing those little critters in
- Tape measure – in cases where recording size is important.

MAKE A PLAN – SITE STRATEGY



For buildings there are several options in regards to preventing rodent infestation. We recommend making a sketch before coming to site with a general plan.

■ Site Perimeter monitoring

In this situation a site may have an outer circumference of traps to monitor and catch rodents coming in from fields or neighbouring buildings. In this we recommend that bait boxes are used, and that the traps are placed with a distance of 40-60m apart, with the bait boxes placed up against a wall or fence. Boxes may be closer if there is a sewer or hole in fence. Remember to inform the client if site maintenance is required

■ Building Perimeter monitoring

A second set of traps can be set up around the building to catch any rodents scurrying in the shadows of the buildings. In this we recommend that bait boxes are used, and that the traps are placed with a distance of 20-50m apart

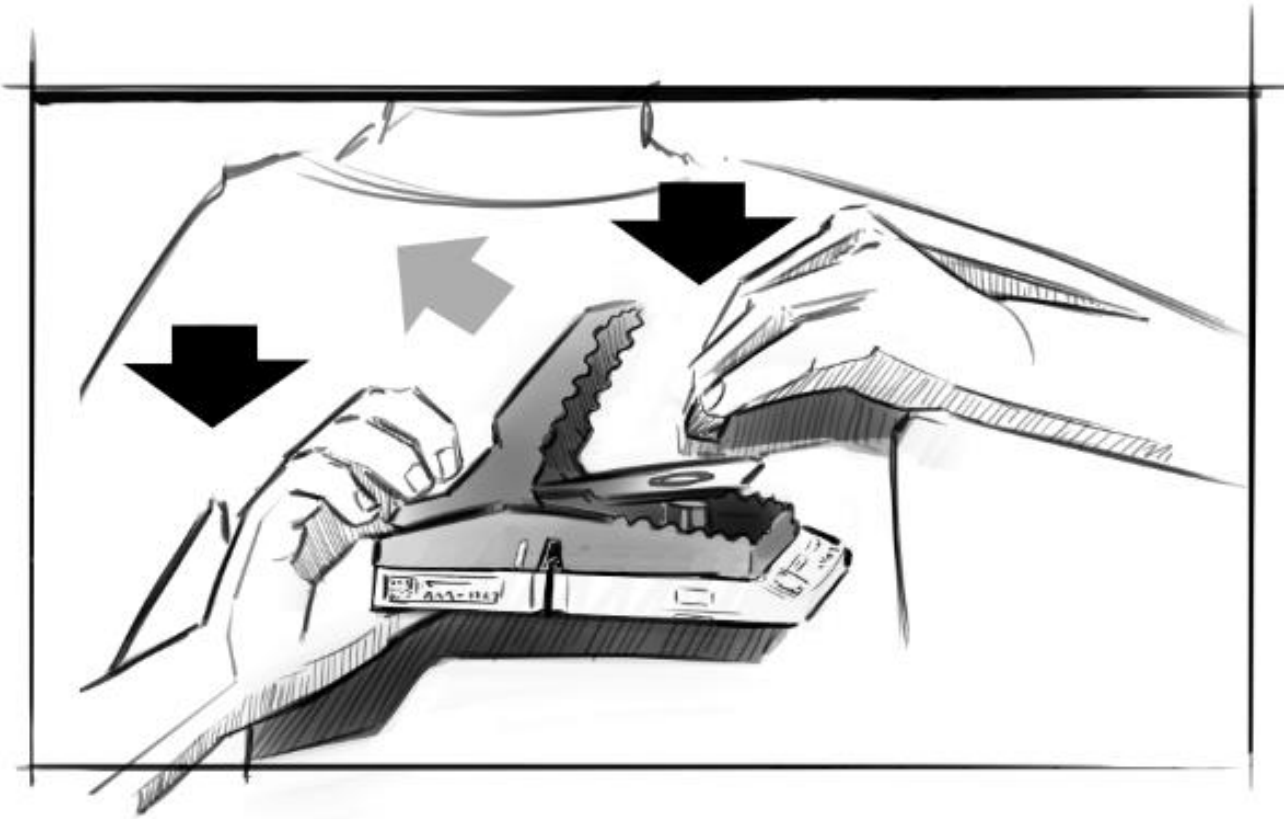
■ Internal doors and ports

Internally its always advisable to monitor all doors and ports. This can be even more so important in places where doors are held open for loading and that can lead rodents into stores or hygienic areas. Place the Ratmos in boxes up against the walls and in the corners of the room

■ Internal general.

General areas can be food and product stores, industrial areas, storage areas, production areas etc.

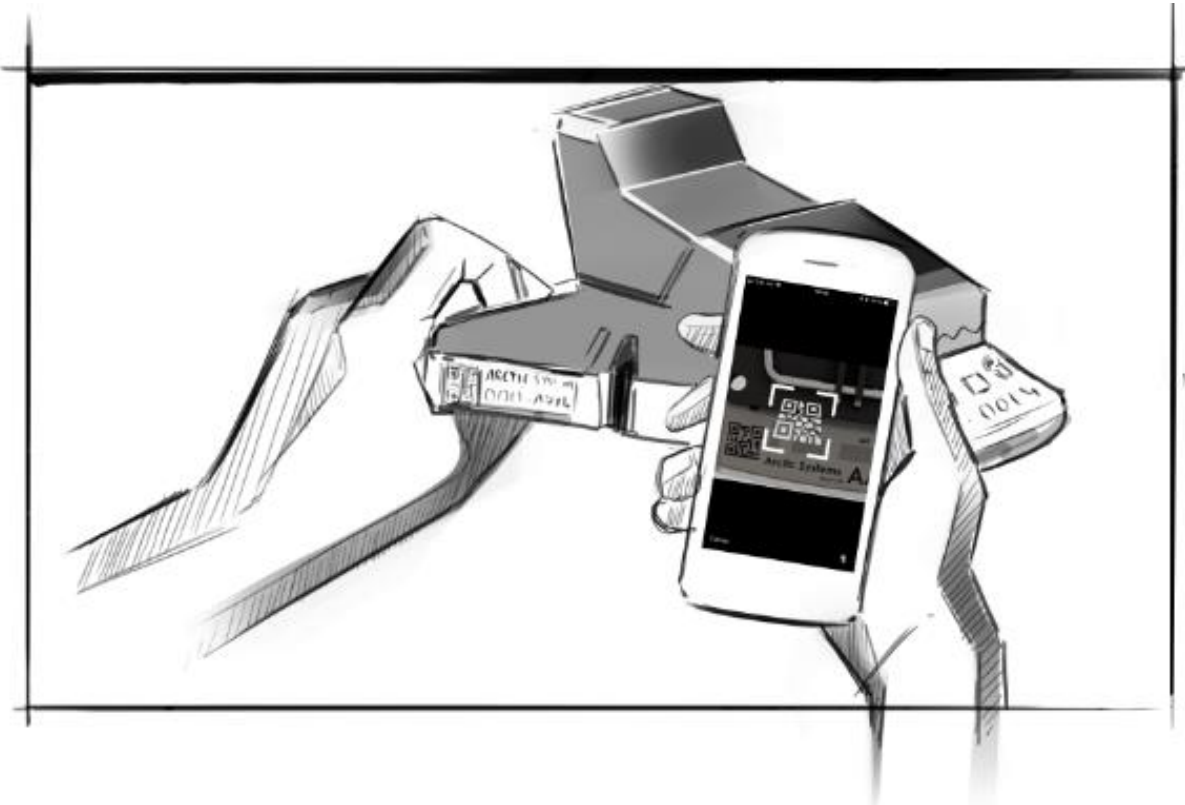
BAIT THE RATMO



Adding bait to the traps can be done prior to the site visit or once on site. To bait the traps hold the arm firmly in place with one hand and place the bait in the trap with the other.

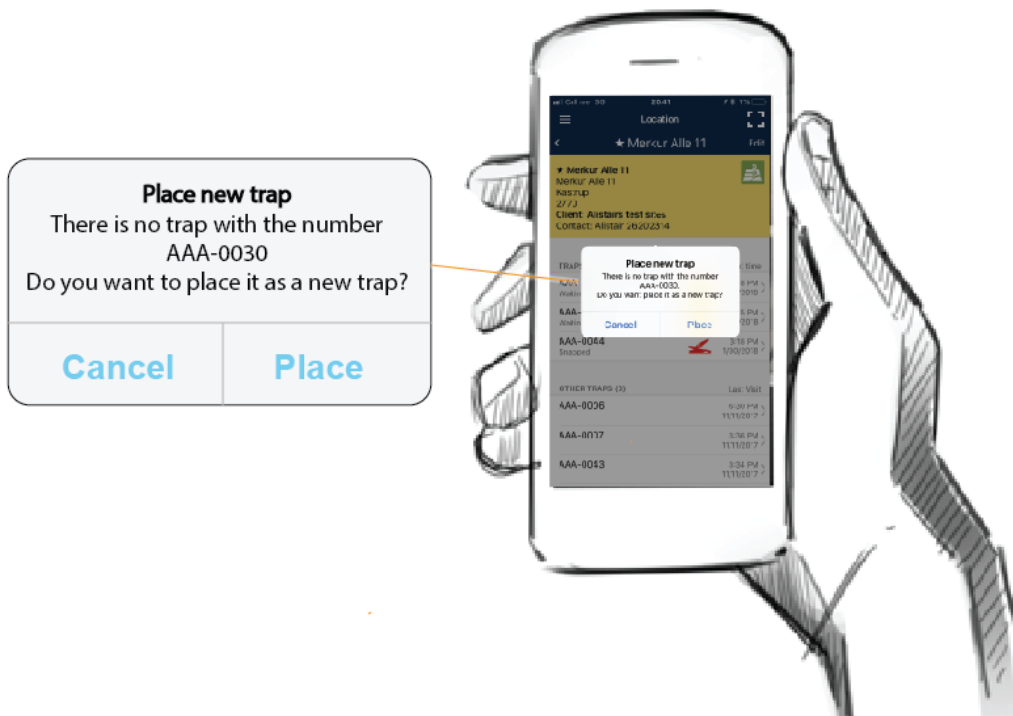
Baits should be chosen that suit the environment and can be left on site until the next inspection.

TIP – Choose a bait depending on the location. If you are in a grain depot, then your quarry is most likely eating grain. If you are in a cinema your quarry is most likely eating popcorn. Look what food sources are available in the local area and adapt your techniques.



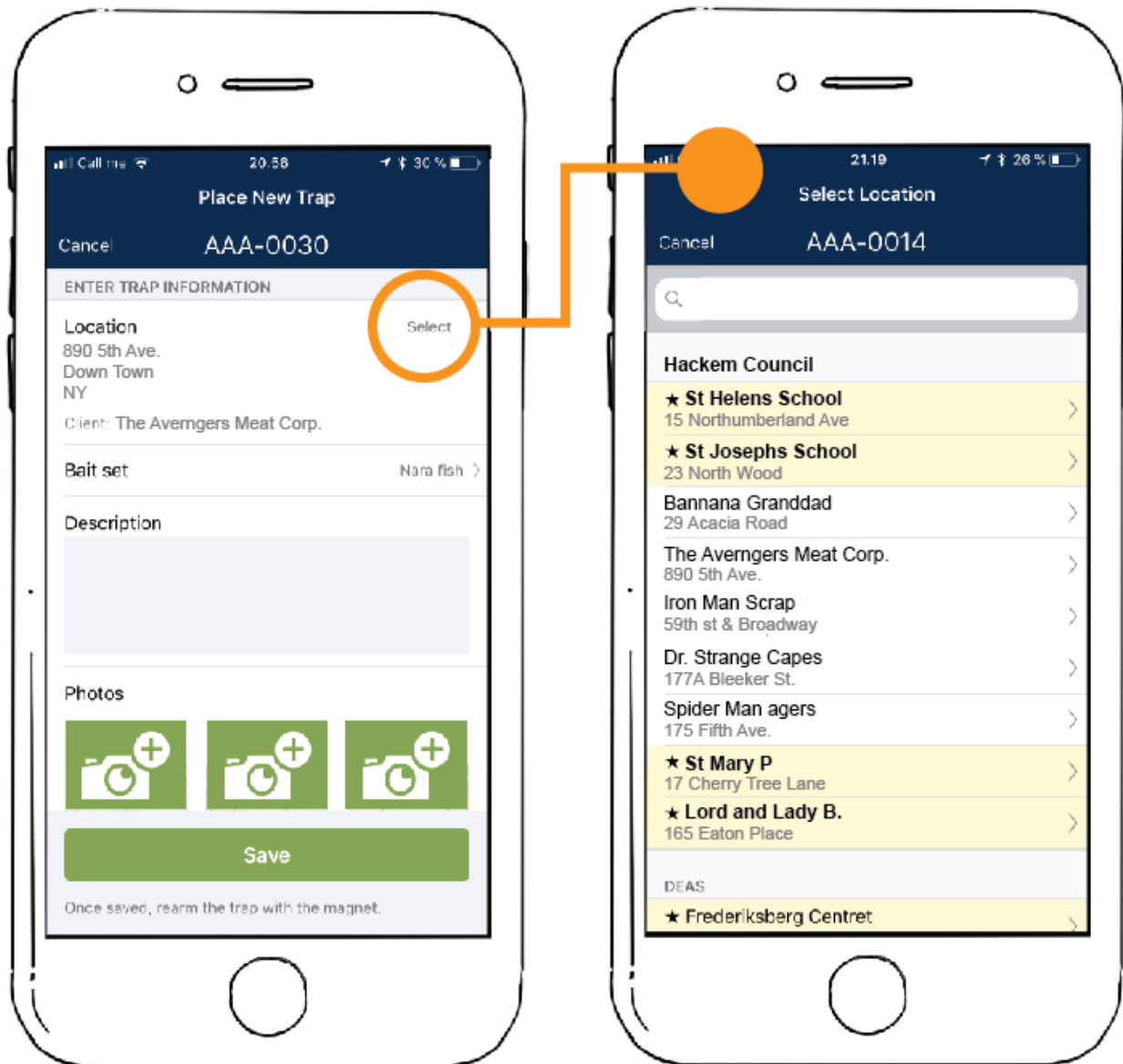
SETTING THE RATMO – SCAN THE QR CODE

Take a new RATMO and scan the code on the front or side of the device. The APP will now identify the unit and ask you to confirm placement of the trap. Press **Place**



ENTER THE DETAILS

SELECT LOCATION

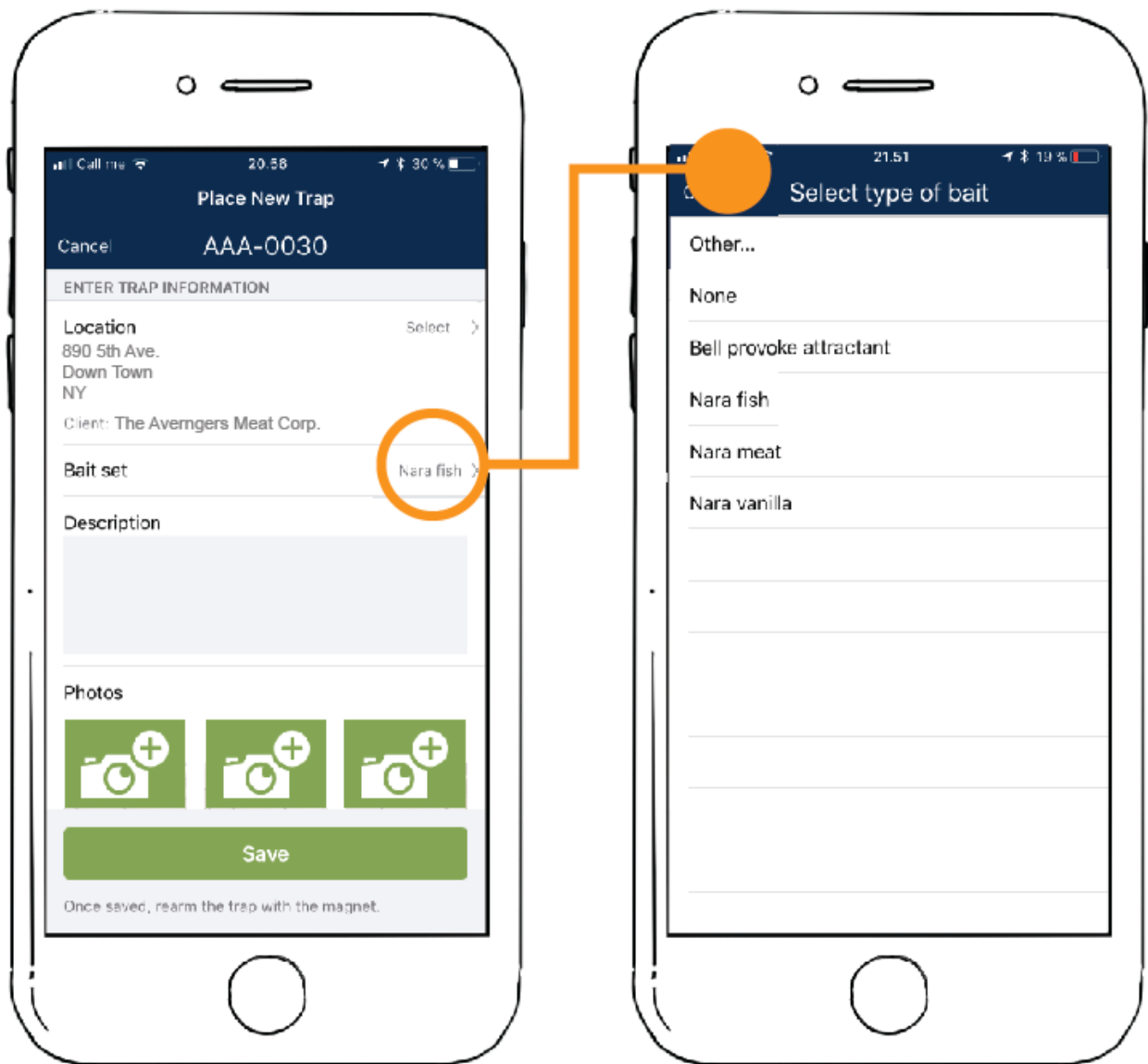


Select a **Location** from the drop-down menu to do this click on **Select** then select a **Location** from the list.

Locations are sorted according to the **clients**.

Clients with stars and yellow backgrounds are the VIP clients.

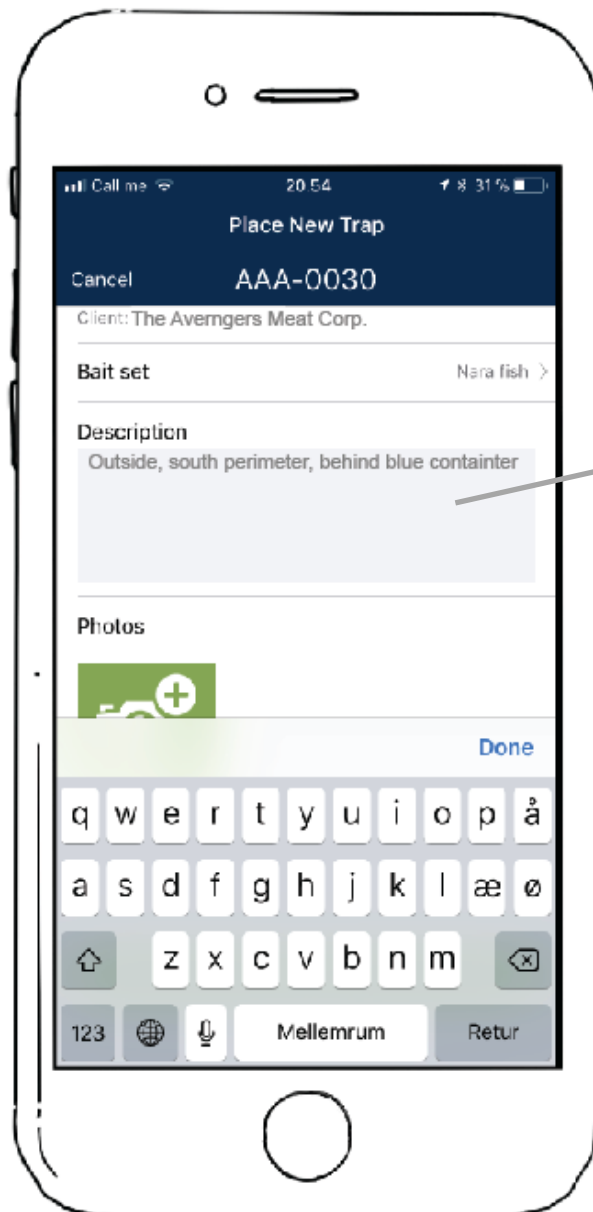
INPUT THE BAIT TYPE



On the **Bait menu** there are several standard industrial baits, choosing other will allow you to type and experiment with your own baits.

Note: We are working on a new bait list and plan to update this page soon! Watch this space!

TYPE SOME NOTES.



NOTES

Type notes using the keypad as you would with a normal text or e-mail

Notes are one of the most important things when placing a trap. The notes will not only help you locate a trap next time, but they will also be one of the ways to arrange the RATMO traps in the audit reports. Type your notes and press **Return** to continue.

Example descriptions could be as follows.

Example 1: Building 1, external, north side, by bin.

Example 2: Building 2, inside, 2nd Floor, grain room, by pipes.

Example 3: Outer Perimeter, north side, trap 1

Example 4: Inner Perimeter, east side, 6th trap.

A PICTURE SPEAKS A 1000 WORDS

Adding some pictures is the best way to help identify your traps when you get called out, it's also a great way to help make great site audit reports in the future.



1. Click on the green picture icon to add a picture.
2. When the camera has opened take a picture as you normally would by a. pressing the button on the screen, or on the iPhone also using one of the volume buttons.

TIP – Pictures are best take in the landscape mode.

After pressing the shutter, you will be asked to approve the picture by pressing **Use Photo** or given the opportunity to **Retake** the picture.

You can take up to 3 pictures per trap. We recommend taking a close up of the trap so that any set up details are recorded for future use. We also recommend taking a step back and getting a picture that gives good context for finding the trap in the future.



THE CLOSE UP

A good way to make a visual record of how you set the trap.



TAKE A STEP BACK

In the above picture we only needed to take 2 steps back to see the only blue container on site. In other locations it may be necessary to go even further backs to get a good picture to identify the location.

SAVE AND ARM



Before you save the data check you have the right address and bait settings. Press **Save**, you will be reminded to **Arm** or **Rearm** the trap by placing the magnet over the magnet key icon, we will do that in the next step. Press **OK** to continue.

ARMING THE RATMO



Arm the RATMO with the magnet key, this is done by holding the magnet key over the logo until a beeping sound is heard. The arming process has now been started, once the RATMO has a run through a self-check and contacting the backend there is approx. 45 seconds before the trap is armed. The arming sequence can be heard as a series of tones followed by a long tone, the LED under the arming logo will show red for 15 seconds.



Close the bait box and place it on a stable piece of ground before the final beeping tone is heard.

RATMO's MONITORING PAGE

ADDRESS OF LOCTION

The location where rodent control is in progress.

CLIENT

The company or person paying the invoice

LOCATION CONTACT

The contact who is responsible for giving access to the site, and the person who should be given feedback about issues.

REGISTER VISIT

When servicing the trap this button or the scan function is used to start the process of registering a visit.

TRAP STATUS

There are 3 different status icons that can be displayed here. (See the section on trap status)

HISTORY

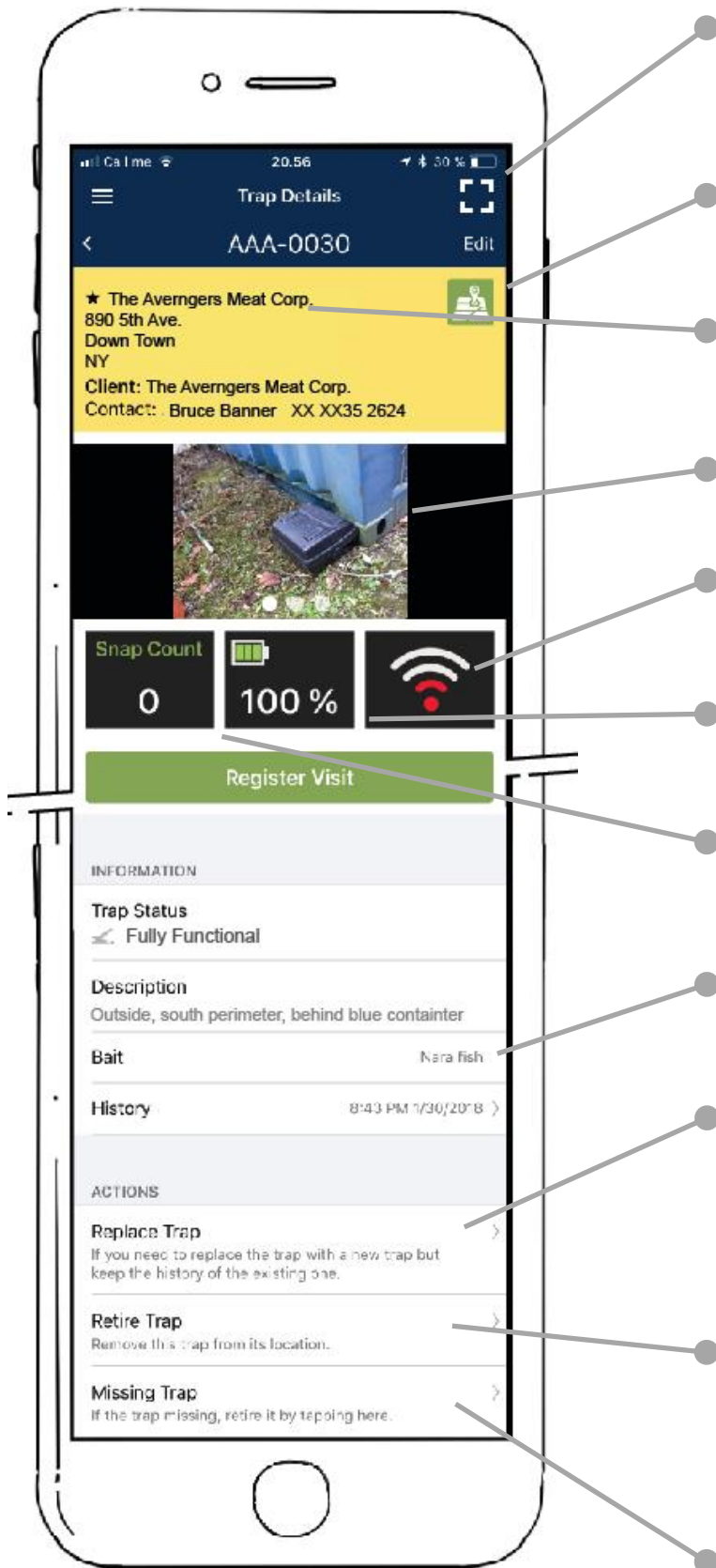
Clicking on the history bar gives an overview of check-ins from the first day the trap was placed. (See the section on history for more details)

Once the trap is entered into the system and had been armed the icon and "Fully Functional" will be displayed under Trap Status. This normally takes 1 – 2 seconds after the final arming tone is heard.

This **Trap Details** page can also be accessed in 3 ways

1. Picking the RATMO up and scanning the QR code. Then selecting "Trap Details"
2. 2 from the location page, by selecting a specific trap.
3. As the last step in the layout of the RATMO.





SCAN

You can hop to any trap by picking it up and scanning from this page

MAP VIEW

Select this icon to get driving directions to the site

NAME OF LOCATION

You can hop to any trap by picking it up and scanning from this page

PICTURE OF TRAP LOCATION

By default, this is the first picture taken

SIGNAL LEVEL

Signal this is the strength of the signal at the location

BATTERY LEVEL

Battery is the status of the battery. *(See the section on battery life for more details.)*

SNAP COUNT

Snap count is the number of successful kills the trap has made in the location.

BAIT

The bait selected when setting the RATMO up on location

REPLACE

This “Actions” option allows for a trap with a low battery in an important place to be replaced with a new trap, whilst the collected data at this location will remain linked to the location.

RETIRE TRAP

This “Actions” option allows for retirement to be programmed into the backend, so the next time the traps is woken it will retire, useful for closing down a site.

MISSING TRAP

Will delete a trap from the list in the event that it is damaged or stolen.

ACTIONS

TRAP STATUS

What the alert icons mean:



Fully Functional. The normal status of traps in the field when monitoring and in good condition.



Snapped. The trap has seen a snap event. The trap should be inspected as soon as possible.



Live animal in trap. In this circumstance, the trap has seen movement after the snap event. This may be caused by an injured animal that was not killed or by similar animals inspecting or attempting to eat the dead rodent. In any case these traps should receive extra attention. Visiting a site where a half-eaten animal can be found is a clear sign that more rodents are in the area.



Missed Check-in. From time to time RATMOs may be placed in places with poor signal coverage, or a mast may be busy or undergoing maintenance when a RATMO tries to check in. In such a case the message “Missed check-in” will be displayed. Under most circumstances the trap will check in again the next day.



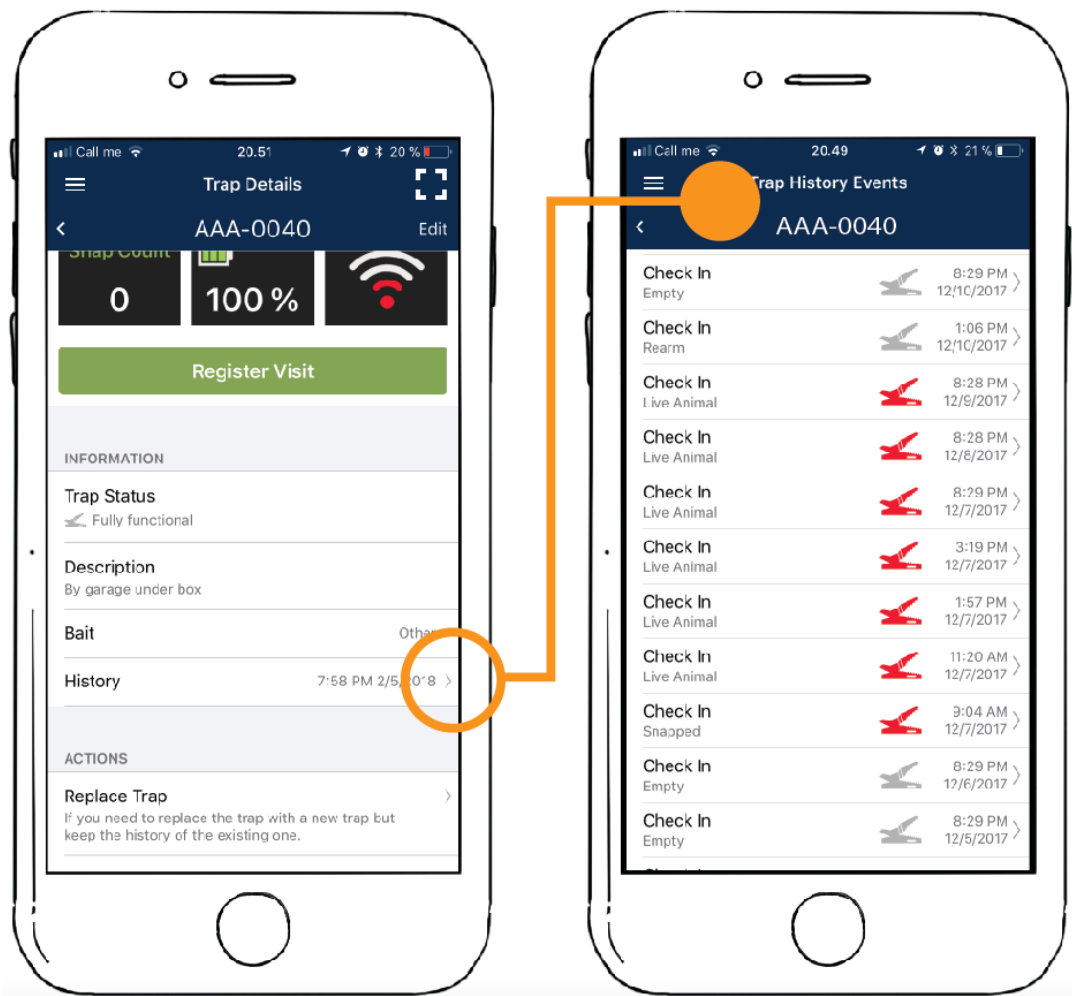
DEAD / Missing in Action. If for some reason the trap has been damaged or stolen this message may appear. The back end has been waiting for 4 days for the RATMO to check in. In the event that you RATMO has experienced technical issues please contact us, we will gladly help you out and get you monitoring again!



LOW BATTERY it’s time to start planning those battery changes!

HISTORY

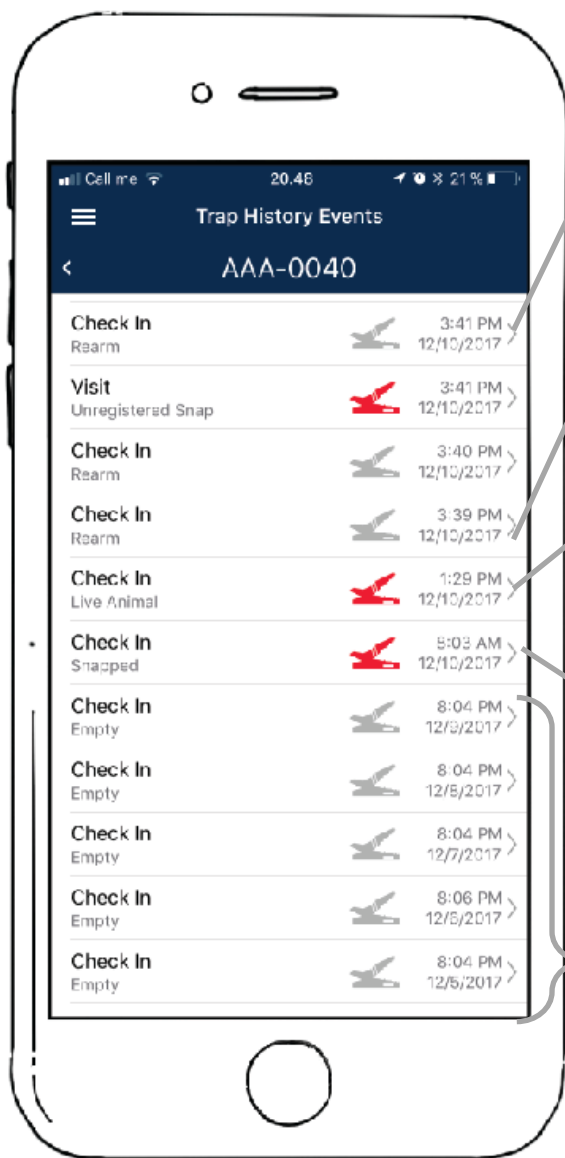
Every day the RATMO's check in to confirm they are OK, on doing so they will log a **Check-In – Empty** report under **History**. If the trap snaps the trap will ring in and log a **Check-in – Snapped report**. If there continues to be movement on the traps then there will be issued at **Check-in – Live Animal** report. If the trap is not visited, then the status will remain until the following day and ultimately until the trap is visited. (note this 24 hr check in may be changed depending on local requirements and requirements to extent the battery life beyond the normal specified life)



Trap History Events

The history events log can be accessed under trap details for each trap. It contains all the check in details since the trap was placed on location.

HISTORY LOG



Rearm

This is the trap been re-armed with the magnet key and entering in to monitoring mode again.

Visit

When clearing a trap the visit is logged, there are several extra things recorded during a visit, including a picture of the rodent, the actual status of the trap and the new bait if the trap is re-armed.

Live Animal

In the rare occasion that the rodent is caught and not killed out right, then the trap will detect vibrations and upgrade to a Live Animal in trap. Note this could also be other rodents playing with a kill.

Snapped Trap.

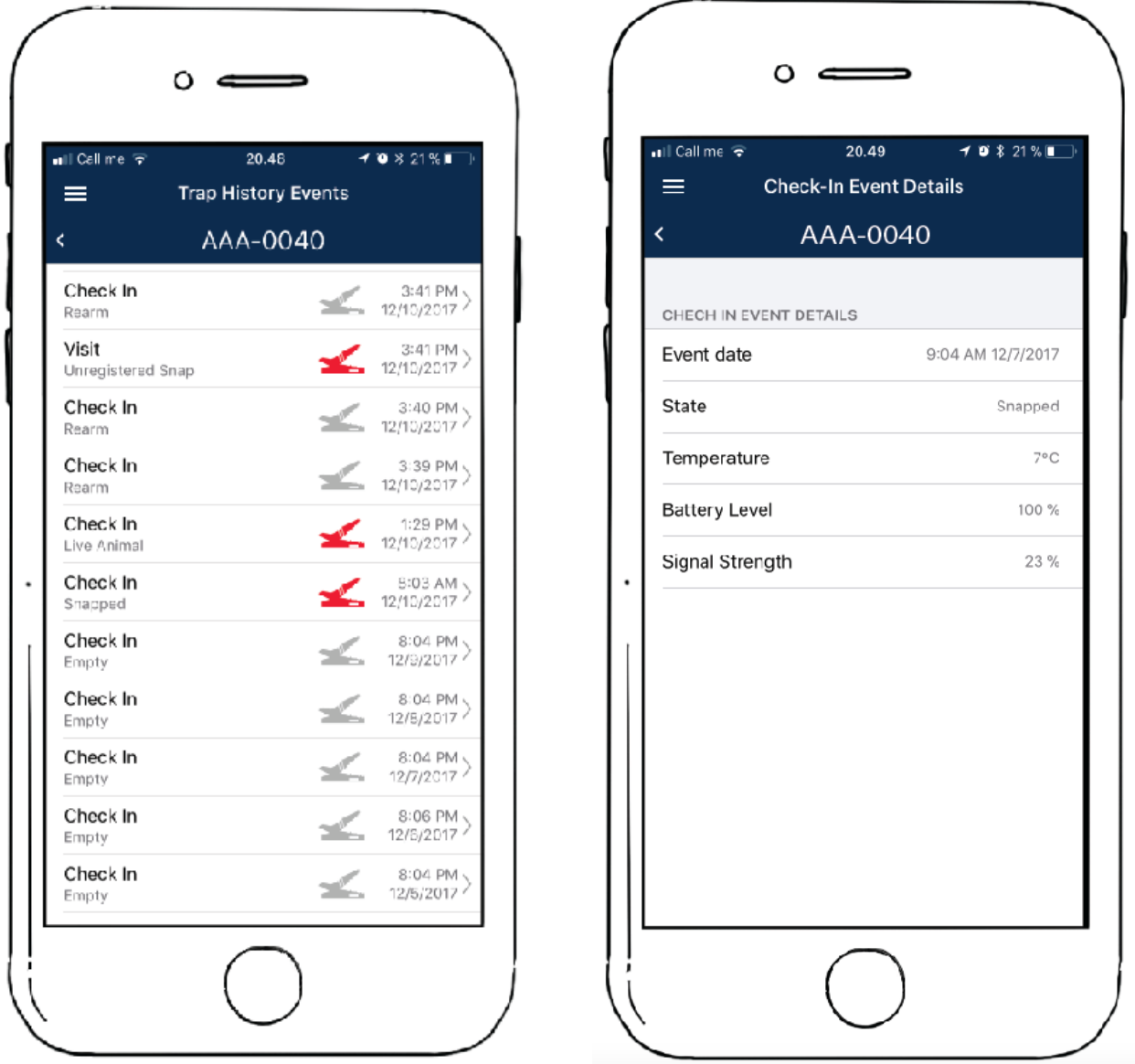
The trap has snapped and has called to register this event. The trap will report the time of the snap and the temperature, as well as reporting battery & signal levels.

24 Hr Check ins.

These check-ins are standard check-ins where the trap is saying, I am ok, this is my battery and signal level, and this is the temperature where I am.

The Trap History Events tell the story of what the trap has seen since it was deployed in this location. It can be useful for checking battery levels, temperature on site and for seeing which point in time the RATMOs have snapped.

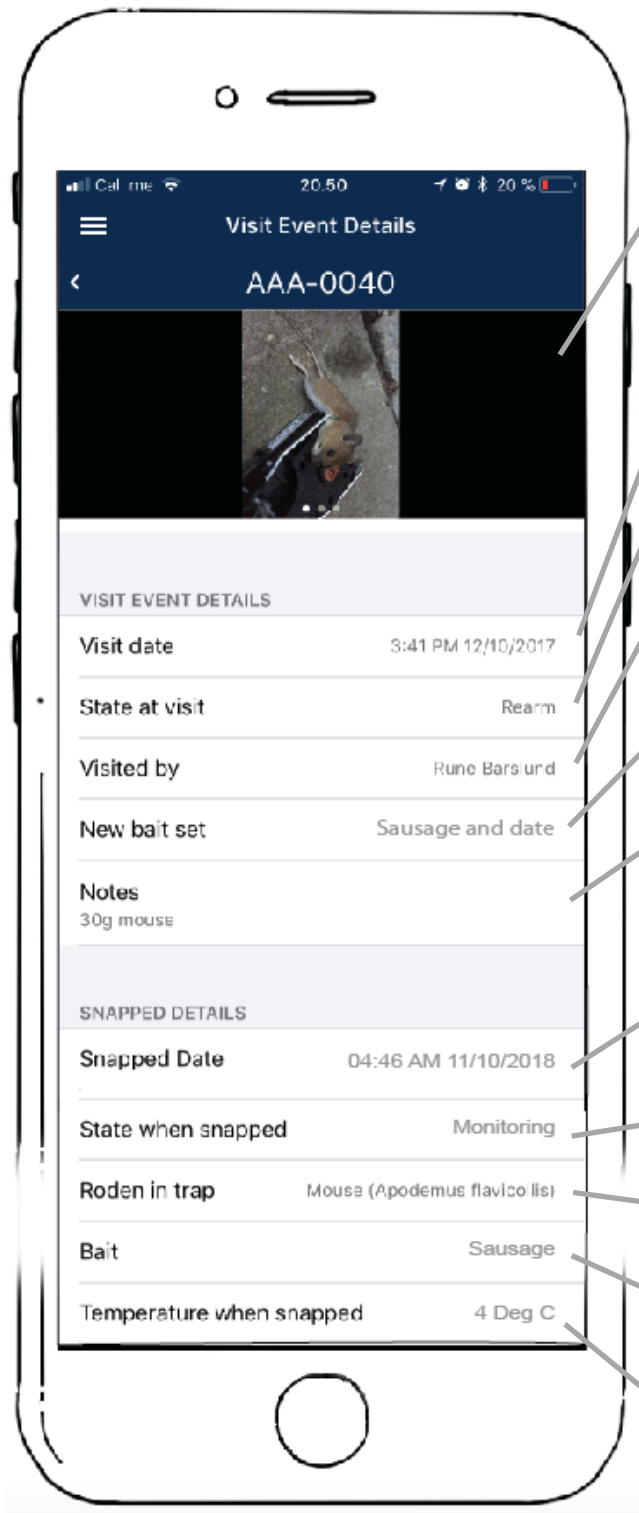
Standard Check in Report



By clicking on each event a more detailed view of the information can be seen. This can be used to check the status of the trap as well as seeing the temperature on site at the time of check in. Check in occurs 24hrs after the trap was set out, and again every 24 hours after that.

Visit Report

Going in to the History and the visit reports will allow you to see what were the last animals caught by the RATMO in that area of the location. The following details can be seen



PICTURE

Up to 3 picture can be stored when clearing a trap.

DATE AND TIME

The date and time of the visit

STATE OF TRAP

The state of the RATMO at visit is recorded here, this is for statistical purposes.

VISIT BY

As more that one user can be assigned to a location, this shows which user serviced or cleared the RATMO

NEW BAIT SET

Here you can see which bait type has been put in the trap.

NOTES

This can be what ever you think is important, weight, sex, or even diseases noticed.

SNAPPED DATE

The date and time the trap snapped. Used for recording feeding trends

STATE WHEN SNAPPED

Used for statistical purposes.

RODENT IN TRAP

The recorded rodent in the trap

BAIT

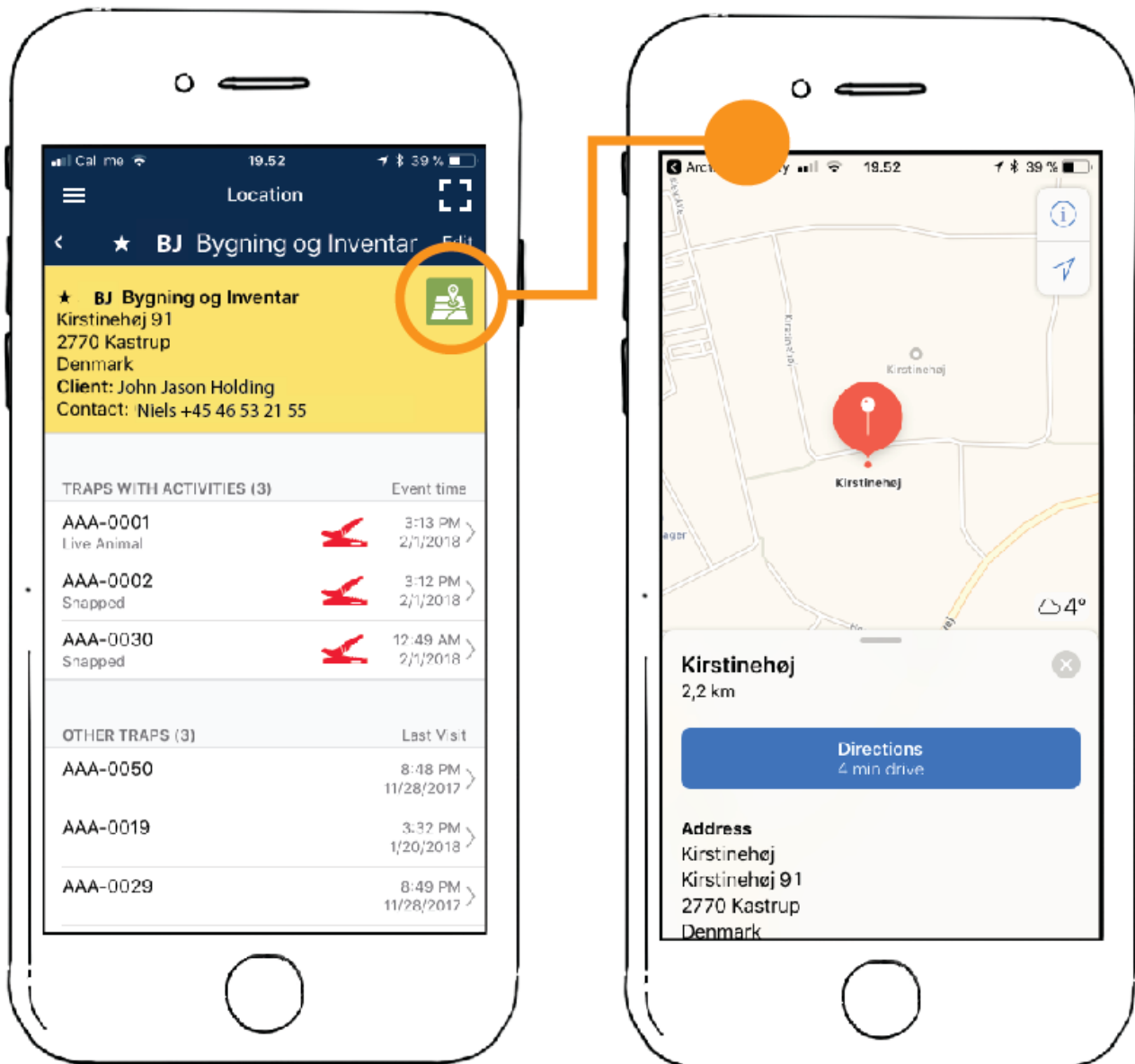
For creating a statistical overview of the preferred baits in a location

TEMP. WHEN SNAPPED

This is also a useful tool for discovering feeding trends in the locations you are working

ROUTE PLANNING

The Smart City App can help you get to the next client efficiently, saving you time and cutting down on those carbon emissions. With a little help from Google Maps your directions can be generated in 2 simple steps.

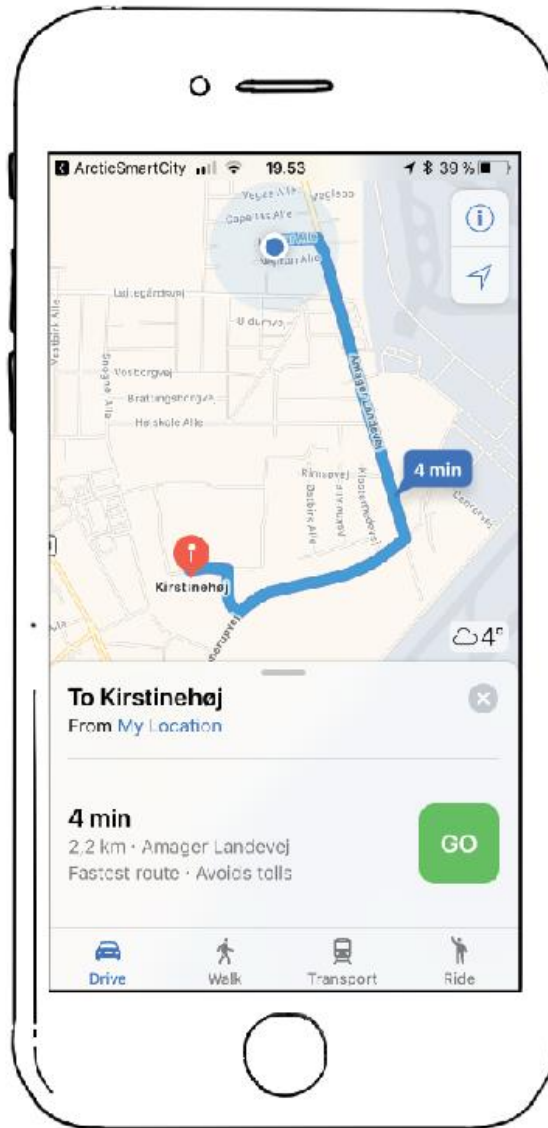


CLICK ON THE MAP ICON

In the client menu select the client you wish to visit, then select the green **Map Icon**, in the upper right hand corner. This will bring you into the map view, and show you the wished location with a marker pin. Press the blue **Directions** button to get directions to the next location.

PRESS GO!

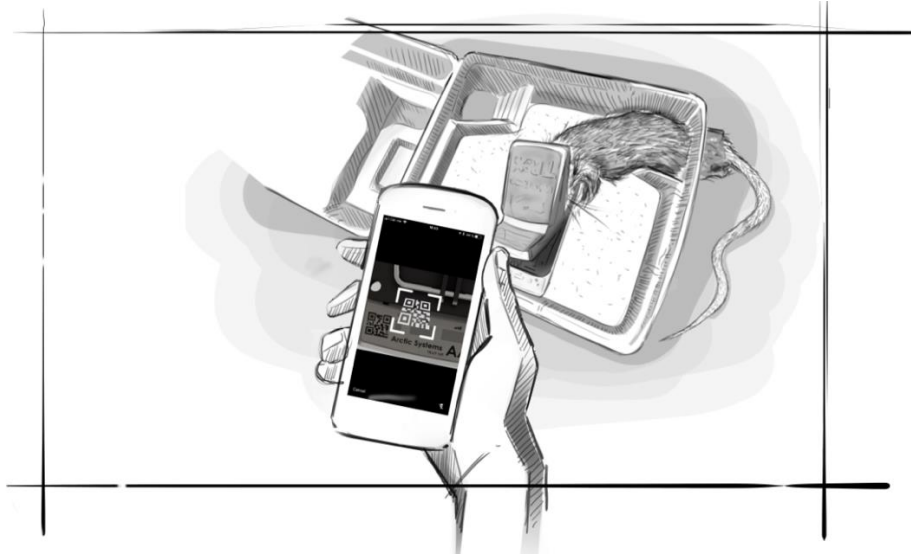
To begin your journey press the green Go button and follow the directions on screen. We recommend mounting a phone holder in your vehicle so that your phone is held safely and is charged for your next visit.



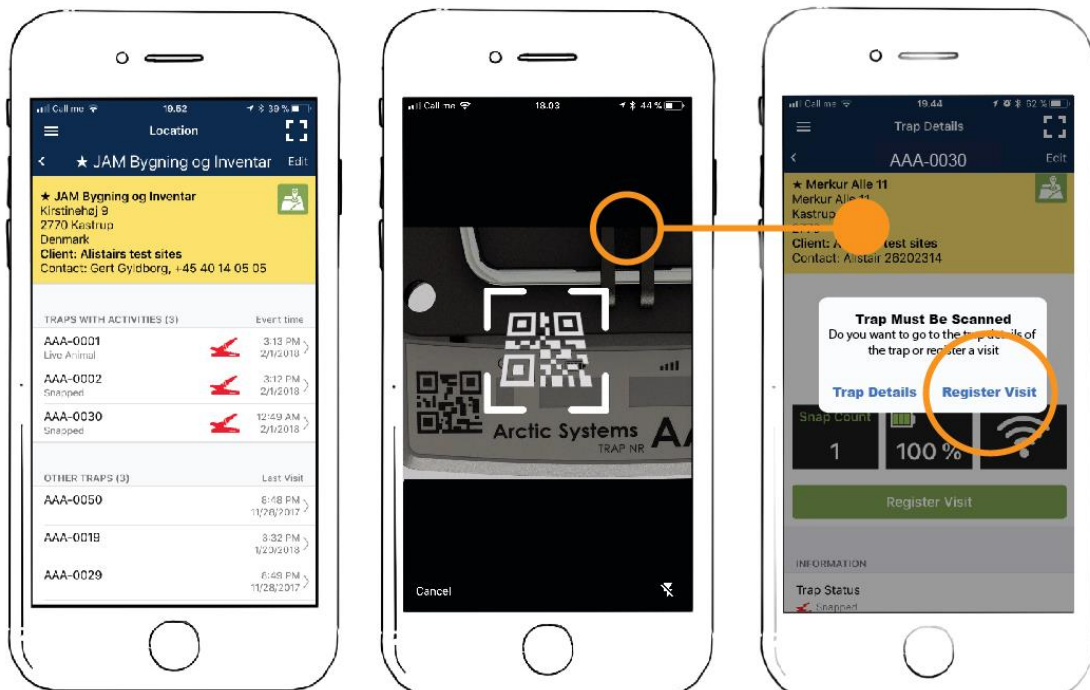
Drive safely!

SITE VISITS

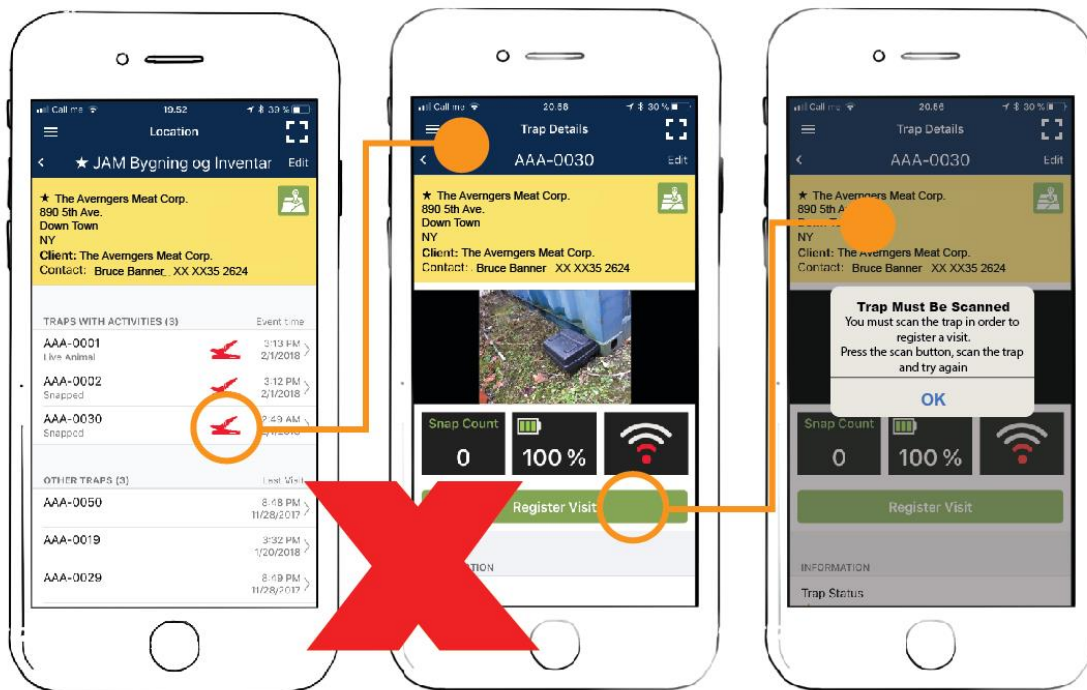
The easiest way on site is to select the **SCAN** function from one of the menus and scan the RATMO you will then be asked if you want to see **Trap Details** or **Register a Visit**.



Scanning the trap will bring you directly into the trap you are standing by.



ACCESSING REGISTER VISIT REQUIRES THE TRAP



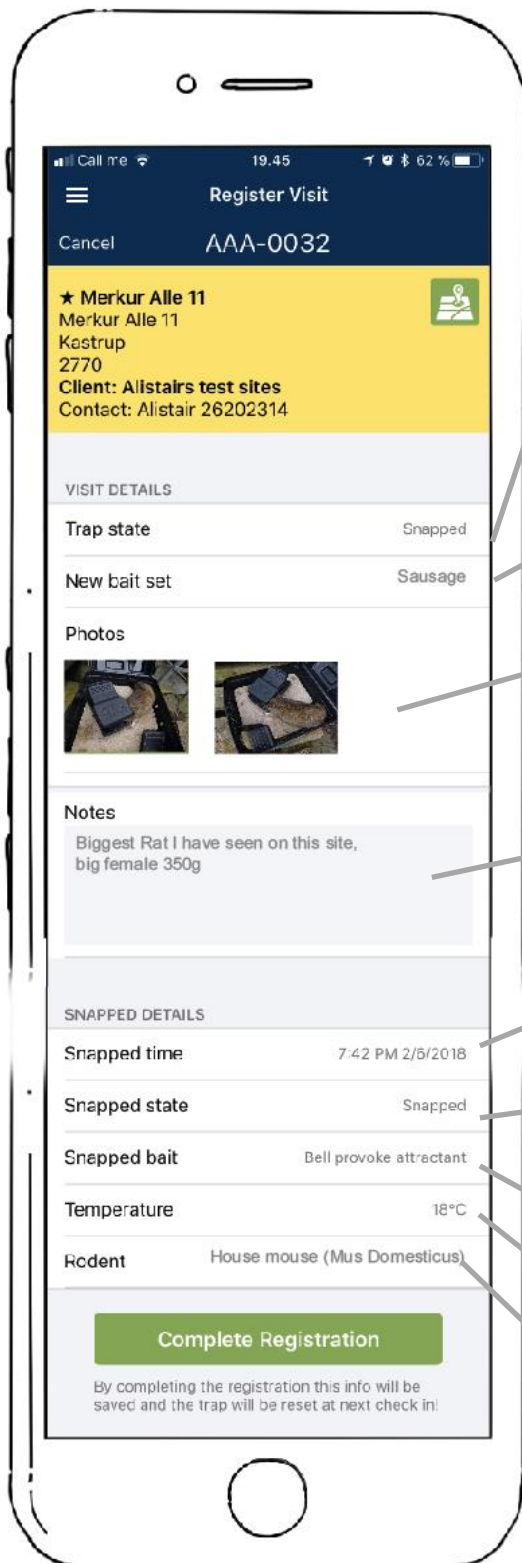
To register a visit, you have to scan the RATMO.

This means there is no access to the **Register Visit** page unless the RATMO has been scanned.

As you can see above, if you go directly from the **Location** page to **Trap Details** and press the green button you will be asked to scan the trap.

This function has been added to ensure no false site visits are entered into the system

THE REGISTER VISIT FORM



Call me 19.45 62%

Register Visit
Cancel AAA-0032

★ Merkur Alle 11
Merkur Alle 11
Kastrup
2770
Client: Alistairs test sites
Contact: Alistair 26202314

VISIT DETAILS

Trap state Snapped

New bait set Sausage

Photos

Notes

Biggest Rat I have seen on this site,
big female 350g

SNAPPED DETAILS

Snapped time 7:42 PM 2/6/2018

Snapped state Snapped

Snapped bait Bell provoke attractant

Temperature 18°C

Rodent House mouse (Mus Domesticus)

Complete Registration

By completing the registration this info will be saved and the trap will be reset at next check in!

TRAP STATE

You can record a visit to a RATMO that is in any state. Fully Functional, Snapped, Live Animal in Trap, Low Battery etc. A visit maybe to refresh bait, or just check the trap. These can be logged as well as the visits to empty the traps and can be shown on the customer audit reports to show the level of service.

NEW BAIT SET

If you are re-arming the trap you can select the new bait here.

TAKE SOME PICTURES

Customers don't exactly love rodents, the more pictures you can take the better they will feel about all the vermin removed from site

NOTES

Record those extra details that can help you in the future.

SNAPPED TIME

Shows the time when the RATMO last

SNAPPED STATE

Is used to catch the few cases when the trap has not performed as expected.

SNAPPED BAIT

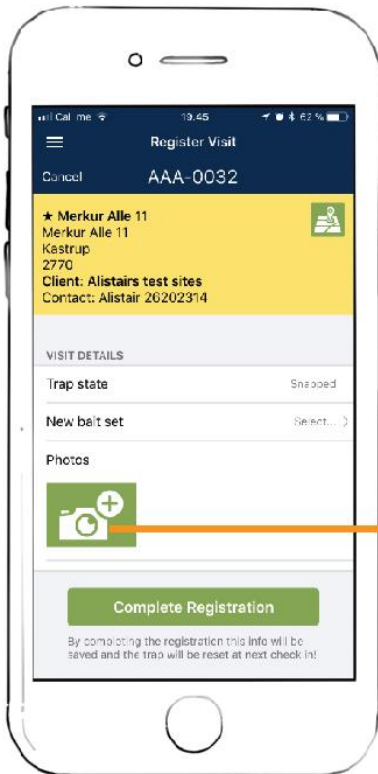
The bait in the trap at the time of the snap

TEMPERATURE

Temperature at the time of snap.

RODENT

Used to record the rodent or other, this is caught in the trap.

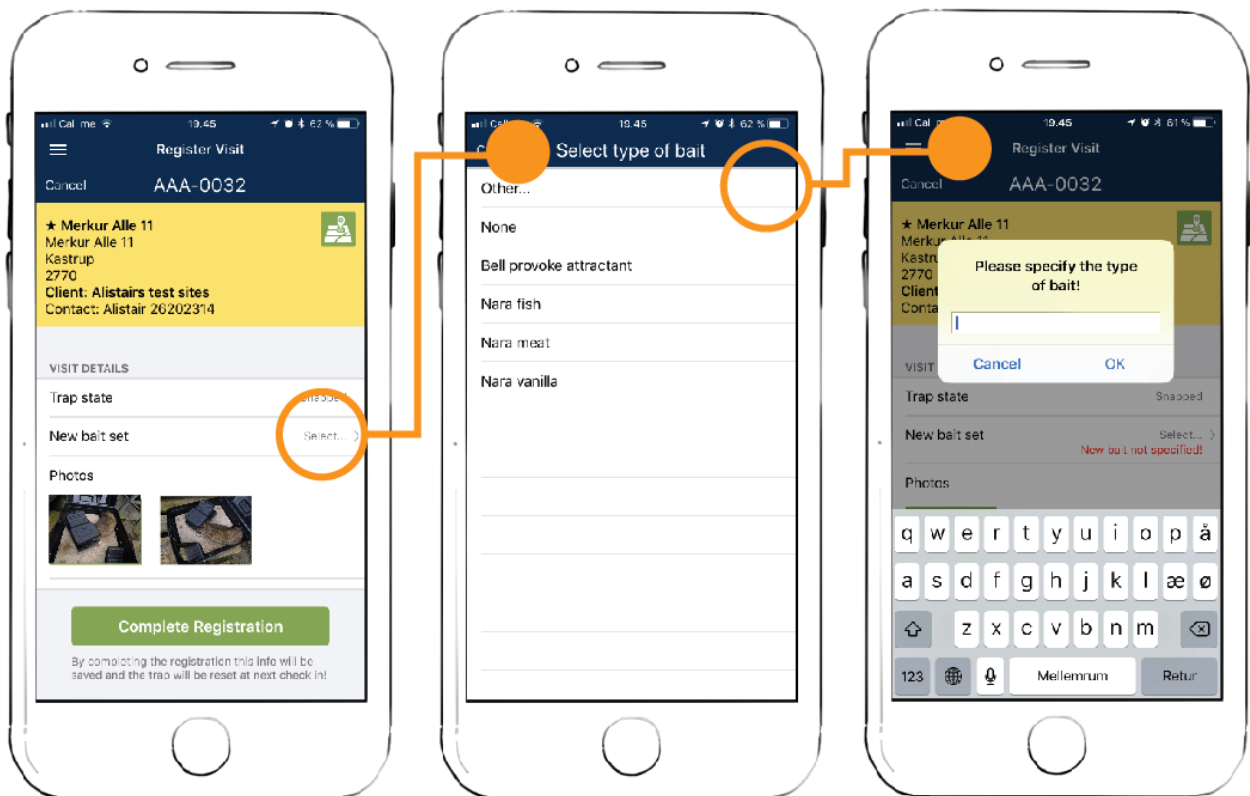


TAKE SOME PICTURES

It's important to document your catches well. By recording the type of animal in the trap and size it will be possible to establish trends and more effectively target rodent infestations. Pictures of rodents is also a great way of creating audit reports to show the effectivity of the work in progress. Click on the green **Camera Icon** to access the camera. We recommend taking 3 pictures of each rodent from different directions.

TIP # Pictures are best taken in portrait format. Remember that the volume buttons on the iPhone can also be used for the camera.

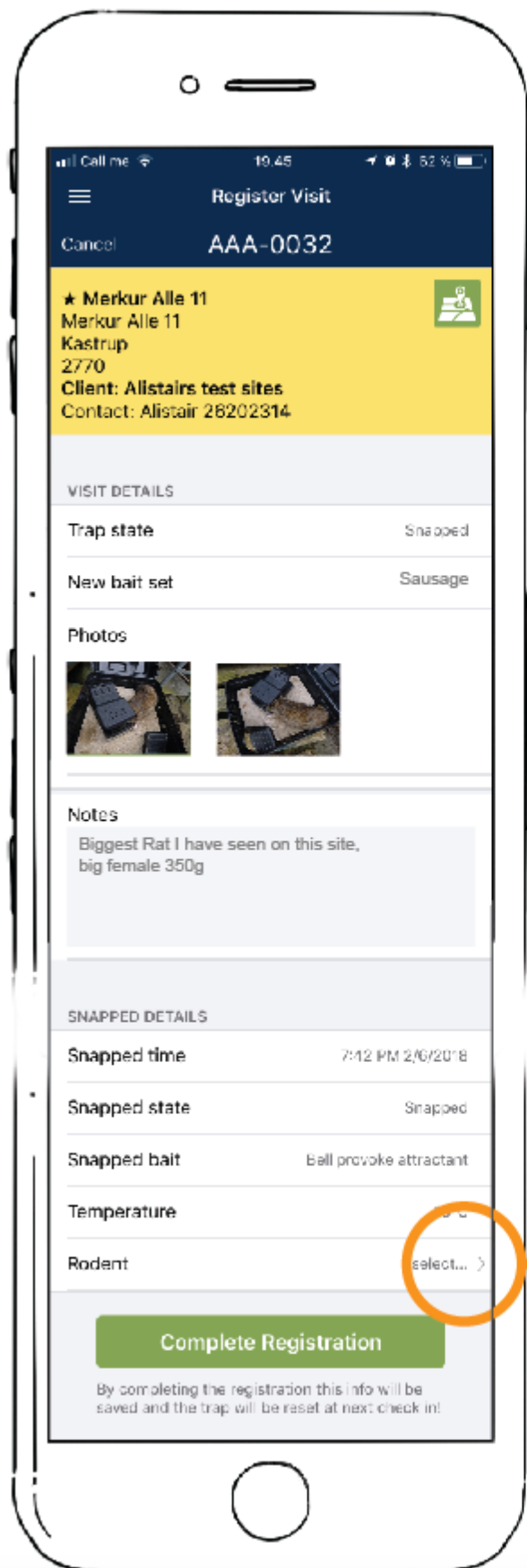
When you have taken a picture press **Use Photo** to use the picture or press **Retake** to go back to the camera and try again.



SET THE NEW BAIT

If the trap will continue in service, then the bait can be set or changed here. Click on the bait or click on **Select**, to enter the **Bait Menu**. Here you can press on a standard bait in the list or choose **Other**. **Cancel** will take you back to the **Register Visit** menu.

If you choose **Other** you will be presented with a new window where you can type your custom bait. Select **OK** to enter the bait into the trap or select **Cancel** to come out of the menu.

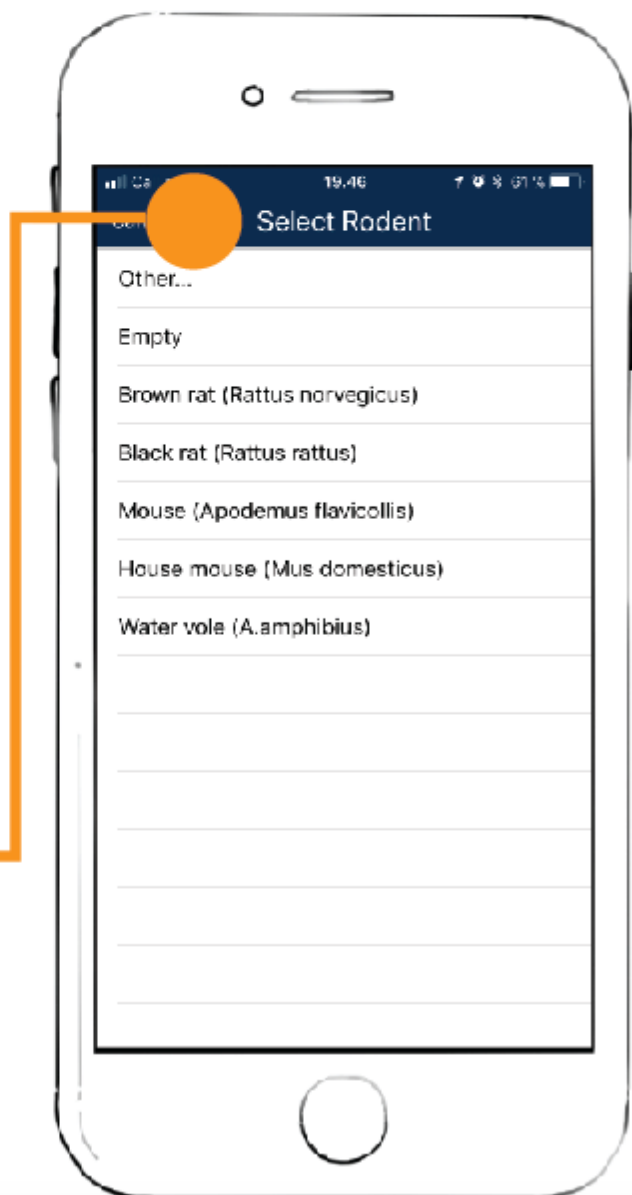


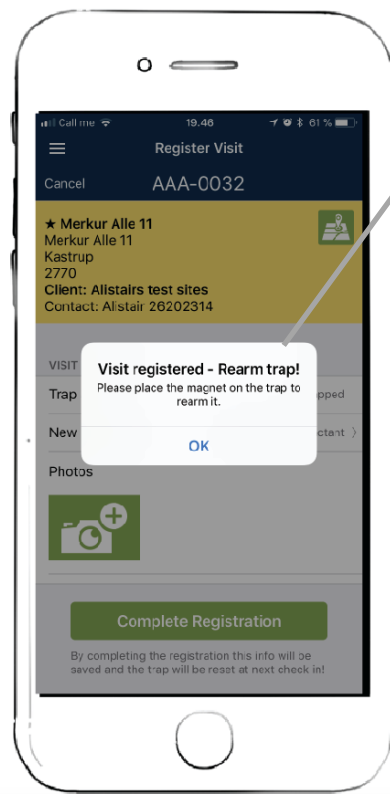
SELECT RODENT

The last thing to select before pressing the Register Visit button is the type of animal in the trap. Simply click on select and select one of the animals from the list.

If the trap has snapped empty it is also important that this is recorded.

See the KNOW YOUR ENEMY chapter for more information about rodent identification.





RE-ARM TRAP

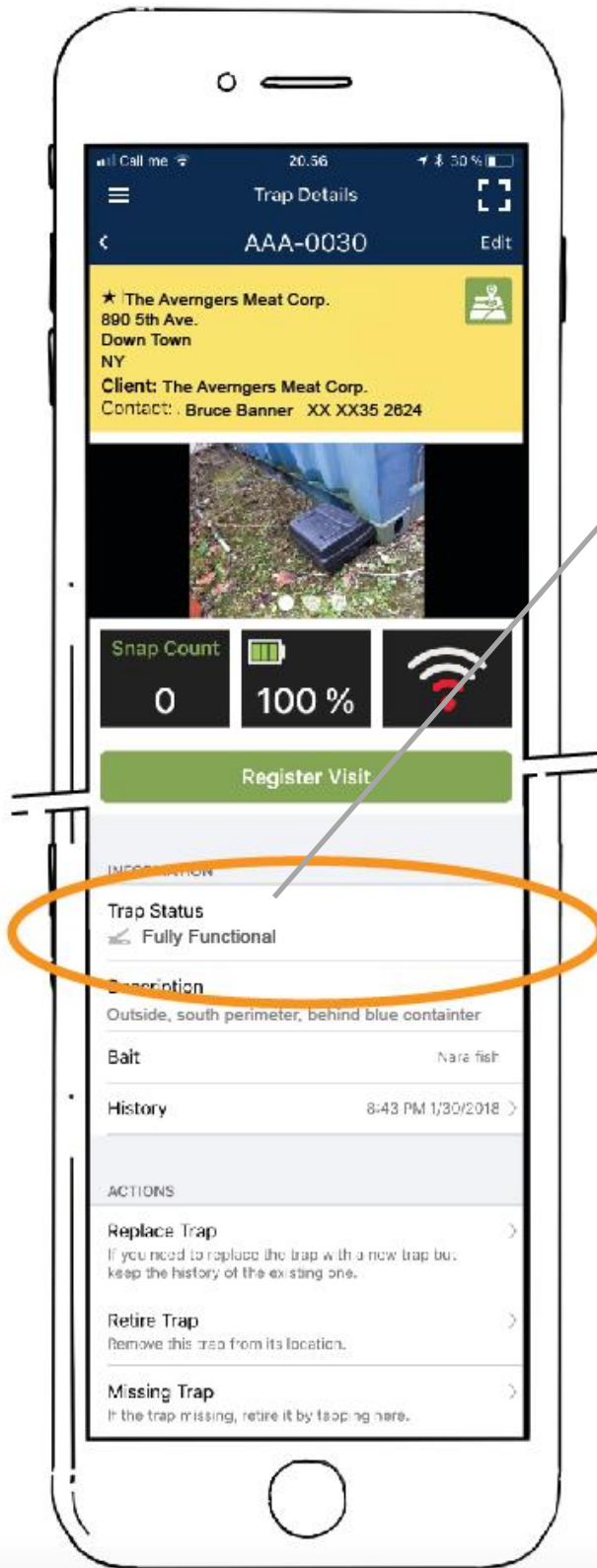
Used to record the rodent or other, this is caught in the trap.

COMPLETE REGISTRATION

Press the green COMPLETE REGISTRATION button to complete the registration. There will be a small pop up window to remind you to re-arm the trap. The trap should now be re-armed using the activation key.

TIP Always check TRAP STATUS, and OVERVIEW before leaving the site..





TRAP STATUS

As soon as the RATMO has called into the back end the TRAP STATUS will change to Fully Functional.

TIP Always check that traps are working as intended before leaving the site..

OTHER OPTIONS

RETIRE

Retire – this removes the RATMO from the system. (*Choosing retire means when the trap rings in next time it will retire.*)

REARM

Rearm – Puts the trap back into service at the same location point.

REPLACE

Replace – A procedure that allows a new trap to take over the history and position of an old trap, for instance if batteries are low and the data collect from that point in the building should be continuous.

Reporting a unsnapped trap

In the rare occasion that you find that a RRATMO has snapped, (with or without a rodent) there is the option to register a trap as snapped. This will help us improve our algorithm. Scan the trap as normal, you will see the extra green button to register the system malfunction. We pay special attention to these events and appreciate you help.

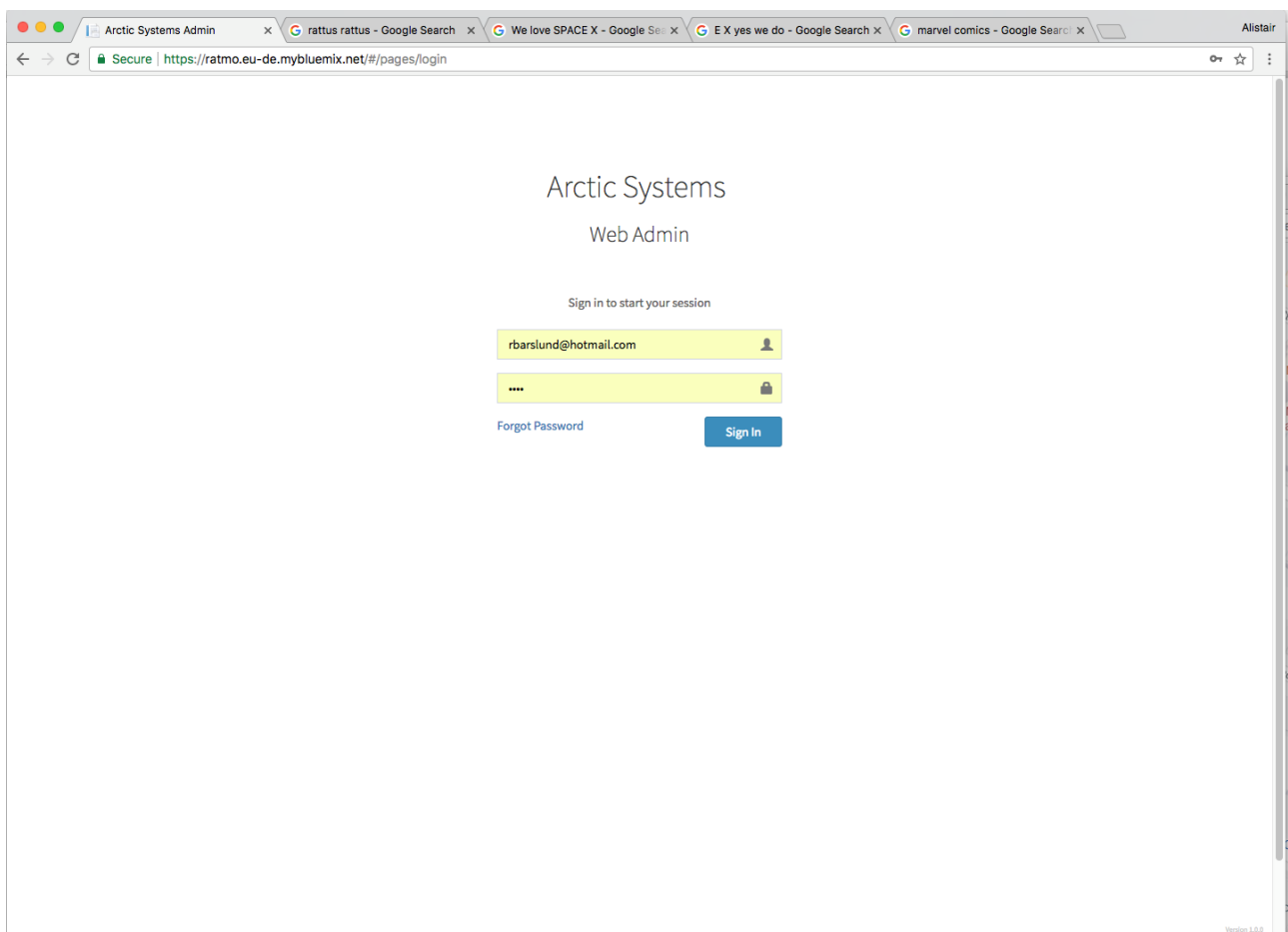
Smart City Terminal

The whole platform can be accessed through a web portal on the following address...

Option 1 - <https://ratmo.eu-de.mybluemix.net/> .

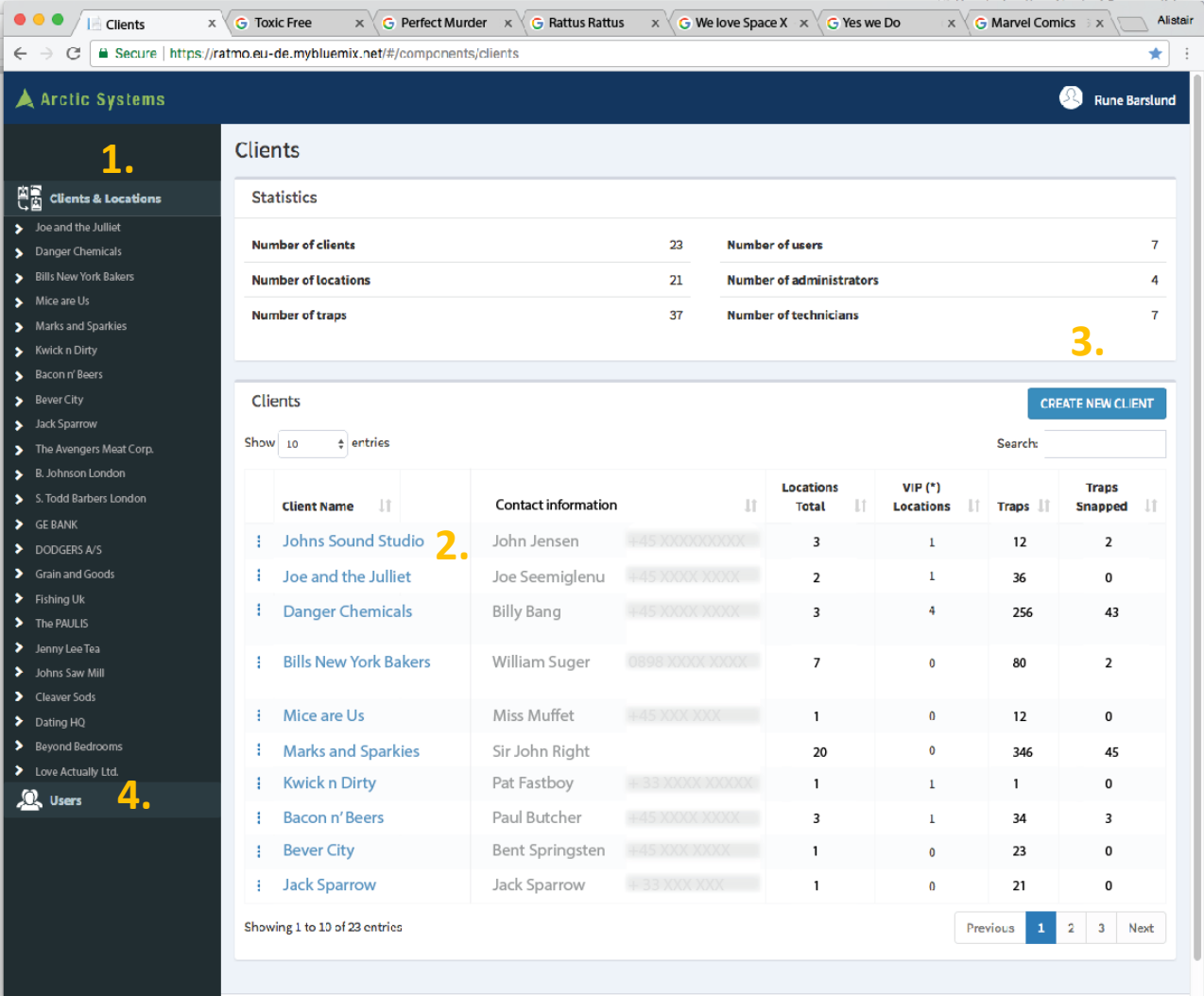
Option 2 - admin.arctic-systems.com

Type your supplied log on details into the Smart City Web Terminal and logon



TOP LEVEL CLIENT OVER VIEW

On logging in you will be able to see the clients overview with a TOP LEVEL overview of the number of LOCATIONS, VIP LOCATIONS, TRAP and SNAPPED TRAPS per Client



The screenshot shows the Arctic Systems web application interface. The top navigation bar includes the Arctic Systems logo and the user name 'Rune Barslund'. The main content area is titled 'Clients' and features a 'Statistics' section and a 'Clients' table.

Statistics:

Number of clients	23	Number of users	7
Number of locations	21	Number of administrators	4
Number of traps	37	Number of technicians	7

Clients Table:

Client Name	Contact information	Locations Total	VIP (*) Locations	Traps	Traps Snapped
Johns Sound Studio	John Jensen	3	1	12	2
Joe and the Juliet	Joe Seemiglenu	2	1	36	0
Danger Chemicals	Billy Bang	3	4	256	43
Bills New York Bakers	William Suger	7	0	80	2
Mice are Us	Miss Muffet	1	0	12	0
Marks and Sparkies	Sir John Right	20	0	346	45
Kwick n Dirty	Pat Fastboy	1	1	1	0
Bacon n' Beers	Paul Butcher	3	1	34	3
Bever City	Bent Springsten	1	0	23	0
Jack Sparrow	Jack Sparrow	1	0	21	0

The interface also includes a sidebar menu with 'Clients & Locations' and 'Users' sections, a 'CREATE NEW CLIENT' button, and a search bar.

1. Clients and Locations Menu, clicking on these clients here will bring you to the LOCATIONS LIST for that specific CLIENT.
2. The Clients and statistics, here clicking on the clients will bring you into the LOCATIONS LIST for that specific CLIENT.
3. CREATE NEW CLIENT button
4. The USERS menu, this is where new USERS (Technicians or Administrators) can be added into the system.

CREATE NEW CLIENT

By pressing CREATE NEW CLIENT on the top level overview it is possible to add a new client.

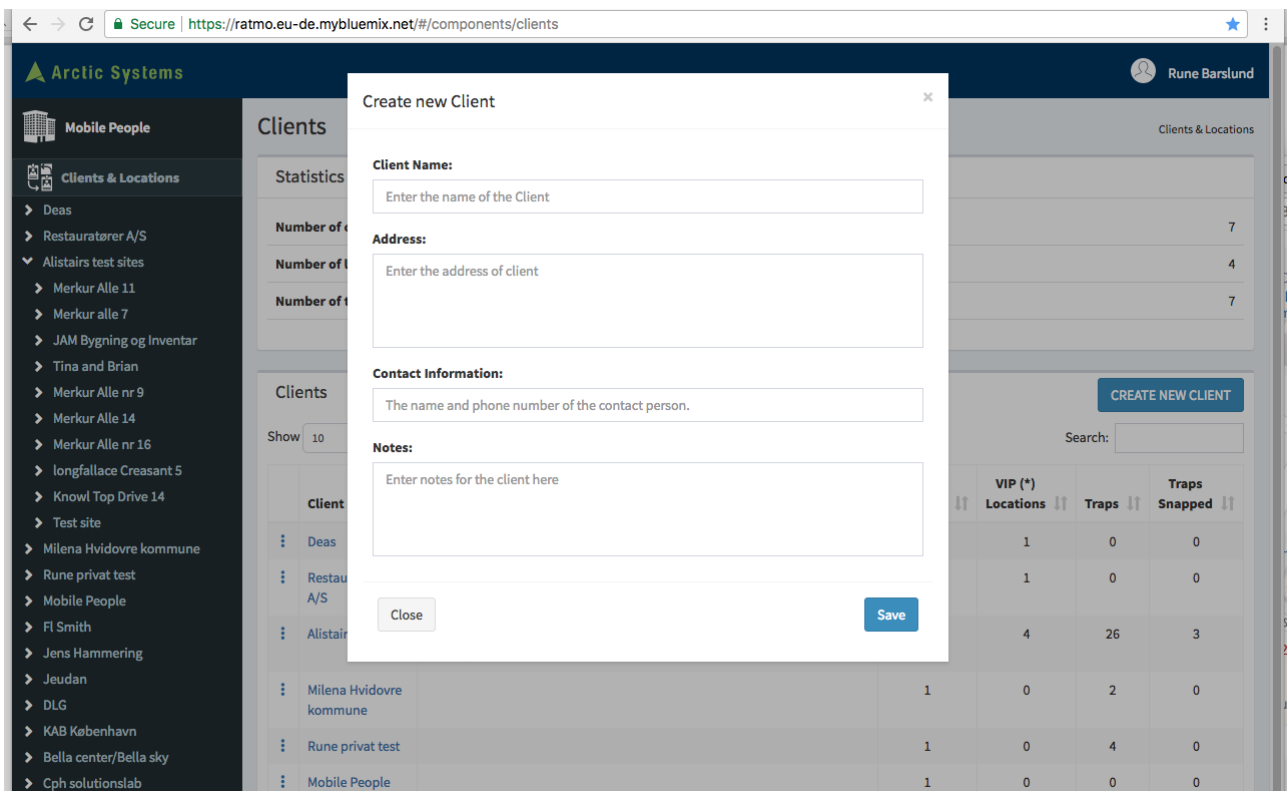
The following data should be added.

Client name – The Name of the client or company paying the invoice.

Address – The address where the invoice should be sent.

Contact information – The name and number of the client.

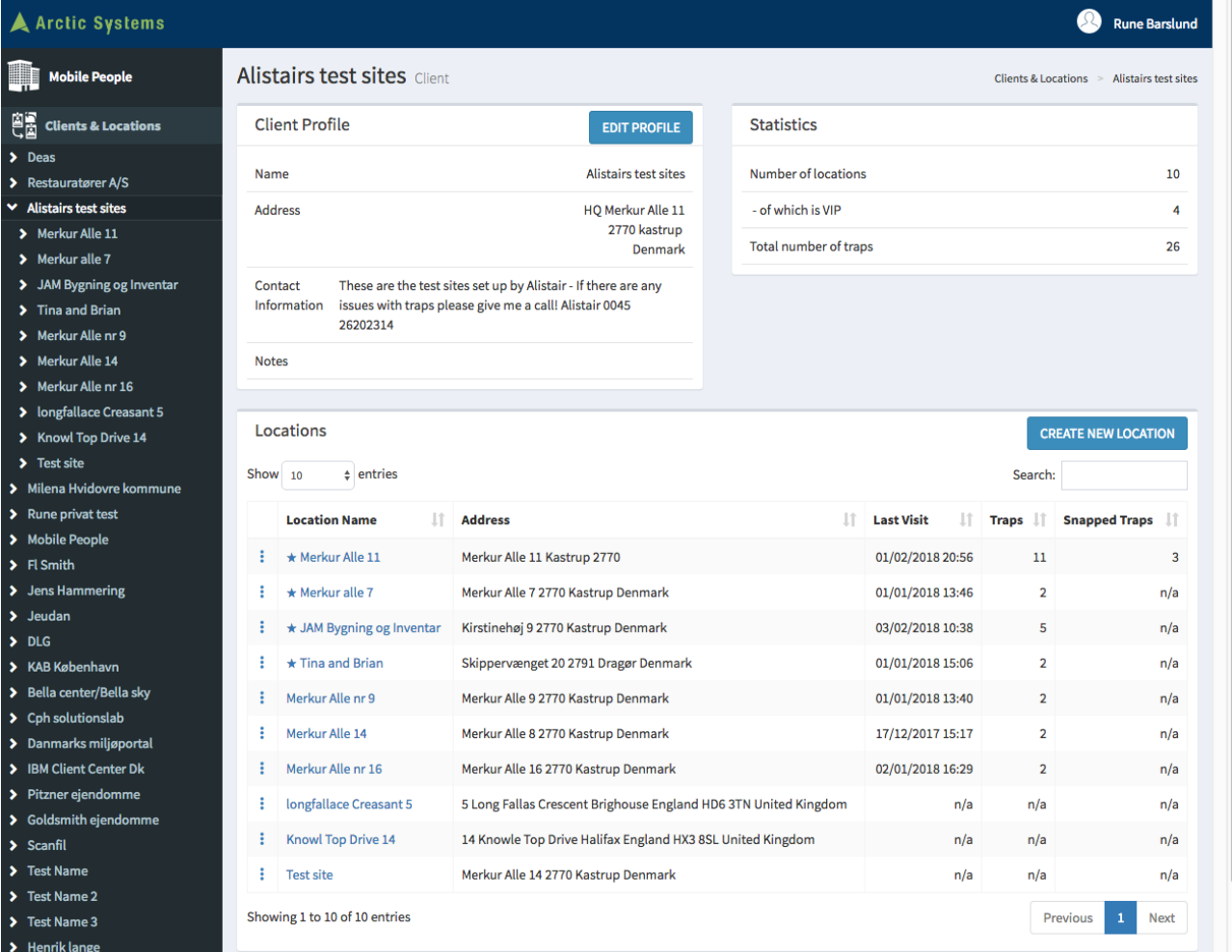
Notes – This might also contain an email for the invoice or any other client information.



Press SAVE to save the updated information, or CLOSE to exit without saving.

CLIENT LOCATIONS

Clicking on any of the CLIENTS in the left menu of the TOP LEVEL OVER VIEW, or in the list on the TOP LEVEL OVER VIEW will give a breakdown of the LOCATIONS that CLIENT has.



The screenshot displays the 'Alistairs test sites' client profile page. The left sidebar shows a navigation menu with 'Clients & Locations' expanded to 'Alistairs test sites'. The main content area is divided into three sections: Client Profile, Statistics, and Locations.

Client Profile: Includes an 'EDIT PROFILE' button, Name (Alistairs test sites), Address (HQ Merkur Alle 11, 2770 kastrup, Denmark), Contact Information (These are the test sites set up by Alistair - If there are any issues with traps please give me a call! Alistair 0045 26202314), and a Notes field.

Statistics: Shows the following data:

Number of locations	10
- of which is VIP	4
Total number of traps	26

Locations: A table listing 10 locations with columns for Location Name, Address, Last Visit, Traps, and Snapped Traps. A 'CREATE NEW LOCATION' button is visible at the top right of this section.

Location Name	Address	Last Visit	Traps	Snapped Traps
★ Merkur Alle 11	Merkur Alle 11 Kastrup 2770	01/02/2018 20:56	11	3
★ Merkur alle 7	Merkur Alle 7 2770 Kastrup Denmark	01/01/2018 13:46	2	n/a
★ JAM Bygning og Inventar	Kirstinehøj 9 2770 Kastrup Denmark	03/02/2018 10:38	5	n/a
★ Tina and Brian	Skippervænget 20 2791 Dragør Denmark	01/01/2018 15:06	2	n/a
Merkur Alle nr 9	Merkur Alle 9 2770 Kastrup Denmark	01/01/2018 13:40	2	n/a
Merkur Alle 14	Merkur Alle 8 2770 Kastrup Denmark	17/12/2017 15:17	2	n/a
Merkur Alle nr 16	Merkur Alle 16 2770 Kastrup Denmark	02/01/2018 16:29	2	n/a
longfallace Creasant 5	5 Long Fallas Crescent Brighthouse England HD6 3TN United Kingdom	n/a	n/a	n/a
Knowl Top Drive 14	14 Knowle Top Drive Halifax England HX3 8SL United Kingdom	n/a	n/a	n/a
Test site	Merkur Alle 14 2770 Kastrup Denmark	n/a	n/a	n/a

Showing 1 to 10 of 10 entries. Navigation: Previous | 1 | Next

This page also gives access to edit the client profile by pressing the EDIT PROFILE button. There is also the option to ADD a new location by pressing the CREATE NEW LOCATION button.

EDIT CLIENT

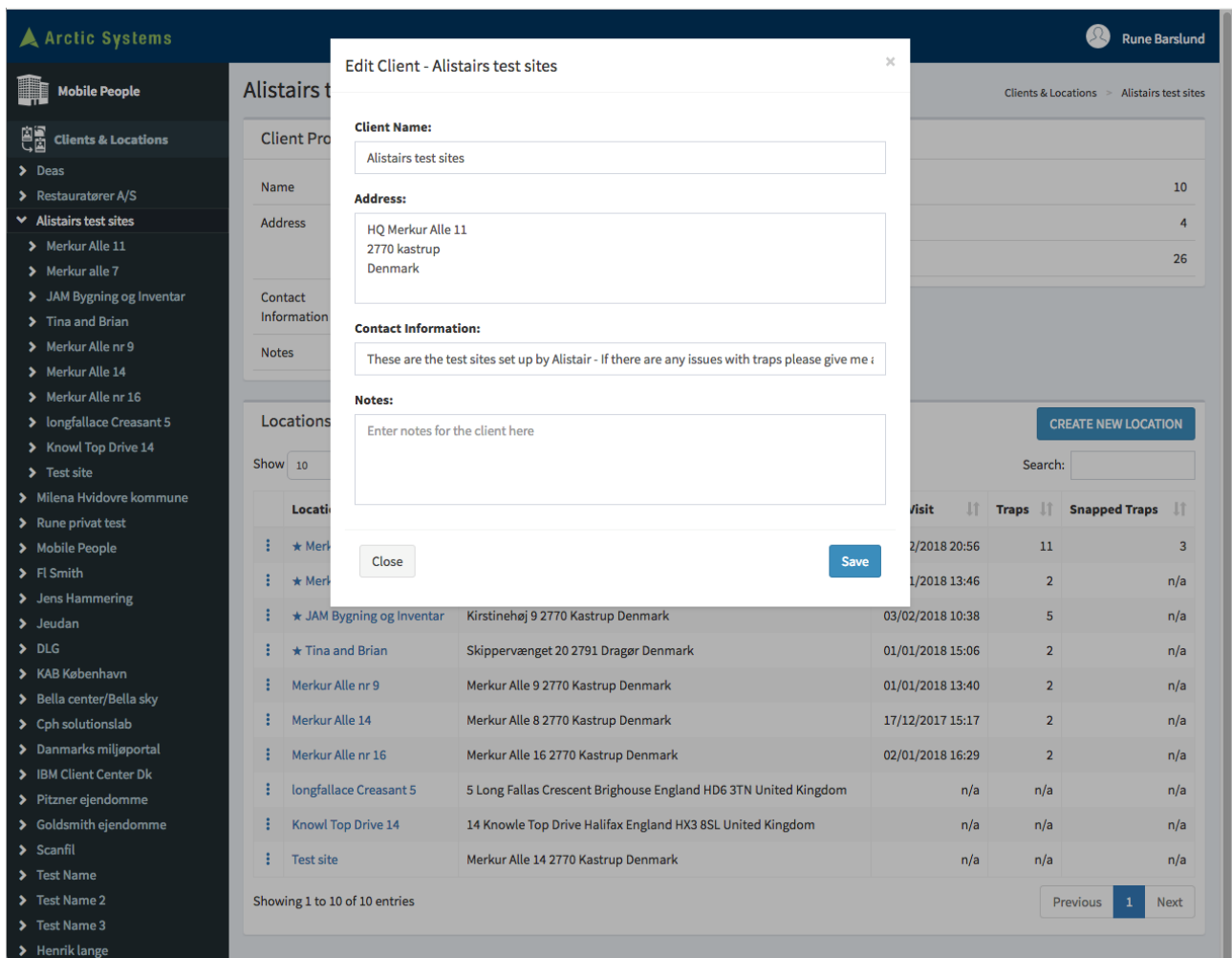
By pressing the EDIT PROFILE button from the previous page there is the option to edit the client profile.

Client name – The Name of the client or company paying the invoice.

Address – The address where the invoice should be sent.

Contact information – The name and number of the client.

Notes – This might also contain an email for the invoice or any other client information.



Press SAVE to save the updated information, or CLOSE to exit without saving.

CREATE NEW LOCATION

By pressing ADD LOCATION in the LOCATIONS OVERVIEW page it is possible to create a new location, typing the address into the address box will automatically pull up the address on Google Maps.. Note this location will automatically be added to the client in the behind window.

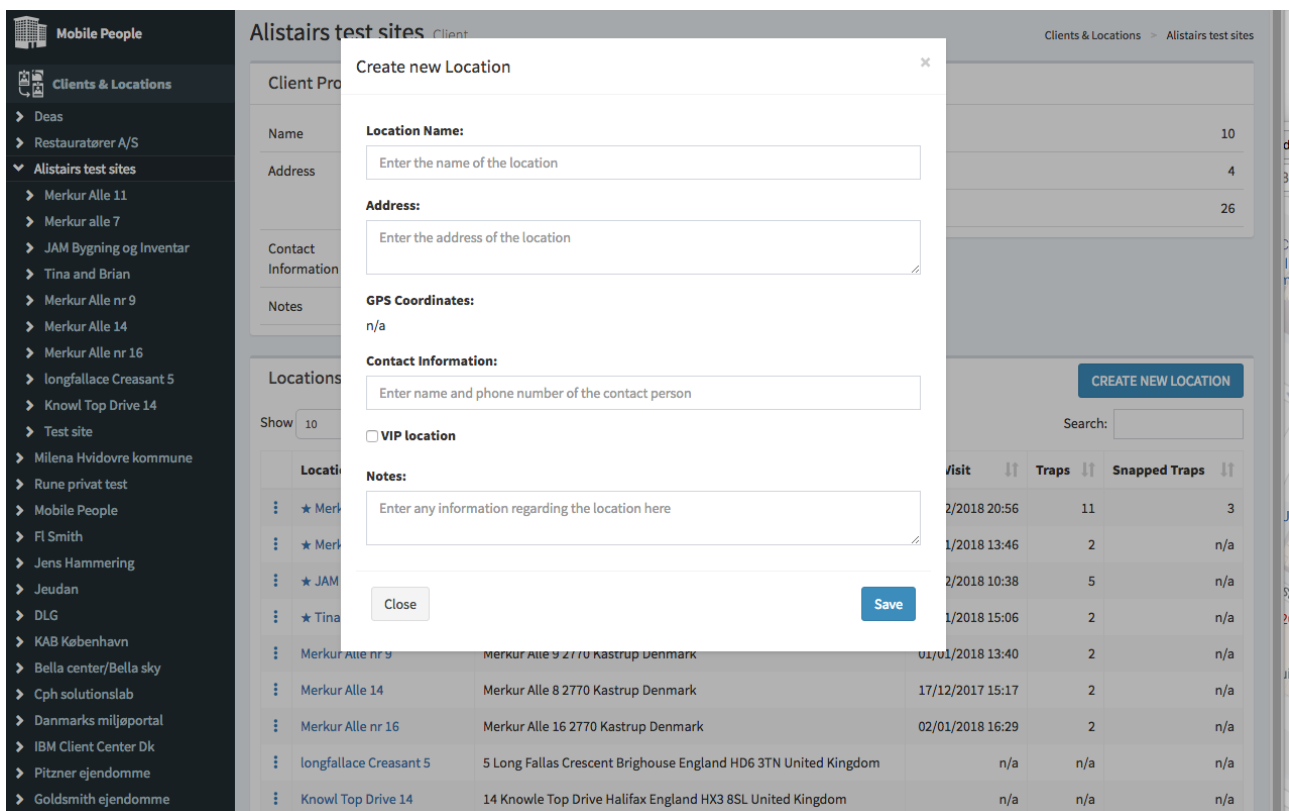
Location Name – This is the location of the client, it can be one of several locations, or if the client has only one location it could be the same as the billing address of the client.

Address – when the address is entered correctly it will automatically look up the address on google and enter it on to the customer map data base.

Contact information – This is the address of the “gate keeper”, the person we need to contact who has responsibility for grating access to the site or the person with the responsibility for rodent control

VIP – Is this a VIP location with elevated privileges.

Notes – is there anything special about this location, then it should be added here. Access times, special things to remember, special safety requirements etc.



The screenshot displays the 'Create new Location' modal form. The form fields are as follows:

- Location Name:** Enter the name of the location
- Address:** Enter the address of the location
- GPS Coordinates:** n/a
- Contact Information:** Enter name and phone number of the contact person
- VIP location**
- Notes:** Enter any information regarding the location here

Buttons: **Close** (left), **Save** (right)

The background shows the 'Locations Overview' table for client 'Alistairs test sites':

Name	Address	Visit	Traps	Snapped Traps
Merkur Alle 11			10	
Merkur alle 7			4	
JAM Bygning og Inventar				26
Tina and Brian				
Merkur Alle nr 9				
Merkur Alle 14				
Merkur Alle nr 16				
longfallace Creasant 5				
Knowl Top Drive 14				
Test site				
Milena Hvidovre kommune				
Rune privat test				
Mobile People				
Fl Smith				
Jens Hammering				
Jeudan				
DLG				
KAB København				
Bella center/Bella sky				
Cph solutionslab				
Danmarks miljøportal				
IBM Client Center Dk				
Pitzner ejendomme				
Goldsmith ejendomme				

Press **SAVE** to save the updated information, or **CLOSE** to exit without saving.

THE USERS MENU

Clicking on the USERS menu in the left menu bar gives a list over view od all the users. There is the option to create a new user or the option to click on each individual user to get an overview of the users traps and sites.

The screenshot displays the 'Users' management interface. On the left, a sidebar menu has 'Users' selected, indicated by a yellow '1.'. The main content area features a 'Users' header with a 'CREATE NEW USER' button (2) and a search bar. Below the header is a table of users with columns for Name, E-mail, Phone number, and Role. The first user, Piotr Czarny, is highlighted with a yellow '3.'. The table also includes sorting arrows for each column. At the bottom of the table, it shows 'Showing 1 to 7 of 7 entries' and navigation buttons for 'Previous', '1', and 'Next'.

Name	E-mail	Phone number	Role
Piotr Czarny	piotr@mobilepeople.com		Administrator, Technician
Test Testsen	test@mobilepeople.com		Administrator, Technician
Rune Barslund	rbarslund@hotmail.com		Administrator, Technician
Dan	dc@mobilepeople.com		Administrator, Technician
Nikolaj	nd@mobilepeople.com		Technician
Jens Hammering	jh@mobilepeople.dk		Technician
Alex	Alex.Poulsen@prevas.dk		Technician

1. USERS menu selection button in main menu, the USER data can be accessed by clicking the USERS in the list.
2. CREATE NEW USER.
3. USERS, click on the individual users to access the user data. Each user's data can also be sorted according to the different coulombs by clicking on the small arrows.

CREATE NEW USER

By clicking on CREATE NEW USER in the USER overview the CREATE NEW USER window is activated.

The following information should be added.

Full Name – The full name of the user.

E-mail – The e-mail address the user can be contacted on.

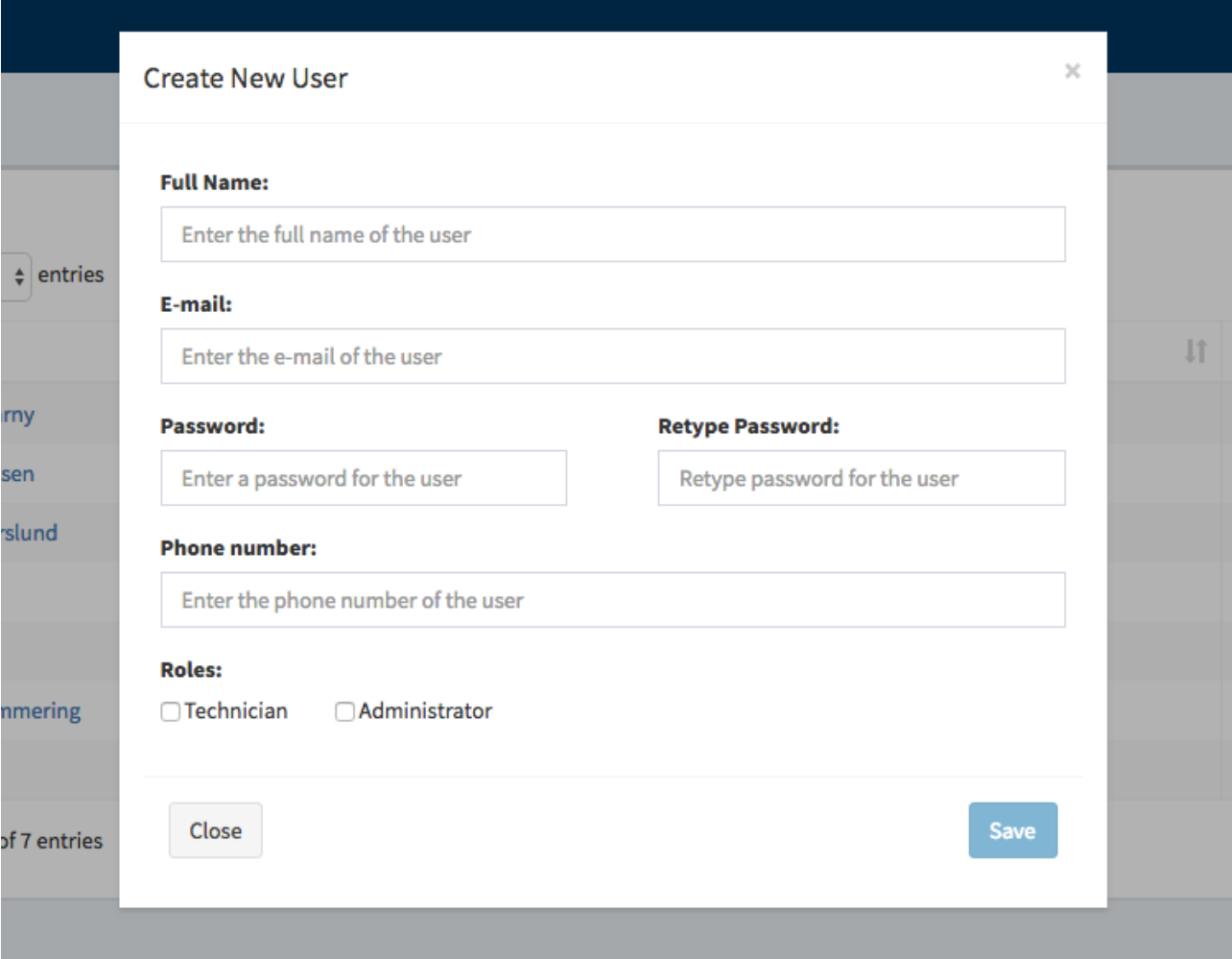
Password – This is where the password is set for the user and should be typed twice

Phone Number – The contact number to get hold of the user.

Roles:

Technician – Gives access only to the Smart City APP

Administrator – Give access to the Smart City Web Terminal and APP.



Create New User ×

Full Name:
Enter the full name of the user

E-mail:
Enter the e-mail of the user

Password: Enter a password for the user **Retype Password:** Retype password for the user

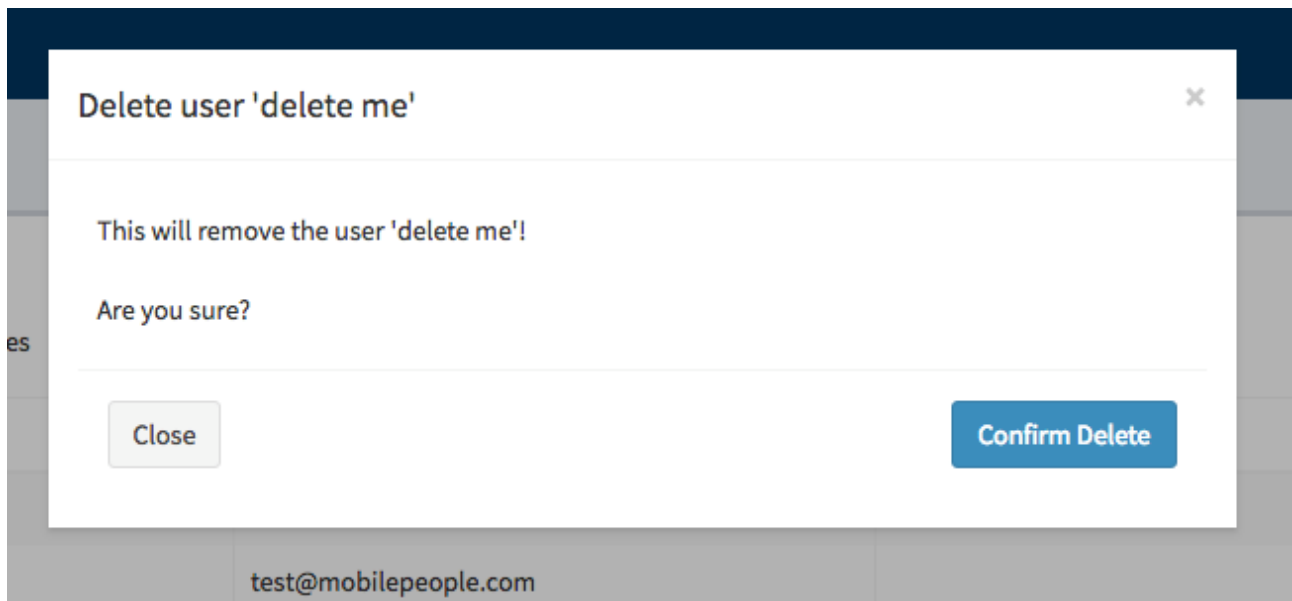
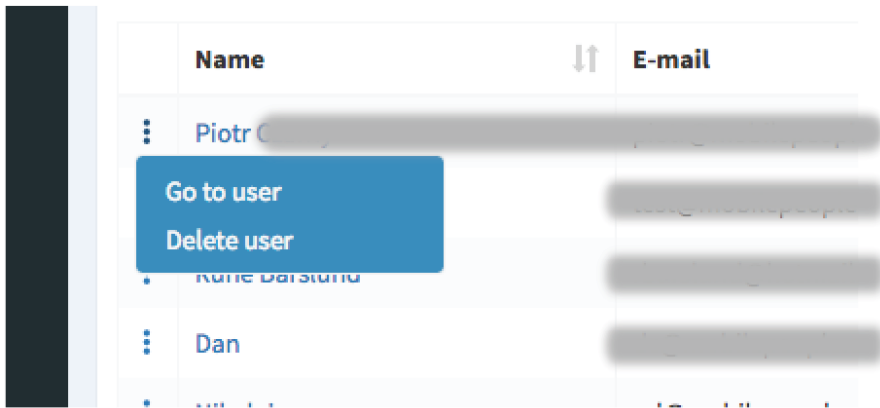
Phone number:
Enter the phone number of the user

Roles:
 Technician Administrator

Close Save

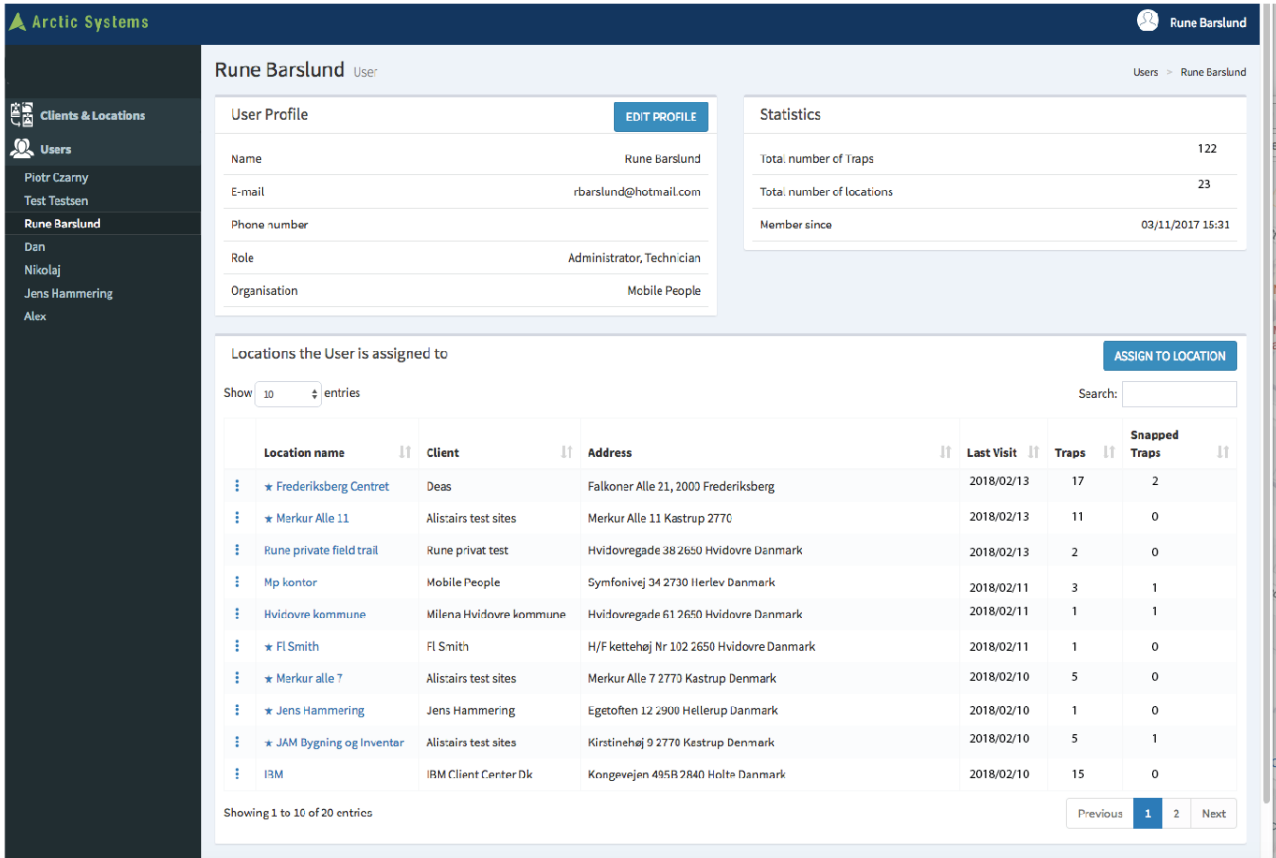
DELETING A USER

By clicking on the 3 blue dots at the left of each name in the USERS MENU it is also possible to delete or go directly to each user.



INDIVIDUAL USER OVERVIEW

By clicking on and individual user in the users menu its possible to see the locations each user has. It is also possible to edit the user profile and also to assign the user to new locations.



The screenshot displays the 'Rune Barslund User' overview page. It includes a sidebar with navigation options like 'Clients & Locations' and 'Users'. The main content area is divided into three sections: 'User Profile', 'Statistics', and 'Locations the User is assigned to'.

User Profile:

Name	Rune Barslund
E-mail	rbarslund@hotmail.com
Phone number	
Role	Administrator, Technician
Organisation	Mobile People

Statistics:

Total number of Traps	122
Total number of locations	23
Member since	03/11/2017 15:31

Locations the User is assigned to:

Location name	Client	Address	Last Visit	Traps	Snapped Traps
★ Frederiksberg Centret	Deas	Falkoner Alle 21, 2000 Frederiksberg	2018/02/13	17	2
★ Merkur Alle 11	Alisairs test sites	Merkur Alle 11 Kastrup 2770	2018/02/13	11	0
Rune private field trail	Rune privat test	Hvidovregade 38 2650 Hvidovre Danmark	2018/02/13	2	0
Mp kontor	Mobile People	Symfonivej 34 2730 Ilerslev Danmark	2018/02/11	3	1
Hvidovre kommune	Milena Hvidovre kommune	Hvidovregade 61 2650 Hvidovre Danmark	2018/02/11	1	1
★ Fl Smith	Fl Smith	H/F kettehøj Nr 102 2650 Hvidovre Danmark	2018/02/11	1	0
★ Merkur alle 7	Alisairs test sites	Merkur Alle 7 2770 Kastrup Danmark	2018/02/10	5	0
★ Jens Hammering	Jens Hammering	Egetofen 12 2900 Hellerup Danmark	2018/02/10	1	0
★ JAM Bygning og Inventar	Alisairs test sites	Kirstinehøj 9 2770 Kastrup Danmark	2018/02/10	5	1
IBM	IBM Client Center Dk	Kongevejen 495B 2840 Holte Danmark	2018/02/10	15	0

ASSIGN THE USER TO LEW LOCATIONS

By selecting the ASSIGN TO LOCATION button, it is possible to assign new locations to a user. A location can have more than one user, if more than one technician will be working a location.

By selecting the 3 blue circles it is also possible to remove a LOCATION from a USERS menu.

Top Tips for Trap Placement

Place your traps in an approved bait box, this will reduce the number of birds, cats, hedgehogs etc that get caught in the traps.

Place your trap somewhere that will not be disturbed. RATMO is sensitive to the vibrations made by the snap. It will also register if the bait box receives a hard knock or is moved violently, again a good reason to go out and inspect the traps

Look around you on site, what foods are available, are you near a butchers then the chances are its some type of meat waste the rodents are used to eating. Are you near a cinema then see if they like popcorn.

Battery life.

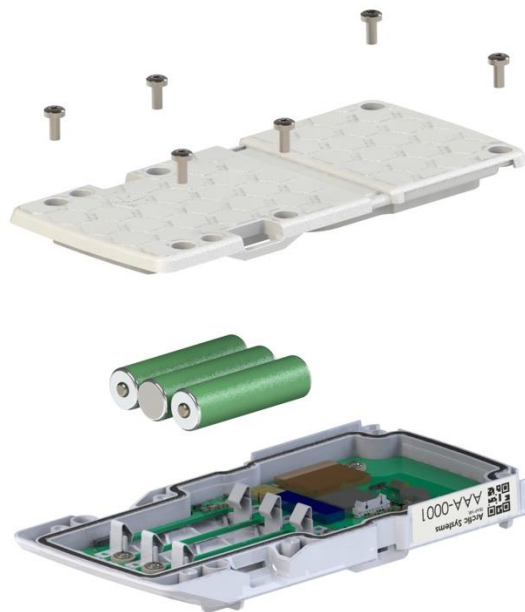
The RATMO is designed to have a battery life of 2 years. This is based on one rat every other day, at 20 Deg C.

More extreme temperatures will result in a shorter battery life. With that said, we have tested the RATMO and can see that the battery life at the extreme temperature of -20 deg C is over 1 year.

Replacing the battery.

The following procedure must be followed.

Wear gloves and a mask when working with dirty traps.



0. For traps with cable ties round the channel of the lid the trap must be removed. Eg KNESS
1. Recommended – Wash the RATMO in a weak bleach solution to remove any harmful germs.
2. Remove the 6 screws that secure the lid to the chassis.
3. Remove the battery lid, take care not to damage the seal.
4. Remove the old batteries and dispose of them in the correct manner
5. Add 3 quality AA batteries, not the polarity
6. Using a small brush add some silicone grease (approx 1g) to the o-ring.
7. Mount the lid, make sure it is mounted in the correct way
8. Fasten the 6 screws in place. Max torque 1.5 Nm

Fault Finding

Trap does not register a snap.

1. Check that the batteries have sufficient power. Low battery level will not provide enough power to contact the back end.
2. If you are testing the trap on your desk check on the App if the trap is in Live Animal Mode, in live animal mode the trap will sleep and wake up occasionally to check if the animal is still shaking the trap
3. Was there a signal at the site? On rare occasions the network may be down when the trap snaps.

RATMO registered a snap but the trap is still physically armed. (False positive)

1. Is the trap placed in a site where there can be large vibrations or where it can get knocked? The level of vibration needed to give a false positive is high and is equivalent to the bait box been knocked or tampered. Consider moving the bait box to a less exposed area. Register the snap as a false positive and we will note it in our back end.

Trap is turned off when coming to site.

1. Was the trap armed correctly, did you hear the final arming tone before leaving site. Did you check all the traps were armed before leaving the site?
2. Was the trap disarmed remotely by accident, this is possible from the app.
3. Is the trap damaged, is there moisture in the unit.

I am not catching any rats, but they are in the area.

1. Look at what the rodents are eating naturally in your area. Adjust your bait accordingly.
2. Clean traps will not attract rodents as much as used traps, do not clean your traps too often.
3. Place your traps up against a wall or in corners.
4. Rats do not like new things, consider using unarmed traps to allow them to

get used to feeding from devices before ramping up and arming.

5. Black rats are vegetarian, brown rats omnivores eating both plants and meat. Rats coming down from trees and roofs (black rats) like peanut butter. Rats coming from under the house or sewers chocolate spread/Nutella, or smelling cheese.
6. Rats like tunnels, use bait boxes or card tubes to give them somewhere nice to eat.
1. Check your smart device is online with a data connection. Some times when going from building where the phone has been on WIFI can cause your phone to loose the data connection.

I cannot see the traps update on my App.

Know Your Enemy

Whilst the RATMO is designed for large rats you might also find smaller vermin such as juvenile rats or small mice in the traps. It is therefore important to take a look at these smaller creatures to understand which foe you are dealing with.

Also knowing which animals are in the area will also allow you to choose the bait you put in the trap accordingly.

TIP using flour or talcum powder in the trap boxes will catch the foot prints of the animals that are entering the bait boxes. This also works on smooth surfaces if for example you are using this trap indoors on within and installation.

Apodemus Flavicollis The Yellow-neck mouse

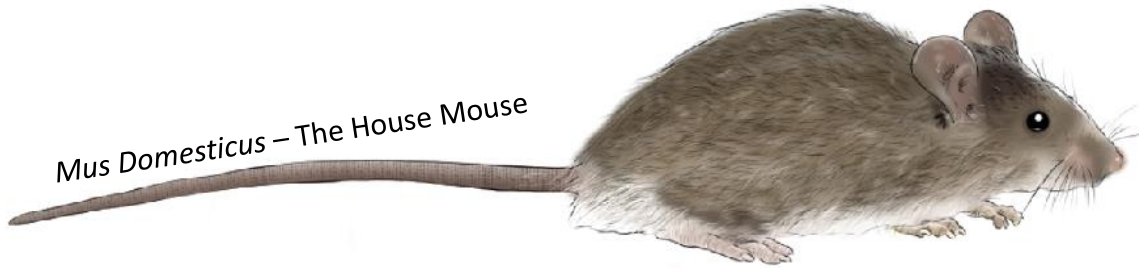


Rattus Norvegicus – The Norway Rat





Rattus Rattus The Black Rat



Mus Domesticus – The House Mouse



Norway Rat
Rattus Norvegicus
Average length 18mm with



Black Rat
Rattus Rattus
Average length 12mm with slightly pointed ends



House Mouse
Mus Domesticus
Average length 6mm with slightly pointed ends

THE NORWIGIAN RAT (*Rattus Norvegicus*)

Also known as, brown rat, common rat, sewer rat and Hanover rat. This is one of the largest rats with a body up to 25cm long (10 in) the tail can also grow to a similar length giving a total length from head to tail of 50cm (20in). The average mail weighs approx. 350g (12oz) with the female slightly smaller at 250 g (9oz).

The Norwegian rat is a good digger and often maker burrows for living in.



Note the shape of the ears and the long front teeth.



The underside can be light in colour all the way under the chin.



Short little front legs with with a thin layer of hairs and small sharp nails.



Note the shape of the mouth and the teeth.

Thought to have originated in northern China, this [rodent](#) has now spread to all continents except Antarctica, and is the dominant rat in Europe and much of North America—making it by at least this particular definition the most successful mammal on the planet alongside [humans](#).^[2] With rare exceptions, the brown rat lives wherever humans live, particularly in urban areas.



Juvenile rats can look quite similar to mice, note the white underside on this *rattus norvegicus*, and also the shape of the “long” hind legs.

THE BLACK RAT (*Rattus Rattus*)



The black rat, or roof rat as its also know is a slenderer rat than the brown rat. The tail of the black rat is also longer than that of the brown rat and is one of the best ways to tell them apart. The black rat's tail will be generally longer than its body.

Also note the slenderer body than that of the brown rat. The fur is not always a black colour can cannot be used to identify the species. The black rat is a fast and agile climber and can easily live in loft space in a building. The black rats my form social groups with a dominant male. Peak breeding occurs in summer and autumn. Females can produce up to 5 litters in a year, with the new born able to reproduce within 3 – 5 months of birth. Each litter contains 6 to 12 offspring with an average of 8.

Body Length 16-24 cm

Tail Length 18-26 cm

Total Length 34-50 cm

Weight: 100 -300g

Average weight: 225g

Dropping size av. 9mm long with slightly pointed ends

Food Fruit and seeds, stems leaves, fungi, invertebrates and vertebrates. Any type of animal food, cow, swine dog and cat food. Similar to a squirrel with nuts and fruits. Can cause damage on farms from feeding on crops.

Age 12 Months in the wild



THE HOUSE MOUSE (*Mus Musculus Domesticus*)



The western field mouse has a small pointed head and a long almost hairless tail. Although a wild animal they live mainly in urban areas with humans. They vary in colour from light to dark brown. They tend to have short hair and can in some cases have a light belly. Their hind feet are short compared to the field mouse. They are good jumpers.

Body Length	7-10 cm
Tail Length	1-10 cm
Total Length	8-20 cm
Weight:	40 - 45g
Dropping size av.	6 mm long with slightly pointed ends
Food	
Age	

THE FIELD MOUSE (*Apodemus Flavicollis*)



The yellow necked field mouse is slightly larger than the house mouse and is capable of climbing trees. Whilst it looks cute, it can harbour several diseases that can be fatal to humans. Breeding does not occur during winter where a group of mice may huddle together to keep warm. They may burrow and make extensive tunnel systems.

Body Length	9-13 cm
Tail Length	9-13 cm
Total Length	18-26 cm
Weight:	28 - 43g
Dropping size av.	6 mm long with slightly pointed ends
Food	Fruit and nuts, seeds, and sometimes small invertebrates.
Age	12 Months

Appendix

Approved Traps



Bell laboratories T-Rex



Kness Big Snap-E

Approved Bait Boxes

Bell EVO Express



CLEANING

Lightly spray the RATMOs with a weak bleach solution. Bleach is a strong and effective disinfectant and is effective at killing bacteria and viruses.

As bleach irritates mucous membranes, the skin and the airway, decomposes under heat or light and reacts readily with other chemicals, caution should be exercised in the use of it. Improper use of bleach may reduce its effectiveness in disinfection and also lead to accidents which can be harmful to health. Overuse of bleach or using a bleach solution that is too concentrated results in the production of toxic substances that pollute the environment and disturb ecological balance.

Protective gear required:

Mask, rubber gloves, plastic apron and goggles (recommended).

PROCEDURES

Ensure good ventilation in the working area

Use protective gear, avoid contact with skin.

Use cold water as warm water causes the Bleach to break down and become ineffective

Bleach containing 5.25% sodium hypochlorite should be diluted as follows -
1:49 diluted household bleach (mixing 10ml of bleach with 0.5litre of water)

Spray the RATMO devices water and wipe dry.

Cleaning tools should be soaked in diluted bleach for 30 minutes and then rinsed thoroughly before reuse.

Finally, wash hands with liquid soap, then dry hands with a clean towel or disposable towel.

PRECAUTIONS

Avoid using bleach on metals, wool, nylon, silk, dyed fabric and painted surfaces.

Avoid touching the eyes. If bleach gets into the eyes, immediately rinse with water for at least 15 minutes and consult a doctor.

Bleach should not be used together or mixed with other household detergents as this reduces its effectiveness in disinfection and causes chemical reactions. For instance, a toxic gas is produced when bleach is mixed with acidic detergents such as those used for toilet cleaning. This could result in accidents and injuries. If necessary, use detergents first and rinse thoroughly with water before using bleach for disinfection.

As undiluted bleach liberates a toxic gas when exposed to sunlight, it should be stored in a cool and shaded place out of reach of children.

Sodium hypochlorite decomposes with time do not use old bleach.

For effective disinfection, diluted bleach should be used within 24 hours after preparation as decomposition increases with time if left unused.