



Ai.Connect™ User Documentation

Ai.Connect™ User Guide

| | | | |
|--------------------|-----|---------------------|------------|
| Version No. | 1.0 | Version Date | 24.07.2019 |
|--------------------|-----|---------------------|------------|

Contents

| | | |
|--------------|---|-----------|
| 1 | Ai.Connect™ User Guide..... | 4 |
| 1.1 | Product Overview..... | 4 |
| 1.1.1 | Product Care..... | 4 |
| 1.1.2 | Easy Viewing and Accessibility..... | 5 |
| 1.1.3 | Device Connectivity..... | 7 |
| 1.1.3.1 | Network Communication..... | 7 |
| 1.2 | Getting Ai.Connect™ ready for your first use | 8 |
| 1.3 | Using your Ai.Connect™ | 19 |
| 1.3.1 | Internet Connectivity and Network Settings..... | 19 |
| 1.3.1.1 | Connecting to the internet via an Ethernet (LAN) | 20 |
| 1.3.1.2 | Disable your WiFi network adapter | 21 |
| 1.3.1.3 | Network Security – Firewalls, Proxy, Network Keys, MAC and Captive Portals | 22 |
| 1.3.2 | Power Off, Shut Down and Reboot Ai.Connect™..... | 24 |
| 1.3.3 | Login to Ai.Connect using your existing Ai.Study User Credentials..... | 26 |
| 1.3.3.1 | Login to Ai.Connect from a displayed list of Users | 26 |
| 1.3.3.2 | Login to Ai.Connect for the first time or when a user is not displayed in the list..... | 27 |
| 1.3.3.3 | Log out from Ai.Connect | 30 |
| 1.3.3.4 | Clear Saved Account (User) list | 30 |
| 1.3.4 | Ai.Connect for Digitail tagged Animals | 32 |
| 1.3.4.1 | Getting to know your Ai.Read™ | 32 |
| 1.3.4.2 | Connecting the Ai.Read Device to Ai.Connect | 33 |
| 1.3.5 | Associating a Digitail tagged animal to an animal record..... | 35 |
| 1.3.5.1 | Associating an additional Digitail™ to an animal record..... | 40 |
| 1.3.6 | View Animal Details (Animal record) and recording the death of an animal | 41 |
| 1.3.6.1 | Record animal death | 42 |
| 1.3.6.2 | View Contact Details of a Study | 47 |
| 1.3.7 | Search for an animal record on Ai.Connect | 48 |
| 1.3.7.1 | Animals tagged with Digitail™ | 48 |
| 1.3.7.2 | Find animal..... | 50 |
| 1.3.8 | Capture and Record an Observation for an animal | 54 |
| 1.3.8.1 | Using Scan to record an observation for a Digitail™ tagged animal..... | 54 |
| 1.3.8.2 | Find an animal using its Visual ID, Unique ID or Cage ID to record an observation | 56 |
| 1.3.8.3 | Perform a Test using the Weigh Observation | 58 |
| 1.3.8.4 | Perform a Test using the Measure..... | 64 |



| | | |
|-------|--|----|
| 1.3.9 | View Details of Connected Devices..... | 67 |
| 1.4 | Troubleshooting Ai.Connect™..... | 71 |

1 Ai.Connect™ User Guide

1.1 Product Overview

Ai.Connect is a device which enables pre-clinical data collection to be automated by establishing a digital link between research animals and the equipment in the lab.

Attach approved lab equipment which includes the Somark Ai.Read™ reader, Mettler Toledo weigh scales and digital callipers to the Ai.Connect to capture and associate your test results directly to your animal records in the Ai.Study application. You may attach multiple devices concurrently and the use of a USB Hub to extend the number of devices which may be connected.

Symbols

Attention Symbols for Notes, Caution and Reference have been marked out for the device safety and convenience in setup and use. This guide uses the following symbols and conventions:

Important

The **Important** symbol indicates prerequisite checks and important information.

Note

The **Note** symbol indicates supplementary explanations and useful tips.

Caution

The **Caution** symbol indicates critical notices and restrictions.

1.1.1 Product Care

The Ai.Connect may be cleaned and sterilized when necessary using the following tested methods:

- Vaporised Hydrogen Peroxide (VHP) plasma process (*Tested at 72cpm at 35°C-40°C Operating Temperature range*)
- Hydrogen Peroxide Fogging
- Common disinfectants (spray or wipe) approved for use in your lab animal facility with active ingredients such as alcohol, bleach, or hydrogen peroxide. **Never immerse electronics in a liquid bath.**

Caution

- Ai.Connect cannot be sterilized using Autoclave or Ethylene Oxide. Using these sterilization methods may damage the device.
- Never immerse electronics in a liquid bath. Only use approved disinfectants to spray or wipe the devices.

1.1.2 Easy Viewing and Accessibility

The Ai.Connect has been designed considering the environmental conditions in a lab and animal facility.

1. Use the Hand Slot to lift and tilt the screen to adjust it to your preferred viewing angle and height.
2. The Display Screen is an Anti-Glare Touch Screen specially designed to respond to finger touch for hands with or without lab gloves. The screen also responds to wet hands and gloves wet by alcohol or water products from animal and equipment handling. The screen is also compatible for use with rubber tip stylus.
3. The Front Green LED and Rear Red LED status indicators display the power status of the Ai.Connect.

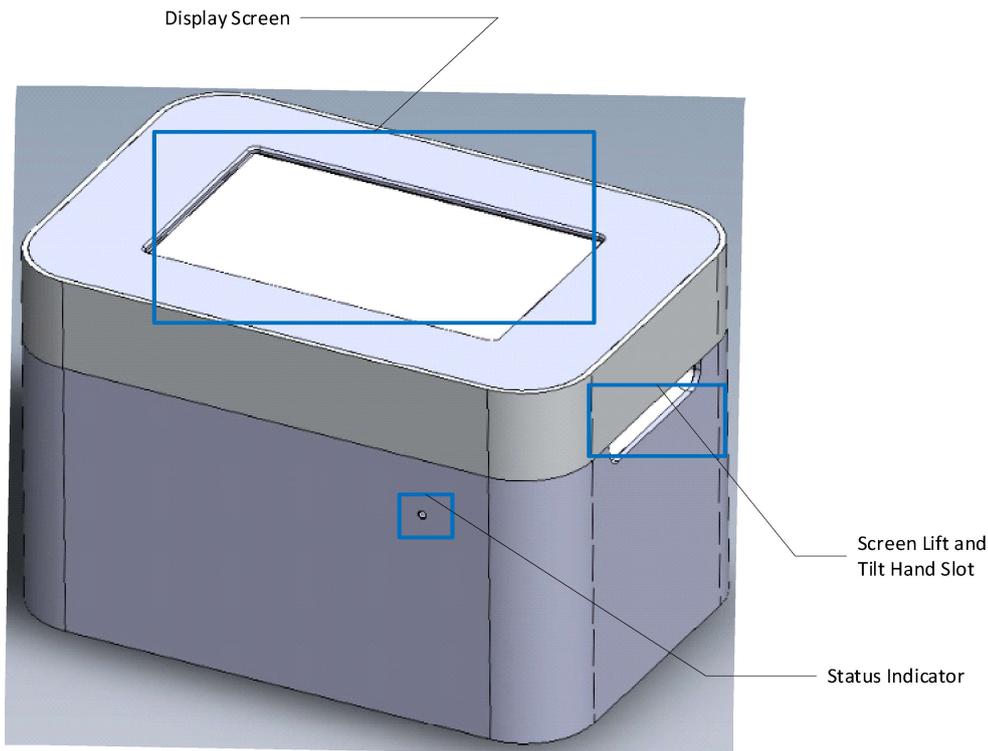


Figure: Ai.Connect overview

Back of Ai.Connect™

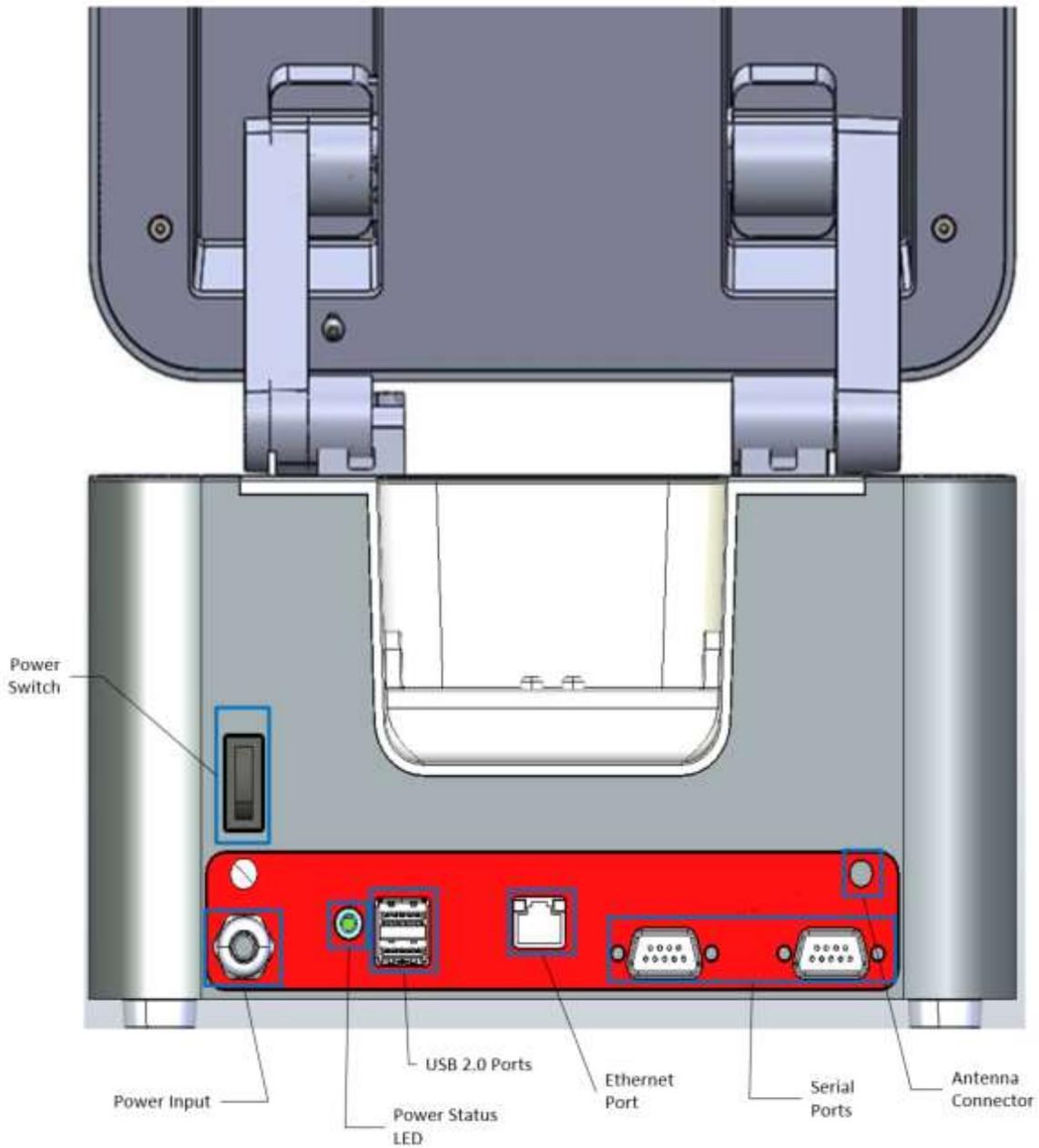


Figure: Ai.Connect overview - Rear view

1.1.3 Device Connectivity

Ai.Connect supports the connection methods of USB (Universal Serial Bus), Bluetooth and RS232 (serial port) to connect to approved 3rd party lab equipment.

1.1.3.1 Network Communication

The Ai.Connect requires access to the internet which may be through the connection of a Wi-Fi network or by an Ethernet cable.

- The Ai.Connect provides for an Ethernet Port for network connectivity via Ethernet.
- The Ai.Connect is shipped with an antenna which should be connected to the antenna connector for improved Wi-Fi range and connectivity.

1.2 Getting Ai.Connect™ ready for your first use

To begin using your Ai.Connect the first time, you will need to complete a few steps.

Step 1: Assemble the Ai.Connect following the provided Assembly guide.

The rear red LED will illuminate when the Ai.Connect is connected to a power outlet and is ready to be switched on.

Note

Devices such as the Ai.Read, Weighing Scale or Digital Calliper may be connected at any time to the Ai.Connect - both when operational or when powered down.

Step 2: Start-up the Ai.Connect by pressing the 'Power Switch' located behind the Ai.Connect on the **On** position.

The front Green LED will illuminate and blink when the Ai.Connect is operational.

Step 3: Interacting with your Ai.Connect

- Your Ai.Connect may be interacted with using its Touch Screen or through the use of a connected input device.

| | |
|------------------------------------|---|
| Touch and Tap on Screen | The Ai.Connect will respond to your touch on the screen similar to a touch on a tablet or smart phone device or as a mouse click on a personal computer or tablet. |
| On Screen Virtual Keyboard | To input text in fields the Ai.Connect will display an On-screen Virtual Keyboard which can be interacted with by touch. |
| Swipe on Lists | In instances where a list or table is displayed, swipe up or down on the list to view more records. |
| Attached Keyboard and Mouse | The Ai.Connect may be used using a keyboard or mouse by attaching the devices to the Ai.Connect via its USB ports. The Ai.Connect supports USB hubs to attach multiple USB devices where necessary. |

- Home Screen and Navigation

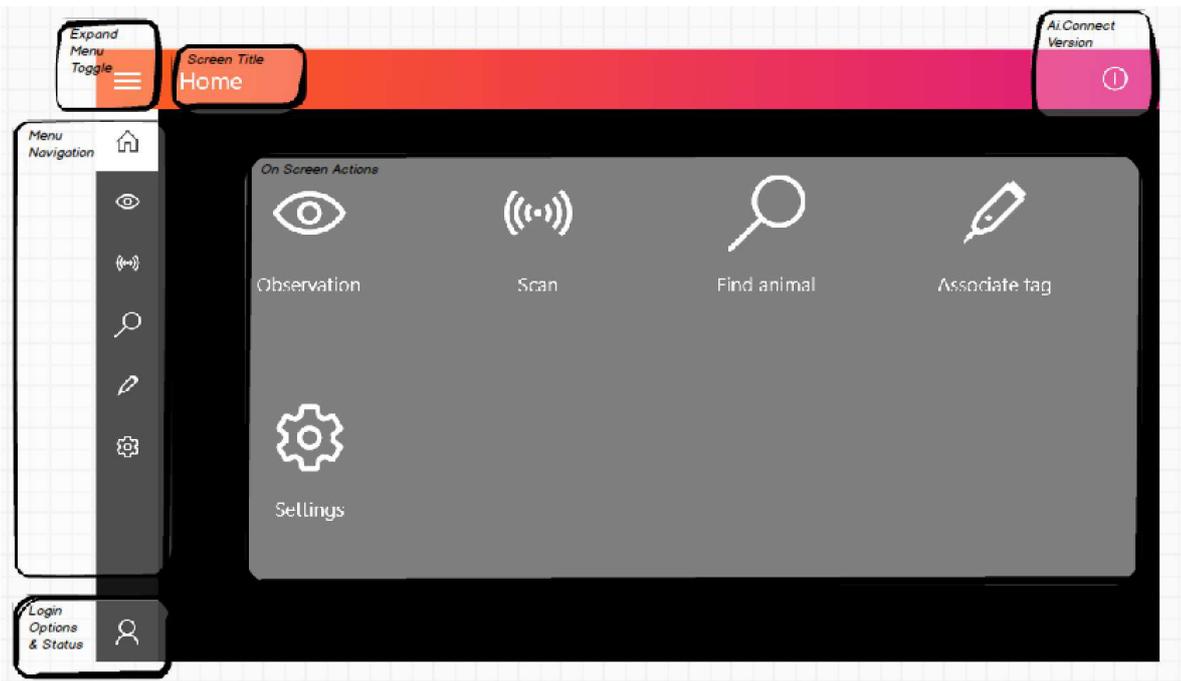


Figure: Ai.Connect - User interface overview

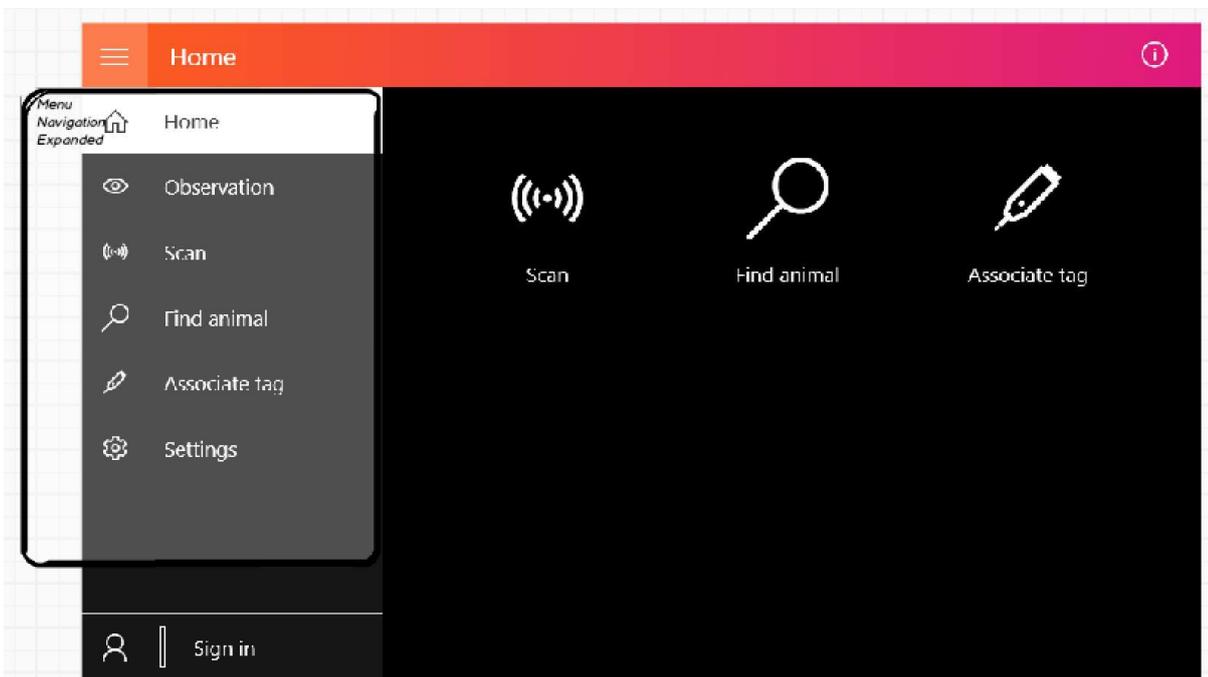


Figure: Ai.Connect User interface overview - Expanded menu

| Home Screen & Navigation Menu Options | |
|--|---|
|  Observation | Capture an observation or test result using a device connected to the Ai.Connect such as animal weight or tumour size. <i>Requires the relevant device to be connected to the Ai.Connect</i> |
|  Scan | Scan an RFID tagged animal to identify the animal, view its details and record the death of an animal from Ai.Study. <i>Requires a connected Ai.Read to be connected to the Ai.Connect</i> |
|  Find animal | Locate an animal record from Ai.Study by providing its ID or Cage Name. |
|  Associate tag | Associate a Digitail tagged animal to its animal Record in Ai.Study. |
|  Settings | Access to settings such as WIFI, Blacklist Tag and Device Details. |
|  | Go to the Home Screen of Ai.Connect. |
|  | Toggle the left navigation bar to display an expanded view with menu names or contracted view of icons. |

Table: Home screen and navigation menu options

| Common Actions Buttons | |
|---|--|
|  | View Animal record to view the details of the Animal. <i>Displays information captured in the Animal record from Ai.Study</i> |
|  | Advance to Next Screen or Next Step. |
|  | Go Back to Previous Screen or Previous Step. |

Table: Common actions (Buttons)

- **User Access Rights – Accessing features in Ai.Connect**

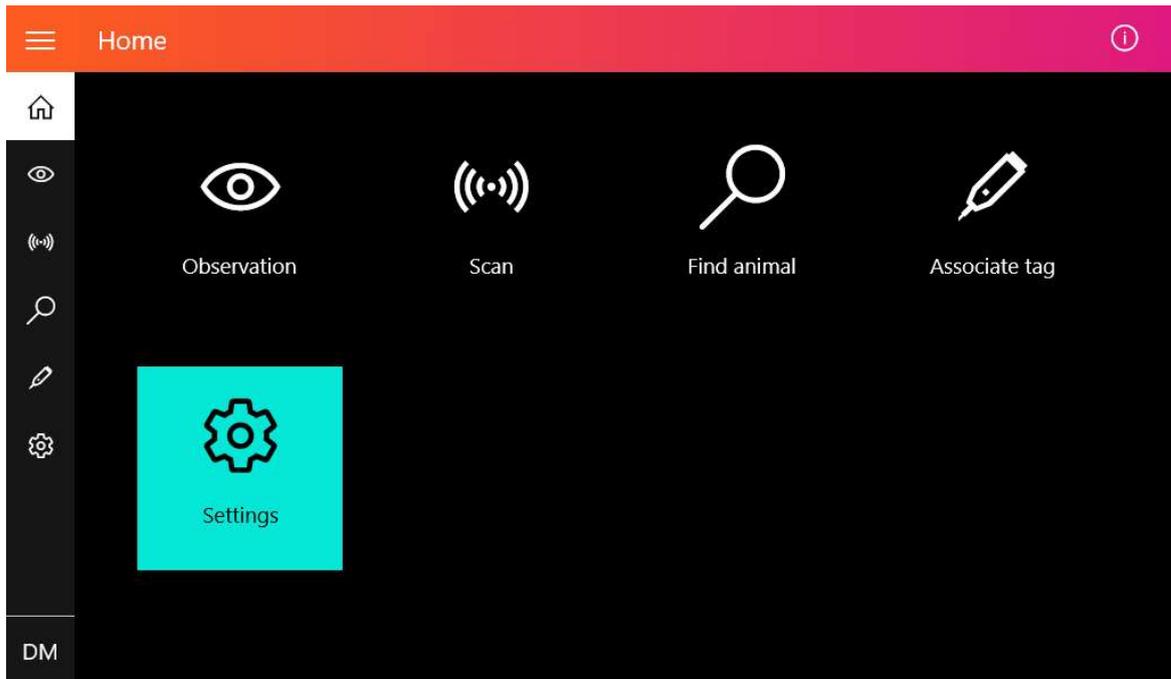
Access to each feature in Ai.Connect is based on the role defined in Ai.Study.

The below security model indicates what each user may access or be limited to based on their System Role and Study Role.

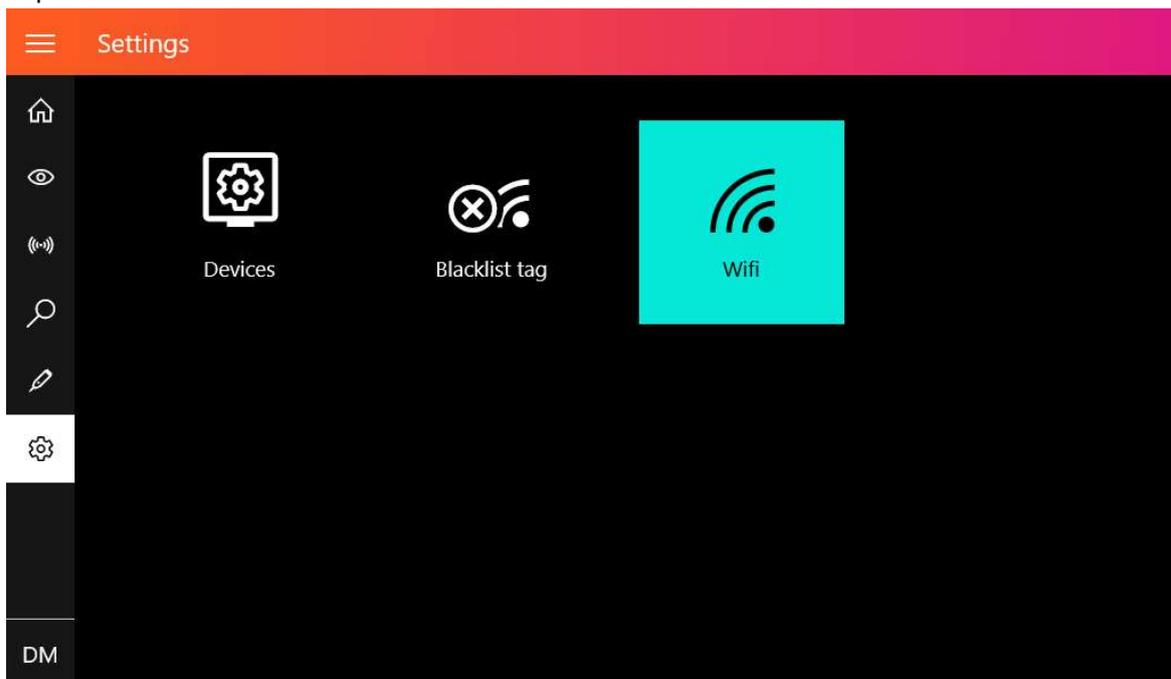
| AI.CONNECT™ USER ACCESS & PERMISSIONS | | GENERAL USER | VIEWER | PROTOCOL OWNER | RESEARCHER | ANIMAL TECHNICIAN |
|---|-----------------------------|--|---|---|--|--|
| (Version 1.4) (Update:23.07.19) | | Users who have been added to Ai.Study but are not included in a study. | Users who need access to animal records in a specific study but are not authorized to edit records. | Users who have been assigned ownership of one or more Protocols in Ai.Study | Users who are responsible to capture observations of animals and update animal records for a specific study. | Users who require access to capture observations and edit animal records for any animal within the facility without being included in a study. |
| ASSIGNED ROLE(S) | | Assigned in System: User/Administrator | Assigned in Study: Results Viewer Assigned in System: Ethics Committee Member | Assigned in Study: None / Principle Investigator / Study Creator Assigned in Protocol: Protocol Owner | Assigned in Study: Principle Investigator/ Study Creator/ Results Creator | Assigned in System: Animal Husbandry Technician |
| | LOGIN | ✓ | ✓ | ✓ | ✓ | ✓ |
| | SCAN ANIMAL TO VIEW DETAILS | ✓ | ✓ | ✓ All animals assigned to the Protocols under the Protocol Owner | ✓ | ✓ |
| | RECORD DEATH | ✗ | ✗ | ✓ RESTRICTED Record Death for Animals within the Study for which the User is a Principle Investigator/Study Creator | ✓ RESTRICTED Record Death for Animals within the Study for which the User is a Results Creator | ✓ All Animals |
| | FIND ANIMAL BY CAGE OR ID | ✗ | ✓ RESTRICTED Animals enrolled to the Study for which the User is a Results Viewer | ✓ All animals assigned to the Protocols under the Protocol Owner | ✓ RESTRICTED Animals enrolled to the Study for which the User is a Results Viewer | ✓ All Animals, Cages, Ids |
| | CAPTURE OBSERVATIONS | ✗ | ✗ | ✗ | ✗ | ✓ All Animal Observations: 1. Animals in Study: Limited to Test methods specified in the Study to which animals are enrolled 2. Animals not enrolled in study: All observation types as per the global test library. |
| | ASSOCIATE TAG | ✗ | ✗ | ✓ All animals assigned to the Protocols under the Protocol Owner | ✓ RESTRICTED Animals enrolled to the Study for which the User is a Results Creator | ✓ All Animals |
| | SETTINGS - WIFI & DEVICES | ✓ | ✓ | ✓ | ✓ | ✓ |
| | SETTINGS - BLACKLIST TAG | ✓ RESTRICTED Non-Associated Tags | ✓ RESTRICTED Non-Associated Tags | ✓ RESTRICTED Non-Associated Tags & Associated Tags to Animals associated to the Protocol which the User is the Protocol Owner | ✓ RESTRICTED Non-Associated Tags & Associated Tags to Animals within the Study for which the User is a Results Creator | ✓ Non-Associated Tags & Any Tagged Animal |

Step 4: Setup the Network Connection for Internet Access

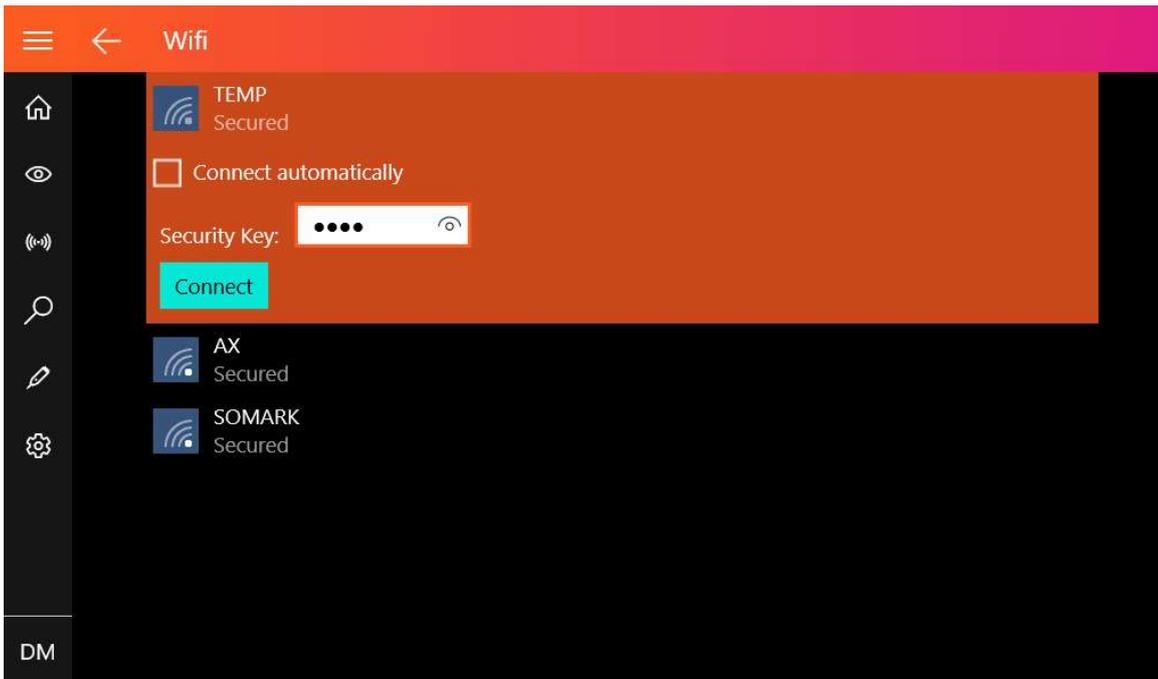
- Connect the Wi-Fi antenna to the back of the Ai.Connect.
The antenna is designed to screw on to the back of the Ai.Connect using the built in antenna connector point.
- If you choose to use an Ethernet Connection, in most cases the plugging of the Ethernet cable into the Ai.Connect Ethernet Port will provide you connectivity.
- Tap on the **Settings** icon in the Navigation menu or on the Home screen



- Tap the **Wifi** icon for Ai.Connect to scan for available wireless networks.



- Tap on your preferred Wi-Fi network (Network SSID) from the list of available networks.
- Tap **Connect**
- If prompted for a Password or Network Key (SSID Authentication Key), enter the Password or Network Key provided to you by your Network Administrator to authorize your connection to the network.



Step 5: Login to Ai.Connect using your existing Ai.Study User Credentials.

- Tap on the **User Icon** in the Navigation Menu.

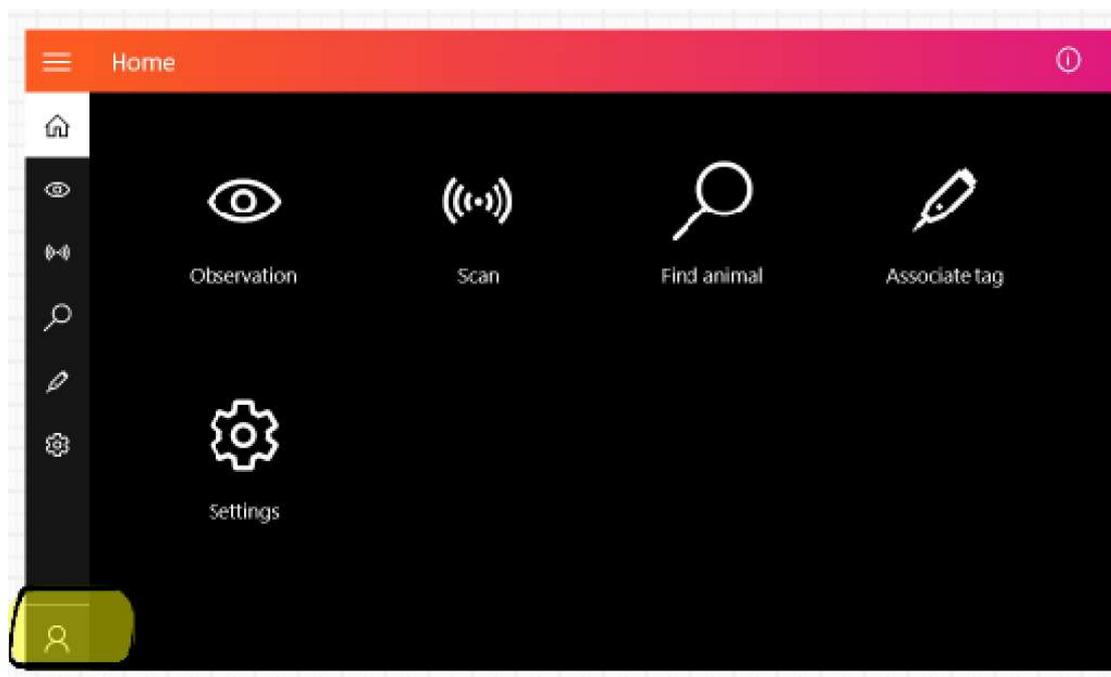


Figure: Ai.Connect Login button

- Tap **New Account** from the displayed User List.
A list of Users will be populated and visible if other users have previously used the Ai.Connect

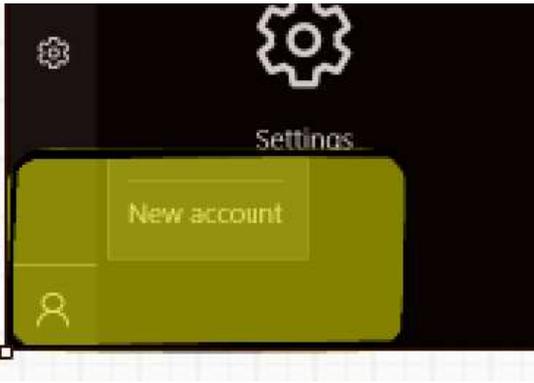


Figure: Ai.Connect Login Add New Account

- If prompted to Choose an account, Tap **Work or school account**.
A list of Users will be populated and visible if other users have previously used the Ai.Connect

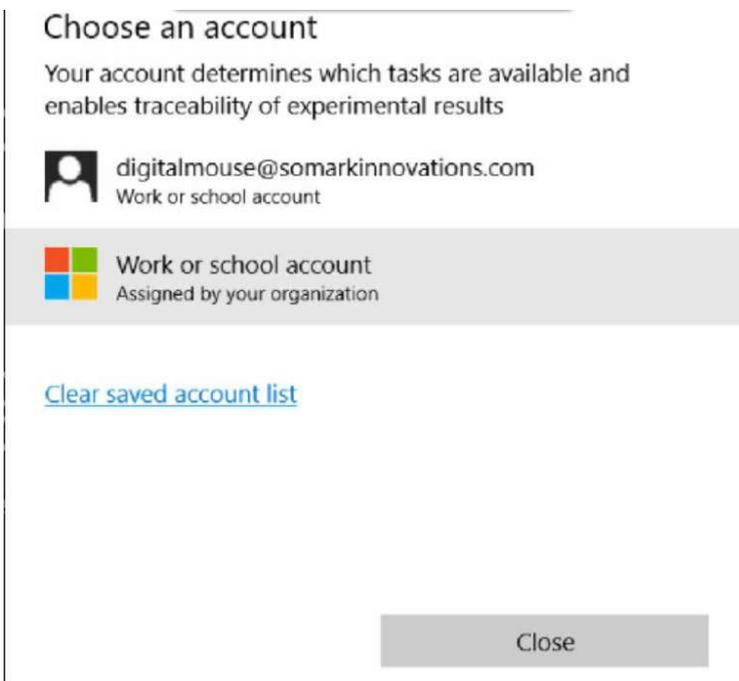


Figure: Ai.Connect Login User Type

- Enter your **User Email Address** and Tap the **Next** button.

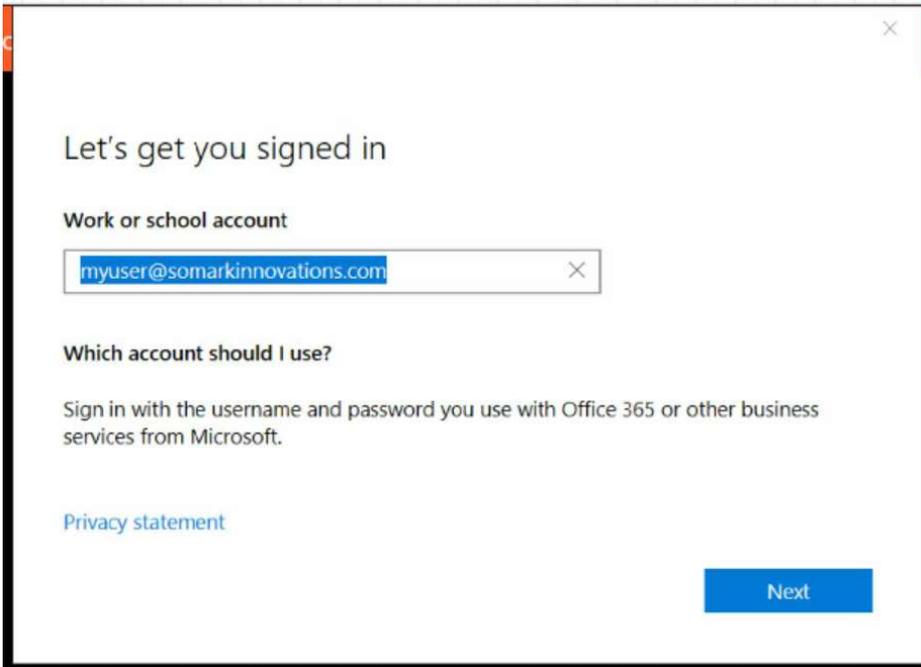


Figure: Ai.Connect Login User Email Address

- Enter your **Password** and Tap the **Sign in** button.

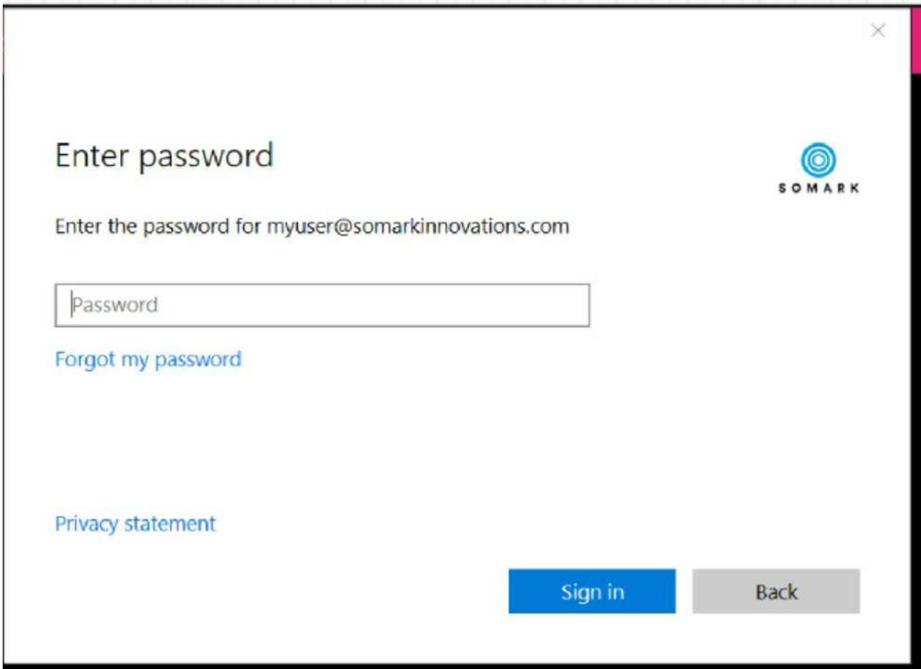
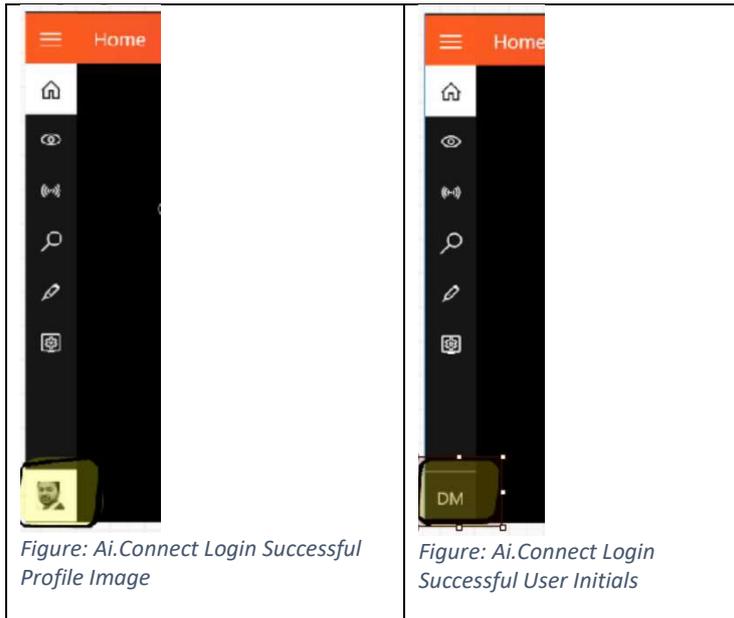


Figure: Ai.Connect Login User Password

- On successful authentication the **User Navigation Menu** button will be updated with a **Profile Image** or **User Name Initials**.
Profile images are displayed from your Office 365 Account Profile and may be changed via your Office 365 Account.

| | |
|------------------------------|-----------------------------------|
| Profile Image Display | User Name Initials Display |
|------------------------------|-----------------------------------|



- **To Logout** tap your **Profile Image** or **User Name Initials** and tap **Logout**.
- **To Login** with your user which was setup earlier, tap the **User Icon** in the Navigation Menu and tap on your **User Name** (email address) from the displayed list. You will be prompted to enter your password each time you login.

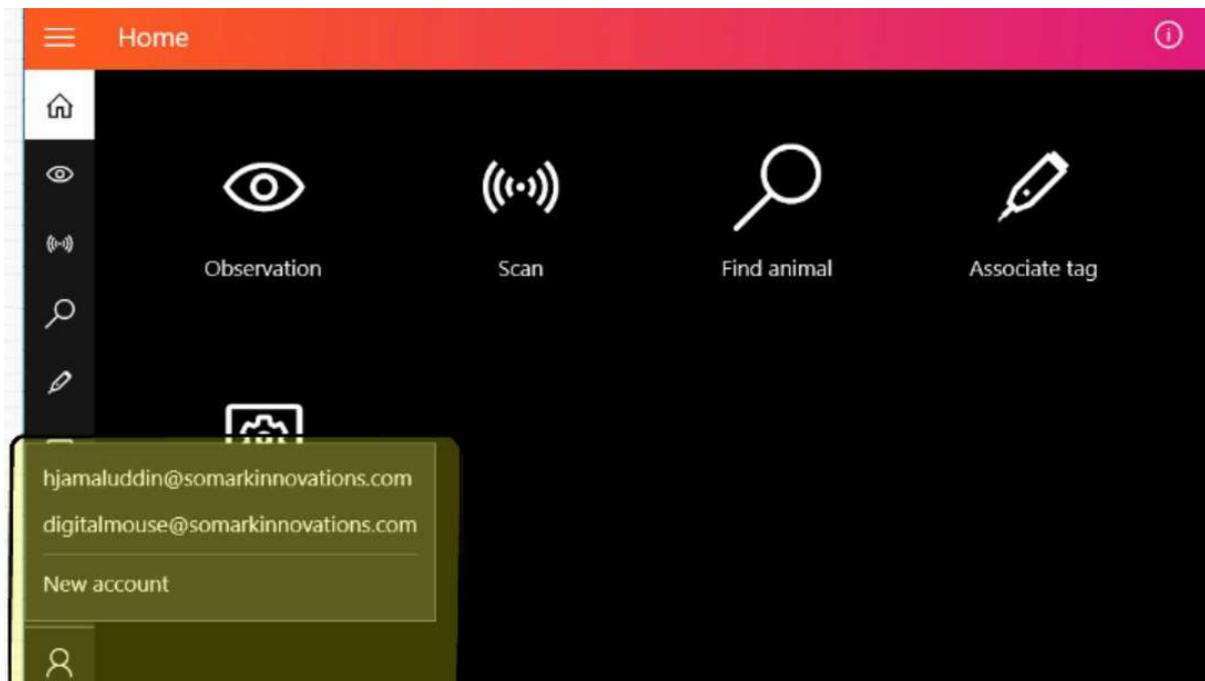


Figure: List of Account Profiles

Important

- To Login you must have your account setup in your Ai.Study.
- You cannot setup a new user via Ai.Connect.
- To Login your Ai.Connect must be connected to the Internet.

Step 6: Connect your Ai.Read and other devices to Ai.Connect

- Follow the Ai.Connect or relevant device Assembly Instructions to connect the device to the Ai.Connect using the relevant connector type.
- Your Ai.Connect provides USB and Serial Port connectors. Additional devices may be connected using a USB 2.0 Hub.

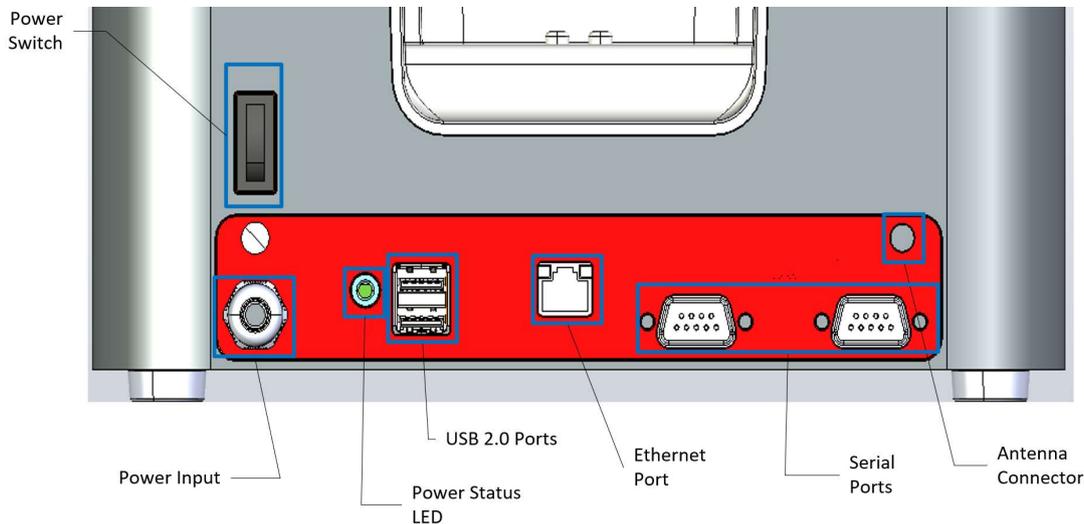


Figure: Connectors located behind Ai.Connect

- Tap the **Settings** button to access the Ai.Connect settings

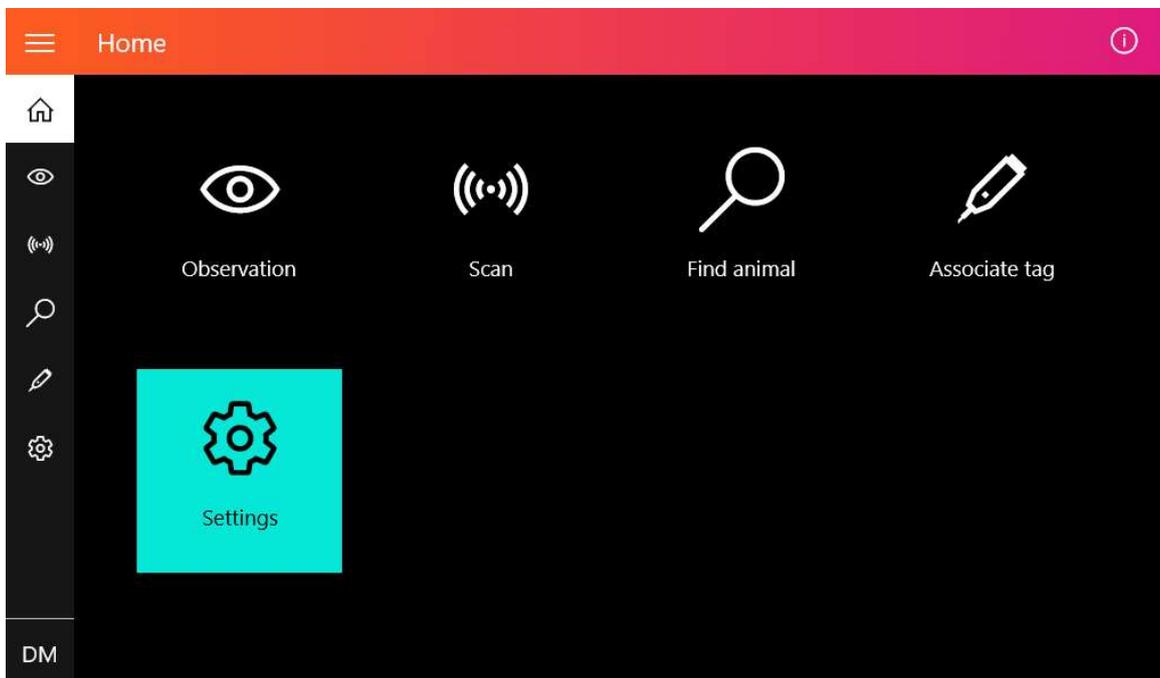


Figure: Select Devices from Menu or Home Screen

- Tap the **Devices** icon to access the Devices list

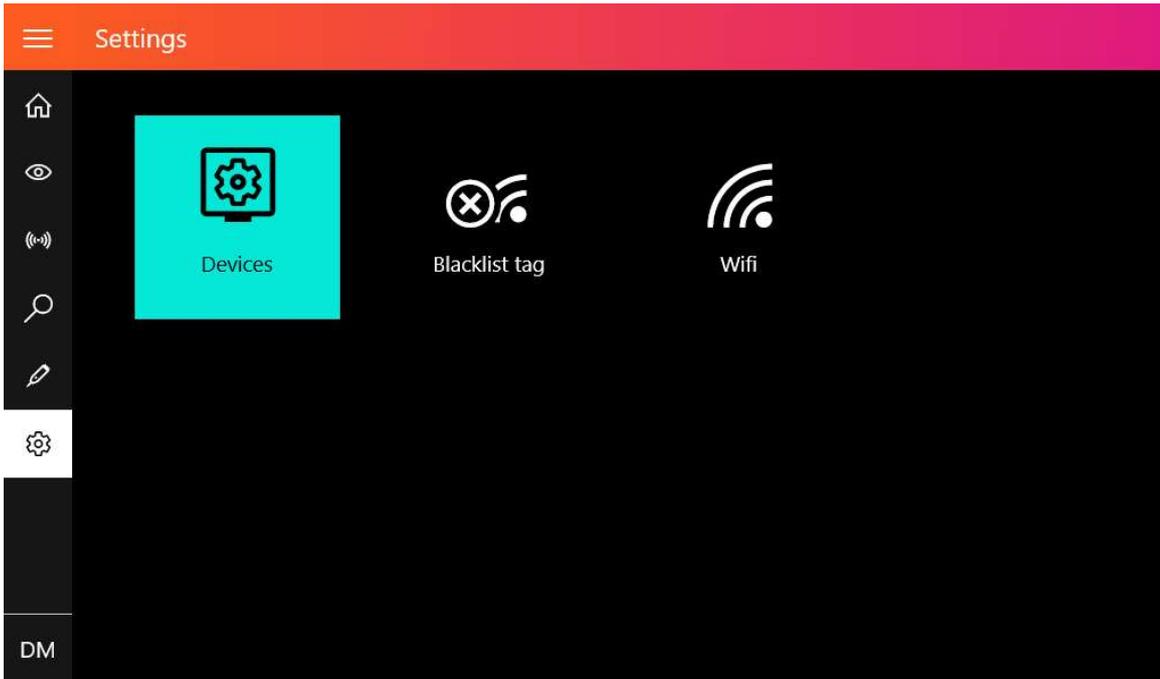


Figure: Devices List: Display Devices (sample screen displaying a connected Balance and Ai.Read)

| ICON | DEVICE |
|--|---------------------------|
|  Balance | Compatible Weighing Scale |
|  Ai.Read | Ai.Read |

Table 1: Icons for Devices supported by Ai.Connect

Note
The Device List does not display USB connected Digital Callipers, Mouse and Keyboard

Your Ai.Connect is now setup and ready for use!

Welcome to Ai.Suite™!

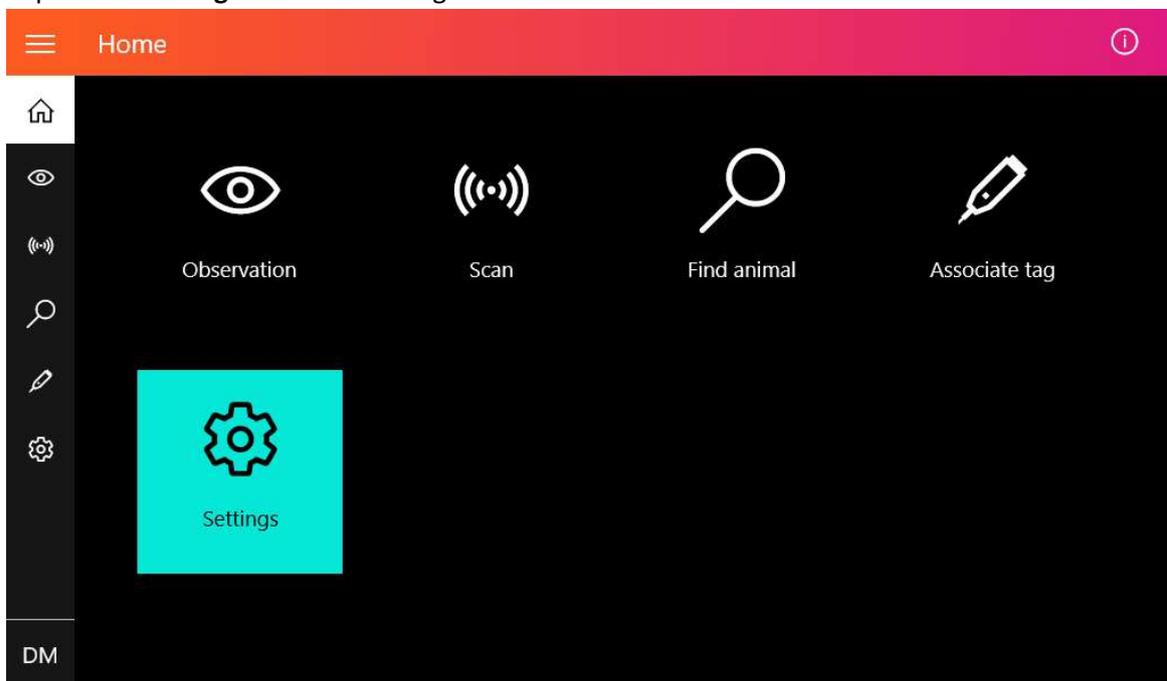
1.3 Using your Ai.Connect™

1.3.1 Internet Connectivity and Network Settings

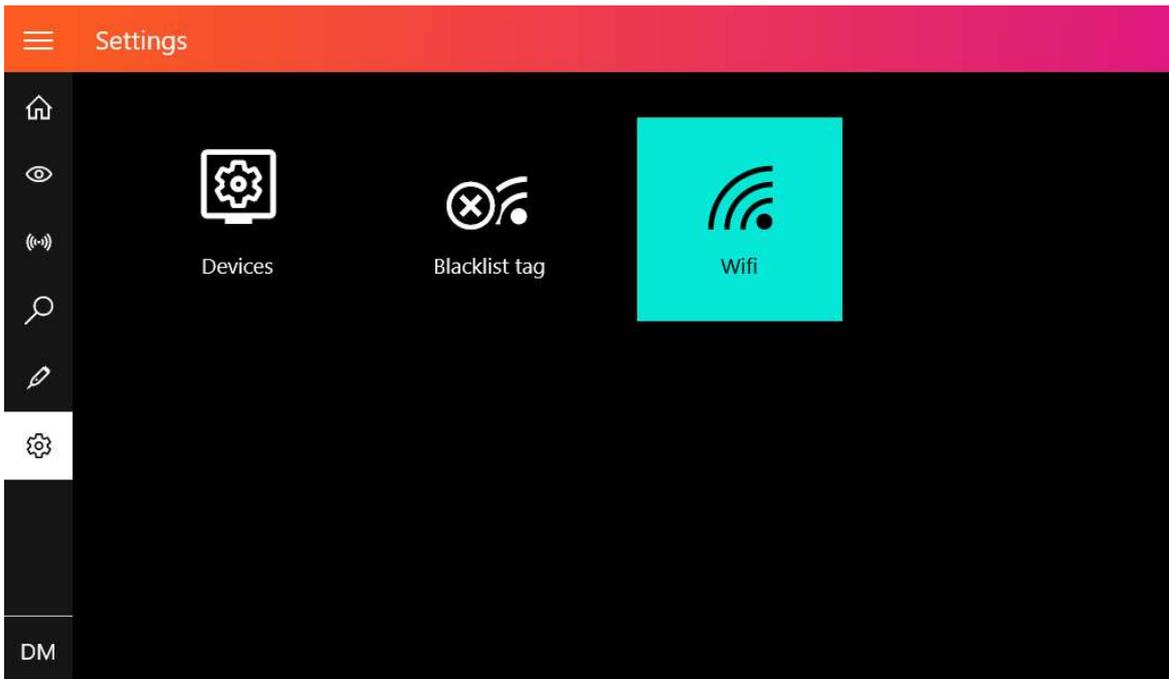
The Ai.Connect requires access to an internet connection to login and access your data from Ai.Study. You may connect to the internet using an Ethernet Connection or through a Wi-Fi connection. The Ai.Connect may connect to any networks using the IEEE 802.11a/b/g/n standard.

Setup the Network Connection for Internet Access

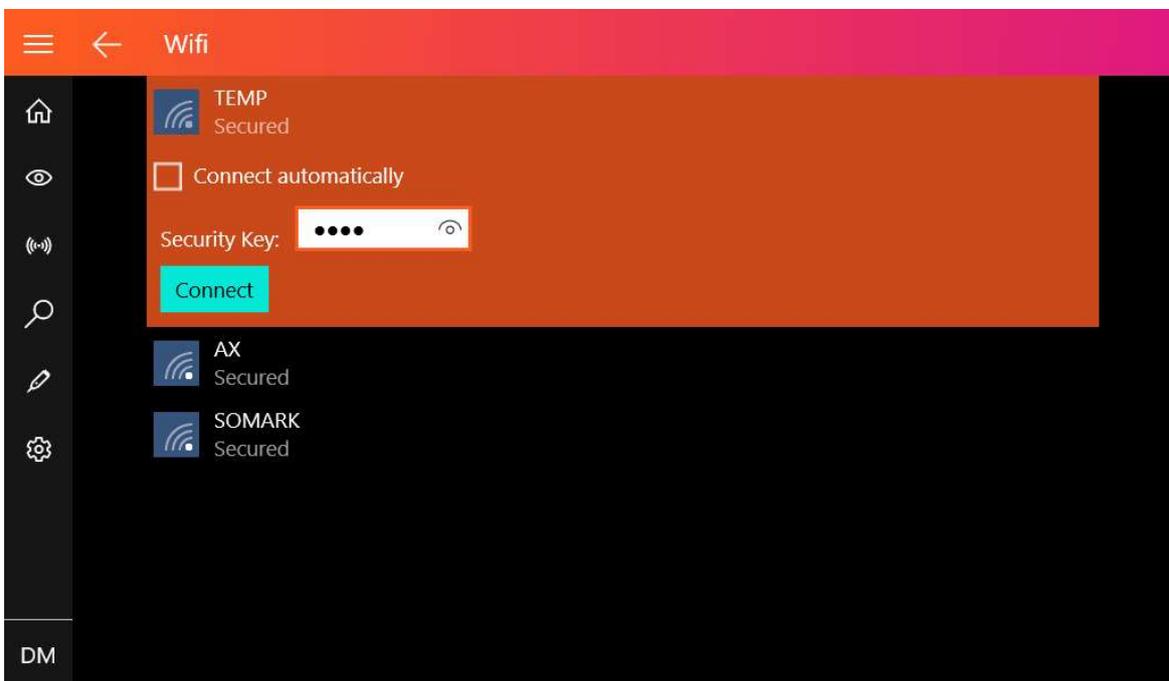
- Connect the Wi-Fi antenna to the back of the Ai.Connect.
The antenna is designed to screw on to the back of the Ai.Connect using the built in antenna connector point.
- If you choose to use an Ethernet Connection, in most cases the plugging of the Ethernet cable into the Ai.Connect Ethernet Port will provide you connectivity.
- Tap on the **Settings** icon in the Navigation menu or on the Home screen



- Tap the **Wifi** icon for Ai.Connect to scan for available wireless networks.



- Tap on your preferred Wi-Fi network (Network SSID) from the list of available networks.
- Tap **Connect**
- If prompted for a Password or Network Key (SSID Authentication Key), enter the Password or Network Key provided to you by your Network Administrator to authorize your connection to the network.



1.3.1.1 Connecting to the internet via an Ethernet (LAN)

To connect the Ai.Connect to your network with an internet access is a simple process.

- **Plug in** one end of an Ethernet (LAN) cable to the back of the Ai.Connect.
- **Plug in** the other end of the Ethernet (LAN) cable to the Ethernet Socket at your facility.

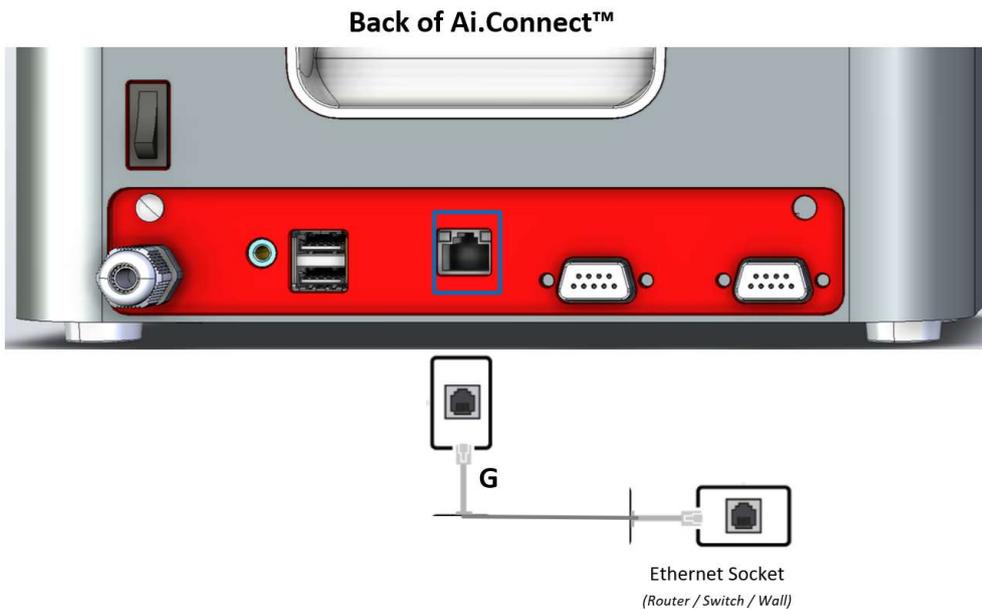


Figure: Rear of Ai.Connect - Ethernet connection

Note

In a situation where both Wi-Fi and Ethernet have been setup the Ai.Connect will attempt to use either the Ethernet network or Wi-Fi for its internet connectivity, whichever is available. To select the Wi-Fi disconnect the Ethernet cable from the Ai.Connect. You may also choose to disable the Wi-Fi adapter on the Ai.Connect.

1.3.1.2 Disable your WiFi network adapter

If you need to Disable your Wi-Fi adapter you will need to access the Microsoft Windows **User Login screen**.

- Attach a USB Keyboard to the Ai.Connect.

Note

USB Keyboards are not provided

Refer to the Ai.Connect assembly guide for details on connecting Devices

- On the connected keyboard hold down the **CTRL+ALT+DEL** keyboard keys to access the Microsoft Windows 'User Login screen'.



Figure: Hold down 'Ctrl Alt Delete' Keys on the keyboard

- Tap the **Wi-Fi** button located at the bottom right hand corner of the User Login Screen.

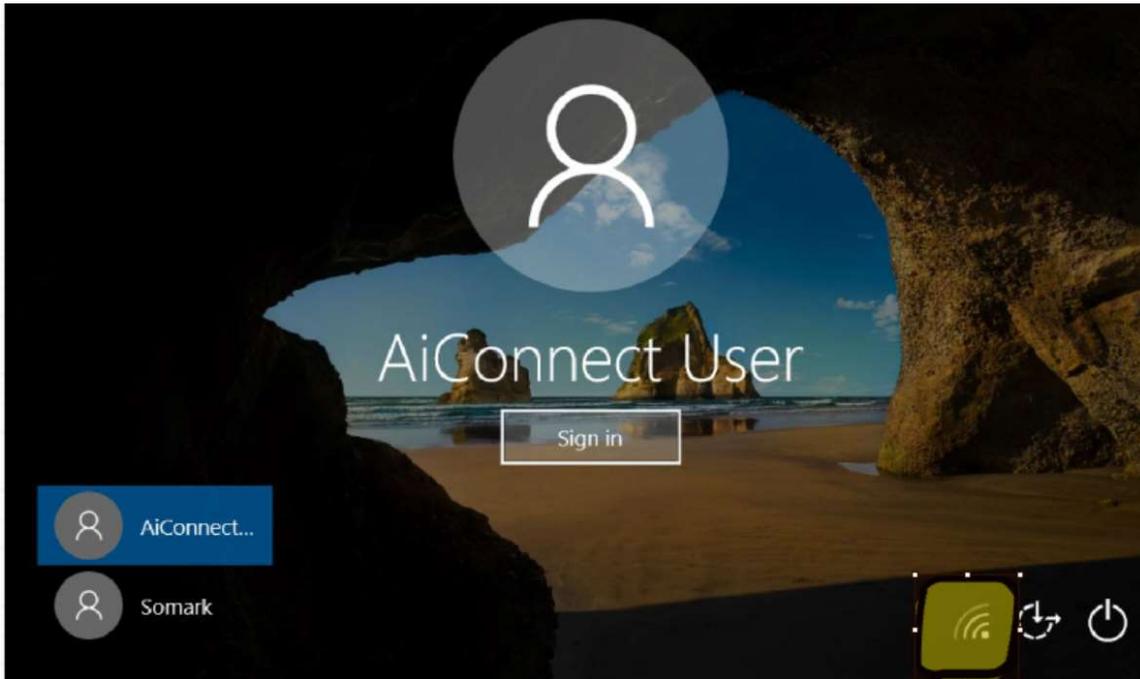


Figure: Windows Login Screen – Wi-Fi Settings

- **Enable and Disable the Wi-Fi adapter:** Tap on the **Toggle Button** to Turn Off (Disable) or Turn On (Enable) the Wi-Fi Adapter.

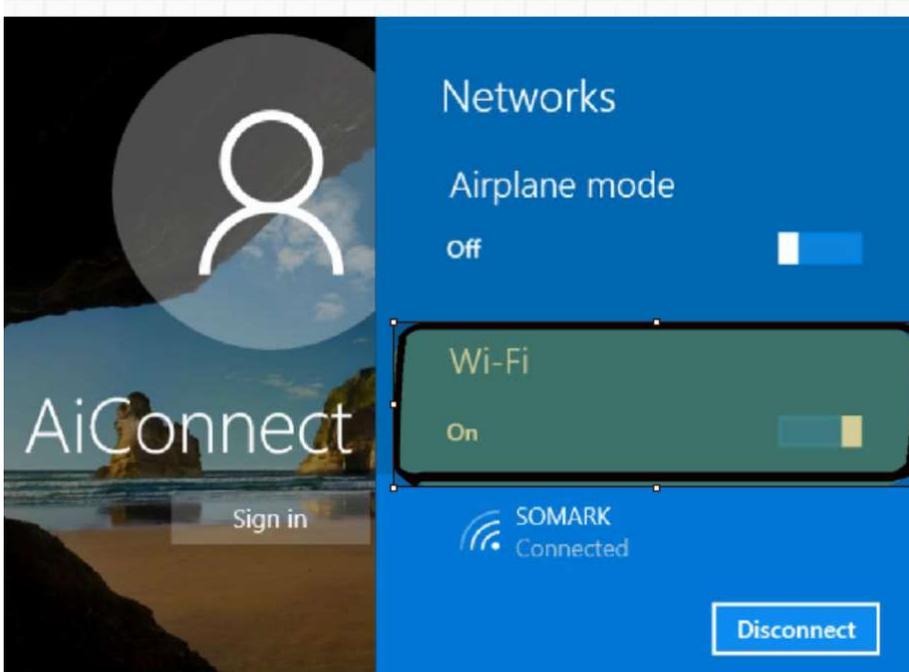


Figure: Toggle Wi-Fi Adaptor

1.3.1.3 Network Security – Firewalls, Proxy, Network Keys, MAC and Captive Portals

Ai.Connect Users cannot access the Network settings on an Ai.Connect.

If your organization has specialized network security requirements, please contact Somark Customer Support. You may be required to provide contact details of your Network Administrator or IT Support team for issue resolution.

Note

- W-Fi connections may suffer from slow network communications or intermittent disconnections due to interference from walls and floors blocking wireless signals, other Wi-Fi networks using the same channel as your own Wi-Fi network, and appliances and electronics emitting radio frequency interference. For best connection results an Ethernet Connection is recommended.
- Ai.Connect uses Microsoft Windows 10 IoT Enterprise Edition™ as its operating system. Security and Operating System updates may be required from time to time as part of Microsoft's improvement policy.

1.3.2 Power Off, Shut Down and Reboot Ai.Connect™

The Ai.Connect is designed to remain operational for extended hours and under normal operations. Your Ai.Connect should not require a reboot or shut down.

The Ai.Connect may be shut down using the hardware 'Power Button' at the rear of the Ai.Connect.

The Ai.Connect may be restarted or shut-down using the Ai.Connect interface.

- On a connected keyboard hold down the **CTRL+ALT+DEL** keyboard keys to access the Microsoft Windows 'User Login screen'.



Figure: Hold down 'Ctrl Alt Delete' Keys on the keyboard

- Tap the **Power** icon on the bottom right hand corner of the screen

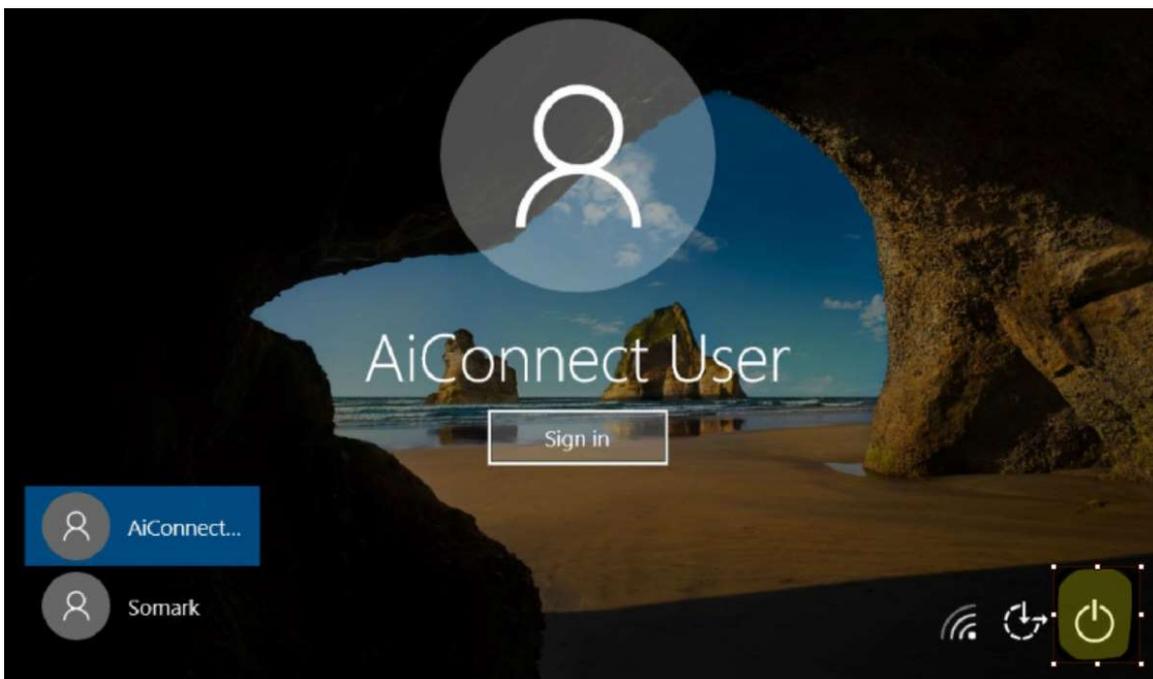


Figure: Power Button in the Lock Screen

- Tap **Shut Down** or **Restart**

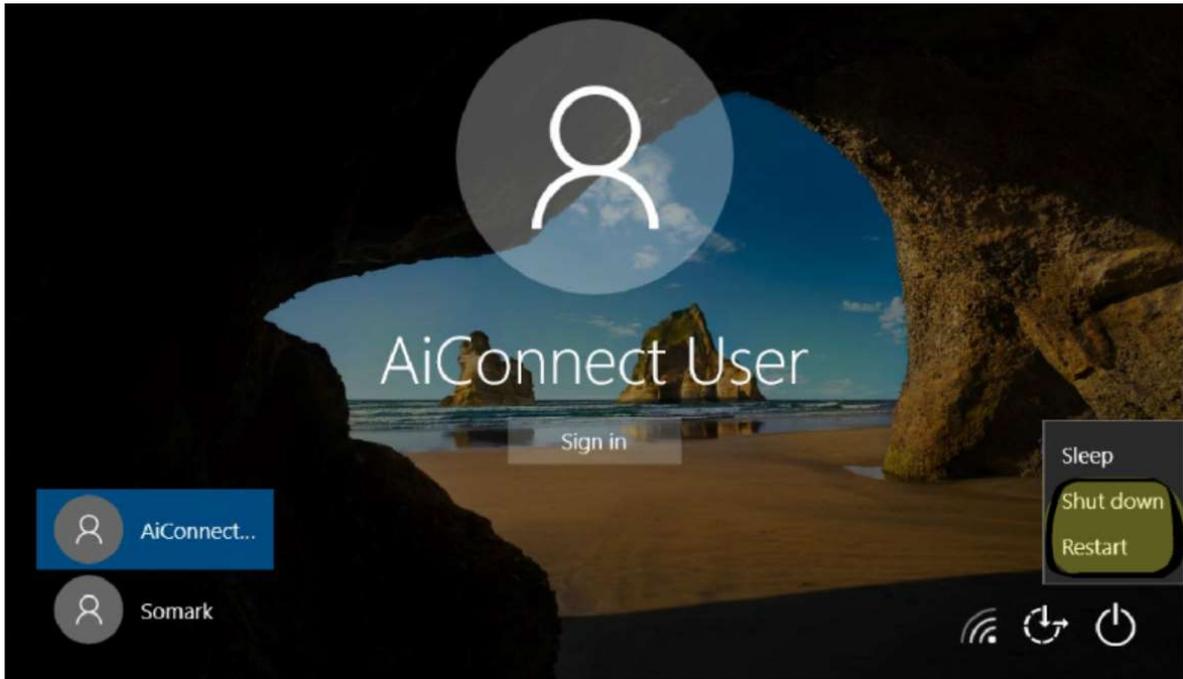


Figure: Power Down Options in the Lock Screen

- If prompted “Users are currently logged in and may lose their work”, tap **Shut down Anyway**. The device should now shut down gracefully. The Ai.Connect Front Green LED will not be illuminated when the Ai.Connect has been Shut down.

1.3.3 Login to Ai.Connect using your existing Ai.Study User Credentials

1.3.3.1 Login to Ai.Connect from a displayed list of Users

- **To Login** with your user which was setup earlier, tap the **User Icon** in the Navigation Menu and tap on your **User Name** (email address) from the displayed list.

A list of Users is populated and visible for all users who have previously used the Ai.Connect

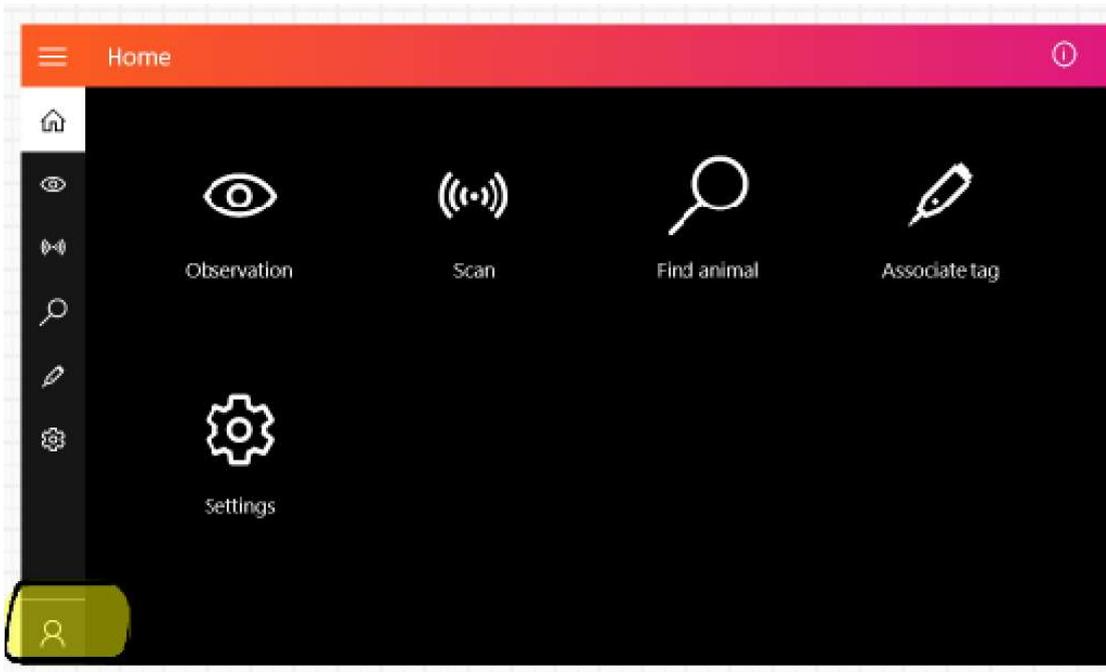


Figure: Ai.Connect Login button

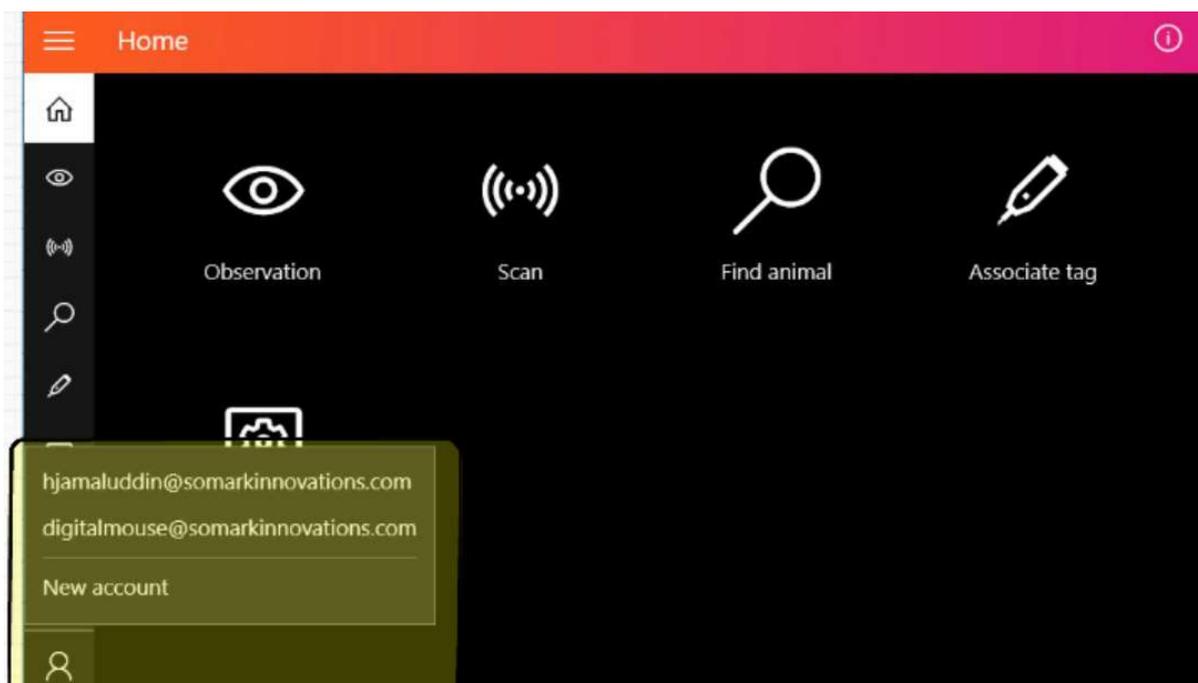


Figure: Ai.Connect User List

- You will be prompted to enter your password each time you login.

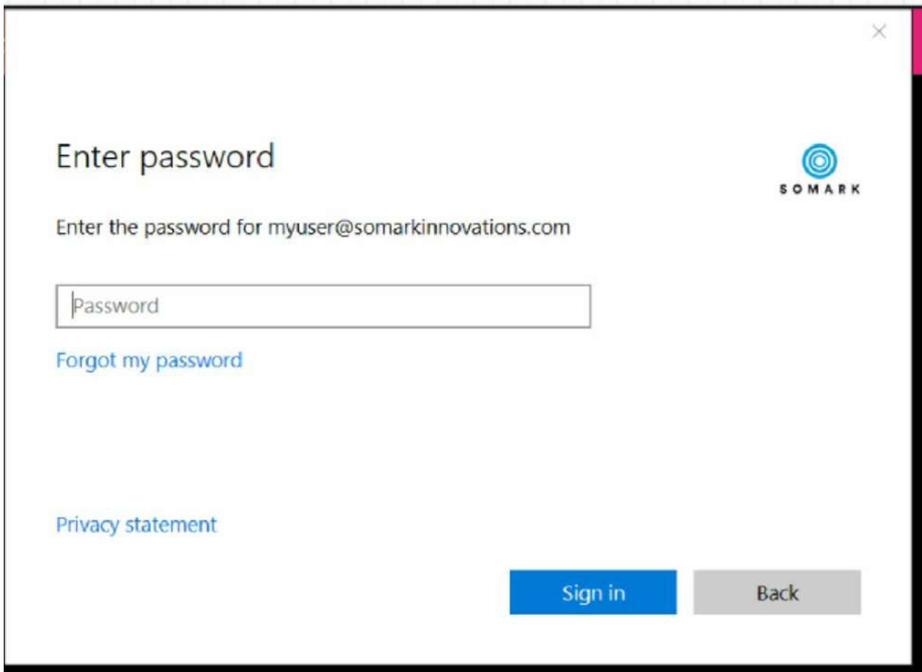
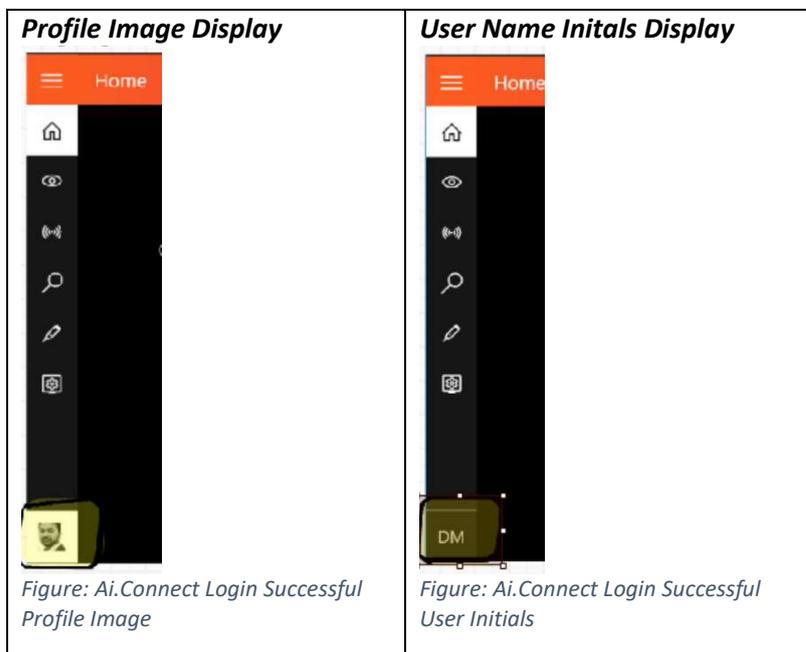


Figure: Ai.Connect Login User Password

- On successful authentication the **User Navigation Menu** button will be updated with a **Profile Image** or **User Name Initials**.
Profile images are displayed from your Office 365 Account Profile and may be changed via your Office 365 Account.



1.3.3.2 Login to Ai.Connect for the first time or when a user is not displayed in the list

- Tap on the **User Icon** in the Navigation Menu.

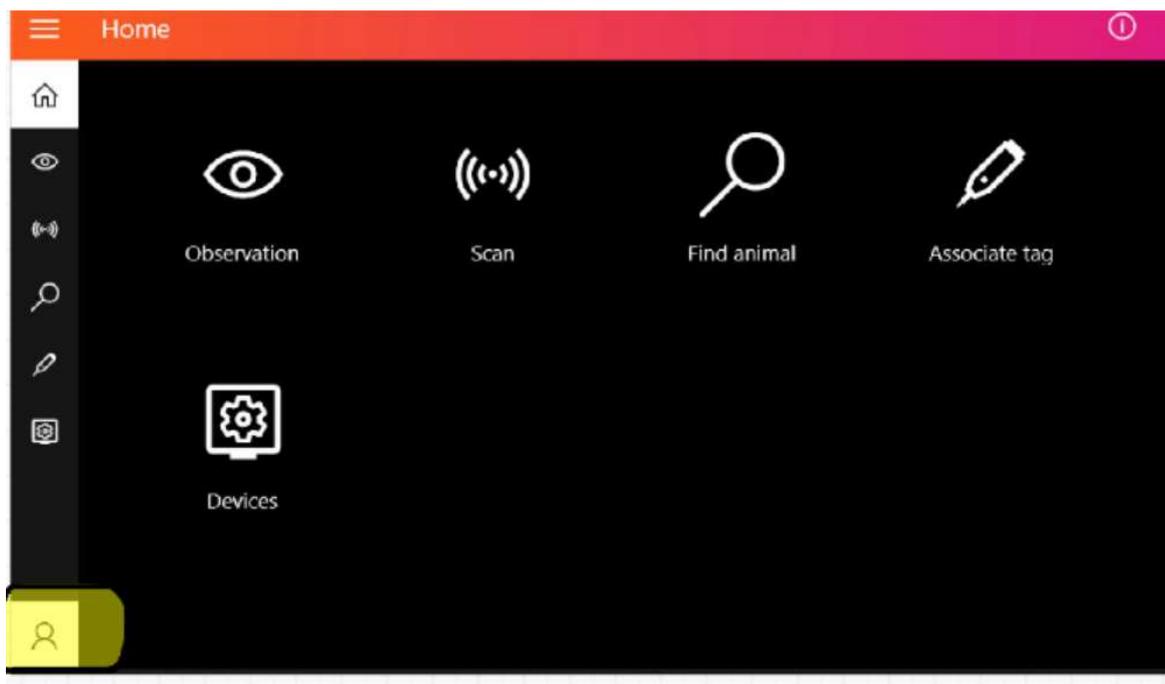


Figure: Ai.Connect Login button

- If your User Name is not displayed in the list, Tap **New Account** from the displayed User List.

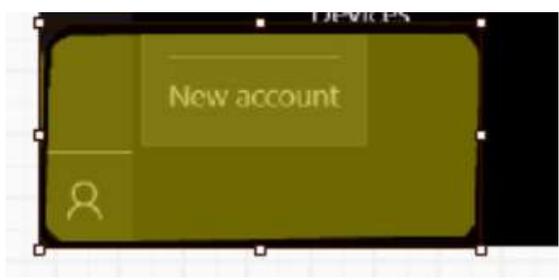


Figure: Ai.Connect Login Add New Account

- If prompted to Choose an account, Tap **Work or school account**.
A list of Users will be populated and visible if other users have previously used the Ai.Connect

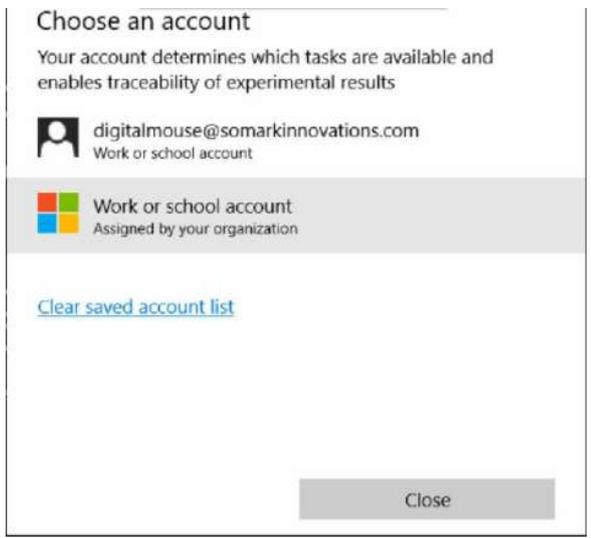
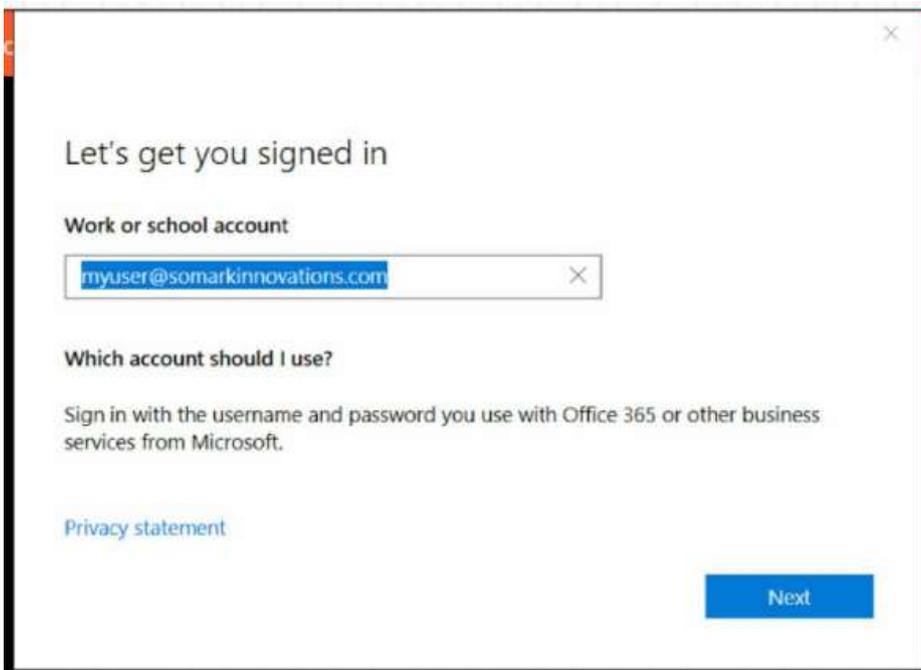


Figure: Ai.Connect Login User Type

- Enter your **User Email Address** and Tap the **Next** button.



Let's get you signed in

Work or school account

Which account should I use?

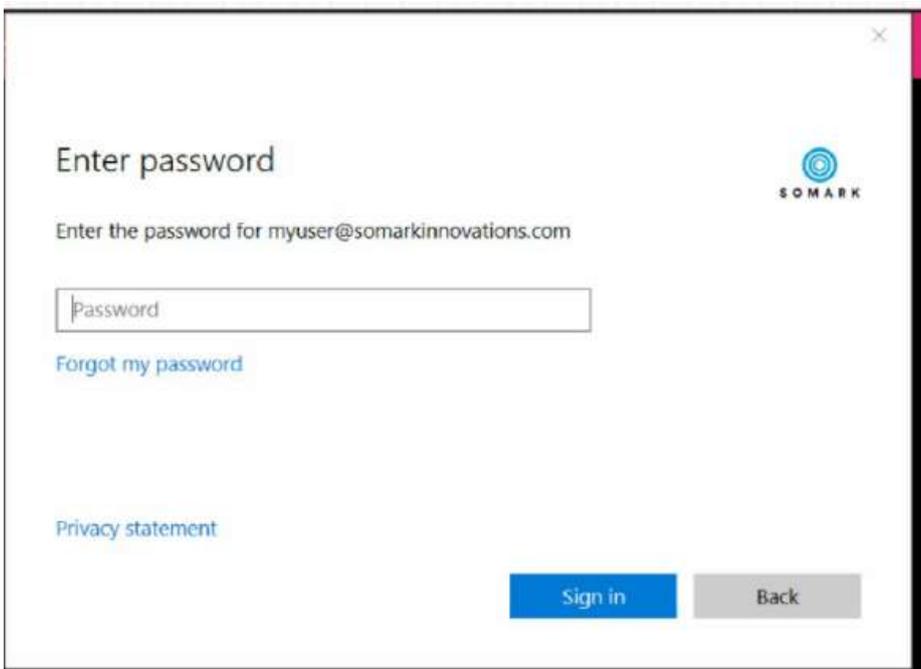
Sign in with the username and password you use with Office 365 or other business services from Microsoft.

[Privacy statement](#)

[Next](#)

Figure: Ai.Connect Login User Email Address

- Enter your **Password** and Tap the **Sign in** button.



Enter password

Enter the password for myuser@somarkinnovations.com

[Forgot my password](#)

[Privacy statement](#)

[Sign in](#) [Back](#)

Figure: Ai.Connect Login User Password

- On successful authentication the **User Navigation Menu** button will be updated with a **Profile Image** or **User Name Initials**.
Profile images are displayed from your Office 365 Account Profile and may be changed via your Office 365 Account.



1.3.3.3 Log out from Ai.Connect

- **To Logout** tap your **Profile Image** or **User Name Initials** and tap **Logout**.

Important

- To Login you must have your account setup in your Ai.Study.
- You cannot setup a new user via Ai.Connect.
- To Login your Ai.Connect must be connected to the Internet.

1.3.3.4 Clear Saved Account (User) list

- **To clear the user list** tap your **Profile Image** or **User Name Initials** and tap **New Account**.
- Tap **Clear saved account list** to clear the list of displayed Users

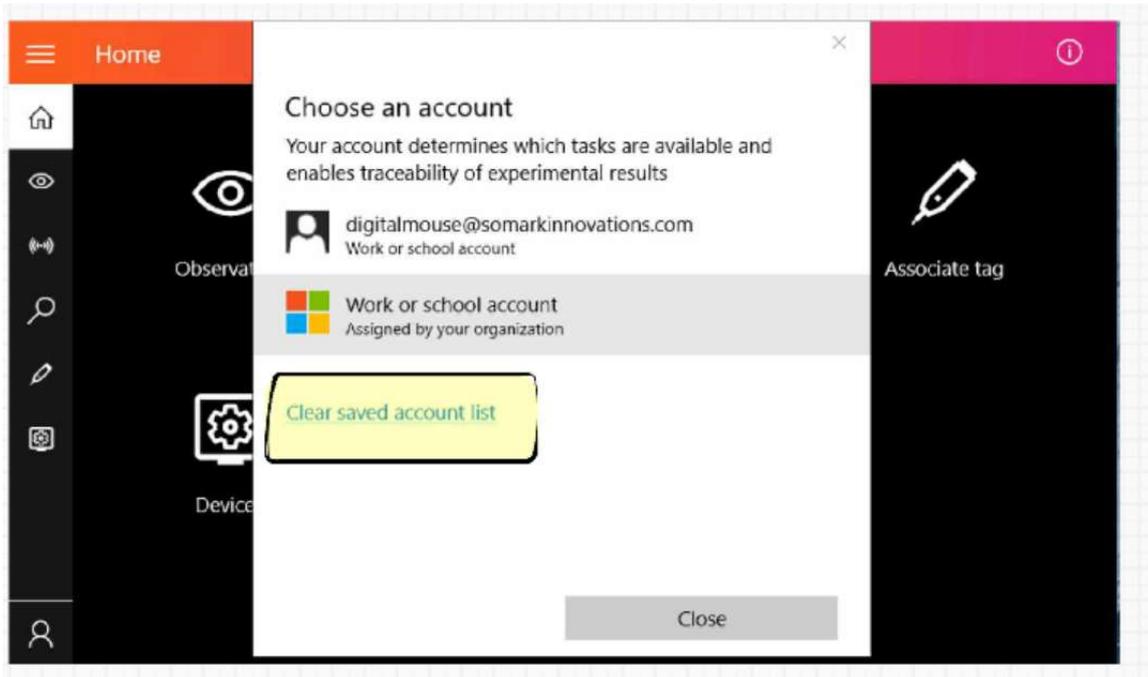


Figure: Clear Saved Account List

ⓘ Caution

- There is no restriction on a user clearing the user list.

1.3.4 Ai.Connect for Digitail tagged Animals

Connect an Ai.Read to an Ai.Connect to register details and record results of your Digitail Tagged animals directly to the animal record in Ai.Study

1.3.4.1 Getting to know your Ai.Read™

The Ai.Read has been designed considering the environmental conditions in a lab and animal facility.

- The antenna located on the top surface of Ai.Read identifies and reads the data from the Digitail™ tag injected within a rodent tail.
- The Ai.Read is designed to read an Digitail™ tag from within a rodent tail from up to a distance of 4cm (centimetres) above the reader.
- Tagged animals can be read on the entire antenna surface, maximum read distance is likely from the center of the antenna.
- Disinfect the Ai.Read surface with approved lab disinfectant spray or wipe as needed when soiled, or to disinfect between cages or groups of animals.
- It is best to wipe clean the Ai.Read reader surface before and after use to avoid any contaminants or residue build-up on the device. The Ai.Read may be wiped clean using alcohol or water based wipes.

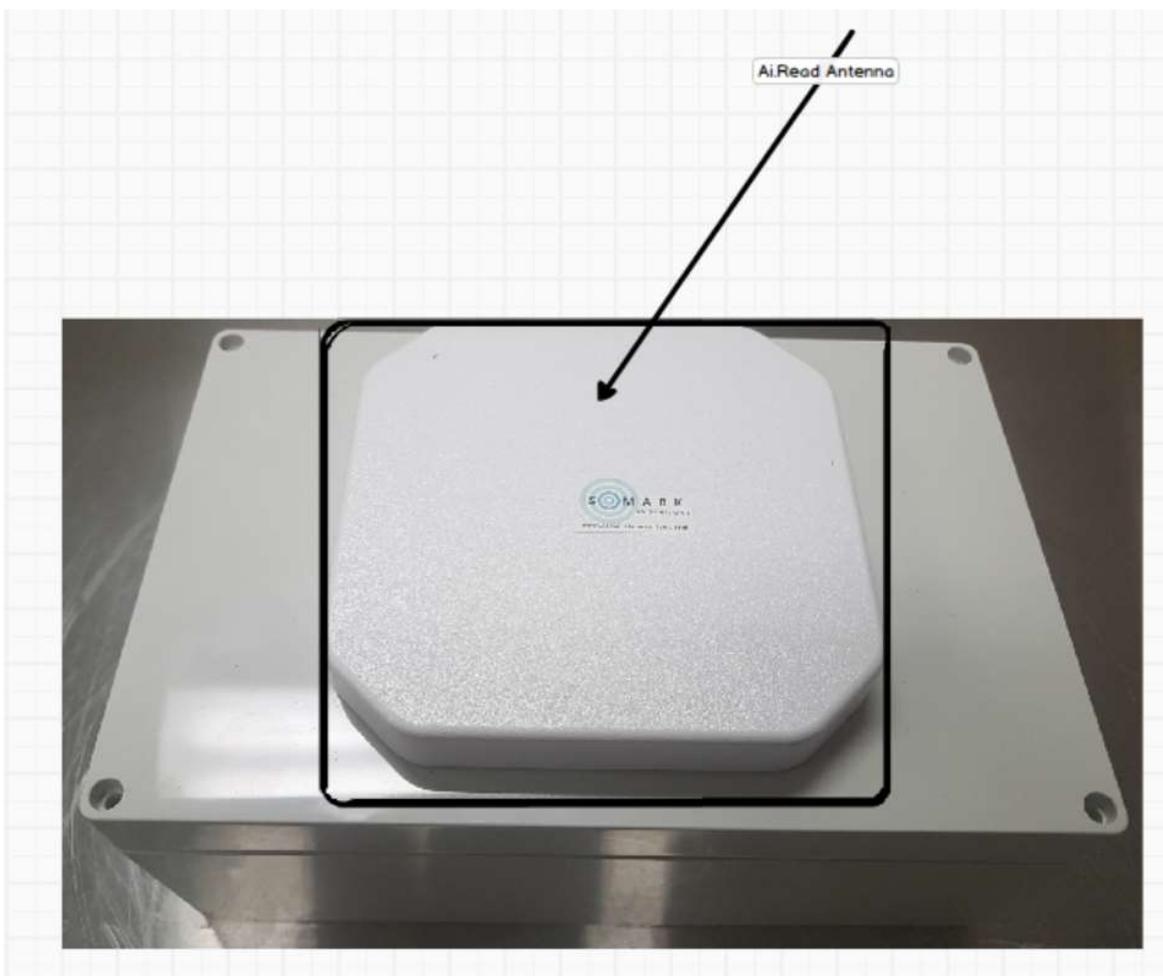


Figure: Ai.Read Top View

1.3.4.2 Connecting the Ai.Read Device to Ai.Connect

- **Step 1:** Connect the Ai.Read to the Ai.Connect using the provided USB A to USB B cable and Power Cable as per the Ai.Suite Assembly guide.
- **Step 2:** Switch on the Ai.Read using the power switch located on the left-hand-side of the device
- **Step 3:** Check the Device has been discovered by the Ai.Connect.
Tap the **Settings** button followed by a Tap on the **Devices** button to view the devices which are Connected to the Ai.Connect

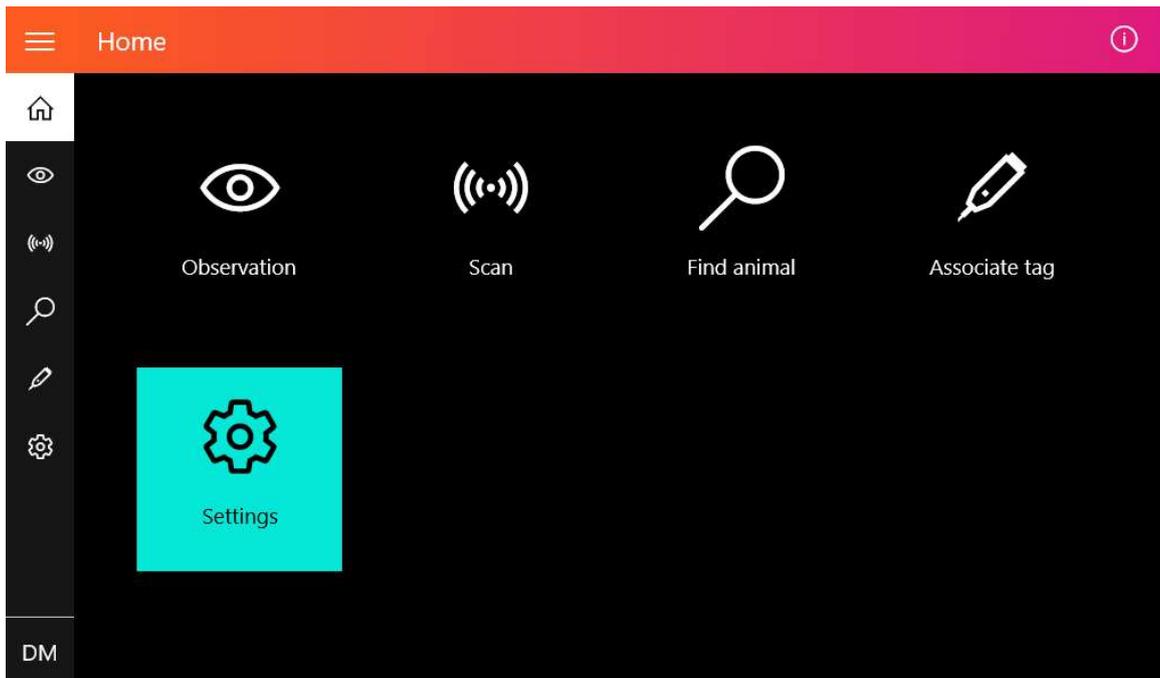


Figure: Select Settings from Menu or Home Screen

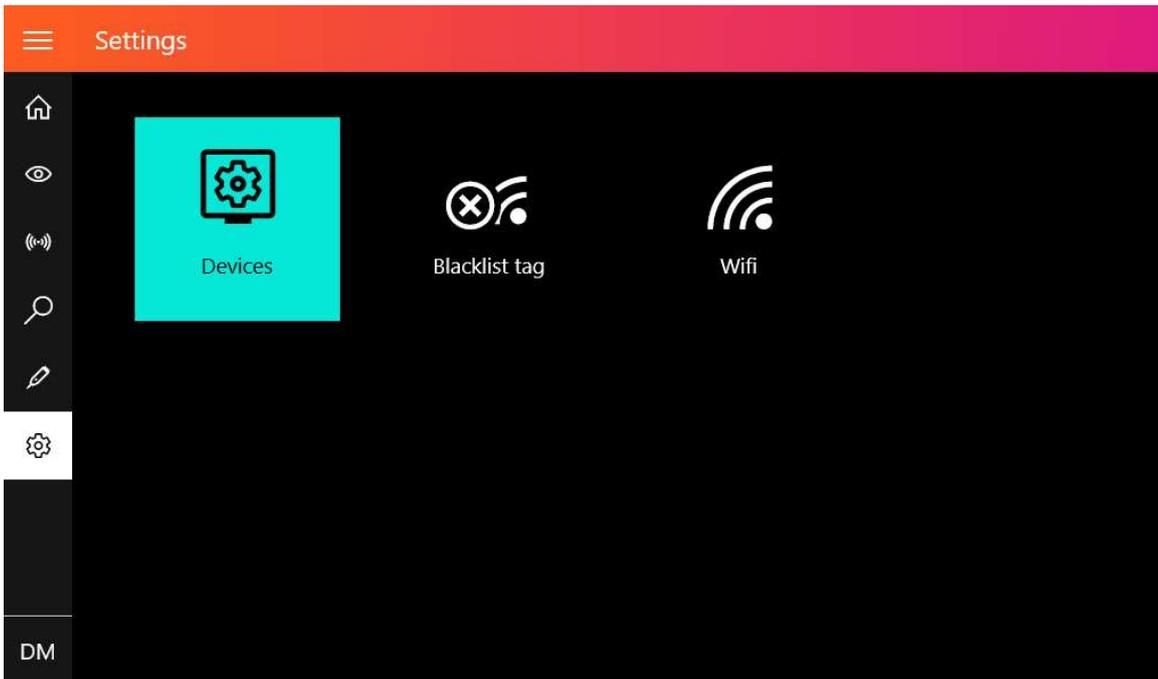


Figure: Select Devices from Settings Screen

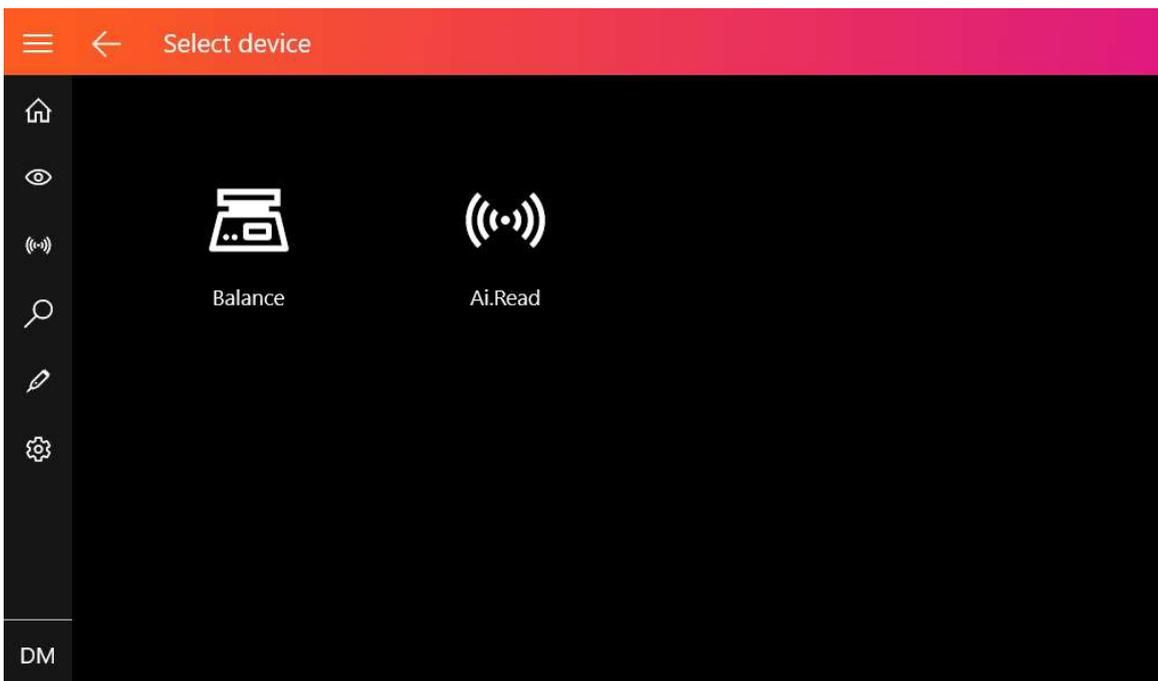


Figure: Devices List: Display Devices (sample screen displaying a connected Balance and Ai.Read)

- The **Ai.Read** devices icon should be displayed
- **Optional:** Tap on the **Ai.Read** device for device details

1.3.5 Associating a Digitail tagged animal to an animal record in Ai.Study

Animals injected with a Digitail™ Tag may be associated to an animal record in Ai.Study.

- **Pre-requisites in Ai.Study:**

- **Animal record in Ai.Study:** A Digitail tagged animal may only be associated to an animal record which has an associated cage in Ai.Study. To do this access your Ai.Study web interface in a browser on your computer and follow the **Create animal record** and **caging an animal** process as in your Ai.Study User Guide.

You may also choose to provide an animal with a Visual ID, where applicable, for ease of identification.

- **Permission to Access Cage and Update animal record:**

You may only update an animal record with a Digitail tag if you have permission to update the record based on your rights to a Study or on your role in the organization. User rights are managed in Ai.Study™ by the Study Principle Investigator and Study Creator. User rights based on Role are managed in Ai.Study by the Ai.Study Administrator

- Tap the **Associate Tag** button on the **Home Screen** or in the Left Navigation Menu on any screen

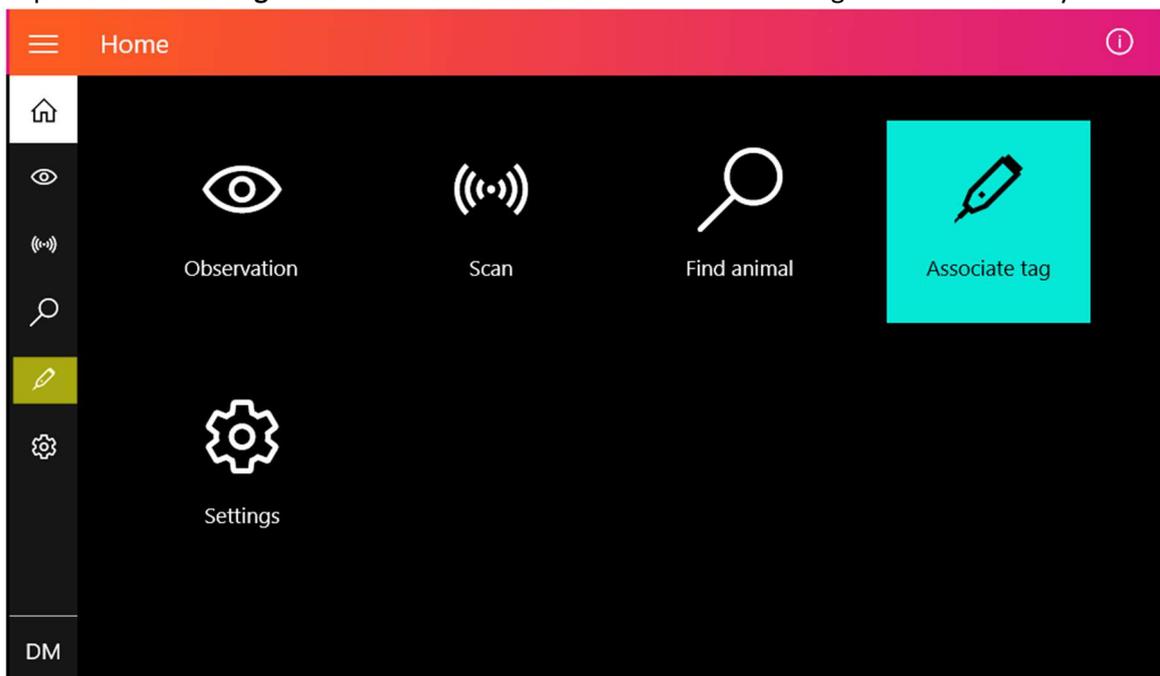


Figure: Associate Tag Buttons

- **Locate the animal record:** Tap the enter **Cage ID** field to use the virtual keyboard to enter the cage in which the animal is being housed.

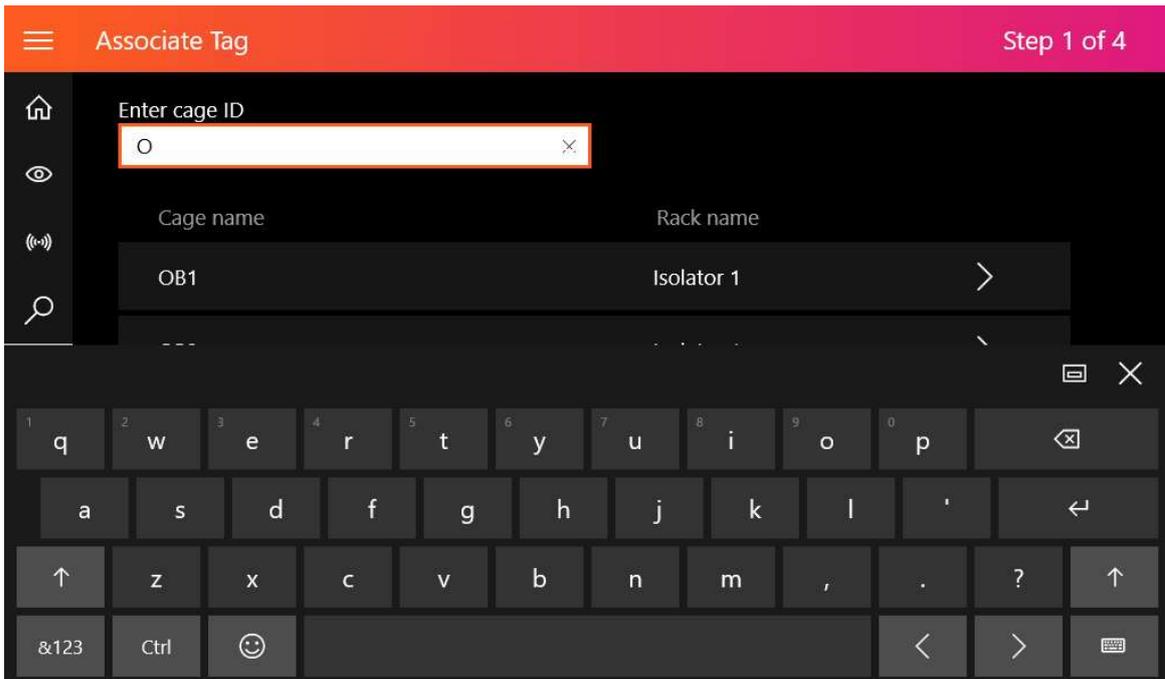


Figure: Find animal with Cage Id / Name

Tap **Spacebar** on the virtual keyboard to leave the field blank to view a list of all accessible cages.

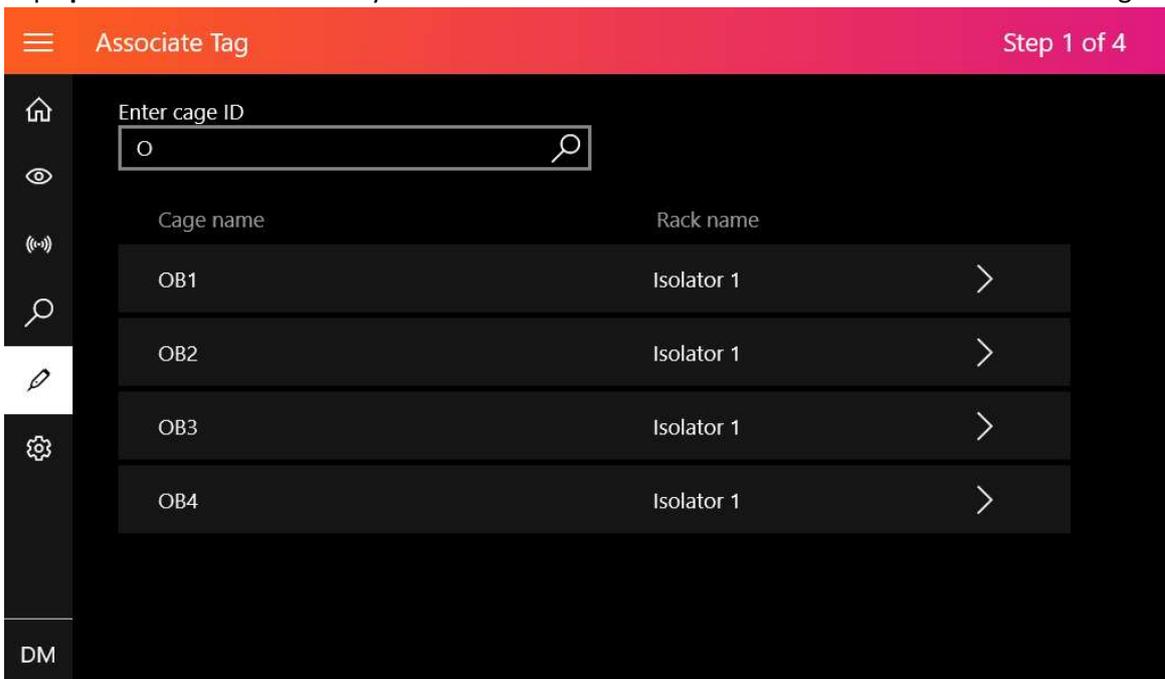


Figure: List of Cages

- **Select the Cage:** Tap the Cage ID from the displayed list of Cages.
To Scroll through a displayed list, swipe up or down on the list
- **Select the animal to be Tagged:** Tap to select the animal from the displayed list of animals.
To Scroll through a displayed list, swipe up or down on the list
 - *Animals which have associated Digitails are indicated with a check mark in the Tagged column*

- Animals which do not have Visual Identifiers will be displayed with a blank value in the Visual Identifier column

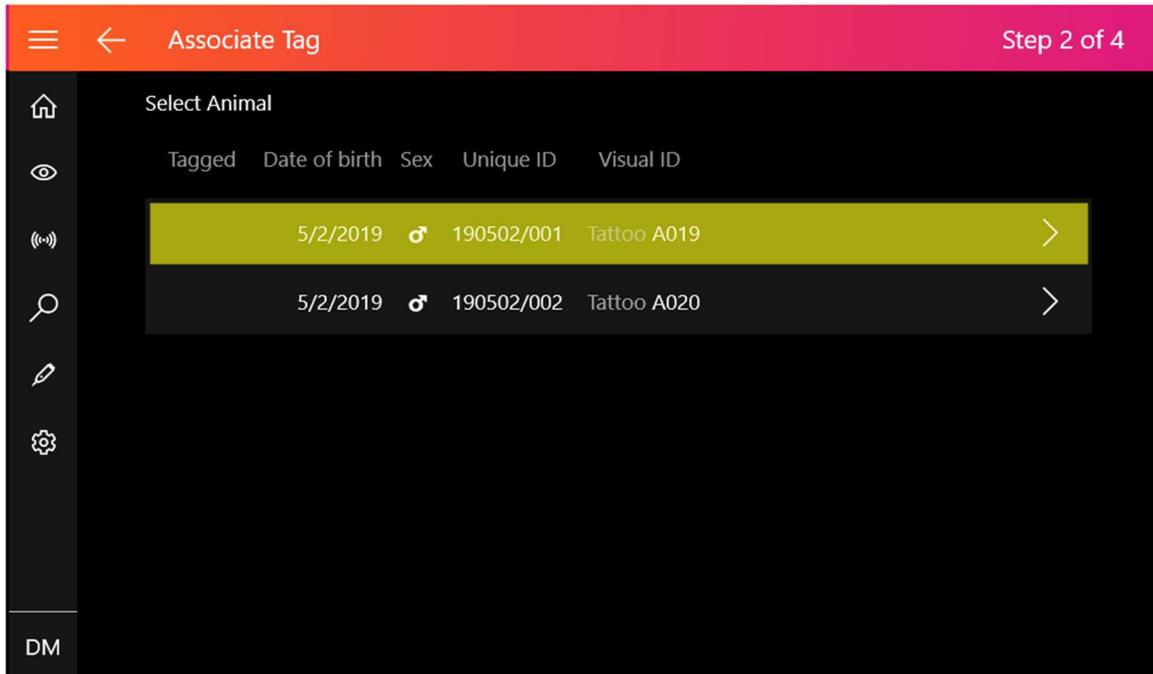


Figure: List of animals to Associate Tag

- **Review the animal Details:** The animal Details screen displays the details captured in the Ai.Study for the selected animal.

Confirm the correct animal has been selected by viewing the animal details and Tap on the **Associate tag** button to move to the next step of the Associate Tag process

| On Screen Actions (Tap) | | |
|-------------------------|---|---|
| 1 | Back Arrow | Returns you to the Select animal Screen (Animal List) if you choose to select a different animal to tag |
| 2 | Tabs: General, Genetics, Location, Study | Additional details of the animal. General tab (detail) is the selected-on default |
| 3 | Associate Tag (Forward Arrow) | Confirms the selected animal record for tag association and moves to the next step of the Associate Tag process |
| 4 | Step Number (Display Only) | Indicates the Step number of the Associate Tag process <i>This is display only and does not respond to Touch</i> |
| 5 | Digitail Tag™ | Displays the Digitail™ tag value (TID) when associated <i>If the field displays a value a Digitail™ has previously been associated to the selected animal record</i> |

Table 2: Associate Tab Screen Actions

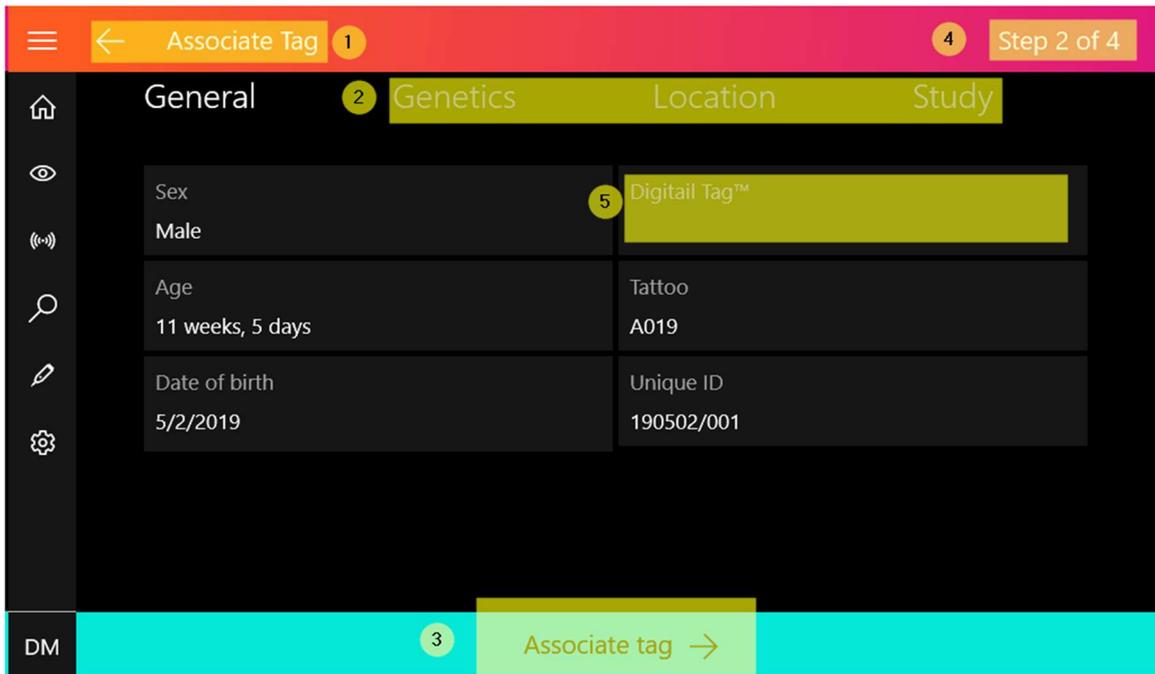


Figure: Animal Details in Associate Tag Screen

- **Scan the animal (tag) on the Ai.Read**

When the screen displays Scan Digitail Tag™ use the connected Ai.Read to **Scan** the animal (tag). The Ai.Read will capture and transfer tag details to the Ai.Connect on detection of the Tag.

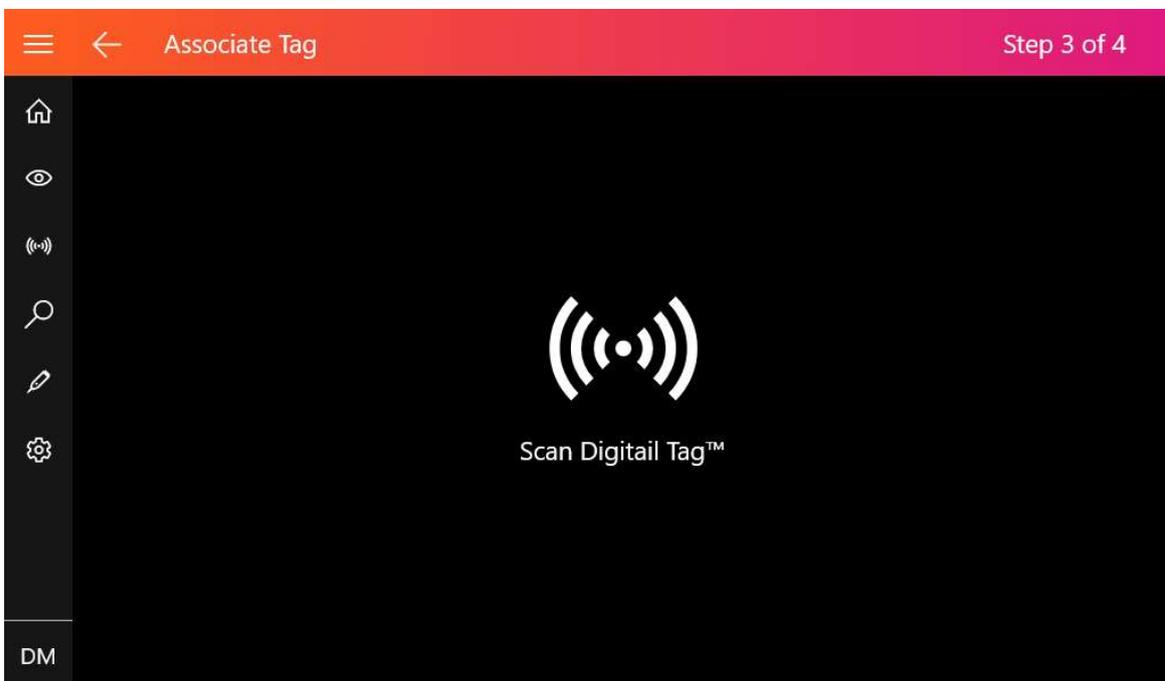


Figure: Scan animal (Digitail™) to Associate Tag

On successful scan of the Digitail Tag in the animal the screen will display a Success Screen.

Tap on your preferred action button to move to Complete the Associate Tag process or Tag Another animal

| On Screen Actions (Tap) | | |
|-------------------------|------------------------------------|--|
| 1 | New animal – same cage | Takes you to the Select animal Screen (Animal List) of the same cage to select a different animal to tag |
| 2 | New animal – different cage | Takes you to the Find Cage Screen to find and select a different cage and animal to tag |
| 3 | Done | Takes you back to the Home Screen |

Table: On Screen Actions on successful tag association

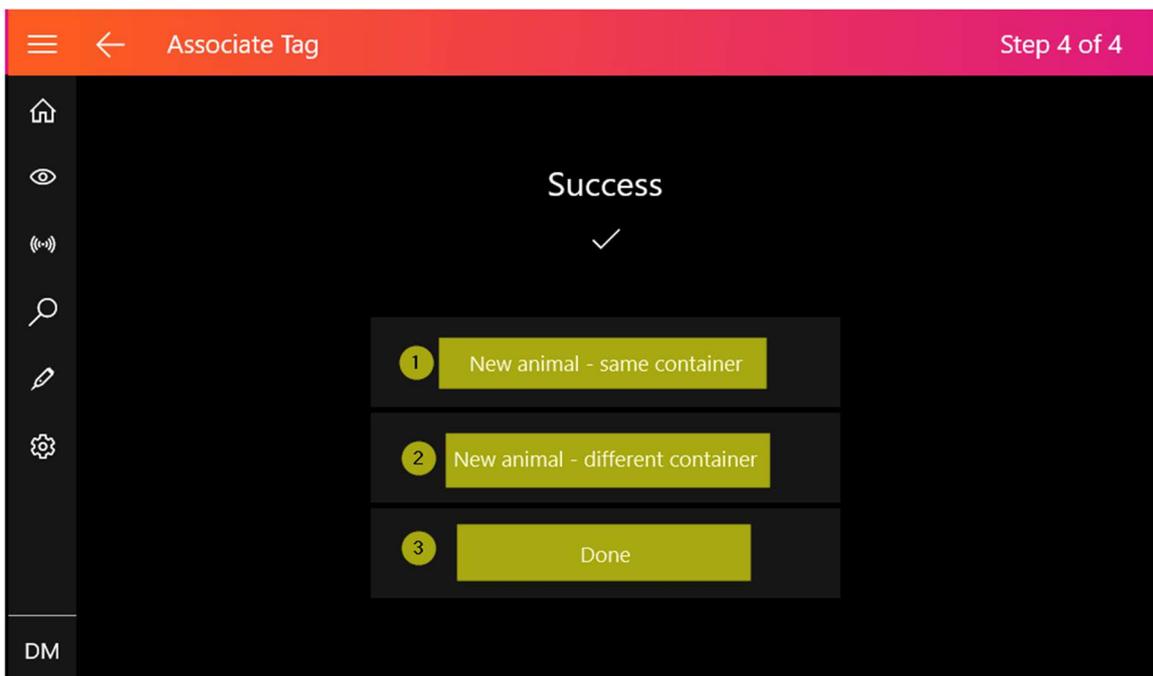


Figure: Successful Tag Association

If Ai.Connect detects the scanned animal to be associated with another animal record the user will be shown an Error Screen. Tap **OK** to return to the Scan Animal Screen and scan another animal without a registered Digitail™ tag.

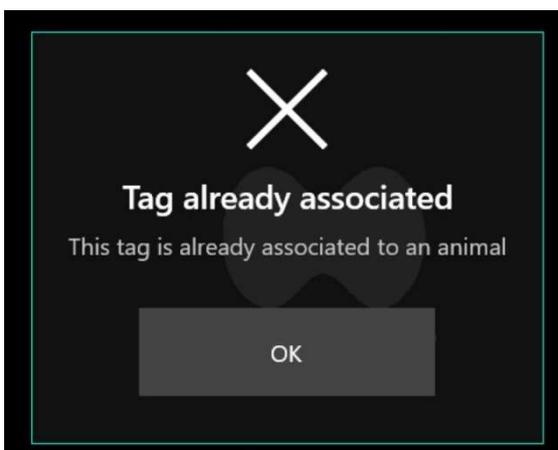


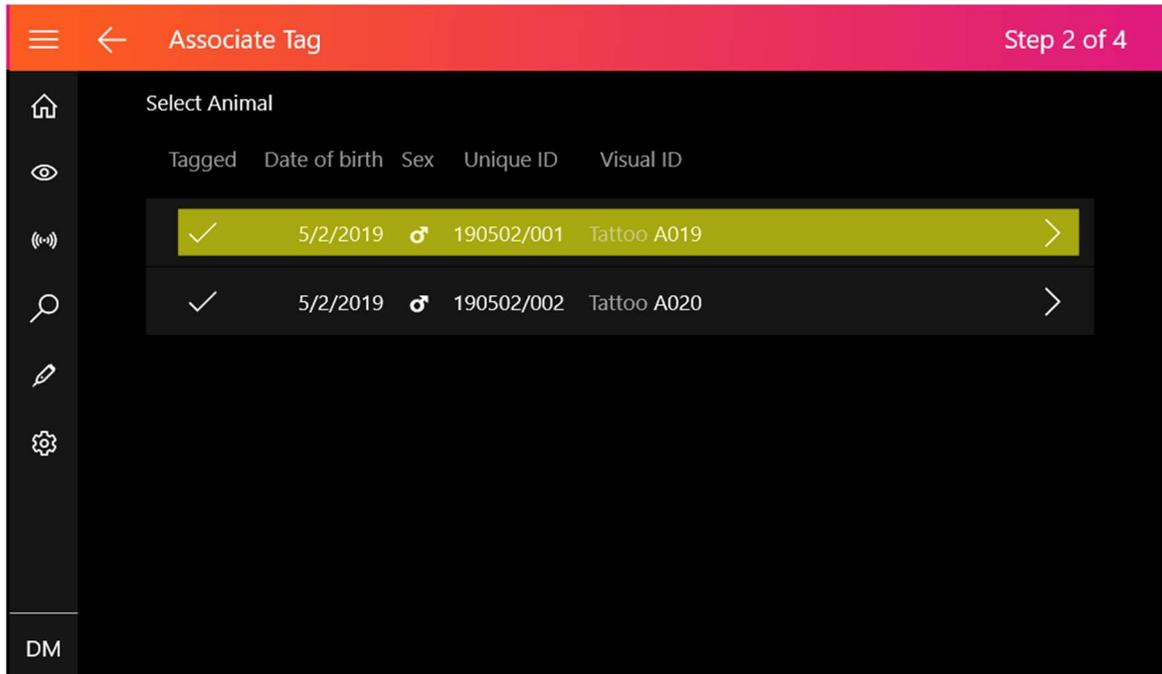
Figure: Error Notification - Tag already associated

Important

An animal must be injected with an Digitail™ Tag for it to be read by the Ai.Read

1.3.5.1 Associating an additional Digitail™ to an animal record

To associate an additional Digitail™ to an animal record, select (Tap) an animal with an existing DIGITAIL™ tag (indicated with a check mark in the Tagged Column)



Tap **Yes** when prompted to confirm your selection of the animal or **No** to cancel

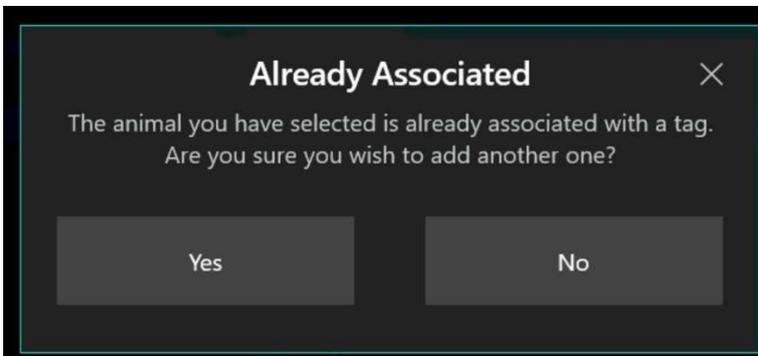


Figure: Notification Already Associated

ⓘ Caution

- Associating an additional Digitail™ to an animal record will display the new Digitail™ as the Primary Non-Visual Id (Digitail™) in Ai.Study and in the animal Details in Ai.Connect

1.3.6 View Animal Details (Animal record) and recording the death of an animal

You can access an animal record to view the details of an animal and to report the death of an animal

- Use the following available methods to access the Animal Details (View Animal record)

| Methods to Access the Animal Details (View Animal record) | |
|---|--|
| Scan | Scan a Digitail tagged animal to identify the Scanned animal and View its details <i>Requires an Ai.Read to be connected to the Ai.Connect</i> |
| Find animal | Find an animal record by conducting a search on its Visual id or Cage Name |
| | View animal record button is available in all process flows as an option to view the details of the animal. <i>This option does not allow for reporting of an animal death</i> |

Table: Methods to access the animal details

- Tap on the **Tabs** to switch between screens displaying additional animal details

| On Screen Actions (Tap) | | |
|-------------------------|---|--|
| 1 | Back Arrow | Returns you to the previous screen used to enter the View animal Details (Animal Record) screen |
| 2 | Tabs: General, Genetics, Study, Location, | Switch between tabs to view details of the animal. The General tab is displayed as the first screen |
| 3 | Report Death | Changes the Life Status of the animal to Dead and captures the Reason and Date of Death <i>(Available in the General Tab for Alive animals)</i> |
| 4 | Screen Title / Process Title <i>(Display Only)</i> | Displays the title of the previous screen or process flow used to access the View Animal Details Screen |
| 5 | View Contact Details <i>(For animals enrolled in a study)</i> | Displays the contact details of the team responsible for the study in which the animal is currently enrolled. <i>(Available in the Study Tab)</i> |

Table: On Screen Actions on Animal Details Screen

The details displayed in the animal record view are the fields used to identify an animal in a lab.

Fields may appear blank if there is no information available for the field in Ai.Study.

The complete animal record is only available in Ai.Study

| Field Label | Displayed Content | Tab Displayed |
|---------------|---|---------------|
| Description | | General |
| Digitail Tag™ | The most recent associated Digitail™ code associated to the record | General |
| Visual ID | Visual Id Type and identification code of the animal <i>The Field Label is Replaced by the Field Value when this field is filled</i> | General |
| Unique ID | Unique ID each animal record is given by Ai.Study | General |

| | | |
|--|---|----------|
| Age | Animal's Age in the format Years, Months, Weeks, Days | General |
| Date of Birth | Animal's Date of Birth | General |
| Date of Death <i>For animals which have been Recorded as Dead</i> | Animal's Date of Death | General |
| Strain | Animal's strain / model name | Genetics |
| Line | Animal's line / genetic name | Genetics |
| Genotype | Animal's genotype | Genetics |
| Phenotype | Animal's phenotype | Genetics |
| Container | Cage name in which the animal is housed | Location |
| Rack | Rack name in which the cage is located | Location |
| Room | Room name in which the rack is located | Location |
| Building | Building name in which the room is located | Location |
| Facility | Name of the facility which the building is within | Location |
| Organization | Name of organization which the facility is under | Location |
| Study | The study to which the animal is enrolled | Study |
| Phase | The phase of the study which to which the animal is currently enrolled | Study |
| Experiment | The experiment within a study phase to which the animal is currently enrolled | Study |
| Contacts | Contact of the Principal Investigator and Study Creator of the Study in which the animal is currently enrolled. <i>May include additional Contacts if provided</i> | Study |

Table: Animal Details Fields

1.3.6.1 Record animal death

You can use Ai.Connect to record an animal's death

- Go to your selected Animal Record Details (Animal Details) using either the **Scan** or **Find animal** options.
- In the General Tab, tap **Report death** to capture details of the animal's death and update its life status from Alive to Dead.

Important

For animal records with a life status of Dead the Report death button will not be displayed and is replaced by the field Date of Death.

You may or may not have permission (access rights) to Report death on an animal record. These permissions are managed in Ai.Study.

Caution

Animals reported dead cannot be reverted to 'Alive' using the Ai.Connect.

To revert your actions you will need to access the animal Record using Ai.Study.

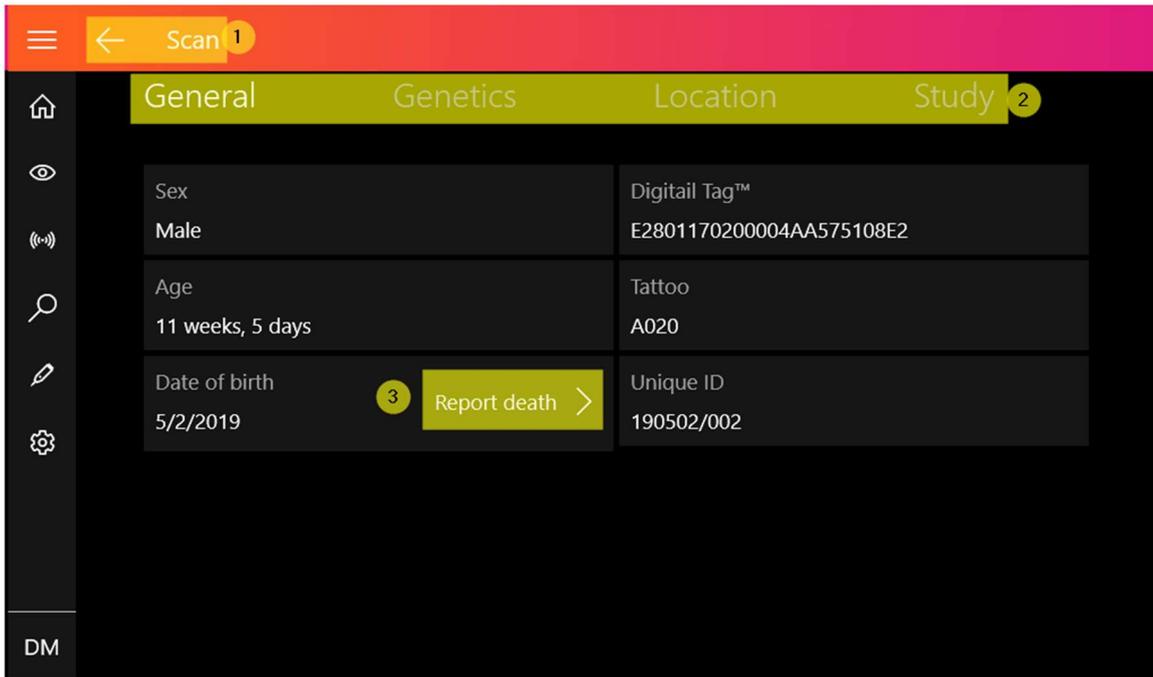


Figure Animal Record: General Tab - Report death button

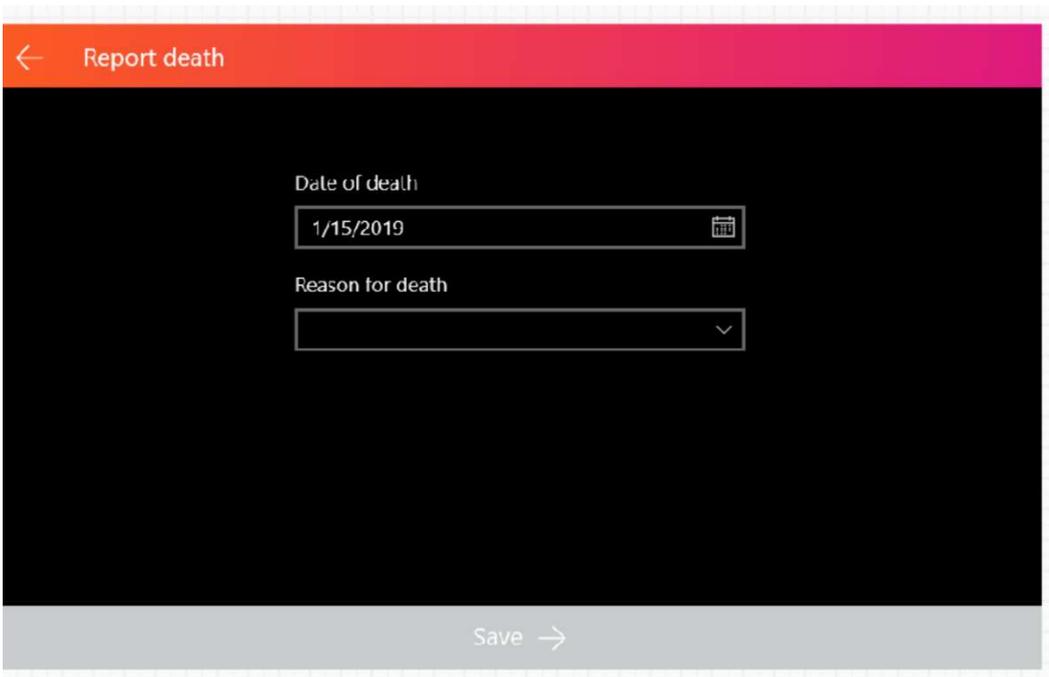


Figure: Report death of animal

- Tap **Date of death** to display an on-screen calendar.
- Tap to select a **Date** of the animal's death.

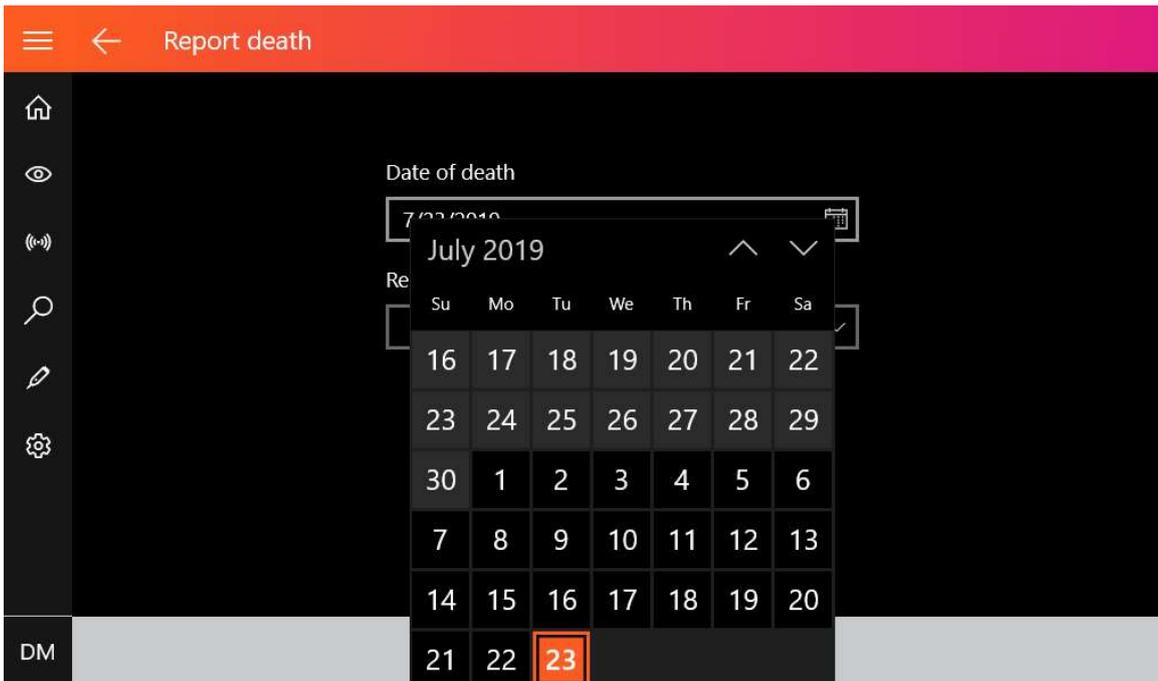


Figure: Date of death on screen calendar

- Tap **Reason for death** and select the reason of the animal's death from the displayed list.

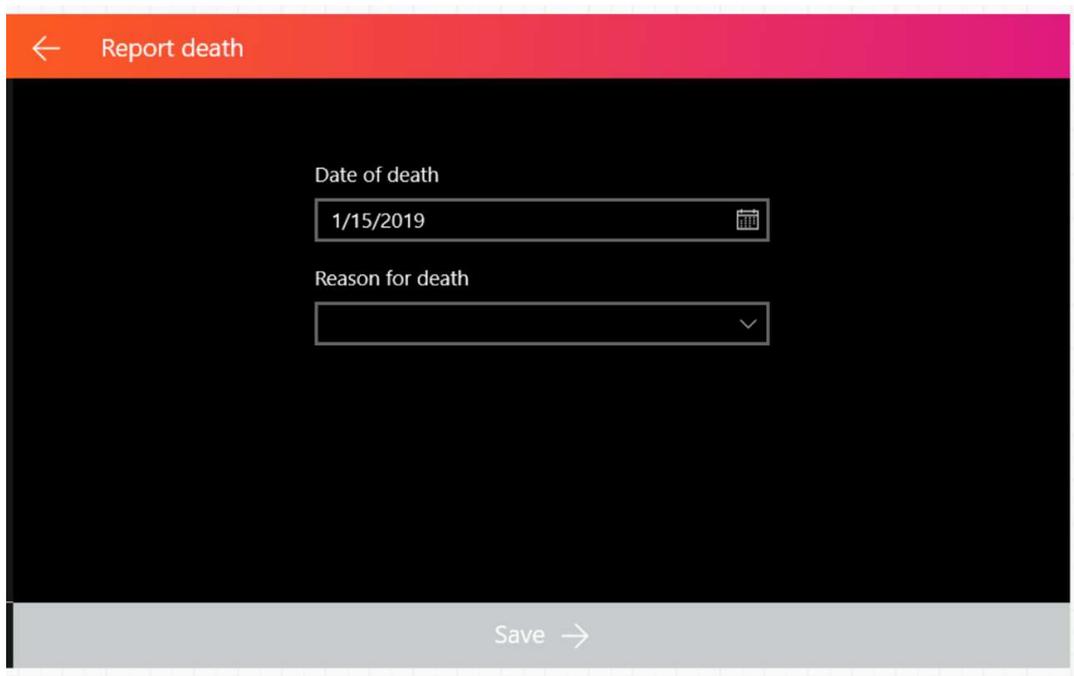


Figure: Report death - Reason for death field

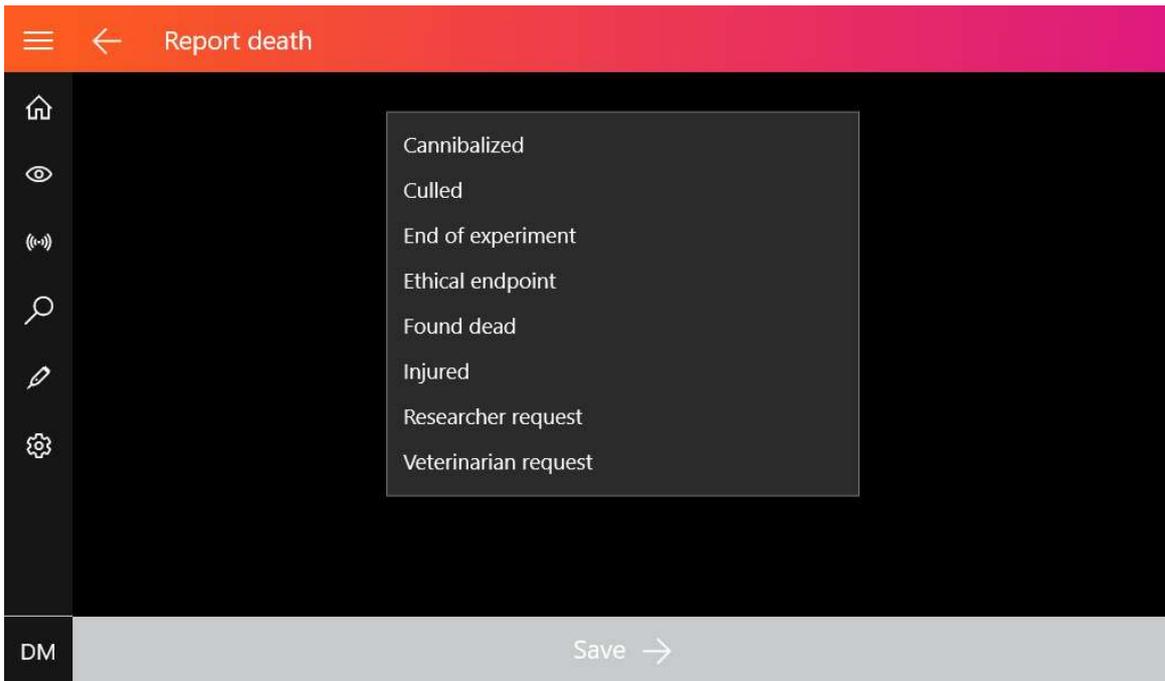


Figure: Reason for death - Select Reason

- Tap **Save** and update the Life Status of the animal in the animal record.

Note

Digitail tags may continue to read in the carcasses of dead mice. Decomposition, cannibalism, and dehydration may affect readability.

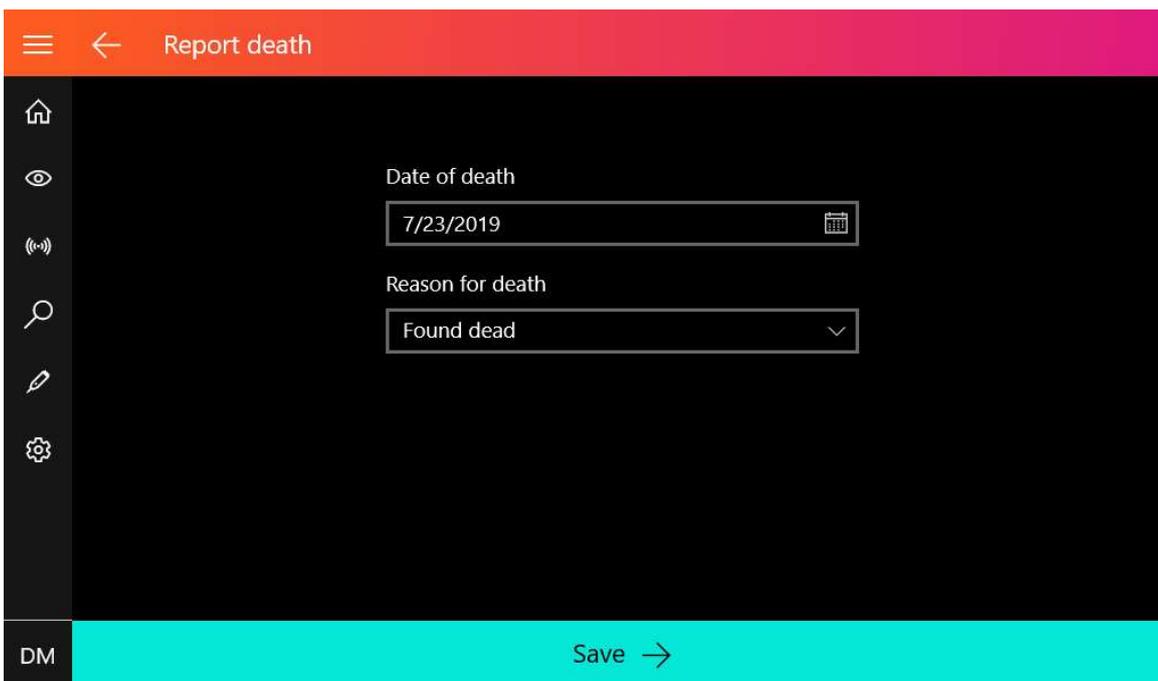


Figure: Update the animal record with the Reported Death

- To view the updated animal Record Tap **Done**.
- To record another animal death, Tap **New animal**.
This will return you to the list of animal records (Find animal) or Scan Screen which you used to select the current animal record.

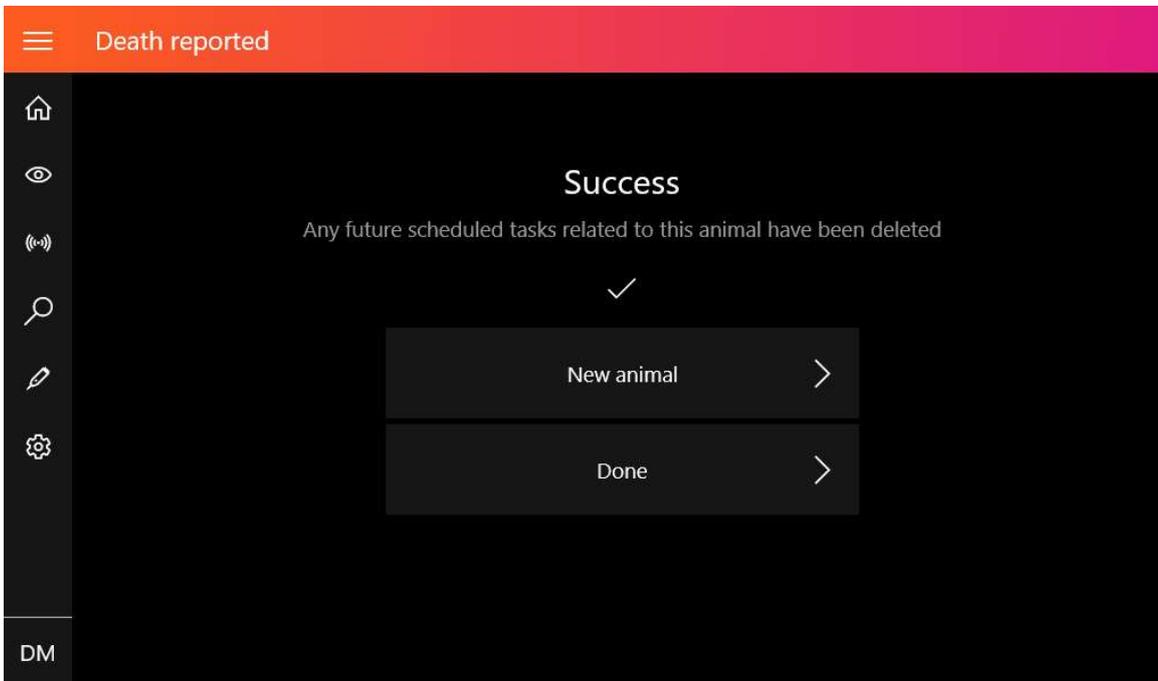


Figure: Animal record update successful

- The animal record will now display the **Date of death** in place of the Report death button.

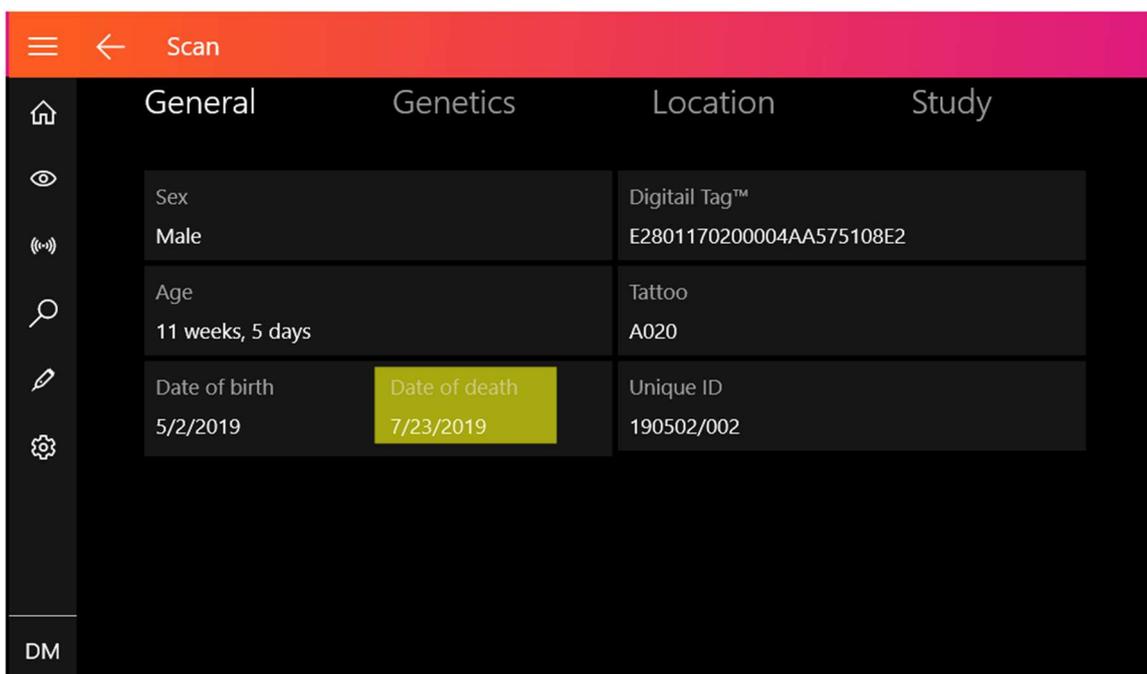
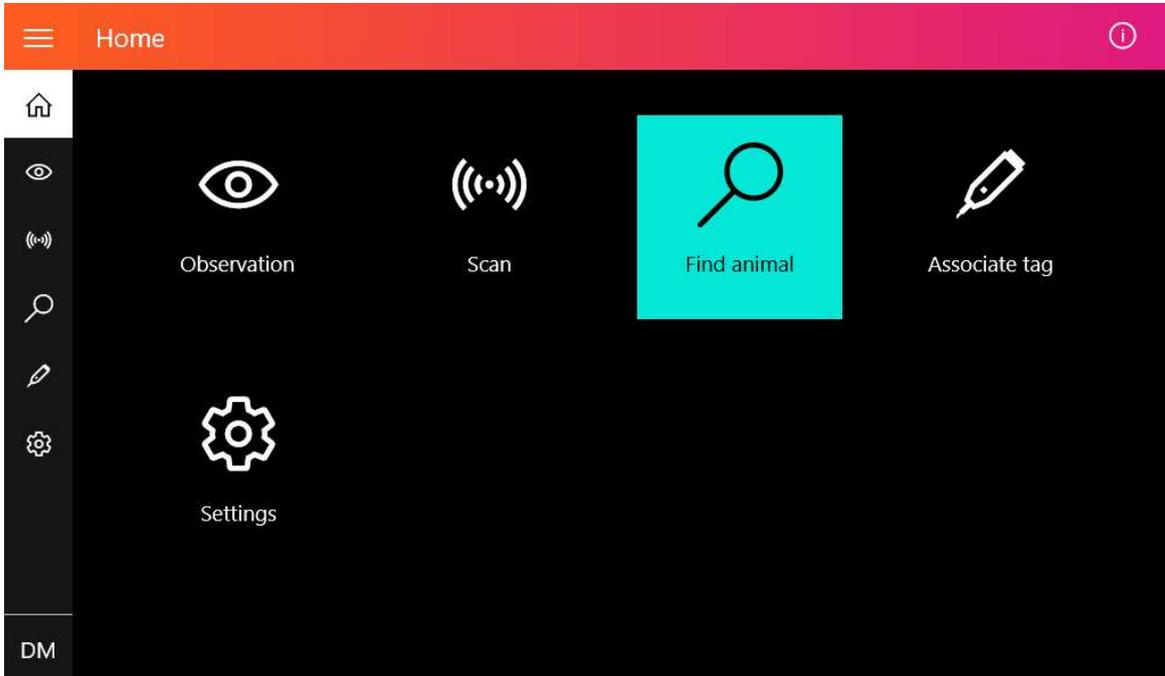


Figure: Updated animal record displaying Date of death

1.3.6.2 View Contact Details of a Study

If an animal is enrolled in a Study, you can view the contact details of the Study Team.

- Go to your selected animal record details (Animal Details) using either the **Scan** or **Find animal** options.



- Tap on the **Study Tab** to display the Study Details.

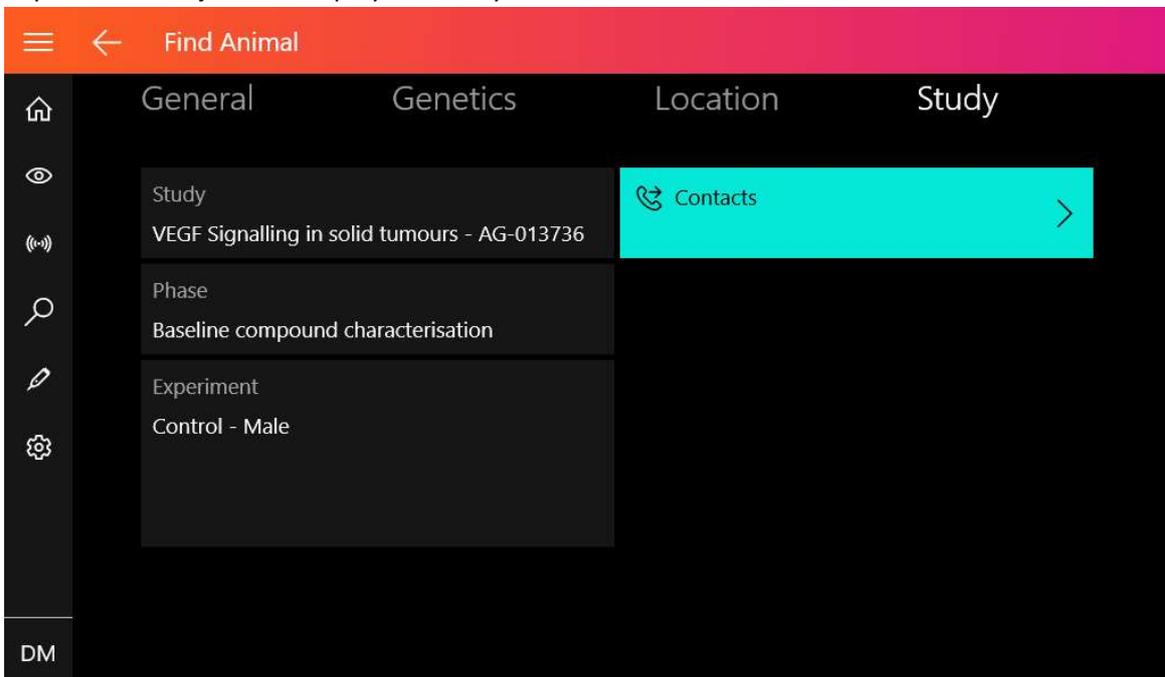


Figure: Animal record Study tab

- Tap **Contacts** to display the Study Team Contact details.
- Swipe **Down or Up** to display more Contacts (Other) if a vertical scroll is displayed to the right of the screen.

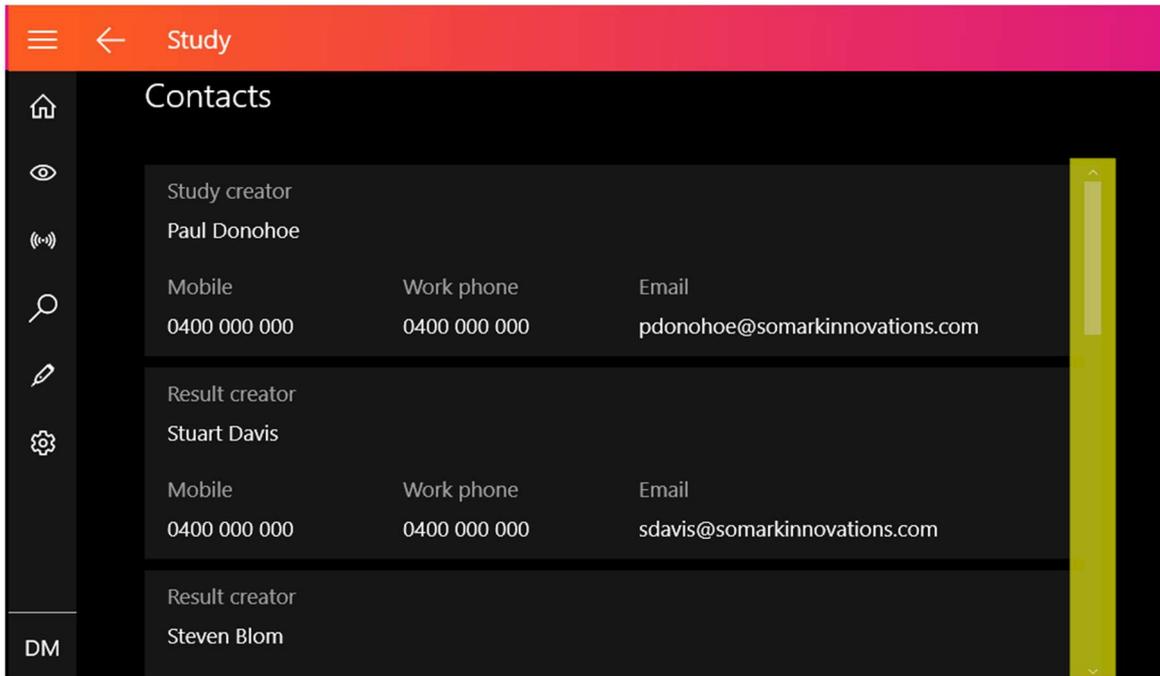


Figure: Contacts with vertical scroll

Important

An animal must be enrolled in a Study for Contacts to be displayed.

Contact information is only available for Studies which have Contacts setup in Ai.Study.

1.3.7 Search for an animal record on Ai.Connect

You can find an animal record in Ai.Connect by either scanning the Digitail™ tagged animal or by using a Visual Id or Container Id to Search for the animal.666

Important

Ai.Connect will only display animals records which you have permission to access in your animal list, cage list and related search results.

1.3.7.1 Animals tagged with Digitail™

- Tap on the **Scan** button on the Home Screen or in the Left Navigation Menu.

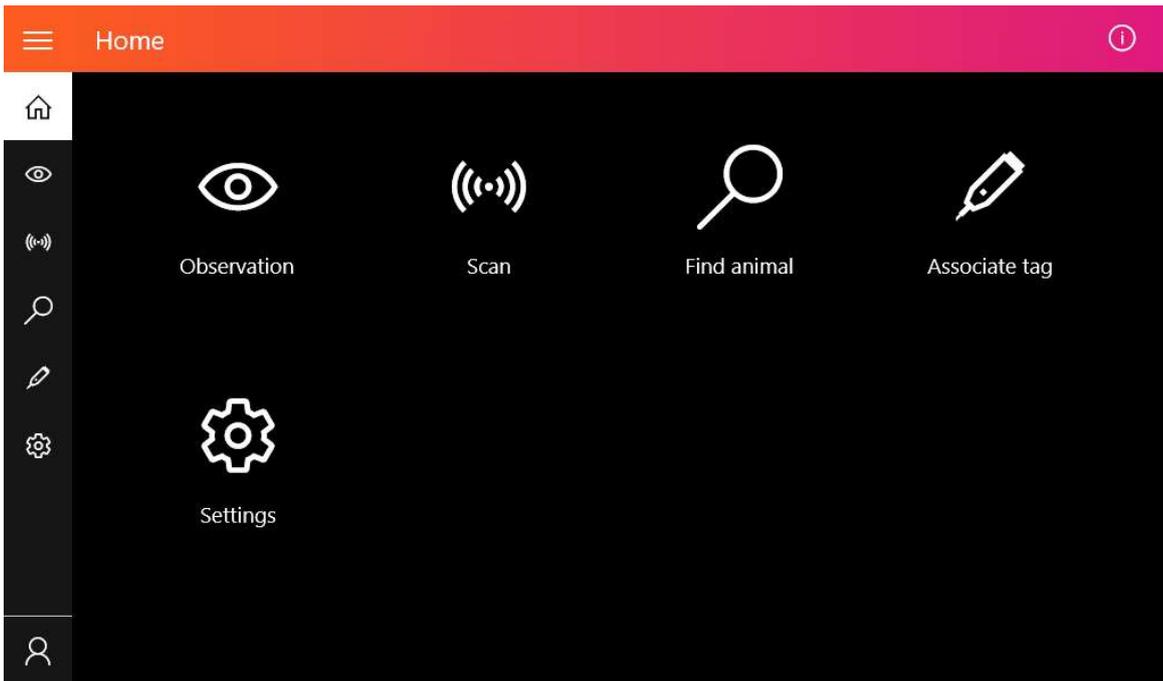


Figure: Scan option on Home Screen and Left Hand Navigation

- **Scan** an animal or cage of animals on the Ai.Read.

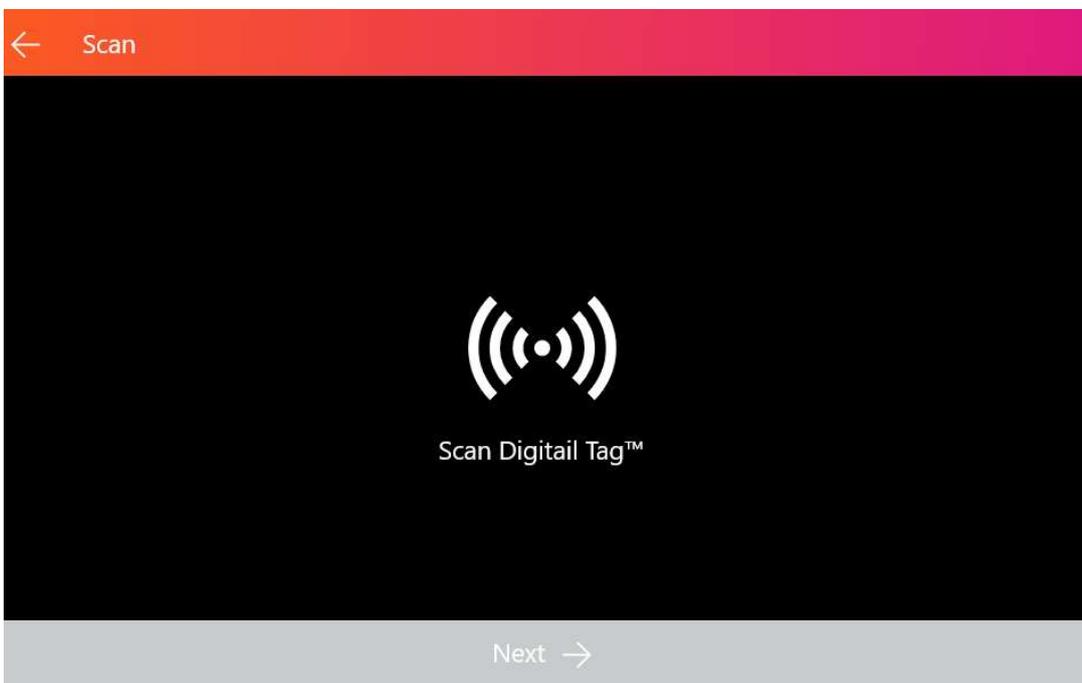


Figure: Scan animal to View animal record

Tap **Next** on the Tag found confirmation Screen.

The number of Tags found will be displayed depending on if a single tag or multiple tags were scanned.

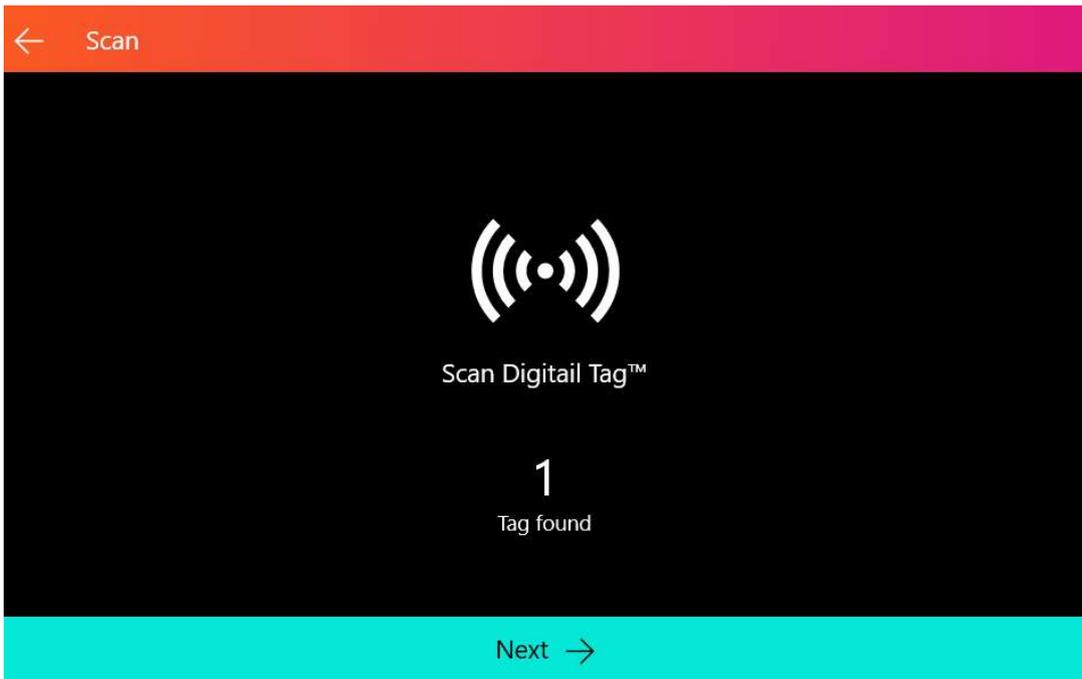


Figure: Tag successfully scanned and animal record identified

- Tap **Next** to:
 - View the animal details – if 1 tag is found or if multiple tags were scanned but are associated to the same animal record.
 - View the list of animals – if more than 1 tag is found associated to multiple animals.

If Ai.Connect detects the scanned Digitail™ tagged animal to not be associated with any animal record the user will be presented with an Error Screen. Tap **OK** to return to the Scan animal screen and scan another animal with a registered Digitail™ tag.

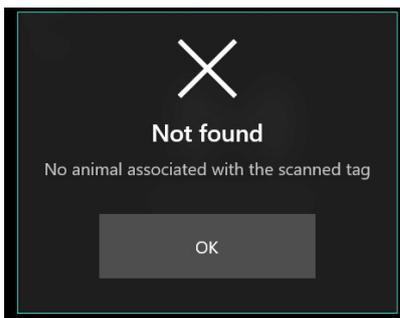


Figure: Error Notification No animal associated with the scanned tag

1.3.7.2 Find animal

- Tap on the **Find animal** button on the Home Screen or in the Left Navigation Menu

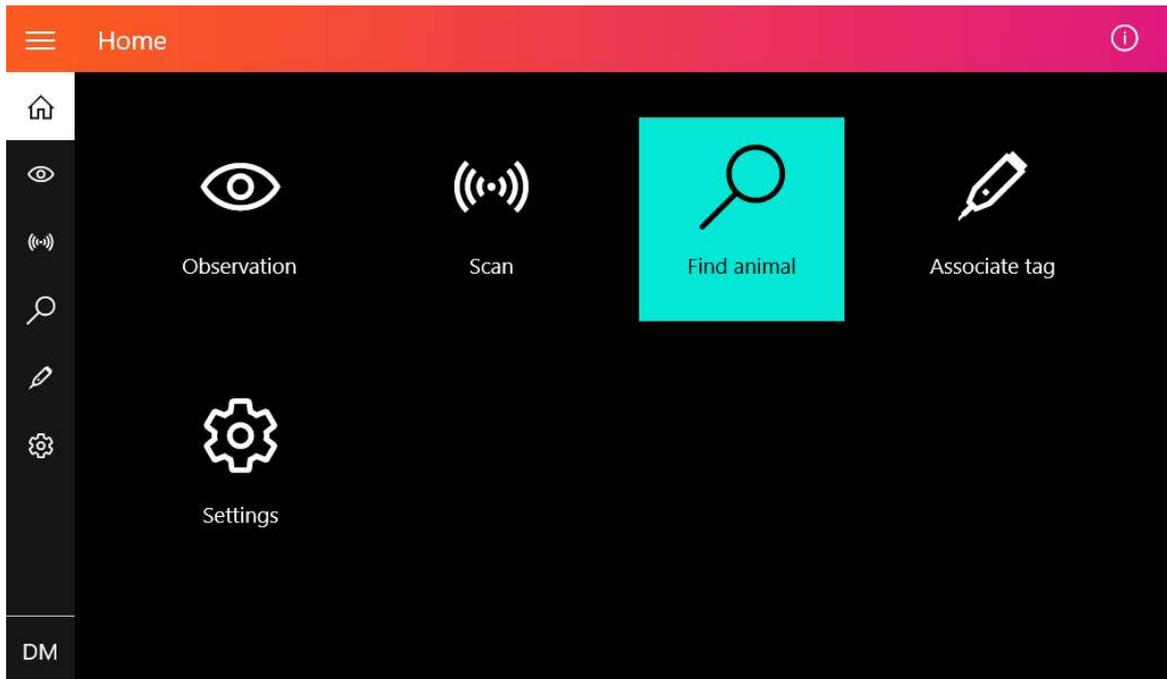


Figure: Options to access Find animal

- **Using Visual ID:** Tap the **Visual ID** field to use the virtual keyboard to enter the Visual Id of the animal.
- **Using Cage ID:** Tap the **Cage ID** field to use the virtual keyboard to enter the Cage ID where the animal is located.
- **Using Unique ID:** Tap the **Unique ID** field to use the virtual keyboard to enter the Unique Id of the animal.

A list of animal records with matching IDs will be displayed with the Total Number of matching records displayed at the top-centre location of the screen.

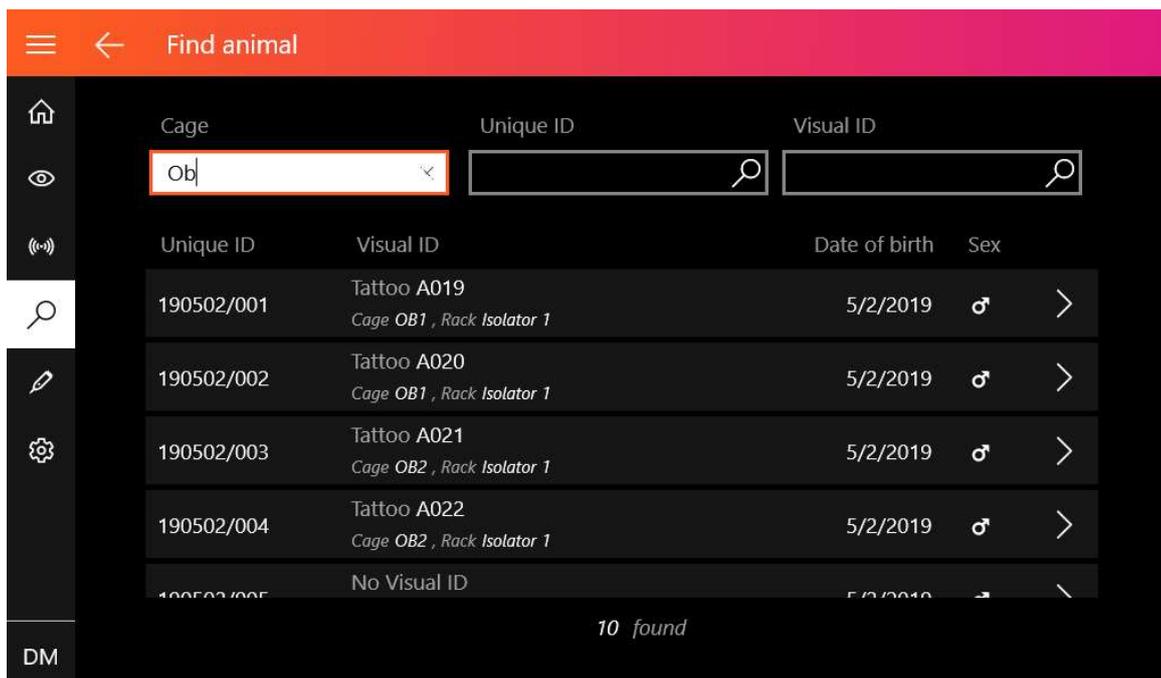


Figure: Find animal using Cage ID

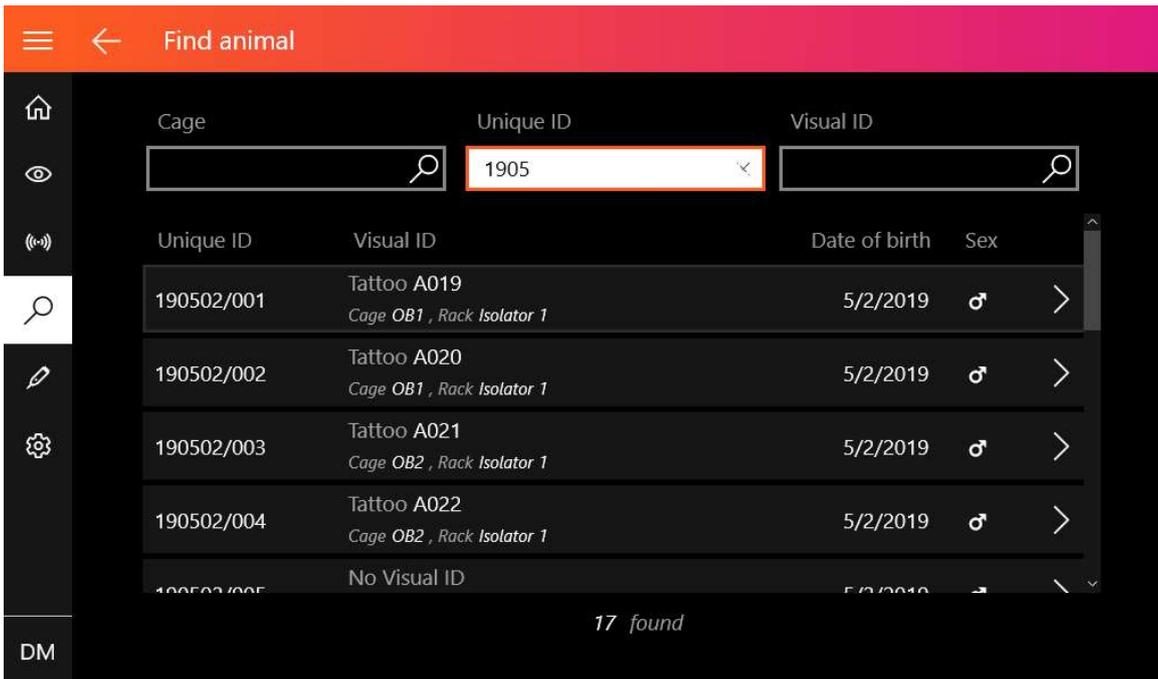


Figure: Find animal using Unique ID

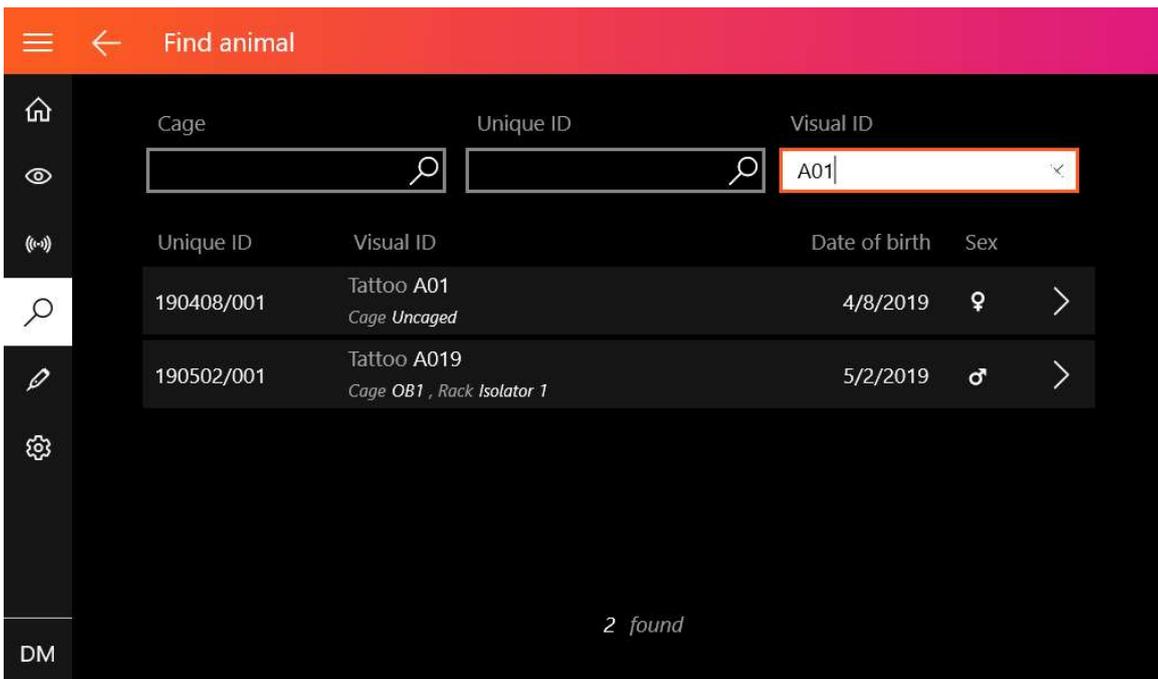


Figure: Find animal using Visual ID

- Tap the animal **record** from the list to select and view its details.

Important

You can fill in both the Container and Visual Id field to shortlist the animal results displaying animals with a specified Visual Id from a specified Container.

 **Note**

Tap on the **X** key on the virtual keyboard to close the keyboard.

To reopen the keyboard, tap on the relevant text field on the page.

You may also use a physical keyboard to enter field values in Ai.Connect by connecting a USB or Bluetooth keyboard to the Ai.Connect.

1.3.8 Capture and Record an Observation for an animal

You can capture and associate your test results directly to your animal records by recording observations on the Ai.Connect.

Simply connect approved lab equipment such as Mettler Toledo Weigh Scales and Mitutoyo or Fowler Digital Callipers with the USB data out feature to the Ai.Connect and follow the Observation capture option to capture and record the results directly to a selected animal Record.

Note

You can restrict the type of observations to be taken for an animal by enrolling an animal in a Study Experiment in Ai.Study. Ai.Connect will only display the permitted Test Methods within an Experiment for animals enrolled in an experiment.

1.3.8.1 Using Scan to record an observation for a Digitail™ tagged animal

- Tap **Observation** on the Home Screen or in the Left Navigation Menu

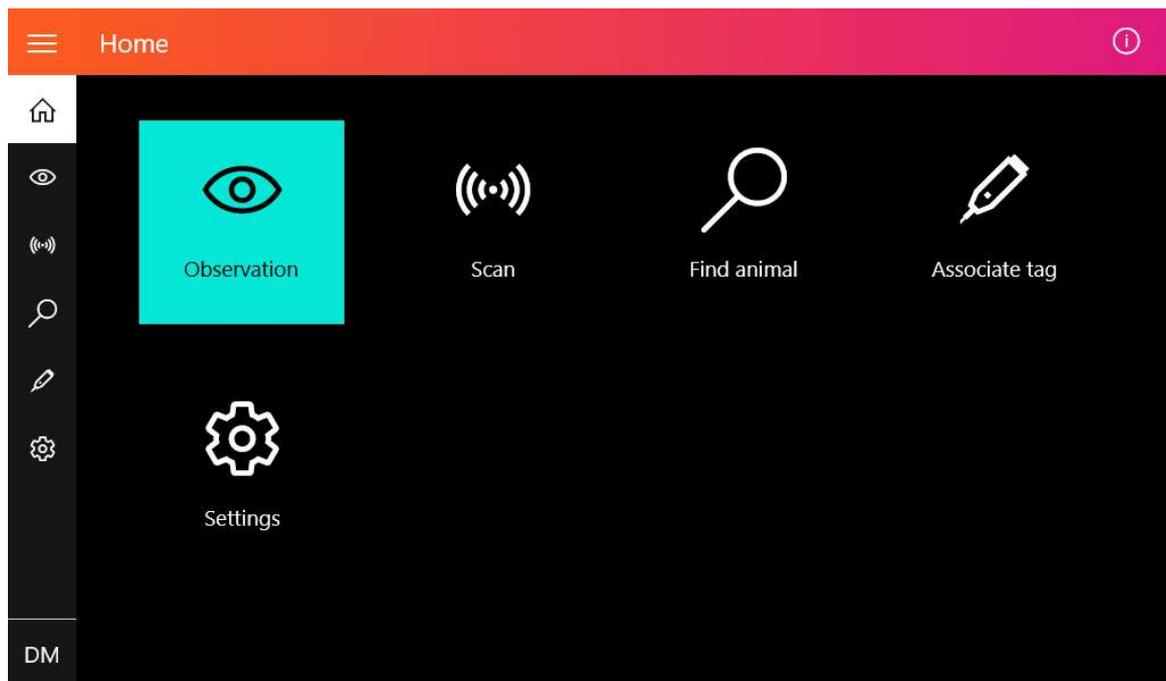
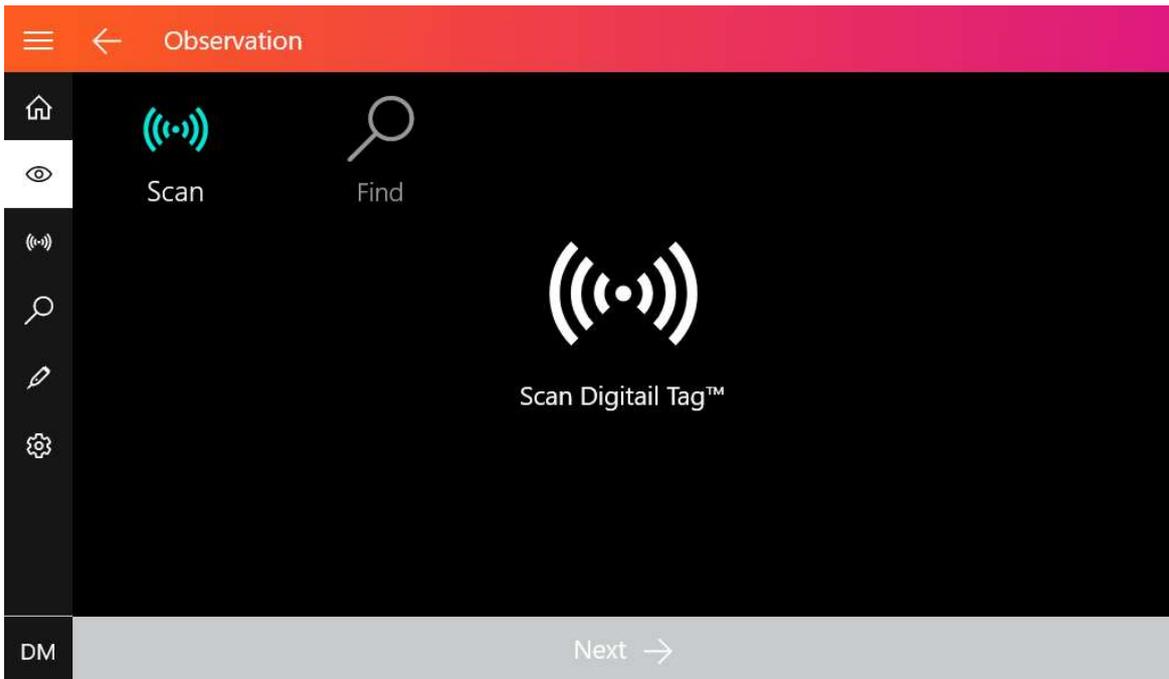


Figure: Observation on Home Screen and Left Navigation

- **Scan** an animal on the Ai.Read.
If you have moved to the **Find** option, tap **Scan** to return to the Scan Screen.



- Tap **Next** when the tag has been found to view the list of supported Observation Options

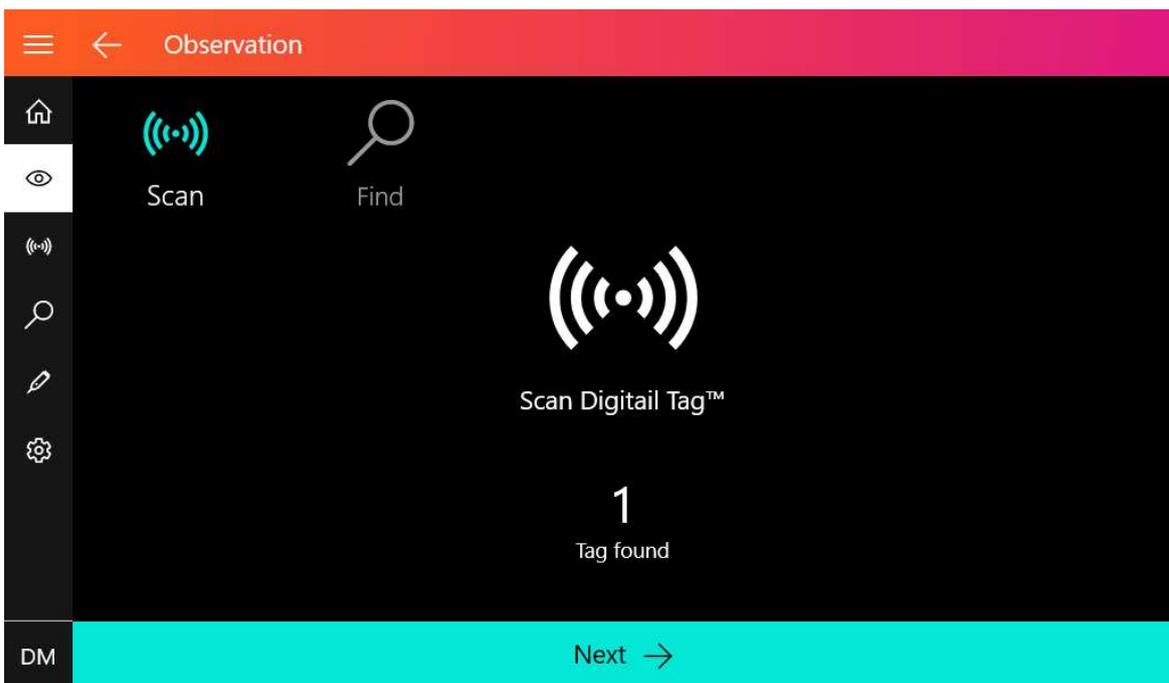


Figure: 1 tag found will be displayed for animals with one or multiple tags associated to the animal

If Ai.Connect detects the scanned Digitail™ tagged animal to not be associated with any animal record the user will be presented with an Error Screen. Tap **OK** to return to the Scan animal screen and scan another animal with a registered Digitail™ tag.

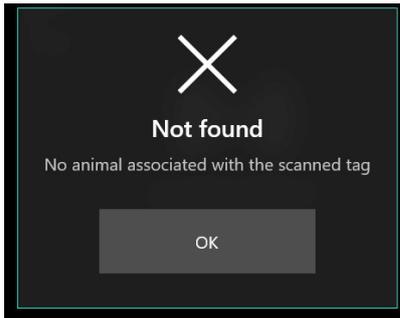


Figure: Error Notification No animal associated with the scanned tag

- The following Perform Test screen will only appear if both **Measure** and **Weigh** Test methods have been defined for that animal in its Experiment. If the only test method is either Measure or Weigh, this screen will not display, and you will be taken directly to the Weigh or Measure data capture screens.
- Tap the Observation Method **Measure** (for data capture with digital callipers) or **Weigh** (for weight data capture) to display the available Tests for the scanned animal.
- Tap the **Test** you wish to perform from the options available.

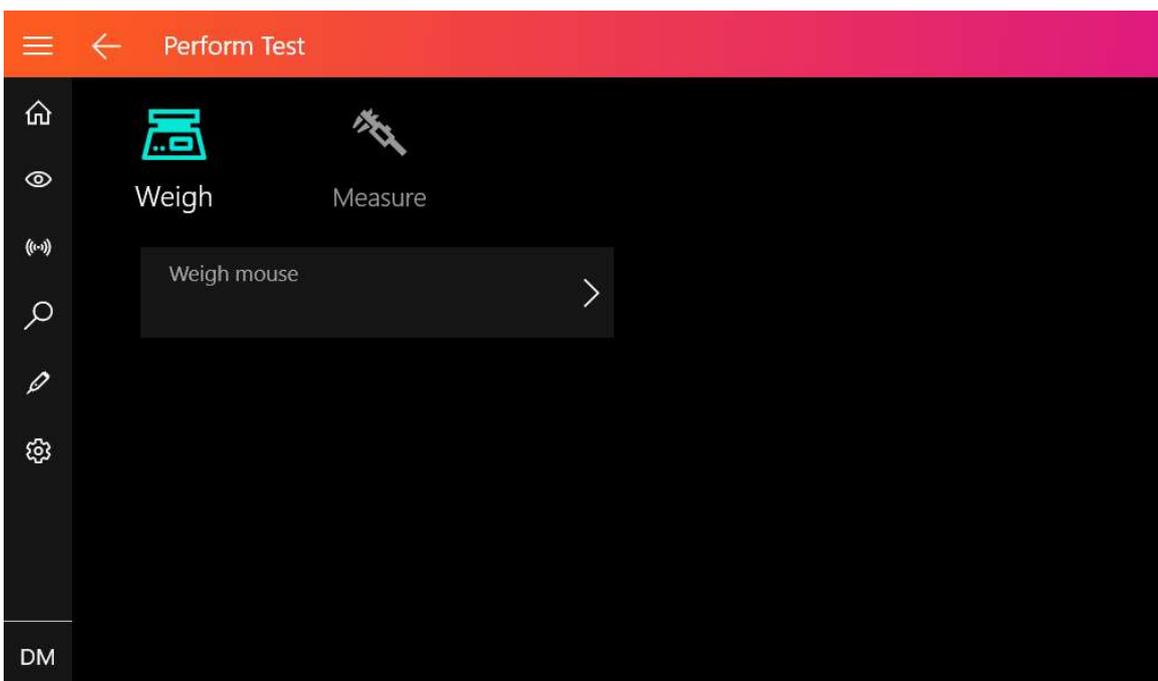


Figure1: Perform Test

1.3.8.2 Find an animal using its Visual ID, Unique ID or Cage ID to record an observation

- Tap **Observation** on the Home Screen or in the Left Navigation Menu.

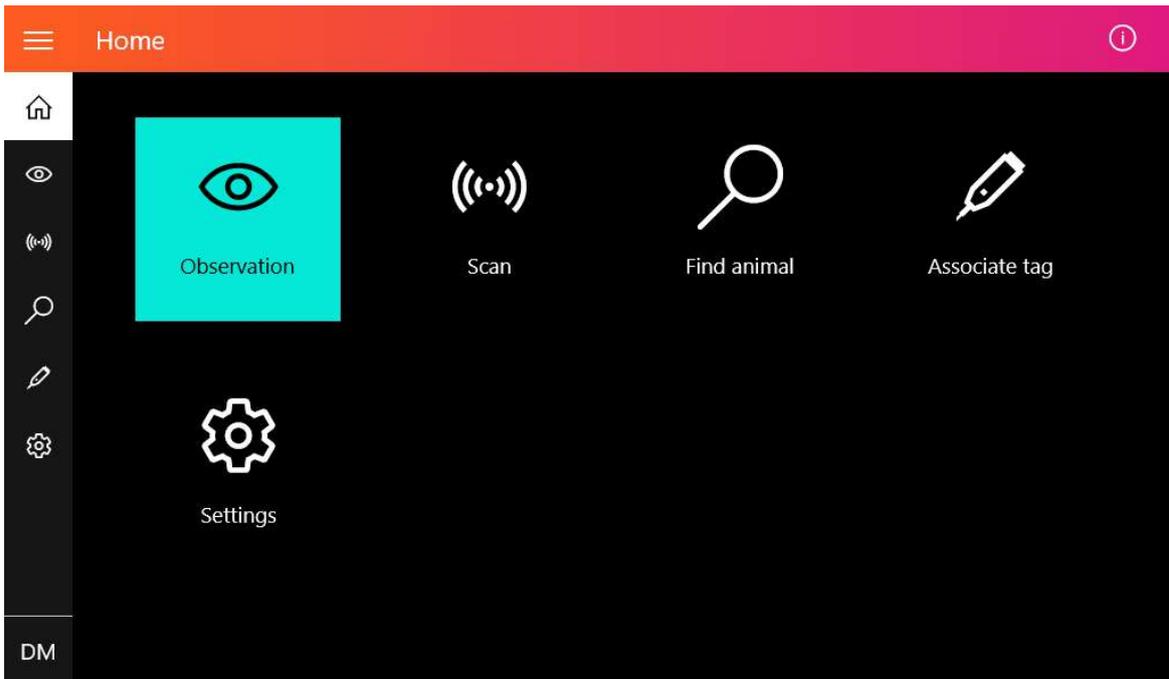
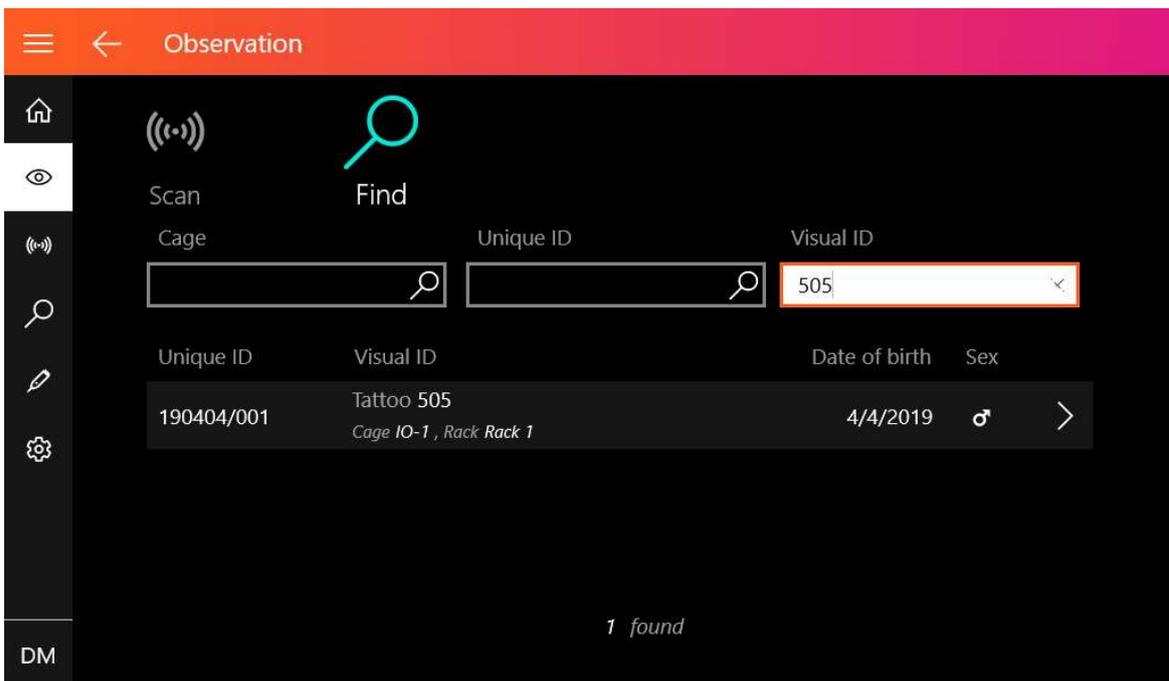


Figure: Observation on Home Screen and Left Navigation

- Tap **Find** to use an animal's Visual ID, Cage ID or Unique ID to search for the animal Record.

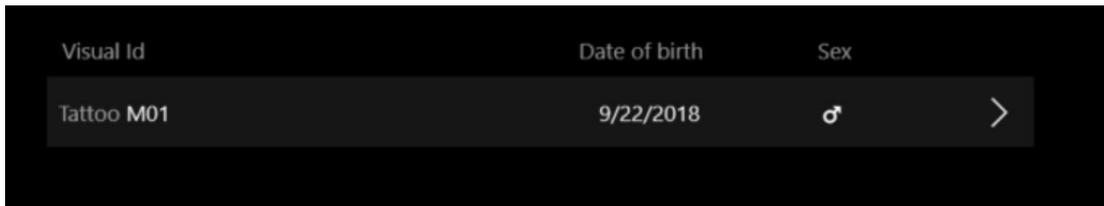


- Tap the **Container field** or **Visual Id** to enter a value using the on-screen touch keyboard

Important

You can fill in both the Container and Visual Id field to shortlist the animal results displaying animals with a specified Visual Id from a specified Container.

- Tap the animal **record** from the list to select the animal for observation.



- Tap the Observation Method **Measure** or **Weigh** to display the available Tests for the scanned animal.
- Tap the **Test** you wish to perform from the options available.

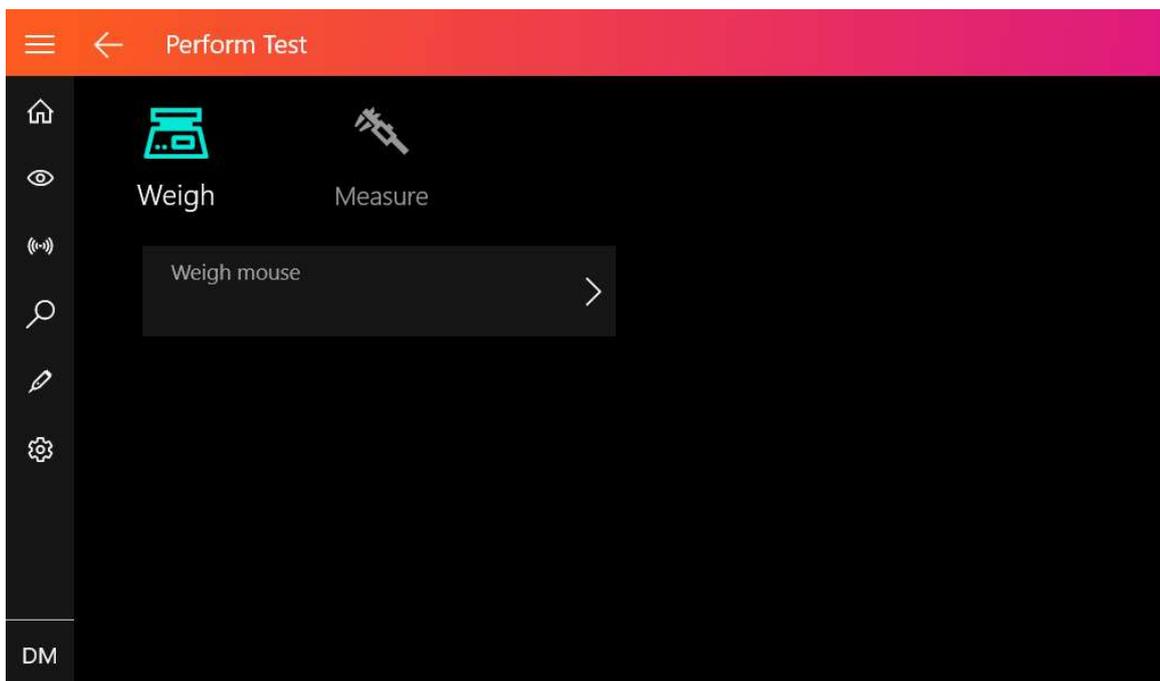


Figure: Perform Test

1.3.8.3 Perform a Test using the Weigh Observation

- On the Perform Test screen for your animal, Tap the **Weigh** to display the available Tests for the scanned animal.
- Tap the **Test** you wish to perform from the options available.

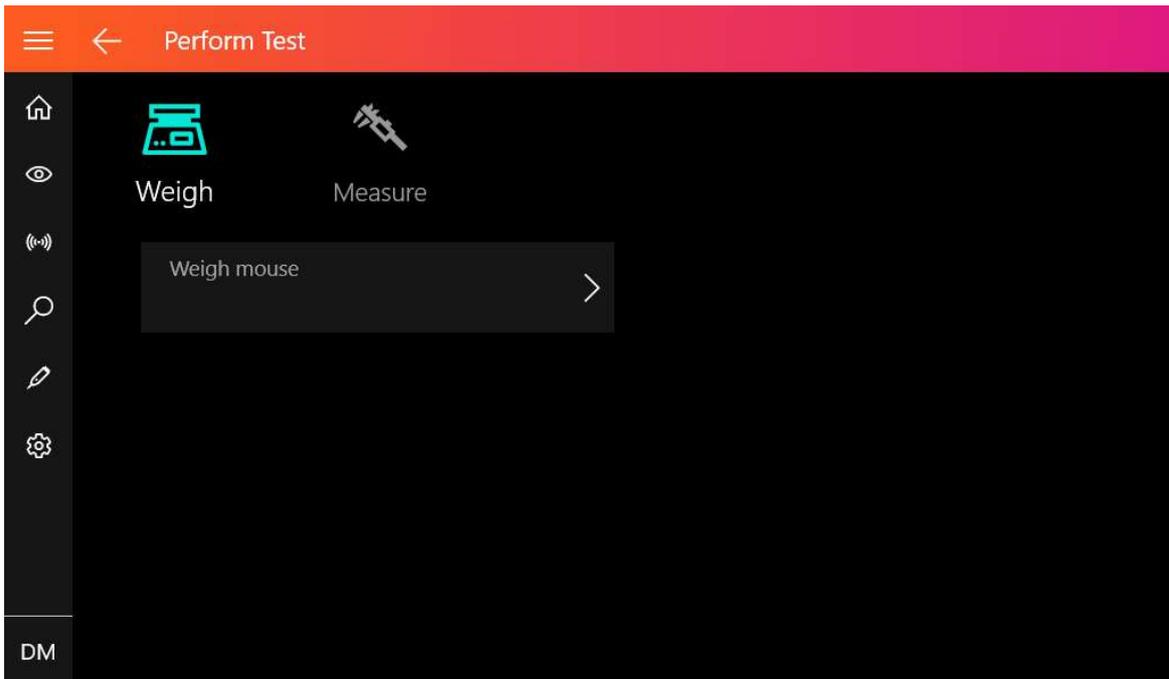
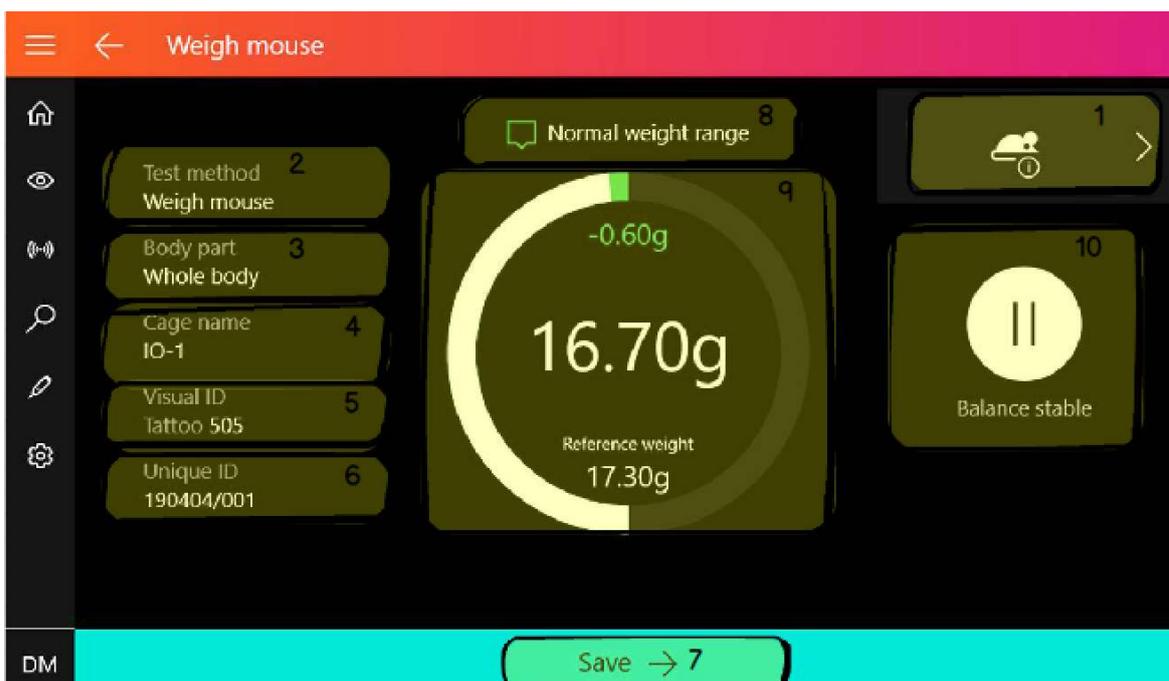


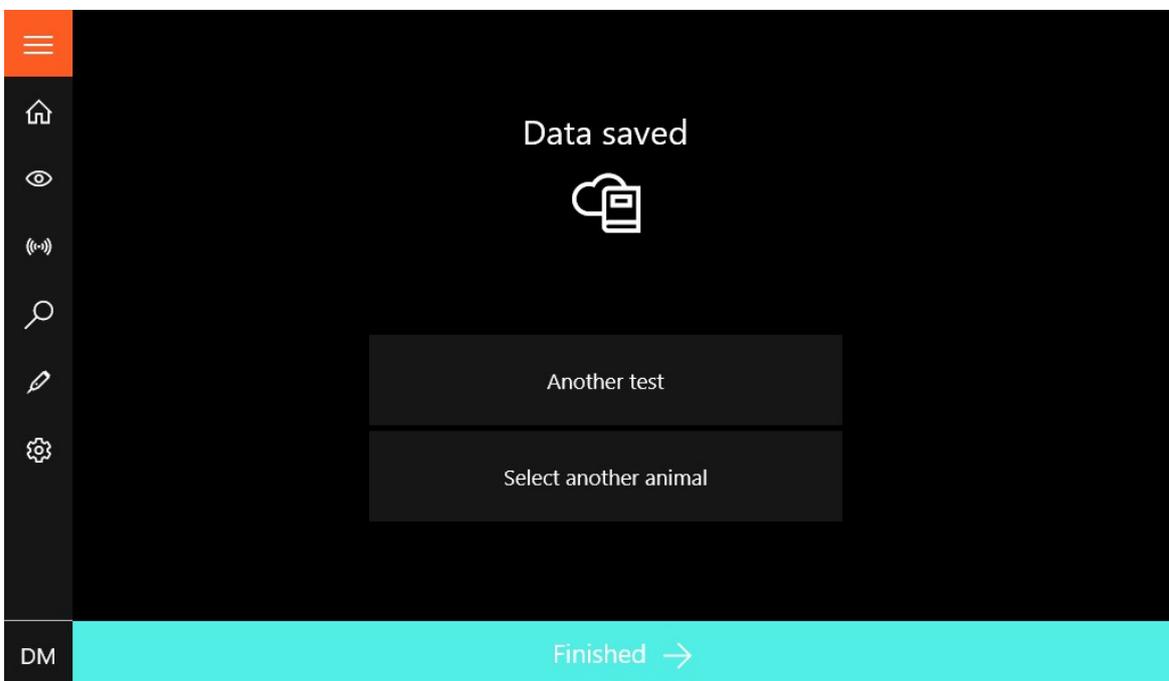
Figure: Perform Test - Tests using Weigh

- Place the animal onto the scale to view the weight and End-Point notifications. (End-Point notification will only display if they have been defined in the Study). The **Save** button will turn active once the weight is stabilised.
- Tap **Save** to record the animal Weight and the End Point notification (if applicable).
- Tap **Pause** to capture the weight if movement on the scale cannot be stabilized.
- Tap **Save** to record the animal Weight and the End Point notification (if applicable)



| Reference | Description |
|-----------|--|
| 1 | Tap to view the animal record (Animal Details) |
| 2 | Displays the selected Test Method |
| 3 | Displays the part of the animal being weighed |
| 4 | Displays the Cage (Container) from which the animal has been retrieved for a test |
| 5 | Displays the Visual ID of the animal <i>Will be displayed as a Blank (no value) for animals with no Visual ID</i> |
| 6 | Displays the Unique ID of the animal |
| 7 | Updates the Weight data value to the animal record <i>Will remain in-active (grey) till the weight data is stable</i> |
| 8 | Displays a notification on the change in weight from the reference weight <i>Only applicable for animals enrolled to a study with a defined Endpoint</i> |
| 9 | Displays the current weight and change in weight from the reference weight <i>Only applicable for animals enrolled to a study with a defined Endpoint</i> |
| 10 | Tap to stabilize and capture a weight at the instance of the tap when the weight is not stabilized due to movement on the scale |

- Tap **Finished** to return to the Observation screen.
- Tap **Another Test** to conduct another test using the same animal.
This will return you to the Perform Test screen for the same animal.
- Tap **Same test – new animal** to conduct the same test using a different animal.
This will return you to the Observation screen to scan or find an animal.



Important

Ensure the scale is tared before weighing animals and recording weights.



If using a beaker on the scale, ensure the scale is tared to the weight of the beaker.

Ai.Connect will show a negative value before the beaker is placed on it. End-points are only available for animals enrolled in studies which have end-points setup in Ai.Study.

1.3.8.3.1 Using End-points for animal weights

You can depend on Ai.Connect to calculate and display a notification on end-points for animals weight in your study.

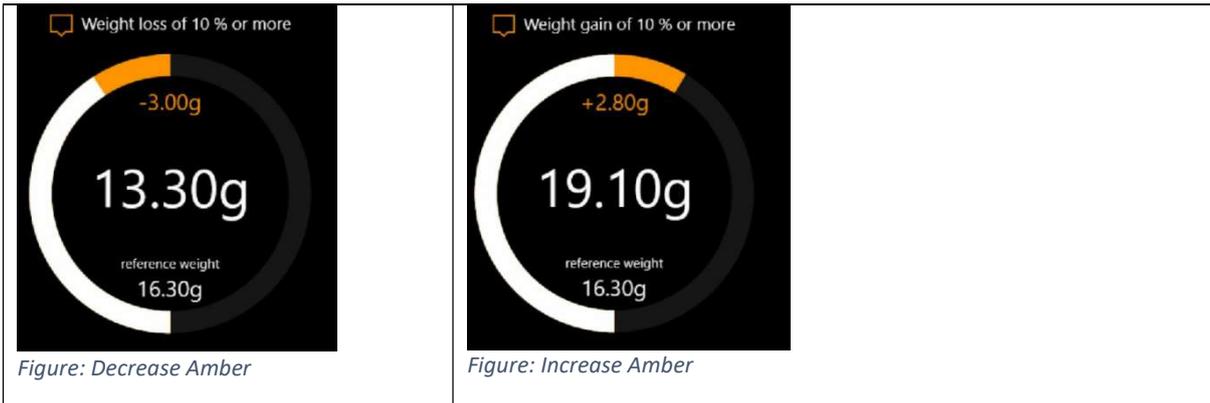
The centre dial on a Weigh test displays the current weight, reference weight and the change in weight between the reference and current weight.

Using a combination of colours and notifications, you can identify if the weight has triggered an end-point or is close to triggering one and needs your attention.

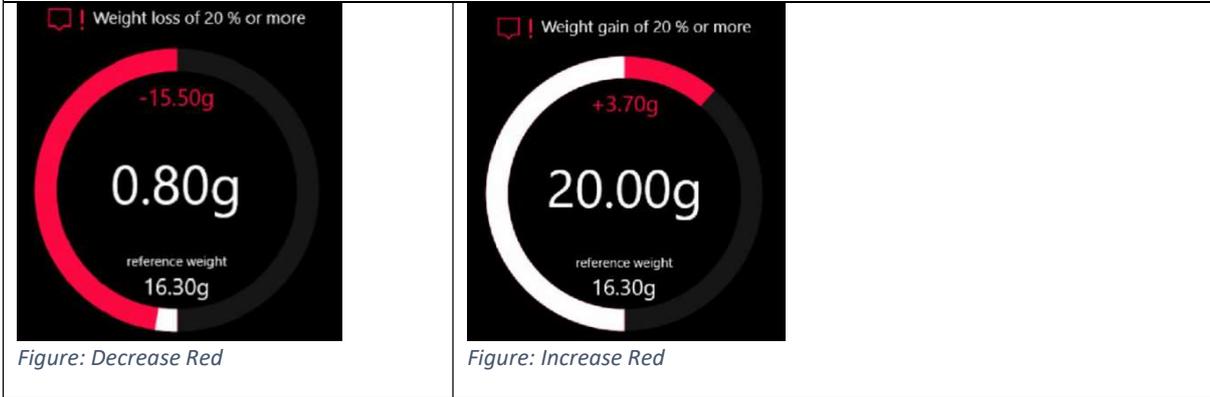
| | | | | | | | | | | | |
|---|--|---|--|---|--|---|--|---|---|---|---|
| | <table border="1"> <tr> <td data-bbox="590 555 646 627">1</td> <td data-bbox="654 555 1332 627">Displays the Current Weight (from the connected scale)</td> </tr> <tr> <td data-bbox="590 638 646 851">2</td> <td data-bbox="654 638 1332 851">Displays the change in Weight from the Previous Recorded Weight + symbolizes an increase in weight - symbolizes a decrease in weight <i>The colour of the value is an indicator of the end-point (where applicable)</i></td> </tr> <tr> <td data-bbox="590 862 646 963">3</td> <td data-bbox="654 862 1332 963">Displays a notification in reference to an end-point <i>The colour of the notification is an indicator of the end-point</i></td> </tr> <tr> <td data-bbox="590 974 646 1064">4</td> <td data-bbox="654 974 1332 1064">Displays the reference weight related to the end-point <i>As a default this is the value of the previously captured weight</i></td> </tr> <tr> <td data-bbox="590 1075 646 1209">5</td> <td data-bbox="654 1075 1332 1209">Dial which displays an increase or decrease in weight from the reference weight and an end-point <i>The colour of the dial is an indicator of range and impact of the weight change as per the end-point</i></td> </tr> </table> | 1 | Displays the Current Weight (from the connected scale) | 2 | Displays the change in Weight from the Previous Recorded Weight + symbolizes an increase in weight - symbolizes a decrease in weight <i>The colour of the value is an indicator of the end-point (where applicable)</i> | 3 | Displays a notification in reference to an end-point <i>The colour of the notification is an indicator of the end-point</i> | 4 | Displays the reference weight related to the end-point <i>As a default this is the value of the previously captured weight</i> | 5 | Dial which displays an increase or decrease in weight from the reference weight and an end-point <i>The colour of the dial is an indicator of range and impact of the weight change as per the end-point</i> |
| 1 | Displays the Current Weight (from the connected scale) | | | | | | | | | | |
| 2 | Displays the change in Weight from the Previous Recorded Weight + symbolizes an increase in weight - symbolizes a decrease in weight <i>The colour of the value is an indicator of the end-point (where applicable)</i> | | | | | | | | | | |
| 3 | Displays a notification in reference to an end-point <i>The colour of the notification is an indicator of the end-point</i> | | | | | | | | | | |
| 4 | Displays the reference weight related to the end-point <i>As a default this is the value of the previously captured weight</i> | | | | | | | | | | |
| 5 | Dial which displays an increase or decrease in weight from the reference weight and an end-point <i>The colour of the dial is an indicator of range and impact of the weight change as per the end-point</i> | | | | | | | | | | |

Figure: Weigh Test Details and Dial

| Colour Indicators and Messages for Dial, Notification and Change in Weight | |
|--|-------------------------------|
| | |
| <p>Figure: Decrease Green</p> | <p>Figure: Increase Green</p> |
| <p>Green The increase or decrease in weight is within the Normal (Acceptable) range</p> | |



Amber
The increase or decrease in weight is within the Inner boundaries of the range



Red
The increase or decrease in weight has crossed the Outer boundaries (End-point)

1.3.8.4 Perform a Test using the Measure

- On the Perform Test screen for your animal, Tap the **Measure** to display the available Tests for Tumour Volume.

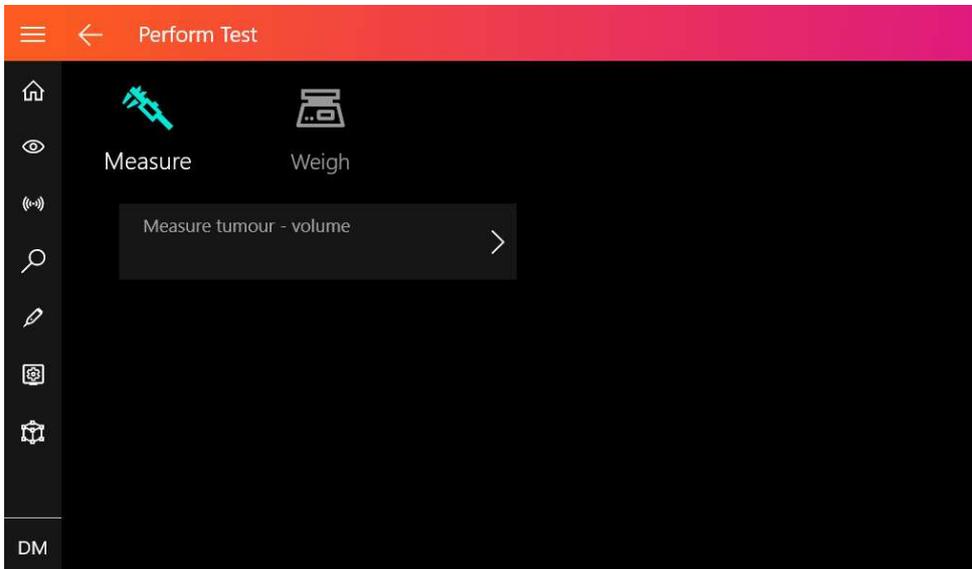


Figure: List of Tests for Measure

- Tap the **Test** you wish to perform from the options available.

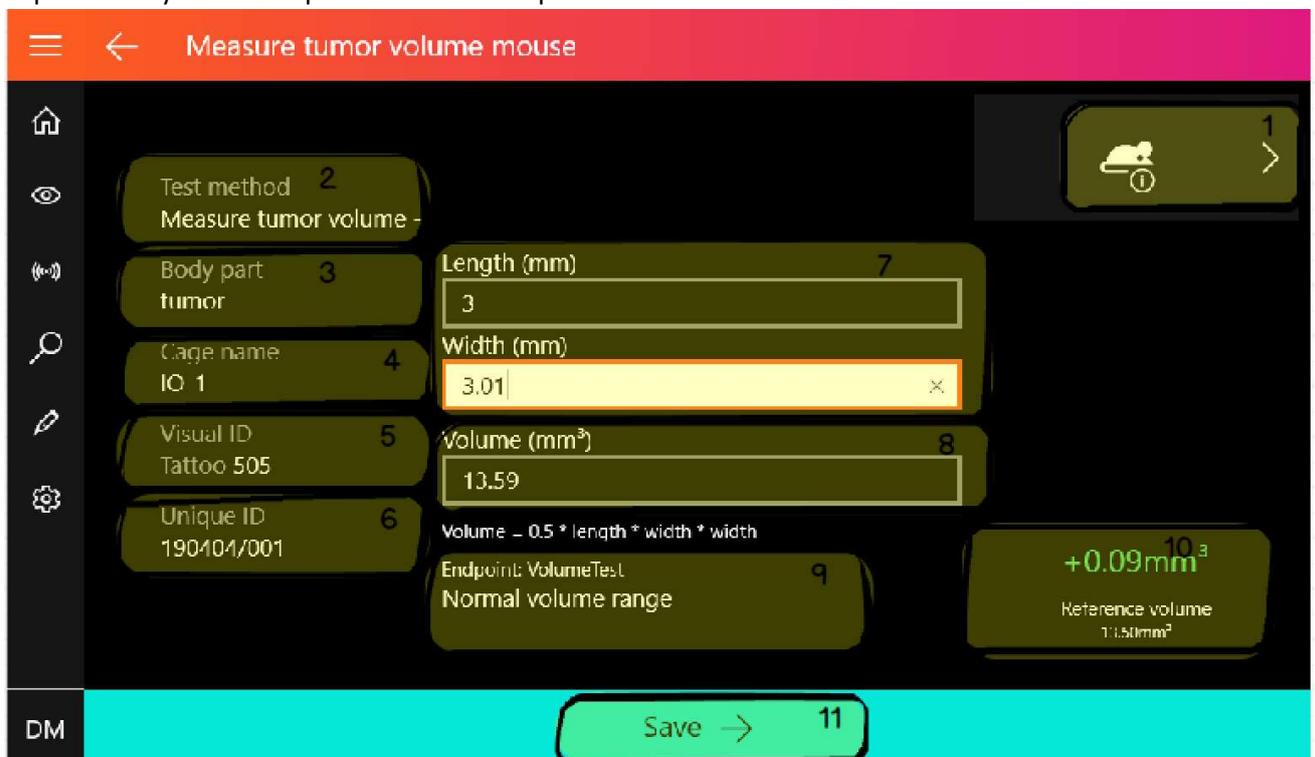


Figure: Measure Tumour Volume

| Reference | Description |
|-----------|--|
| 1 | Tap to view the animal record (Animal Details) |
| 2 | Displays the selected Test Method |

| | |
|----|--|
| 3 | Displays the part of the animal where the tumour is located |
| 4 | Displays the home Cage in which the animal is located |
| 5 | Displays the Visual ID of the animal <i>Will be displayed as a Blank (no value) for animals with no Visual id</i> |
| 6 | Displays the Unique ID of the animal |
| 7 | Captures and displays the length and width measurements of the tumour |
| 8 | Displays the calculated volume of the tumour |
| 9 | Displays the Endpoint configured for the Test |
| 10 | Displays the difference between the Endpoint and the captured volume |

Table 3: Measure tumour volume screen details

- Use your connected Digital Calliper to take the measurement of the tumour and **Click** the button on the Digital Calliper device to transfer the data to Ai.Connect. The measurement method requires that the tumour **width** is measured **first**, and the **length** is measured **second**.

When the Length field has been captured Ai.Connect will wait for the Width field data.

- Repeat the process to capture the Width of the tumour by using your connected Digital Calliper to make your measurement and **Click** the button on the Digital Calliper device to transfer the data to Ai.Connect

Ai.Connect will calculate and display the Volume of the tumour using the Length and Width values.

If the test method included Endpoints, the difference in the endpoint and the volume will be displayed.

Measure tumor volume mouse

Test method
Measure tumor volume -

Body part
tumor

Cage name
IO-1

Visual ID
Tattoo 505

Unique ID
190404/001

Length (mm)
3

Width (mm)
3.01

Volume (mm³)
13.59

Volume = 0.5 * length * width * width

Endpoint: VolumeTest

Normal volume range

+0.09mm³

Reference volume
13.50mm³

DM Save →

- Tap **Save** to update the animal record with the Tumour Volume.
- To conduct another test using the same animal tap **Another Test**. This will return you to the Perform Test screen for the same animal.
- To conduct a test using a different animal tap **Select another animal**. This will return you to the Observation screen to scan or find an animal.

Data saved

Another test

Select another animal

DM Finished →

Figure: Test Data Saved

1.3.8.4.1 Using End-points for tumour volume

You can depend on Ai.Connect to calculate and display a notification on end-points for animals tumour volume as setup in your study.

Using a combination of colours and notifications, you can identify if the volume has triggered an end-point or is close to triggering one and needs your attention.

| Colour Indicators and Messages for Tumour Volume End-Points | |
|--|--|
|  <p><i>Figure: Green</i></p> | <p>Green Text indicates the volume has increased but is under 50% of endpoint</p> |
|  <p><i>Figure: Amber</i></p> | <p>Amber Text indicates the volume has increased and the tumour is 50% above the reference volume</p> |
|  <p><i>Figure: Red</i></p> | <p>Red Text indicates the volume has surpassed the reference volume</p> |

1.3.9 View Details of Connected Devices

The Ai.Connect displays the list of connected devices and their details. This may be required for troubleshooting of devices or connectivity between devices.

- Tap the **Settings** button on the Home Screen or on the left menu navigation (in any screen).

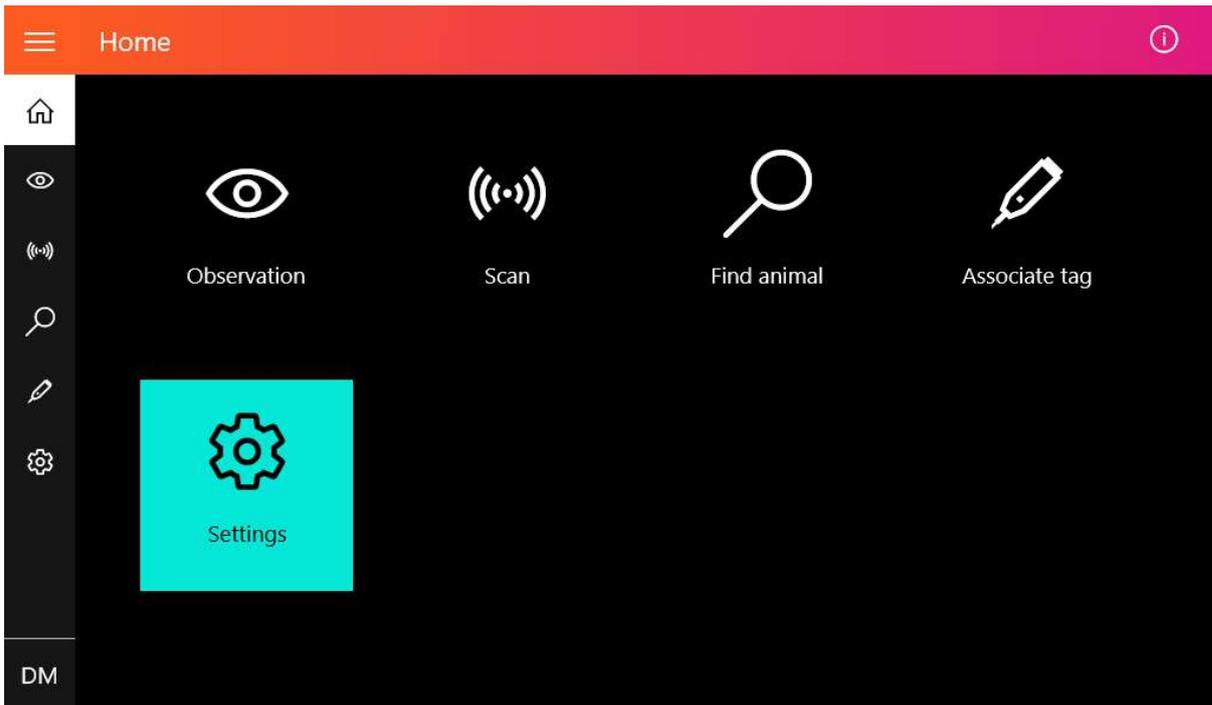
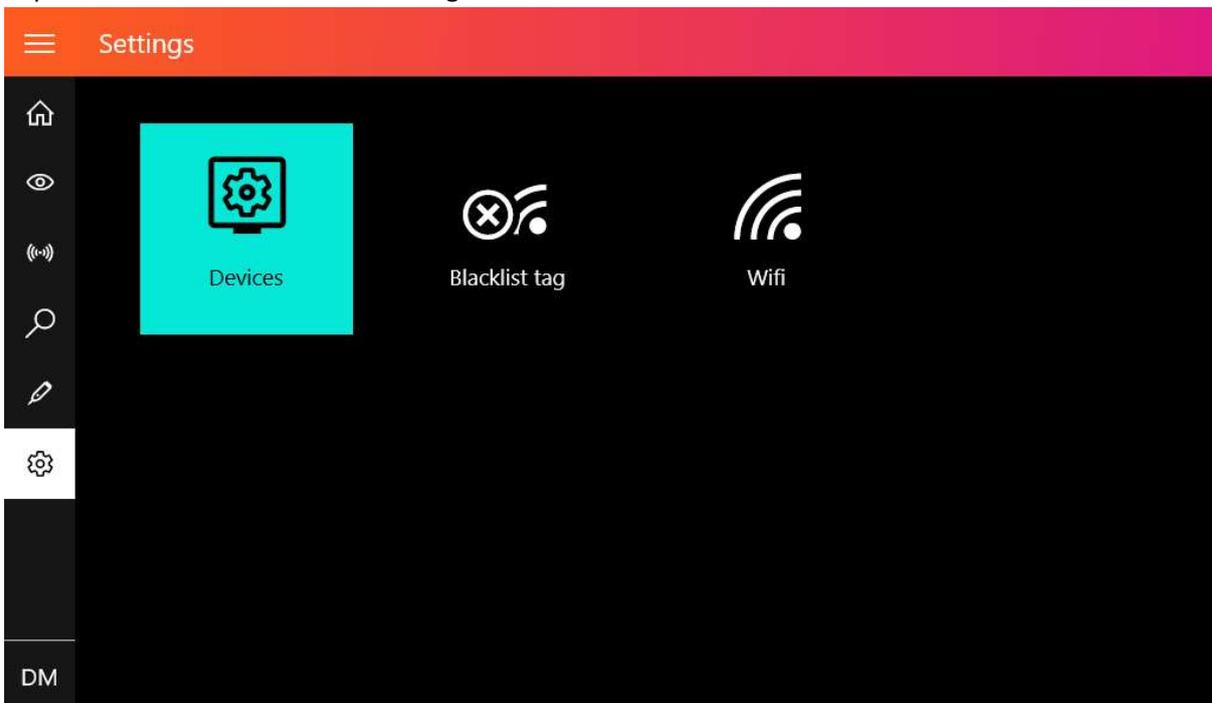


Figure: Select Settings from Menu or Home Screen

- Tap the **Devices** button on the Settings Screen



The Devices screen will display all recognized connected devices discovered by the Ai.Connect.

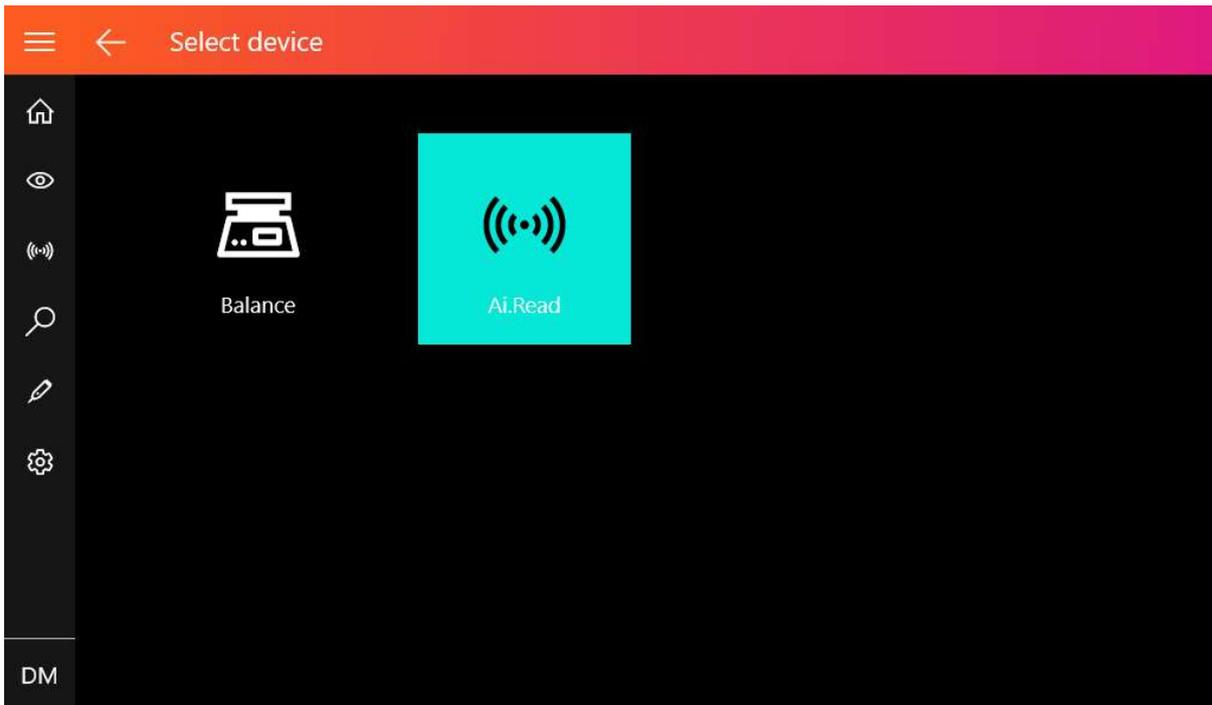


Figure: List of Connected Devices

Important

Ensure the device you wish to view is connected to the Ai.Connect using a provided cable and the device is powered ON (for devices which require their own power supply).

A user must be logged into the Ai.Connect to access the list of devices.

The device list will not display a connected digital calliper, mouse or keyboard.

- **Device Details:** Tap on a **Device** for device details.

The Devices screen will display the details of the selected device.
Details include the Serial Number, the Status and the Manufacturer.

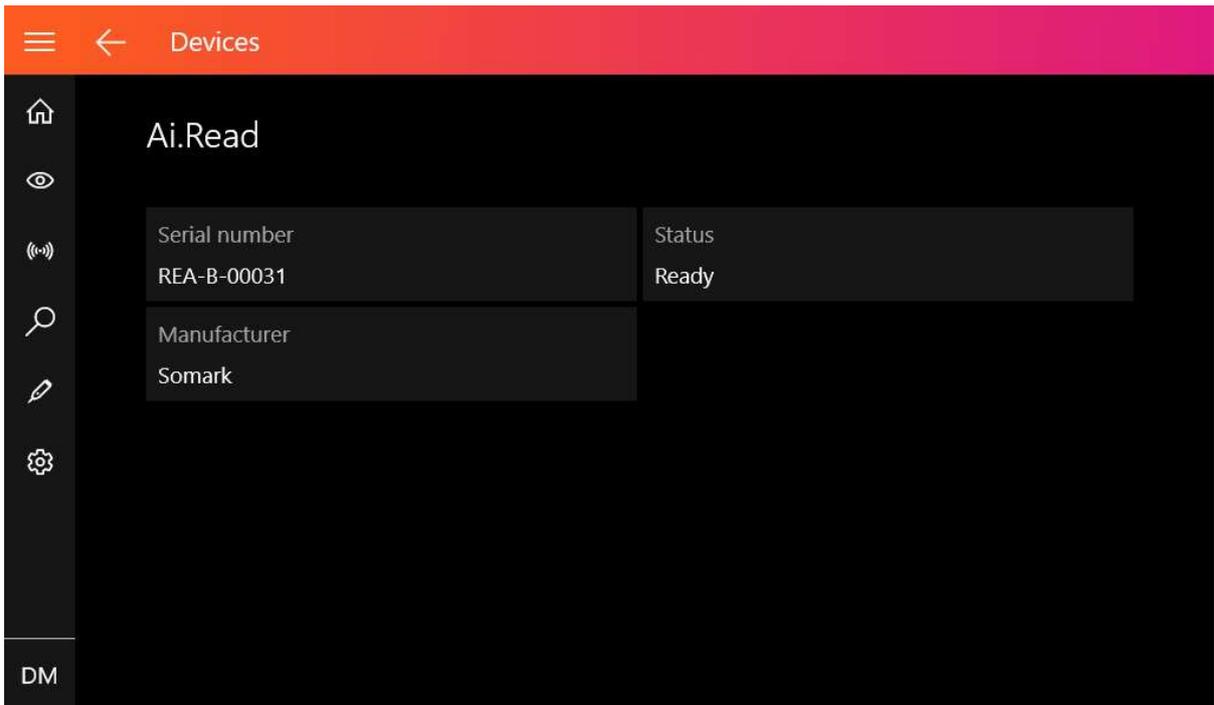


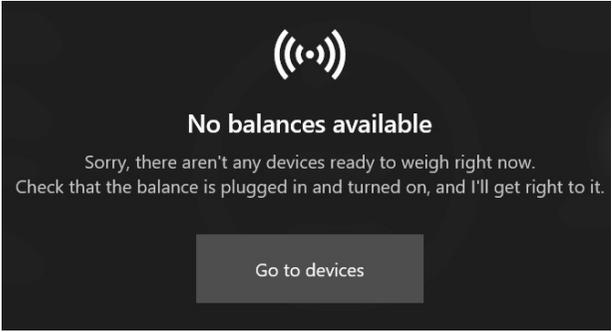
Figure: Device Details

1.4 Troubleshooting Ai.Connect™

| Symptom | Possible Cause | Actions |
|--|---|---|
| A Windows Update Screen has taken me away from my Ai.Connect application screen | Ai.Connect uses Microsoft Windows 10 IoT Enterprise Edition™ as its operating system. A critical update was released by Microsoft for the Operating System and requires action. | <p>Accept and permit the 'Critical Update' to be scheduled for when the Ai.Connect is reboot.</p> <p>Once you complete your work on the Ai.Connect, Power Down the Ai.Connect by pressing the Power button on the back of the device. The system will complete updates and shutdown.</p> <p>Power up the Ai.Connect by pressing the Power button again.</p> <p>Once booted (loaded) your Ai.Connect has been updated with the latest Microsoft updates.</p> <p>Note In some instances, the updates may continue once the Ai.Connect™ has been restarted or may automatically reboot during the update process.</p> |
| A Windows Update pop-up keeps blocking my screen | Ai.Connect uses Microsoft Windows 10 IoT Enterprise Edition™ as its operating system. A critical update was released by Microsoft for the Operating System and requires action. | Refer to: A Windows Update Screen has taken me away from my Ai.Connect application screen |
| No USB Device is displayed in Ai.Connect | If the device is connected through a USB Hub – the USB Hub may not be connected securely | Check the USB Hub is securely connected to the Top USB on the Ai.Connect |
| | The device may have lost connectivity | Reconnect the device from the Ai.Connect by unplugging it and reconnecting it after a wait period of 30 seconds. The wait allows |

| | | |
|---|---|---|
| Connected Device is not responding | The USB Hub may not be connected securely | Check the USB Hub is securely connected to the Top USB on the Ai.Connect |
| | The Device may not be connected to Ai.Connect™ | Check the USB cable is securely connected to the Ai.Connect™ or the USB Hub Check the USB Hub is securely connected to the Ai.Connect™ |
| | A Device cable may be faulty | Check the USB cable is securely connected to the Ai.Connect™ or the USB Hub. Contact Customer Support for advice on ordering a replacement where required. |
| | A Device may be faulty | Check the USB cable is securely connected to the Ai.Connect™ or the USB Hub. Contact Customer Support for advice on testing the device and ordering a replacement where required. |
| The Display Screen is not turning on, but the power light is displayed | The application may not be responding | Reboot the Ai.Connect by pressing the power button located at the back of the device |
| | The screen may be been damaged | Contact Somark Customer Support |
| Network Connected with 'No Internet Access' | The Selected Network is connected but does not have Internet Access | Contact your network Administrator or IT department to identify if Internet is available on the network or if your network login credentials have expired |
| | Network Adapter may require a reset | Restart the Ai.Connect to reset the Network Adapter |
| Ethernet Network Connection Failure | Network Adapter may require a reset | Restart the Ai.Connect to reset the Network Adapter |
| | Network may be MAC Id restricted | Contact your network Administrator or IT department to add the Ai.Connect MAC to the network permissions. |

| | | |
|---|--|---|
| | | Your Ai.Connect device MAC is located on your device along with the serial number |
| Selecting any Menu Item or Function on Ai.Connect gives "Login required" | Your User has been logged out or you have not logged in | <p>Login to the Ai.Connect by clicking the User icon in the Menu bottom left.</p> <p>Complete your login credentials and login.</p> |
| | You do not have a User setup in Ai.Study or your user access has been revoked | <p>Contact your network administrator or Ai.Study administrator to confirm you have been granted user access to Ai.Study.</p> <p>Note: All users of Ai.Study can login to the Ai.Connect</p> |
| | Your credentials may have expired, your password is incorrect or may have been reset | <p>Contact your network Administrator or Ai.Study Administrator to reset your password.</p> <p>Note: All users of Ai.Study can login to the Ai.Connect</p> |
| Front Green LED is not illuminated when I try to turn on the Ai.Connect using its Power Button | The Ai.Connect may not be powered | <p>Check if the rear RED LED is illuminated. If it is not illuminated the Ai.Connect is not receiving power.</p> <p>Check that the power cables are correctly plugged into the power socket at the plug end and the plug is fully inserted.</p> |
| | There may be a hardware failure | Contact Somark Customer Support |
| Rear Red LED is not illuminated | The Ai.Connect may not be powered | The Ai.Connect is not receiving power. Please check the power cable is securely connected to the Ai.Connect and to the power outlet. |
| | There may be a hardware failure | Contact Somark Customer Support |

| | | |
|--|---|---|
| <p>Login Failure Your account or password is incorrect</p> | <p>Your Ai.Study Account’s access rights may have been changed (edited / revoked) or your password may have been reset.</p> <p>Note All users of Ai.Study are able to Login to Ai.Connect.</p> | <p>Ensure you are typing in your correct password. Passwords are case sensitive.</p> <p>Use the Forgot my password link displayed under the Password field in Ai.Connect login prompt to reset your password. The Password Reset process may require additional authentication and support from your IT or Ai.Study Administrator.</p> <p>Contact your IT Administrator to reset your password or review your Access rights to Ai.Study. All users of Ai.Study are able to Login to Ai.Connect</p> |
| <p>No balances available</p>  | <p>Ai.Connect cannot detect a weigh scale connected but the weighing scale is powered and operational</p> | <p>Check to see if the device is displayed in the Ai.Connect Devices screen.</p> <p>If the device is not visible:</p> <ul style="list-style-type: none"> • Check to ensure the USB cable from the device to the Ai.Connect is connected securely • If the device is connected using a USB HUB: <ul style="list-style-type: none"> ○ Check the USB cable is securely connected to the Ai.Connect™ or the USB Hub ○ Check the USB Hub is securely connected to the Ai.Connect™ <p>If the device is visible:</p> <ul style="list-style-type: none"> • Check the status of the device in the device properties. If the device is displayed as Busy: |

| | | |
|--|---|---|
| | | <ul style="list-style-type: none"> ○ disconnect the device till the device is not visible in Ai.Connect and reconnect it ○ restart the device by disconnecting its power and repowering it once the device is not visible in Ai.Connect ○ restart (reboot) Ai.Connect |
| | A Device cable may be faulty | Check the USB cable is securely connected to the Ai.Connect™ or the USB Hub. Contact Customer Support for advice on testing the cable and ordering a replacement where required. |
| Scan is not scanning any Digitail™ tags | The Ai.Read may be busy from a previous process and needs to be reconnected or may require a reboot | <p>Access the device details from the Ai.Connect Devices screen.</p> <ul style="list-style-type: none"> ● Check the status of the device in the device properties. If the Device is displayed as Busy: <ul style="list-style-type: none"> ○ disconnect the device till the device is no longer displayed in Ai.Connect and reconnect it ○ restart the device by disconnecting its power and repowering it once the device is no longer displayed in Ai.Connect ○ restart (reboot) Ai.Connect |
| Weigh mouse displays a - or + (negative or positive) weight without placement of the animal | The scale needs to be tared | Ai.Connect displays the weight captured from the connected scale. Check the scale display (if available) to check if the scale needs to tared or requires any other calibration. |

| | | |
|--|--|---|
| | | <p>Check there is no other weight placed on the scale. If the scale has a holding device such as a beaker, cup, cage to restrain the animal ensure the device is tared correctly</p> <p>If there is no weight on the device, follow the instructions of the scale device manufacturer to tare the device.</p> |
|--|--|---|

Table 4: Troubleshooting Ai.Connect

