



# **GPScanID Software**

## **User Manual**

**(Version 2.5)**

**Please read these instructions thoroughly before use  
and always keep accessible**

**GPScanID Limited**



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# 1. Getting Started

The GPScanID Software enables users to transfer the RFID records from the GPScanID Series Readers to the host Windows®-based computer for data processing, storage and perform transactions to online databases. The software also allows users to configure the parameters of the GPScanID Series Readers via the supplied Serial Cable or Bluetooth. It is designed with simple operations in mind.

Before using the software, please ensure the personal computer (PC) meets the following system requirements as detailed below.

A serial COM port (such as USB or RS-232) or Bluetooth is required to connect the reader with a PC. It is highly recommended to use serial connection when connecting the reader with the PC for the first time. Here are the main steps to operate the software:

- (1) Download the **GPScanID Software**;
- (2) Install and launch the **GPScanID Software**, and
- (3) Power on the reader and connect it to the PC with the data/charging cable, such as the GPS150-Cable or GPS100-Cable

## 1.1 System Requirement

The PC must meet the following minimum system requirements before installing the software:

### Central Processing Unit (CPU)

- 1 Giga Hertz (GHz) or faster 32-bit (x86) or 64-bit (x64) processor with SSE2 instruction set

### Internet Connectivity

### System Memory

- Minimum 4GB

### Disk Space

- Minimum 400MB

### Display

- 1280 x 768 screen resolution or higher

### Operating Systems

- Windows 7 (32 & 64 bit);
- Windows 10 (32 & 64 bit);
- Windows 11 (64 bit).

### Supported System Environments

- Microsoft .NET Framework 4.8 or higher

## 1.2 Getting the Software

The software can be downloaded from the following website<sup>†</sup>:

<https://www.GPScanID.com/download/software> or via the QR Code



Click the latest version to download.

You can save the software in an easily accessible location, such as the Desktop.

<sup>†</sup> It is recommended to use the Microsoft Edge™ web browser to download for stability and security settings.

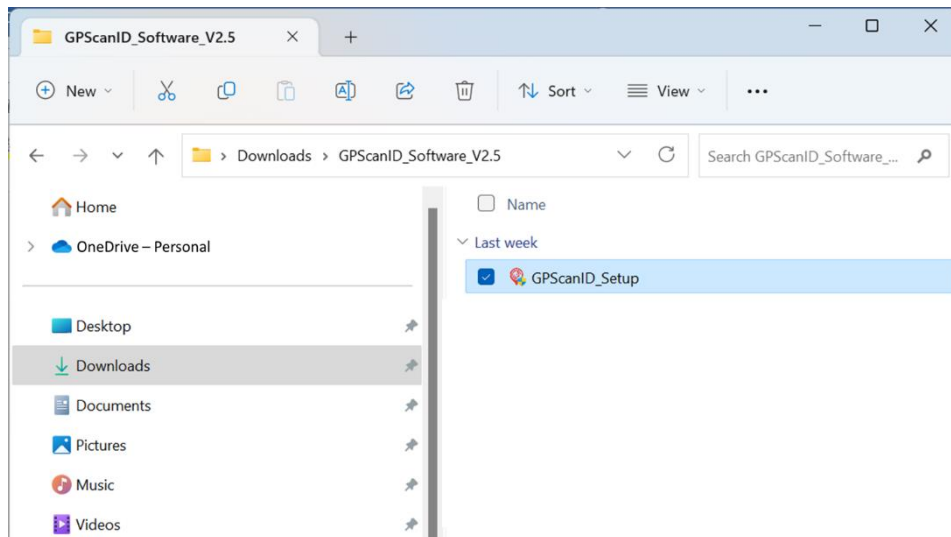
## 1.3 Installation

To install the software, download the latest software per Section 1.2 to your PC:

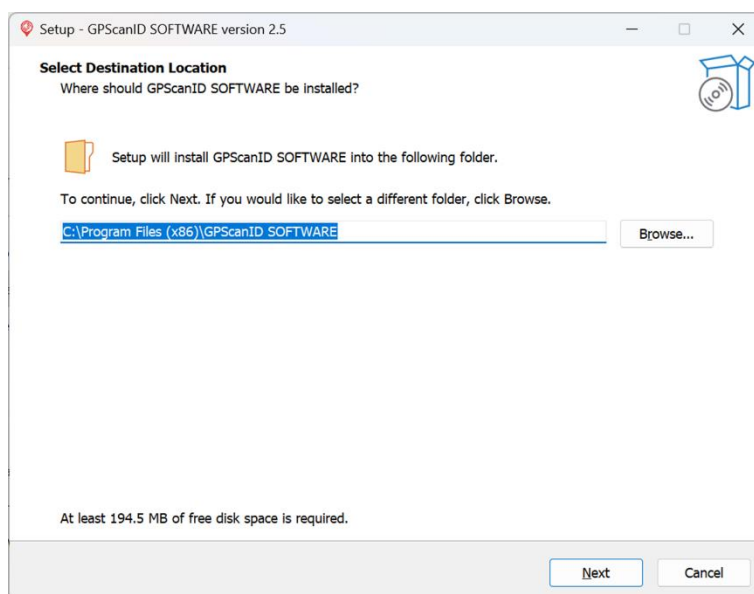
### GPScanID\_Setup\_Vx.x.zip

You will need a file expansion program, such as WinZip, or an online tool to extract the .zip file to .exe format.

After the file is extracted, double-click the file **GPScanID\_Setup.exe** to begin installation.

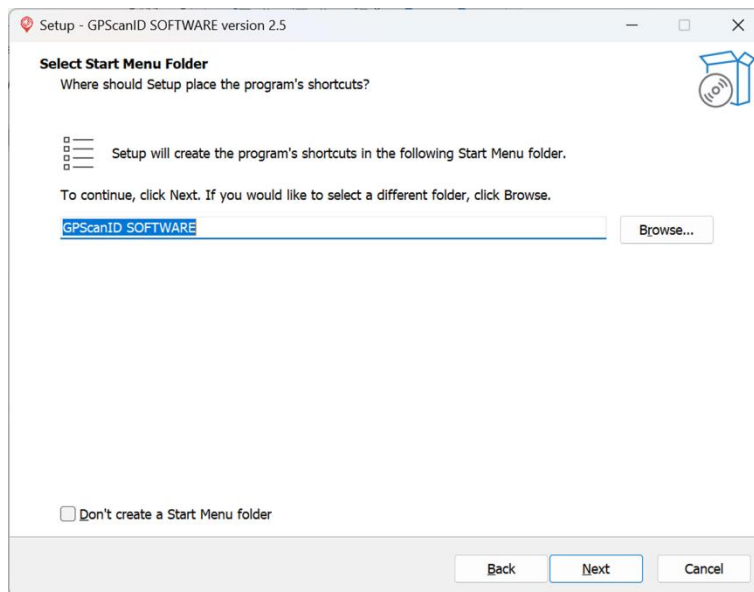


The following screen appears and prompts the user to select the location where the software will be installed. (Unless you have specific file location requirements, you can save the file to the suggested location.)



Click **Next >** to continue.

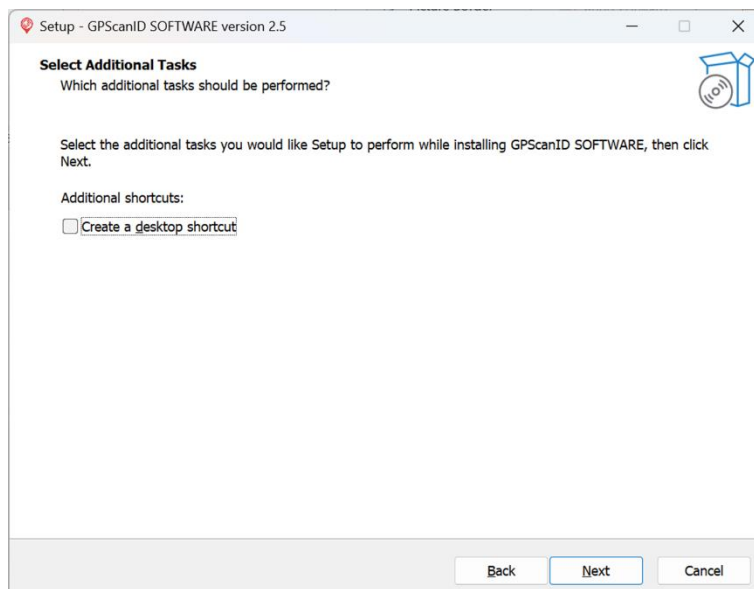
The following window appears to prompt the user for a **Folder name** in which the software will be placed as a program shortcut in the Windows™ **Start Menu**. (The default name is GPScanID SOFTWARE).



Press **Next >** to continue.

Next, the user is prompted whether to create a **Desktop Shortcut**.

Click the check box if you wish to create it.



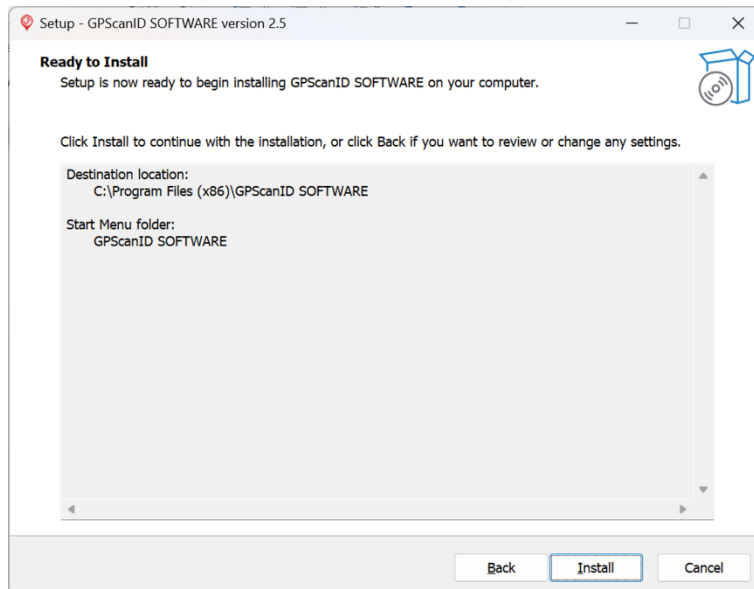
Click **Next >** to continue.



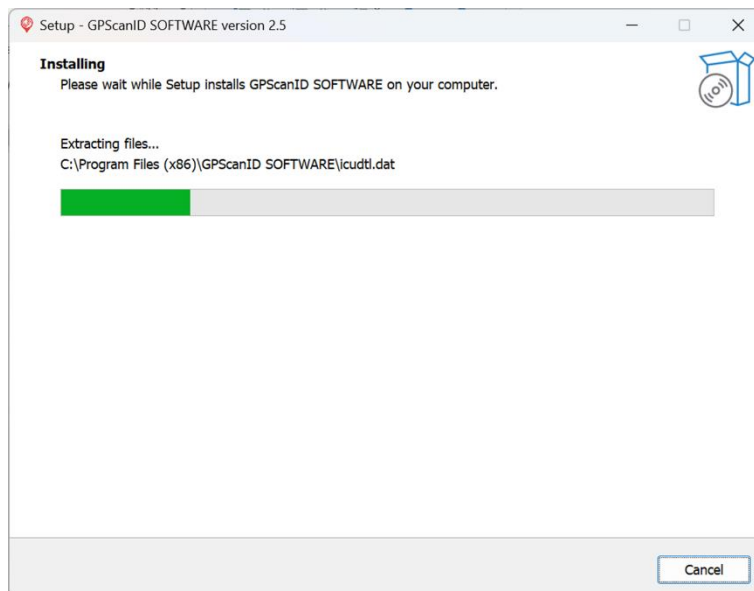
The following screen summarizes the tasks to be performed during installation.

Press < **B**ack to go back for any modifications and/or,

Press **I**nstall to proceed with the installation.

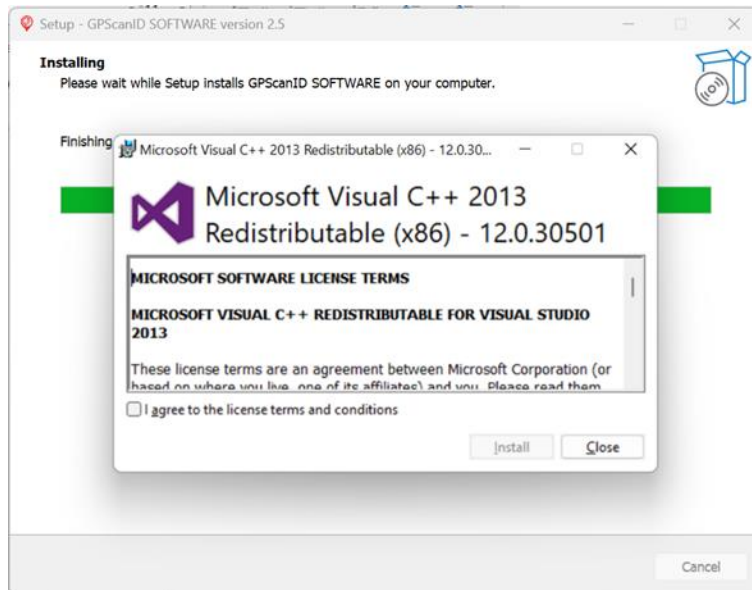


The following screen appears indicating the progress of the installation until it is completed.

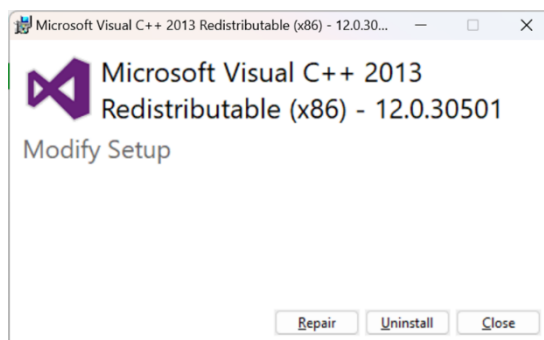


After installing the main software, installation of Microsoft Visual C++ follows.

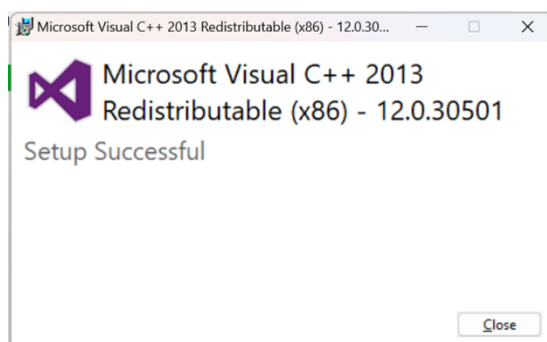
If your PC does not have Microsoft Visual C++ installed, the following screen appears. Check the 'I agree to the license terms and conditions' box, then press **Install**.



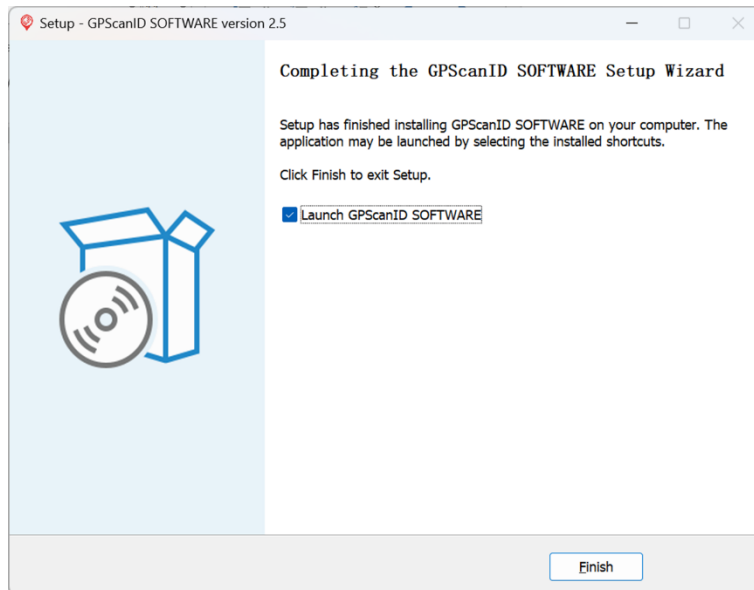
If your PC already has Microsoft Visual C++ installed, the following screen appears. Press **Repair** to update the settings.



Press **Close** when setup is completed.



The following screen appears when installation is completed. Click **Finish** to exit.



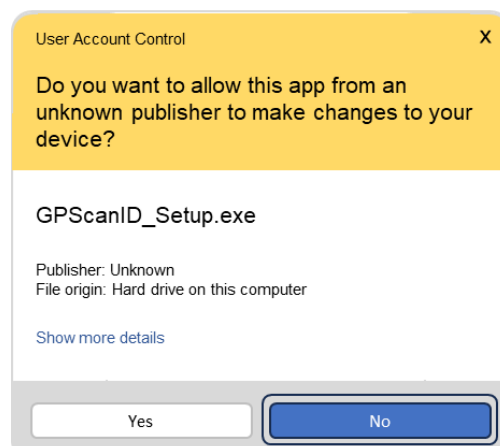
Depending on the Windows™ version in your PC, certain drivers may need updating. Please refer to Section 1.5.2 for more details.

**Note 1:** If your PC is already installed with an earlier version of the GPScanID Software, some of the above prompts may not be shown. The installer will simply update your Software in the same location.

**Note 2:** Depending on the Windows™ version, the web browser and the security settings in your PC, you may encounter the following warning messages during installation or launching the software. We have listed the corresponding actions below. We recommend Microsoft Edge™ for downloading the software.

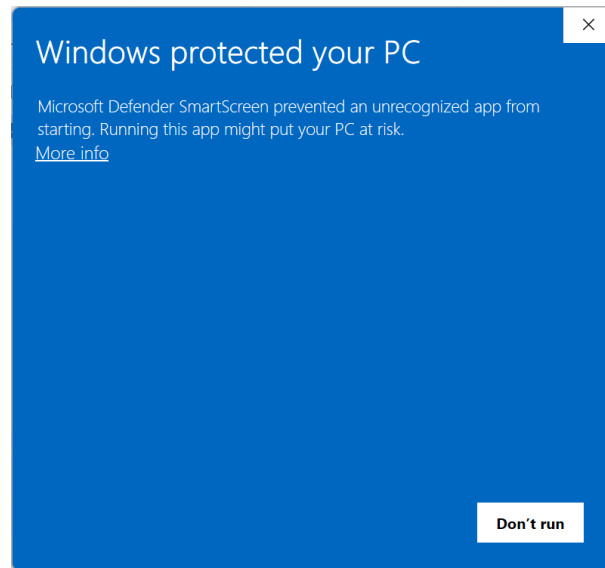
The following security warnings may appear when launching the software.

a.



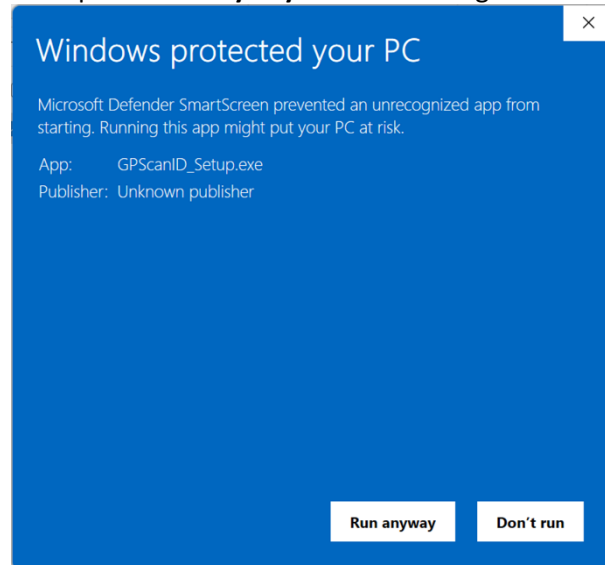
Press **Yes** to continue running the software.

b.



Press **More info**

Then press **Run anyway** in the following screen to proceed



## 1.4 Launching the Software

When the software is launched, it prompts the user to select the country where it is used before entering the main screen. This sets up 2 parameters:

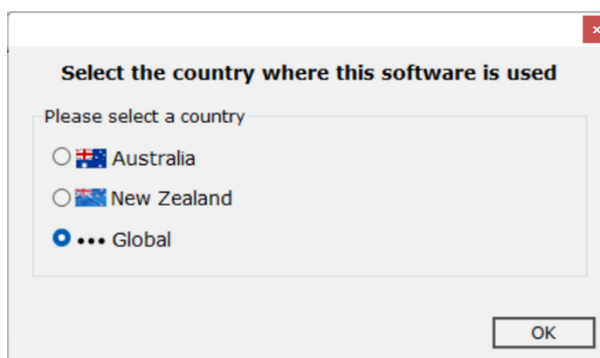
- i) The date format to be displayed in the software and to be exported as .csv files, and;
- ii) The country database to record livestock transactions.

For Australia and New Zealand, date format is set as: DD/MM/YYYY HH:MM:SS

For Global, date format is set as: YYYY/MM/DD HH:MM:SS

To change the date format, simply close the software and launch it again.

To change the country database, please refer to Section 3.11.3.



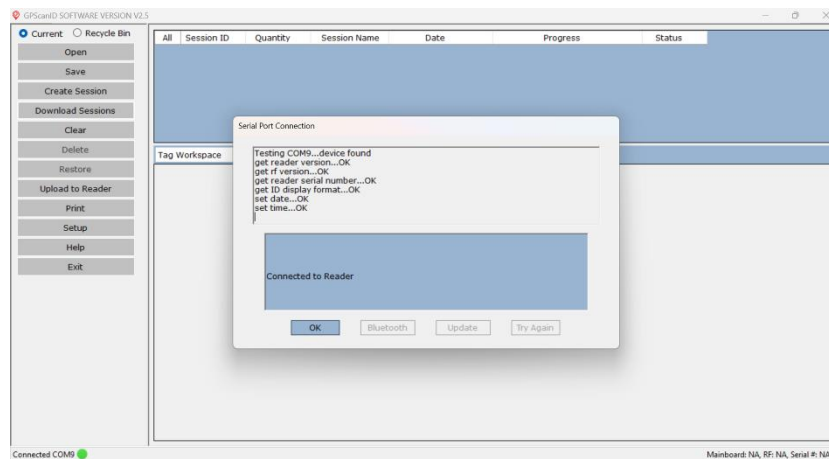
\* At the time of publishing this manual, only Australia and New Zealand are set up. We will be adding more countries through software updates.

## 1.5 Establish Connection

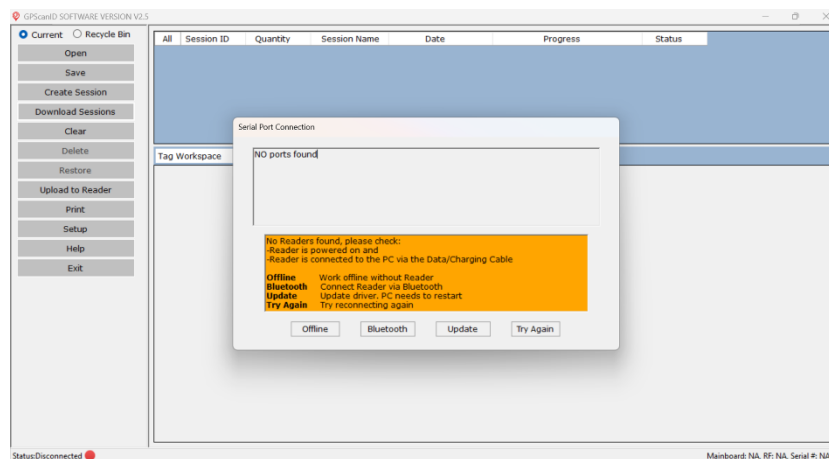
The next step is to establish a connection between the reader and the PC. The GPScanID Series of RFID readers support both serial (such as USB or RS-232) and Bluetooth connections. The GPScanID Software will always try to establish a serial connection first. If this fails, the user has the option to: i) Work **Offline** (without a reader), ii) Connect via **Bluetooth**, iii) **Update** drivers or iv) **Try Again** to connect serially

### 1.5.1 Connect Serially

If the reader is connected to a PC via the serial cable (either USB or RS-232), the software will automatically search a serial COM port once it is launched. If connected successfully, the message **Connected to Reader** will be displayed. Click **OK** to continue.



If it failed to connect, the following message is displayed.



Check the port and physical connections between the reader, cable and PC.

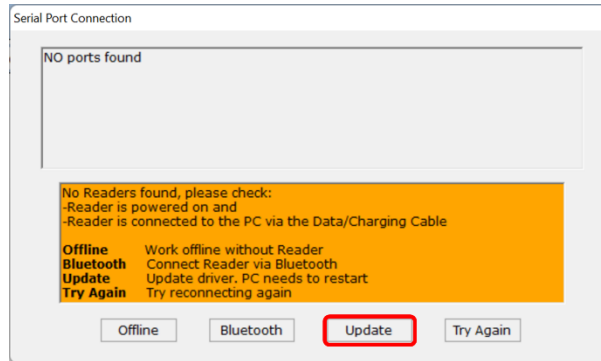
From the Reader, select **Settings / Connection / Cable / Connect To PC**.

Press **Try Again** to re-connect.

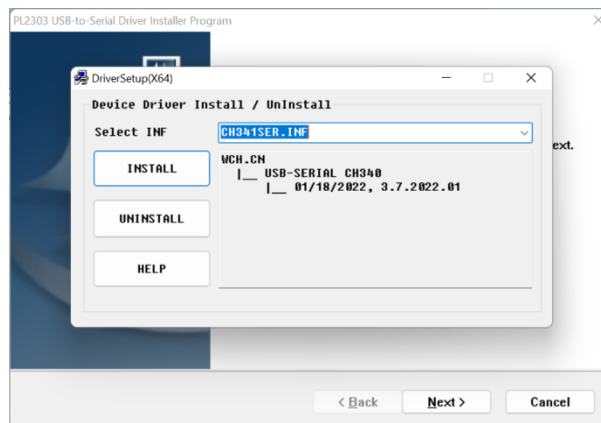
### 1.5.2 Update (Drivers)

Some Windows 11 PC's may have USB driver compatibility issues and fail to connect with the reader.

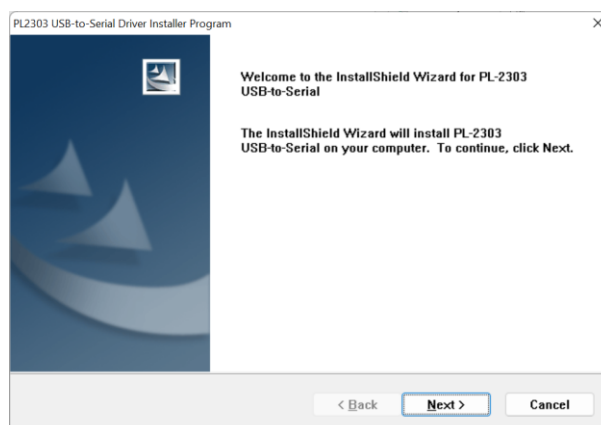
When this happens, press **Update** in the following window. Two USB drivers will be updated.



Press **INSTALL** when the following screen appears. When installation is complete, close this window by pressing **x** on the top right-hand corner.



Press **Next >** when the following window appears.

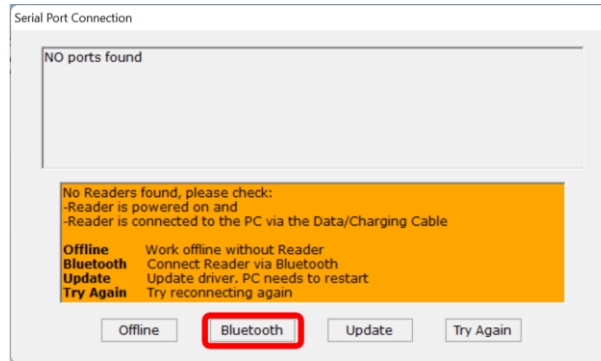


This installs the second USB driver. You need to reboot your PC after installation. The reader should now be able to connect.

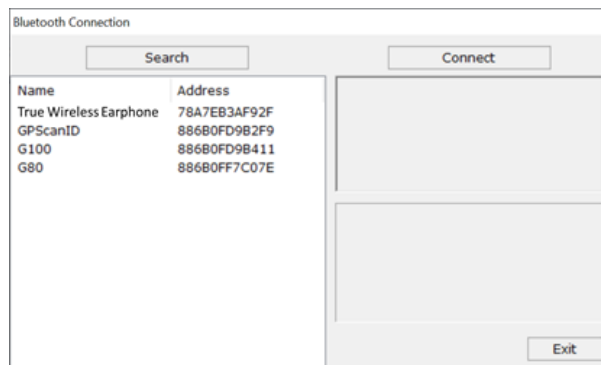
### 1.5.3 Connect with Bluetooth

You can also connect the reader with your PC via Bluetooth. To establish a Bluetooth connection, turn on the Bluetooth function in both the PC and the Reader (refer to the Reader's User Manual for detailed instructions).

Press **Bluetooth** in the following connection screen:



The following Bluetooth connection appears:

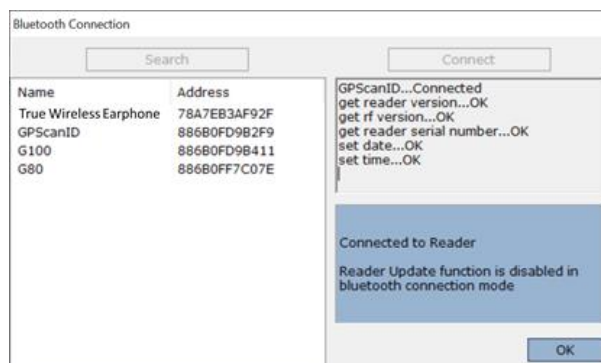


**[Search]:** Search for nearby Bluetooth devices, then select the reader you wish to connect with.

**[Connect]:** Connect to the selected reader.

**[Exit]:** Exit the Bluetooth connection screen and operate the software without connecting a reader.

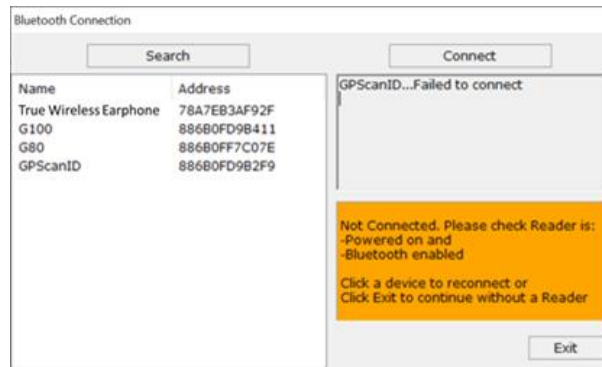
If Bluetooth connection is established successfully, the following screen appears:



Press **OK** to continue.



If Bluetooth connection cannot be established, the following screen appears:



Check all Bluetooth settings in the PC and the reader. You can either:

- (1) Press **Search** to search again, then select the reader and press **Connect** to connect again; or
- (2) Press **Exit** to exit this window to operate the software without connecting any reader.

***Please note that reader firmware updates can only be performed with serial connection. Bluetooth connection cannot be used.***

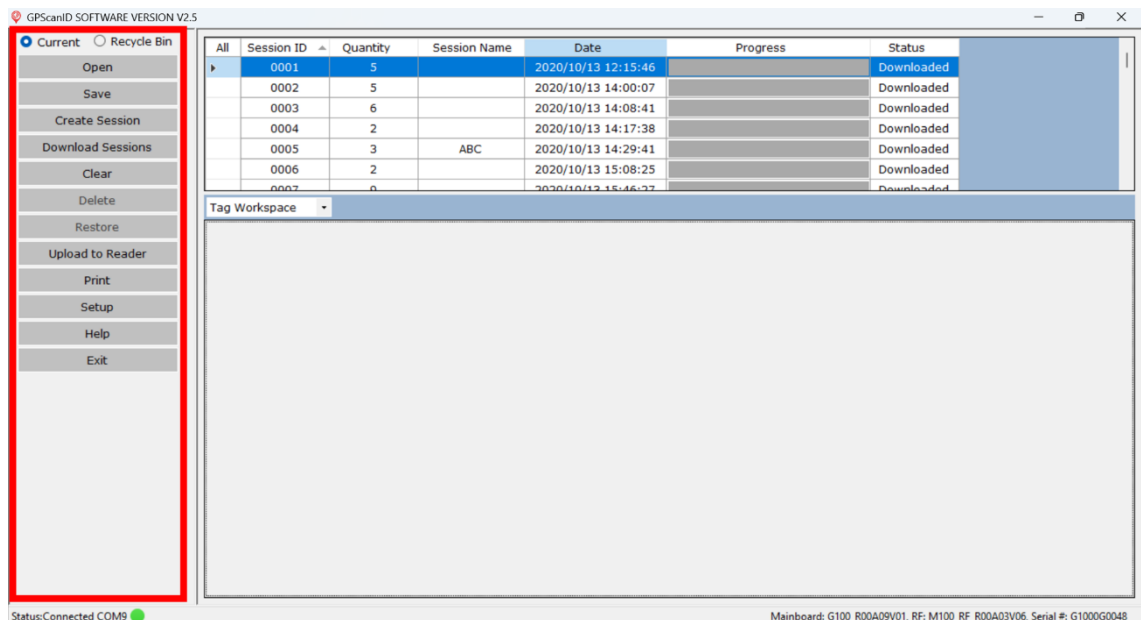
## 2. Main Screen

Once the software is launched and the reader connected, all sessions in the reader are automatically downloaded. There are 4 main sections in the Main screen:

1. Function Sidebar;
2. Session Workspace;
3. Tap/Map Workspace; and
4. Status Bar.

### 2.1 Function Sidebar

The Function Sidebar lists all functions available to the user. If a function button is greyed-out, it is unavailable. For example, the **Delete** and **Restore** buttons below.



Please note: To access the country-specific database:

- (1) Press the **Setup** button.
- (2) In the **Upload Configuration** section, select a country from the **Country** pull-down menu and enter the appropriate login credentials.
- (3) Press **Confirm** to proceed.

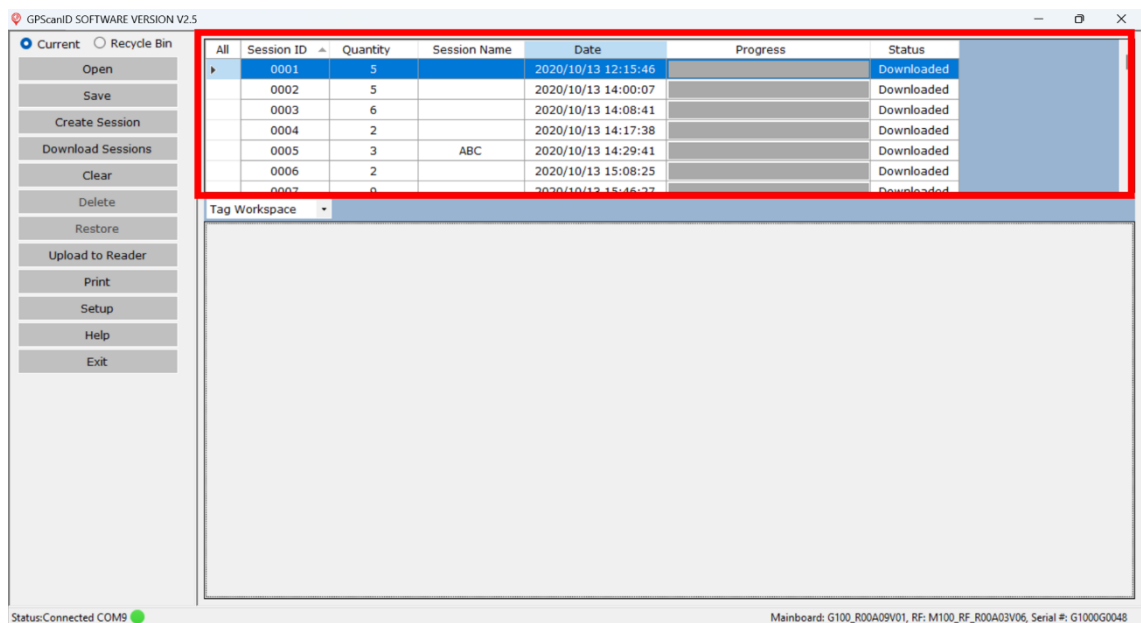
## 2.2 Workspaces

There are 2 workspaces in the **Main Menu**: The **Session Workspace** and **Tag/Map Workspace**.

### (1) Session Workspace

This workspace lists all Session IDs and details downloaded from the reader, in both **Current** and **Recycle Bin** memory spaces (see section 3.1 for details). The following information is available for each session:

- **Session ID:** The session number when it was created.
- **Quantity:** The number of IDs stored in the session.
- **Session Name:** If a specific **Session Name** was created, it will be displayed in this field.
- **Date:** Timestamp when the session was created.
- **Progress:** Displays the session download progress.
- **Status:** The status of the session.



## (2) Tag/Map Workspace

This workspace shows the details of the IDs recorded in a session. To view the ID details, click on a **Session ID** in the **Session Workspace**.

You can also toggle between **Tag Workspace** (shown below to display ID details of the selected session) and **Map Workspace** (to display the location of the tags in Google Maps™, if recorded) using the ▼ pull-down menu.

**Tag Workspace** shows the detailed list of all IDs stored in the selected session. The following information is displayed:

- **Count:** ID location stored in the session.
- **RFID:** The recorded RFID number.
- **GPS:** GPS co-ordinates of the tag at the location it was recorded, if GPS was activated and recorded.
- **Date:** Timestamp when the tag was recorded.
- **UF1 to UF4:** Optional User Fields (UF) 1 to 4 for user comments. See Section 3.9 for further details.

The screenshot shows the GPScanID Software V2.5 interface. The sidebar on the left contains the following menu items: Current (selected), Recycle Bin, Open, Save, Create Session, Download Sessions, Clear, Delete, Restore, Upload to Reader, Print, Setup, Help, and Exit. The main window displays a table of session data with columns: All, Session ID, Quantity, Session Name, Date, Progress, and Status. The table lists six sessions, all with a status of 'Downloaded'. Below this table, a 'Tag Workspace' dropdown menu is open, showing a detailed view of the selected session's tag data. This view includes a table with columns: Count, RFID, GPS, Date, UF1, UF2, UF3, and UF4. The table lists five tags with their respective details.

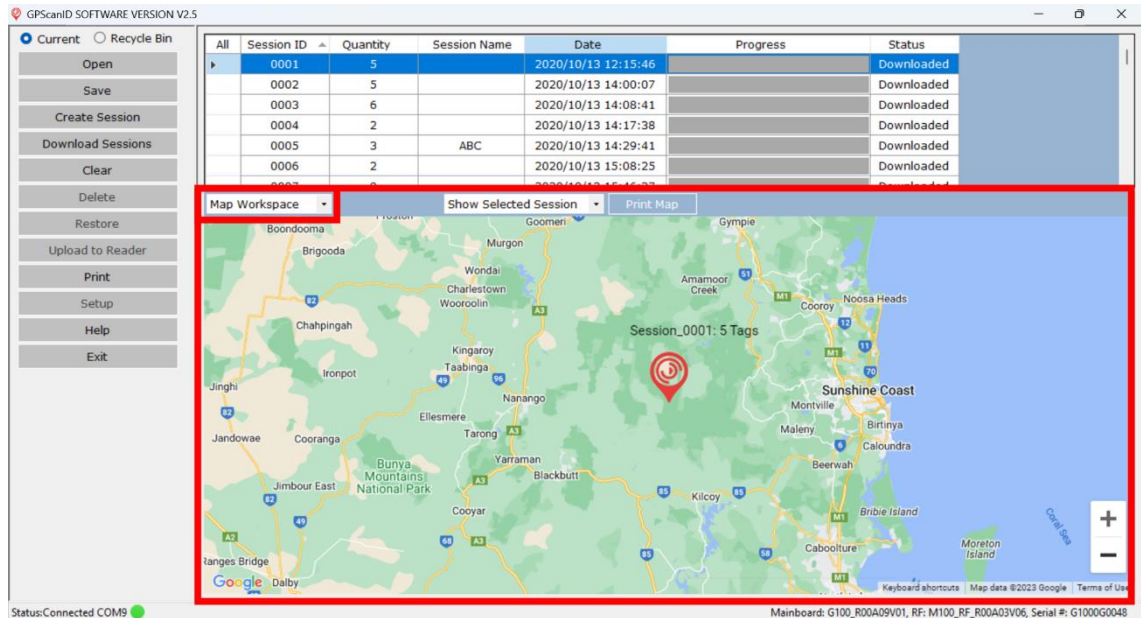
Count	RFID	GPS	Date	UF1	UF2	UF3	UF4
1	999 000000000358	-26.691973,152.4509...	2020/10/13 12:16:10	Angus	825kg	Vaccine-A	Feedlot5
2	951 013001089645	-26.691973,152.4509...	2020/10/13 12:16:13	Brahman	769kg	Vaccine-B	FarmB12
3	951 013001004942	-26.691973,152.4509...	2020/10/13 12:16:17	Gelbvieh	922kg	Vaccine-C	John'sFarm
4	951 000502220320	-26.691973,152.4509...	2021/03/09 14:47:43				
5	951 015000001431	-26.691973,152.4509...	2021/03/09 14:48:00				

Status: Connected COM9

Mainboard: G100\_R00A09V01, RF: M100\_RF\_R00A03V06, Serial #: G1000G0048

**Map Workspace** displays the location of the tag at the time it was read, if GPS was activated and recorded.

To toggle between **Tag Workspace** to **Map Workspace**, use the ▼ pull-down button to select.



In **Map Workspace**, you can use the pull-down menu to select the following display options:

**[Show All Sessions]:** To show the location of all sessions.

**[Hide All Sessions]:** To hide the location of all sessions.

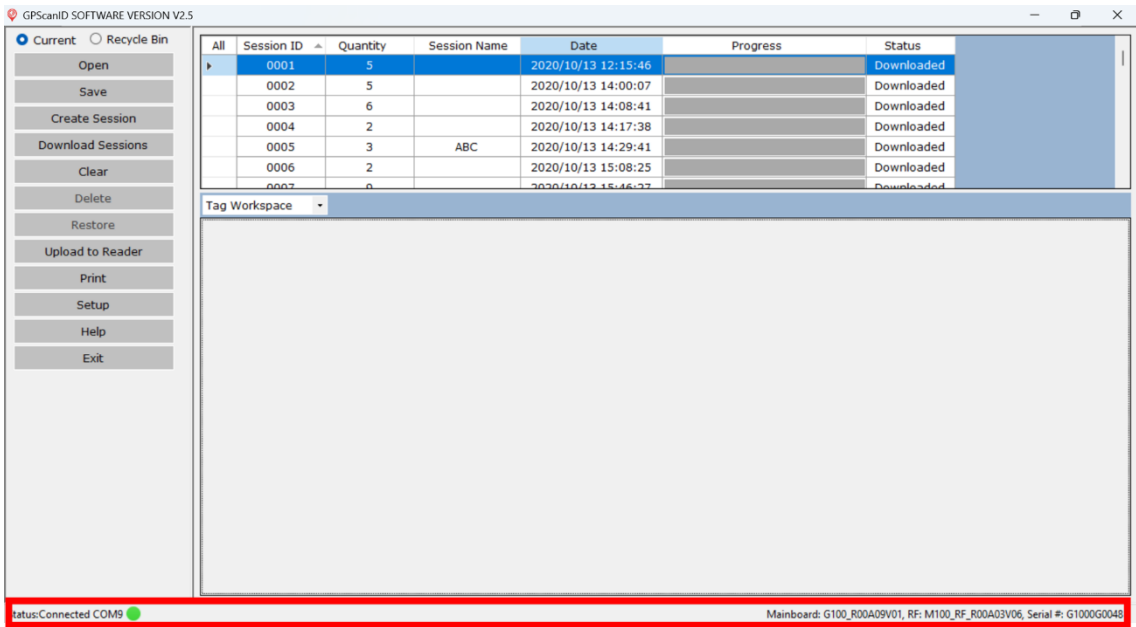
**[Show Selected]:** To show the location of the selected session.

You can use the + / - buttons to zoom in / out the map and navigate the same way as Google Maps™.

You can also print the location in the map by pressing the **Print Map** button.

### 2.3 Status Bar

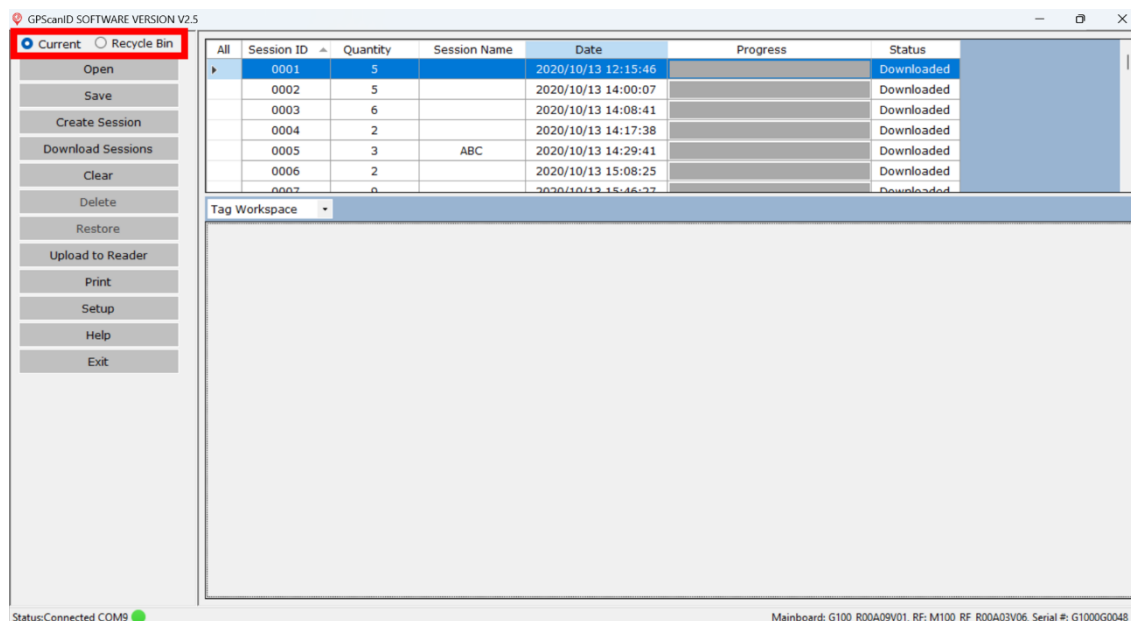
The status bar at the bottom left of the window displays the connection status. It can be connected with **COM port**, **Bluetooth**, or **Disconnected**. The bottom right corner shows the Reader's Mainboard, RF Firmware Versions and its Serial Number.



## 3. Operations

### 3.1 Memory Space

The reader supports 2 memory spaces: **Current** and **Recycle Bin**. You can choose the memory space you wish to work with by selecting either **Current** or **Recycle Bin**.

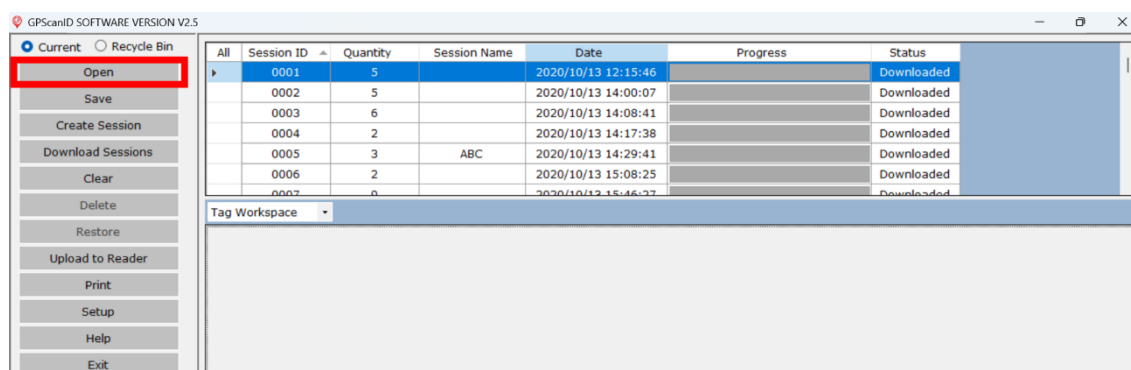


- **Current:** Displays the current sessions downloaded from the reader. This is the default memory space displayed in the software.
- **Recycle Bin:** This is a temporary memory space where cleared sessions are stored. Sessions in the **Recycle Bin** are only assessable from this software and not from the reader. They can be:
  - Deleted permanently (see Section 3.7);
  - Restored back to the **Current** memory space (see Section 3.8);
  - Stored temporarily until the **Recycle Bin** overflows (for example, over 1000 sessions or when memory is full).

It is recommended to restore sessions from the **Recycle Bin** back to the **Current** memory space or save them in the PC (see Section 3.3) as they will be deleted when the memory is full or the maximum number of sessions is exceeded.

### 3.2 Open

This function enables you to open a previously saved session file (in .csv format) from the software. The software accepts file saved with multiple sessions, and sessions can be stored from either the **Current** or **Recycle Bin** memory space.



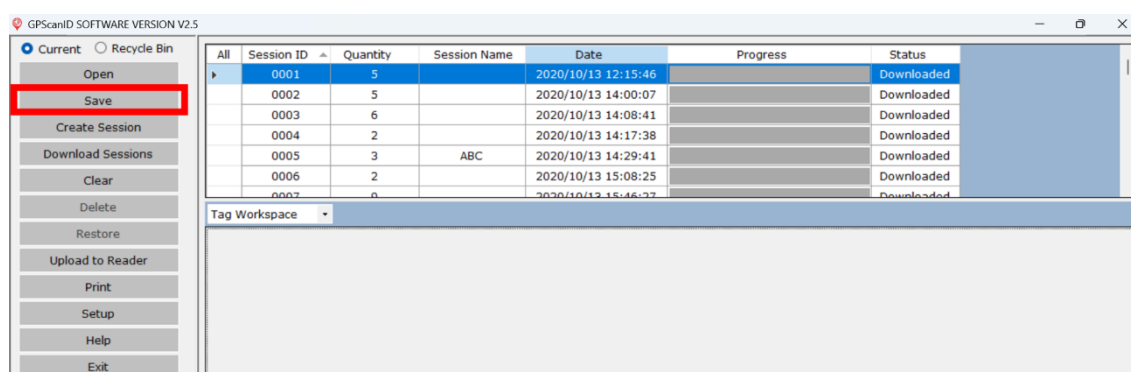
The software can only open .csv file in the following format (2 sessions are shown below):

```
Session ID,Quantity,Session Name,Session Date,Source,Count,RFID,GPS,Date,UF1,UF2,UF3,UF4
0001,2,Test,06/01/2019 08:00:00,Current,1,951 000000000358 ,-33.844157;151.048482,06/01/2019 08:01:00,,,,
0001,2,Test,06/01/2019 08:00:00,Current,2,951 013001004917 ,-33.844157;151.048482,06/01/2019 08:01:25,,,,
0002,3,,07/01/2019 06:26:05,Current,1,951 013001004919 ,Not Recorded,07/01/2019 06:26:09,,,,
0002,3,,07/01/2019 06:26:05,Current,2,951 000000003189 ,Not Recorded,07/01/2019 06:26:16,,,,
0002,3,,07/01/2019 06:26:05,Current,3,951 013001004919 ,Not Recorded,09/01/2019 07:18:41,,,,
```

**\*\* Please use WordPad or TextEditor instead of Microsoft Excel to edit the .csv files to ensure they can be opened by the GPScanID Software.**

### 3.3 Save

This function enables the user to save session(s) from the software's memory space to the PC in .csv format. The file is saved to C:\Program File (x86)\GPScanID\_Software\Filing\_Cabinet as the default location. You can specify other location by navigating in the **File Manager** window.



You can choose to save a single session, multiple or all sessions from the **Session Workspace**.

To save a single session, select its **Session ID** to select, then press **Save**.

To save multiple sessions, press and hold the **Ctrl** key to select the **Session IDs**, then press **Save**.

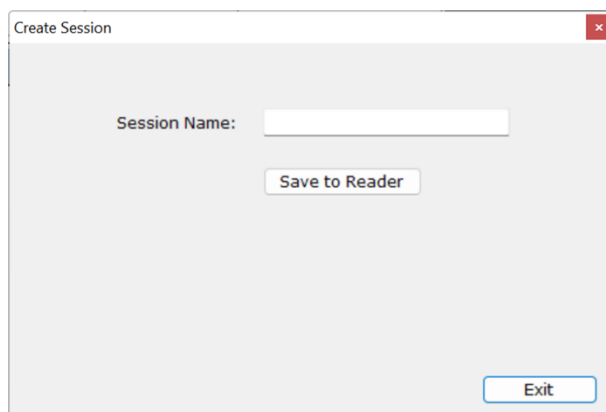
To save all sessions, press **All** next to **Session ID** header to select all sessions, then press **Save**.



### 3.4 Create Session

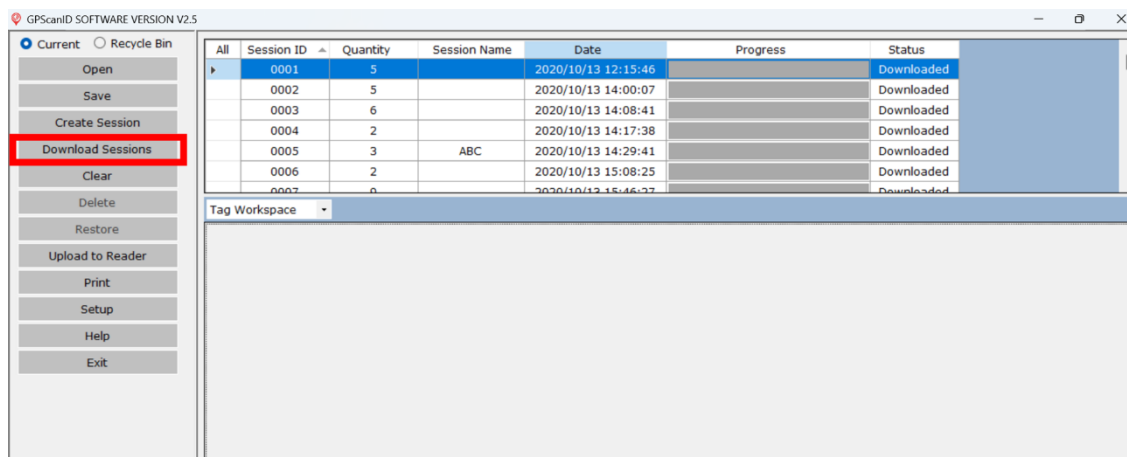
This function enables you create a session with up to 15-character long **Session Name** in the reader. Enter the name in **Session Name** field, press **Save to Reader** when finished. You can keep creating sessions using this function. Press **Exit** when finished.

\* Please note comma ',' cannot be used in Session Names.



### 3.5 Download Sessions

This function establishes a connection between the reader and the software, then downloads all sessions from the reader to the software (Please refer to Section 1.5 for details in establishing connection with the reader).



### 3.6 Clear (Session)

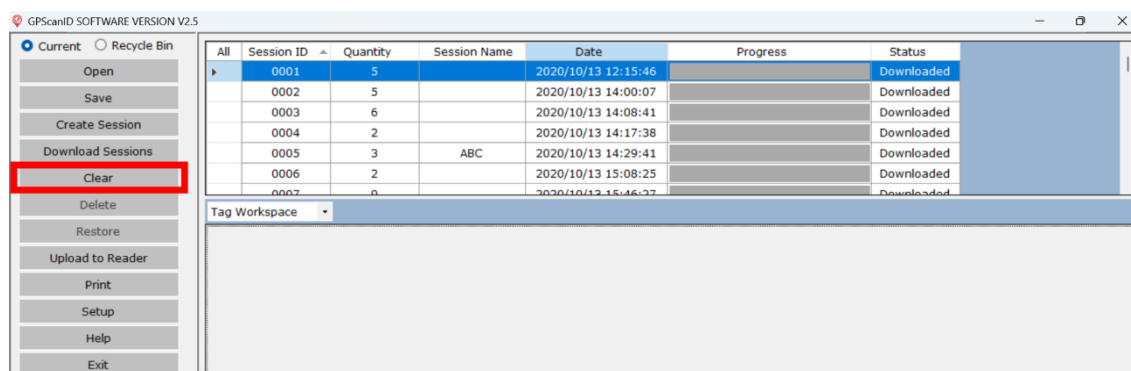
This function pushes the selected session(s) from the **Current** memory space to the **Recycle Bin**. Cleared sessions are not deleted, they are simply moved to another memory location. They can be restored back to the **Current** memory space by using the **Restore** function.

To select multiple sessions, press and hold the **Ctrl** key to select the **Session IDs**.

To select all sessions, press **All** next to **Session ID** header.

Press **Clear** to clear the selected session(s).

If only 1 session is present, clearing the session will cause both the reader and software to automatically create a new session (with the new session number incremented by 1 from the last session number). This enables the reader to be able to read tags at any time.



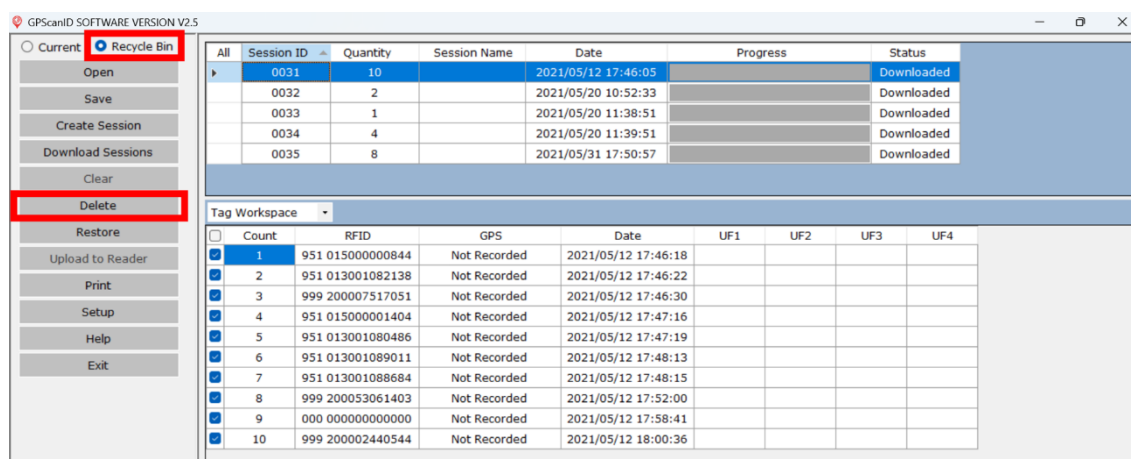
### 3.7 Delete (Session)

This function is only available in the **Recycle Bin** memory space. It **permanently deletes** the selected session(s) and this process **cannot be reversed**. Please pay extra attention when deleting sessions!

To select multiple sessions, press and hold the **Ctrl** key to select the **Session IDs**.

To select all sessions, press **All** next to **Session ID** header.

Press **Delete** to delete the selected session(s).



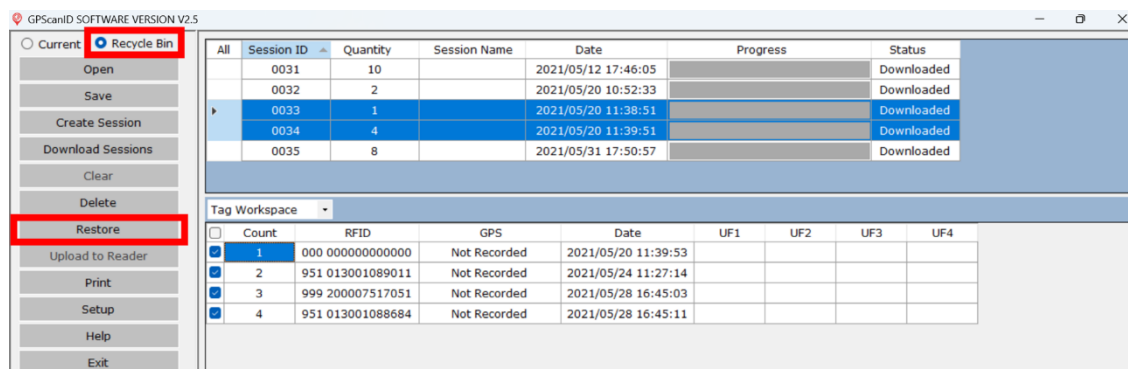
### 3.8 Restore (Session)

This function is only available in the **Recycle Bin**. It moves cleared session(s) from the **Recycle Bin** back to the **Current** memory space.

To select multiple sessions, press and hold the **Ctrl** key to select the **Session IDs** to be deleted.

To select all sessions, press **All** next to **Session ID** header.

Press **Restore** to restore the selected session(s).

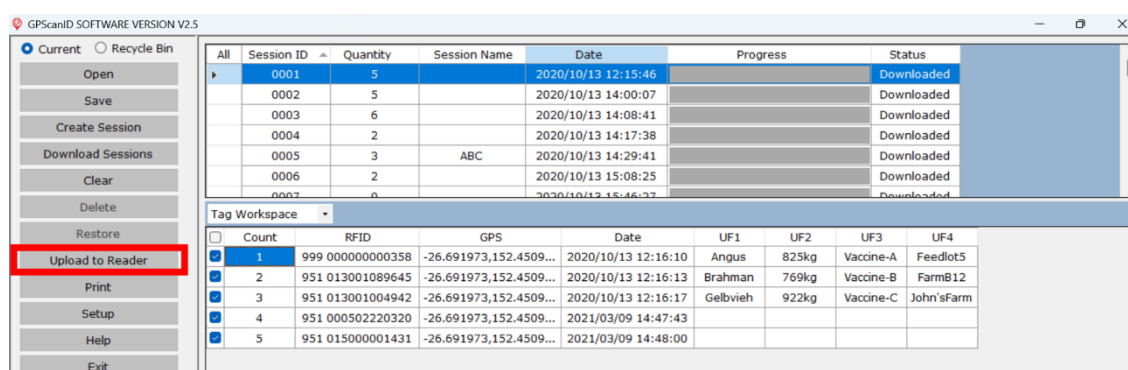


### 3.9 Upload to Reader

This function saves the user comments entered in the 4 user fields (UF1 to UF4) in **Tag Workspace** to the reader.

You can add comments<sup>†</sup> relevant to the **ID Number** in the cells under columns **UF1 to UF4**, then press **Upload to Reader** to save it in the reader.

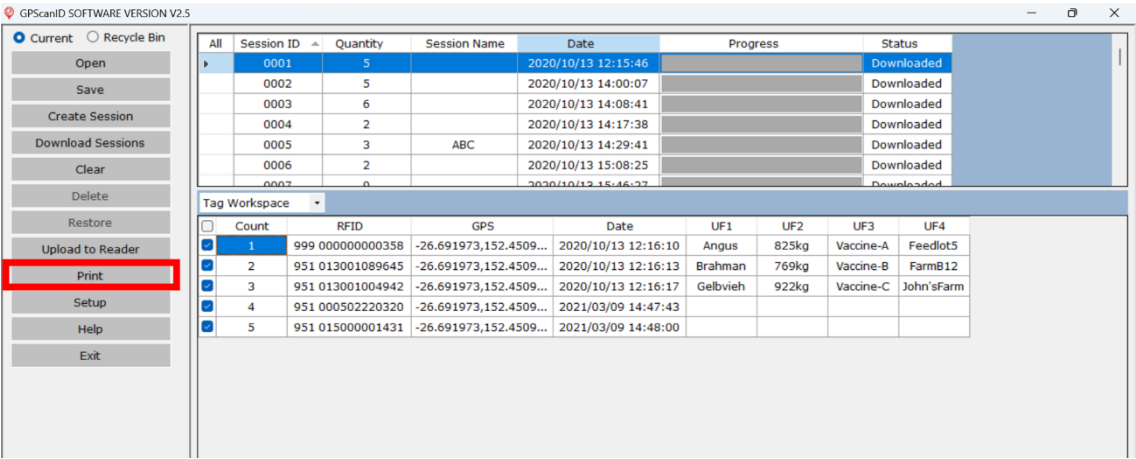
<sup>†</sup> You can enter a maximum of 16 characters in each user field. Please note comma ',' is a reserved character and cannot be saved in the user fields.



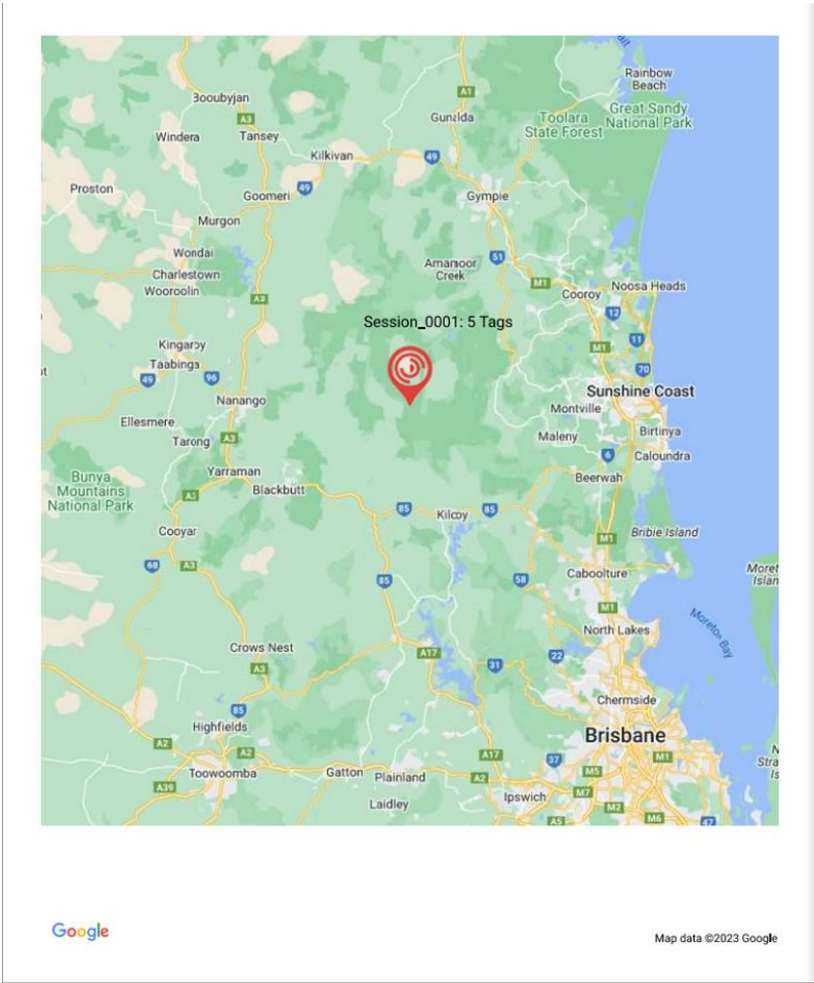
3.10 Print

This function prints the **Tag Workspace** of the highlighted session.

The **Print** function allows you to print one session at a time. To print multiple sessions, please print them one-by-one.

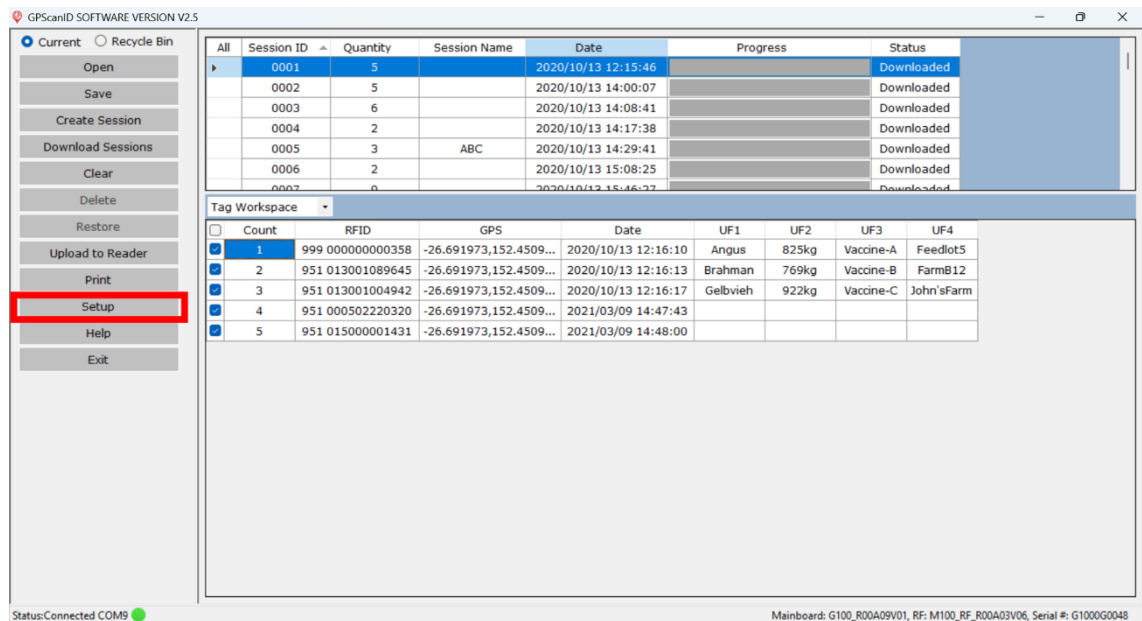


To print the GPS locations of the session(s), select **Map Workspace** from the drop-down options, select which session(s) you want to show, then click the **Print Map** button.



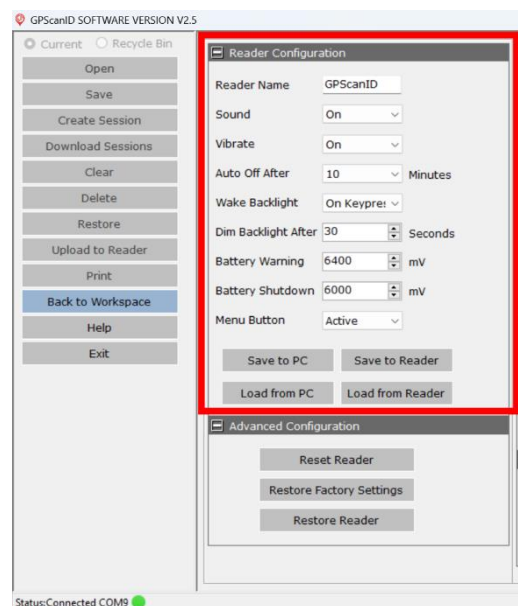
## 3.11 Setup

The **Setup Menu** hosts a wide range of functions and configurations for both the GPScanID reader and Software.



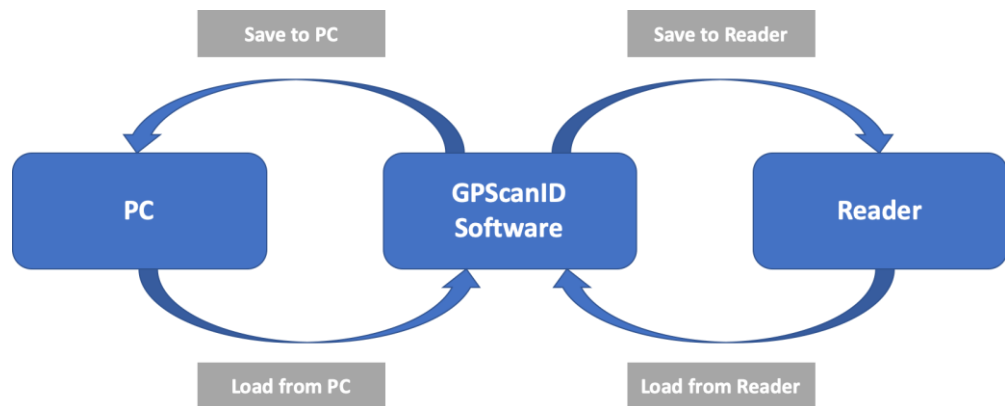
### 3.11.1 Reader Configuration

This section contains the default operating parameters of the Reader. After entering the appropriate parameters in the software, you can save the default reader settings (from the software) to the reader or the PC. You can also download the parameters from the reader to the software or open a previously saved configuration file and load it to the software.

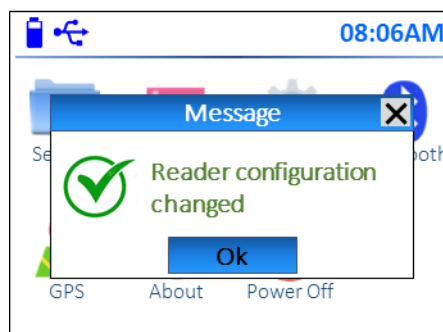


When modifying the **Reader Name**, please note it has a maximum length of 8 alphanumeric digits and only a...z, A...Z, or 0...9 is acceptable. Space or other special characters cannot be used.

The diagram below illustrates the 4 function buttons: **Save to PC**, **Save to Reader**, **Load from PC**, and **Load from Reader**.



If a new configuration is saved to the Reader, the following warning screen is also displayed on the Reader to notify the user.



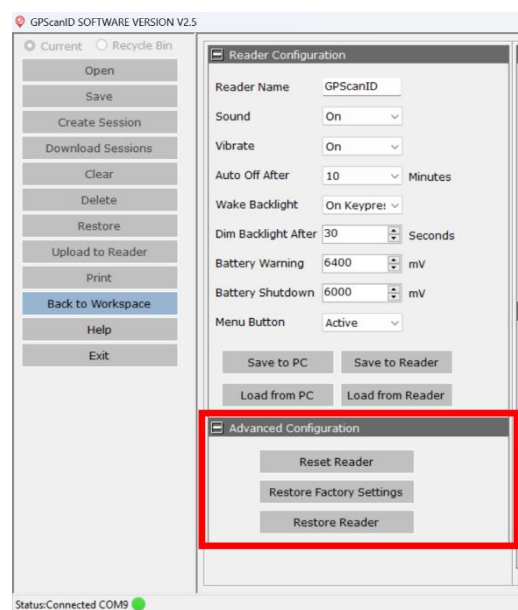
### 3.11.2 Advanced Configuration

This section contains the functions regarding resetting and restoring the Reader.

**Reset Reader:** Powers off the reader and restarts it. All contents and settings in the reader remain unchanged.

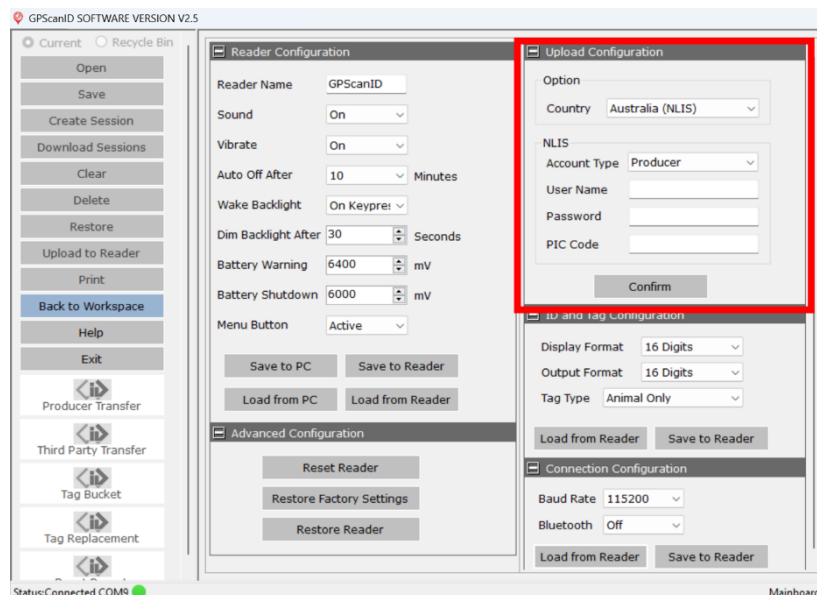
**Restore Factory Setting:** Restores the reader to its original factory settings. All recorded Sessions and IDs remain unchanged in the reader and will not be deleted.

**Restore Reader:** Restores the reader to its original factory settings. **All recorded Sessions and IDs will be erased and cannot be retrieved.** Session 1 is automatically created.



### 3.11.3 Upload Configuration

This section allows you to select the country where the reader will be used. You can enter user account details to connect with its government databases.



**Supported Countries:** Only Australia (NLIS) and New Zealand (NAIT) are supported at the time this manual is produced.

For Australia, the National Livestock Identification System (NLIS) requires the following input fields:

**Account Type:** Select the account type. Only **Producer** and **Third-Party** account types are supported in this version.

**User Name:** Username of the NLIS account.

**Password:** Password of the NLIS account.

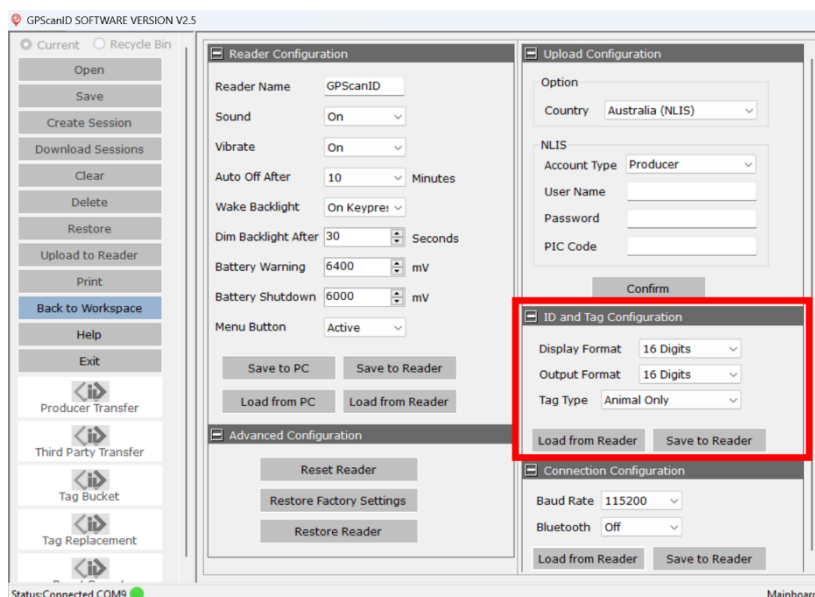
**PIC Code:** Property Identification Code (PIC) where online operations are performed. You can also submit this information later when performing NLIS operations.

**Confirm:** When all details have been entered, press **Confirm** to save.

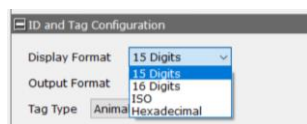


### 3.11.4 ID and Tag Configuration

This section allows you to select the ID format to be displayed and output from the reader. You can also select the types of tags the reader can read.



To set display format of the IDs, press the pull-down menu in **Display Format** to select any one of the following 4 formats:



1. 15 (Decimal) Digits: For example, 951123456789000
2. 16 (Decimal) Digits: For example, 951 123456789000
3. ISO: For example, A000000951123456789000
4. Hexadecimal: For example, 8000EDDCBE991A08

For the newly selected ID format to take place in both the software and reader, press **Save to Reader** then **Back to Workspace**.

**\*\* Note:** The NLIS functions only accepts ID(s) in 16-digit format. That is, with a space after the third digit. Hence, all IDs, whether imported from PC or downloaded from the reader, must be saved and displayed as 16-digits.

Similarly, select the pull-down menu in **Output Format** and press **Save to Reader** to change the output format of the IDs transmitted from the reader. Certain third-party herd management software may have different ID format requirements.

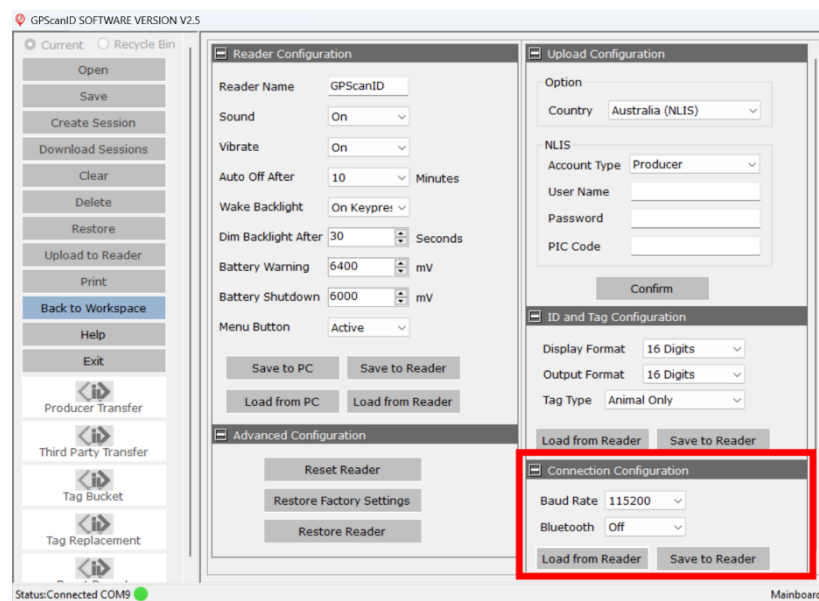
To change the tag type readable by the reader, press the pull-down menu in **Tag Type** to select either **Animal Only** or **Animal and Industrial**, then press **Save to Reader**.

### 3.11.5 Connection Configuration

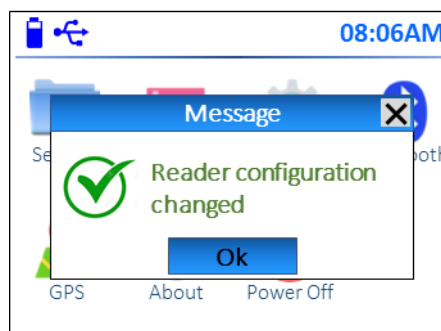
This section allows you to set the connection parameters such as the baud rate and/or enable/disable the Bluetooth function of the reader. Baud rate is the speed that information is transferred between the reader and the connected device. The default factory baud rate is 115,200 bits per second.

**Load from Reader:** Downloads the baud rate and Bluetooth On / Off settings from the reader to the software.

**Save to Reader:** Uploads the baud rate and Bluetooth On / Off settings from the software to the reader.



If a new configuration (either the baud rate or Bluetooth On / Off) is saved to the Reader, the following warning screen will be displayed on the Reader.

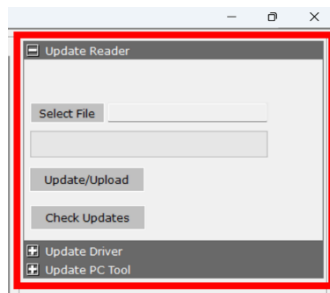


### 3.11.6 Update Reader/Driver/PC Tool

We will provide software fixes, feature enhancements and introduce new features to the readers over time. The latest software is available via updates.

There are 3 main sections in this update section:

- i) Update Reader;
- ii) Update Driver; and
- iii) Update PC Tool



The following sections explain the detailed procedures to update each of them.

**\*\*Note:** You will also use this section to upload **Search Session(s)** for the **Search & Alert** function. See Section 3.14 for more details.

### 3.11.6.1 Update Reader

There are 3 different firmware in the reader, each responsible for a specific function:

**Mainboard:** Manages the overall reader functionalities.

**RF:** Manages the Radio Frequency (RF) circuitry for reading tags.

**Bluetooth:** Manages the Bluetooth module to communicate with external peripherals.

**Please ensure the reader's battery is at least half full and the reader is connected to the power supply during firmware update.** Power failure during firmware update may cause the reader unable to power on.

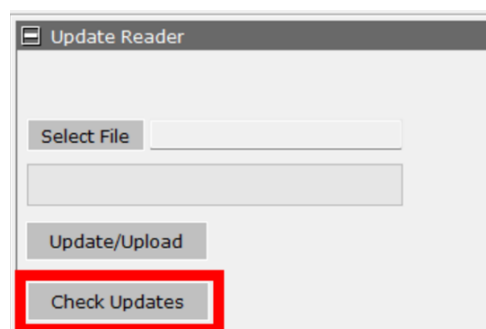
To automatically update any one or all of the reader firmware:

**Step 1:** Power on the reader and connect with an internet-enabled PC via the serial cable. Please note firmware can only be updated via serial connection. Bluetooth connection cannot be used.

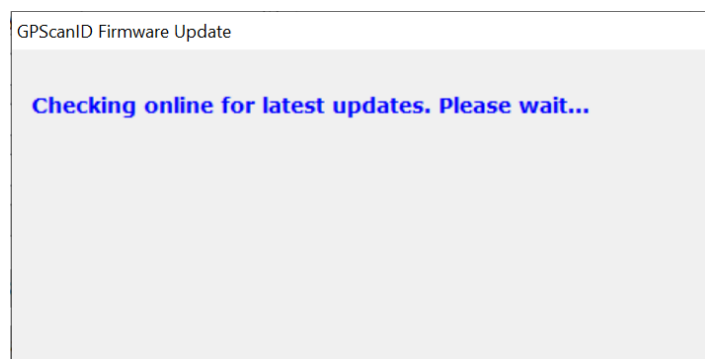
**Step 2:** Launch the GPScanID software.

**Step 3:** Press the **Setup** button.

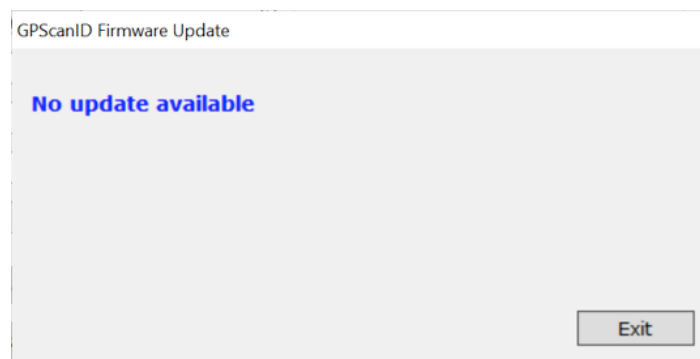
**Step 4:** Press **Check Updates** in the **Update Reader** section.



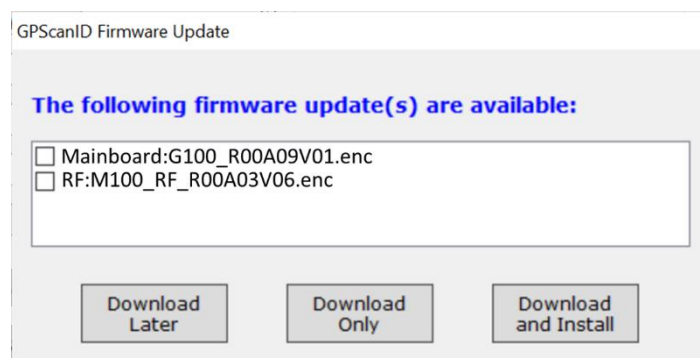
**Step 5:** The software will check online updates for all 3 firmware.



**Step 6a:** If no update is available, your reader already has the latest firmware. Press **Exit** to exit this screen.



**Step 6b:** If update is available, the following window appears. You can select the firmware and decide what action(s) to take.

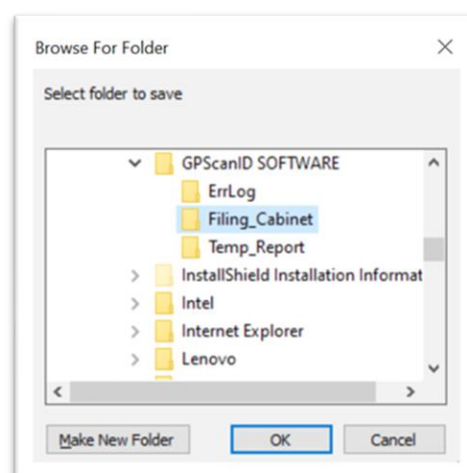


Press **Download Later** to exit this download screen and do not take any further actions.

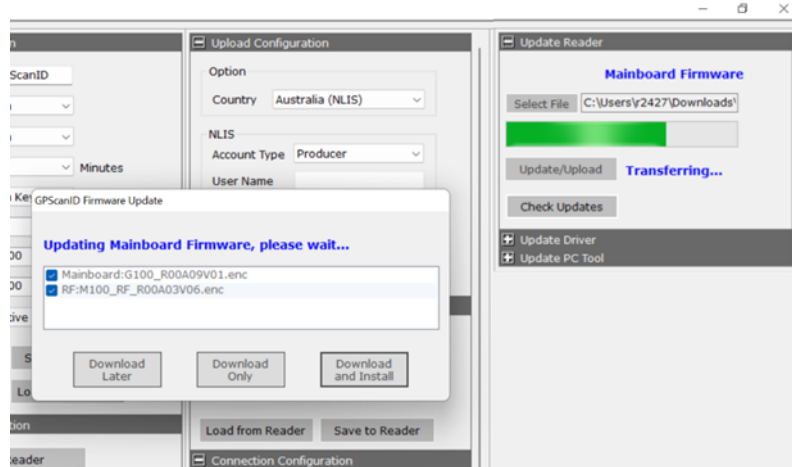
Press **Download Only** to download the updates and install later.

Click **Download and Install** to download the updates and install automatically.

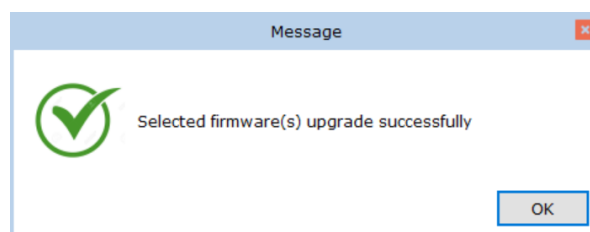
**Step 7:** If **Download Only** or **Download and Install** is selected, the following screen appears to prompt the user to identify the location where the new firmware will be stored. The default location is the folder where the GPScanID Software is installed. Press **OK** to confirm.



**Step 8:** Once the location is confirmed, the software will start to download the selected firmware and install automatically. The progress bar in the **Update Reader** section shows the progress of the update.



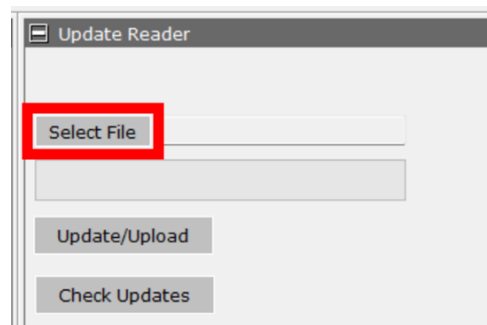
**Step 9:** The following window appears when the update is completed. Press **OK** to exit.



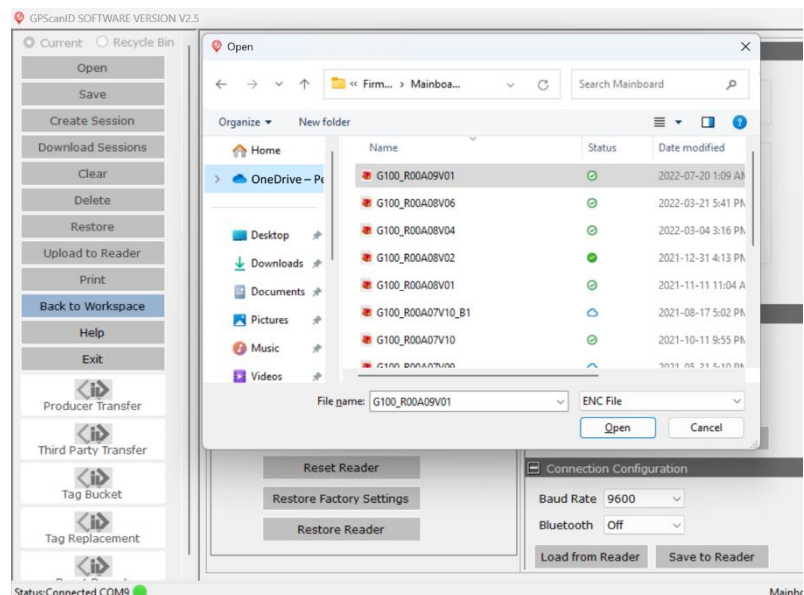
**Note:** To upgrade the Mainboard firmware in the **GPScanID 100** from version **G100\_R00A09V01** or below, please download the firmware to the PC first, then follow the instructions below to install it manually.

To manually select and install a firmware update (whether it is Mainboard, RF or Bluetooth), follow Steps 1 to 3 above to connect the reader with the software, then proceed with the steps below.

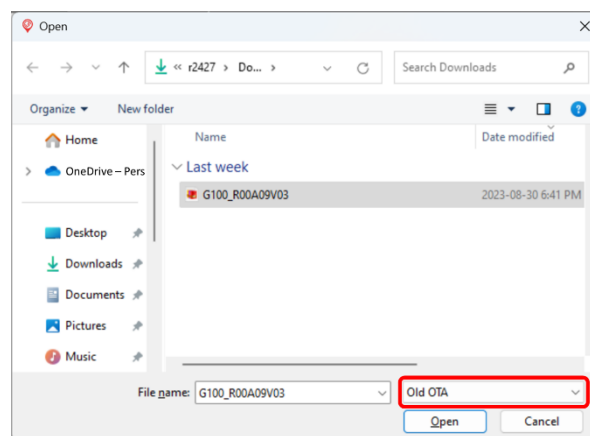
**Step 4:** Press **Select File** in the **Update Reader** section.



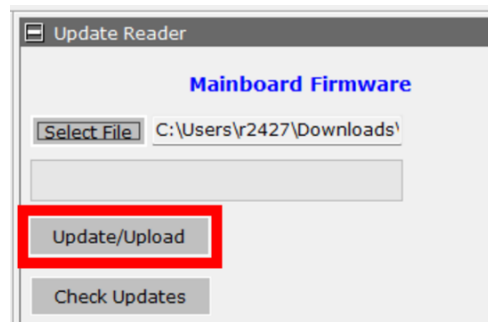
**Step 5:** Use the File Manager to locate the previously downloaded firmware. Press **Open** to confirm.



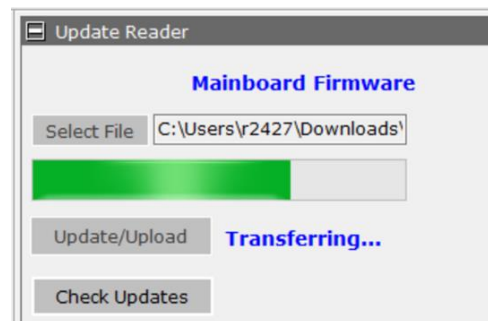
**Note:** If you are upgrading the **GPScanID 100's** Mainboard firmware from **G100\_R00A09V01** or below, select **Old OTA** from the File Manager's pull-down menu before selecting the firmware.



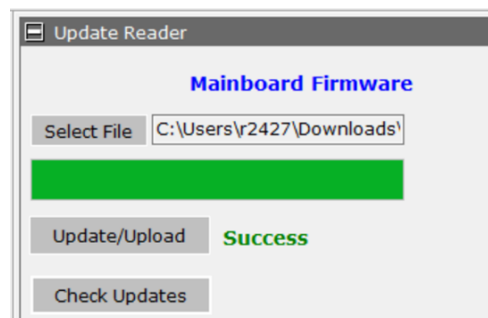
**Step 6:** The software detects and displays the type of firmware to be updated. Press **Update/Upload** to start the update.



**Step 7:** The progress of the update is shown in the progress bar. The update status is shown next to the **Update/Upload** button.



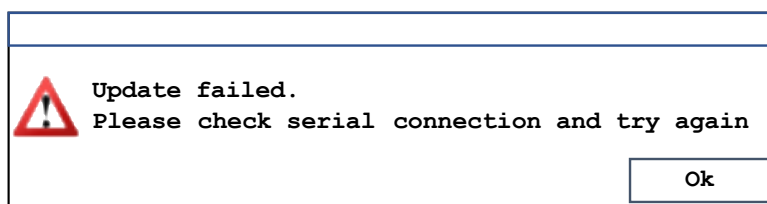
**Step 8:** **Success** is displayed if the update was successful.



**Note:** Please make sure your PC does not enter **Hibernate** or **Sleep** mode during the update as this may interrupt communications with the reader.



If there is serial port or power failure during firmware update, the Reader may fail to power on with the following warning message on the PC.



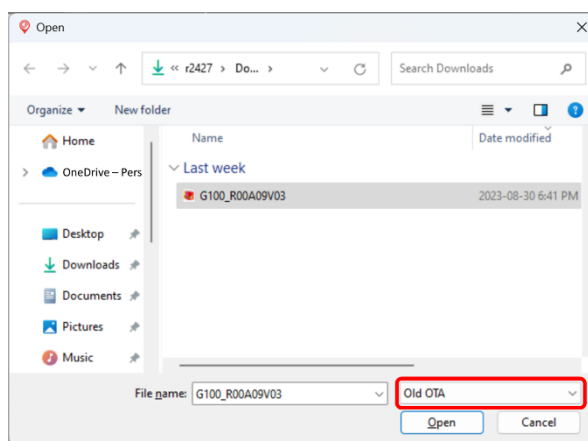
To re-install firmware in a 'bricked' Reader, keep it connected to the PC:

**Step 1:** Close the **GPScanID Software** and relaunch it as **Offline**.

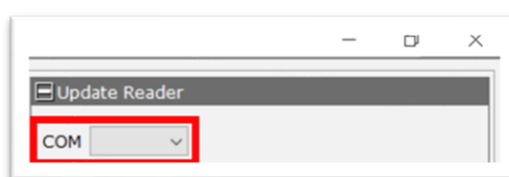
**Step 2:** Press **Setup** to enter the **Setup Menu**.

**Step 3:** Press **Select File** from the **Update Reader** section.

**Step 4:** Select **Old OTA** from the File Manager's pull-down menu. Then select the previously downloaded reader firmware and press **Open**.



**Step 5:** Press **Update/Upload** and the following **COM** menu appears:



**Step 6:** Choose the Serial Port in which the reader is connected.

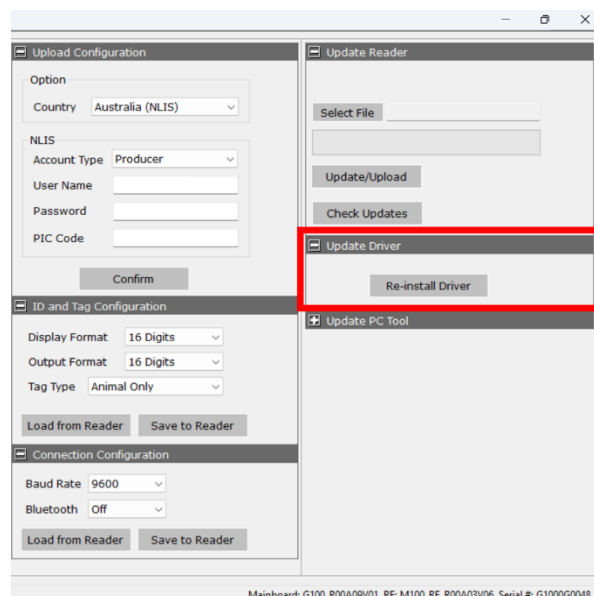
**Step 7:** Press **Update/Upload**, then press and hold the **Read** button in the Reader until **Starting...** is displayed. The red LED in the reader will start flashing within 10 seconds. The progress bar indicates the update progress.

**Step 8:** Wait for the update to complete. This may take a few minutes. **Success** will be shown next to the **Update/Upload** button. Make sure the PC does not hibernate or power off during the update.

The reader should power itself on. If not, power it on manually by pressing and holding the **Read** button. If problem persists, contact your local distributor for assistance.

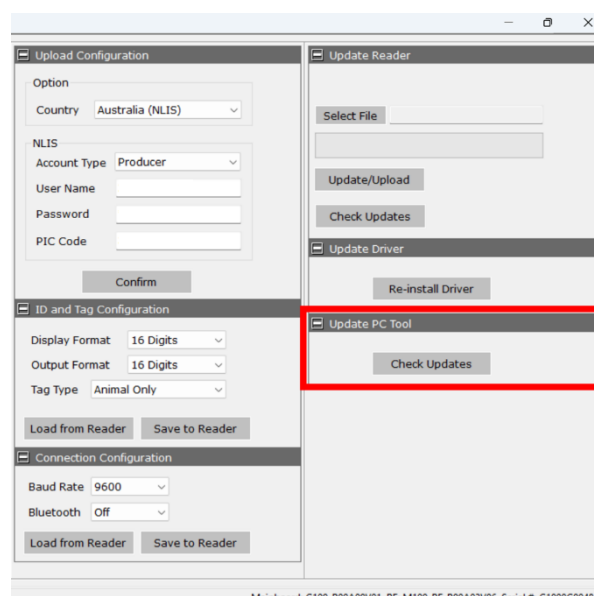
### 3.11.6.2 Update Driver

To re-install the driver for the GPScanID software, press **Re-install Driver** under the **Update Driver** section and refer to Section 1.5.2 for details.



### 3.11.6.3 Update GPScanID Software

To update the GPScanID Software, press **Check Updates** under **Update PC Tool**. If a new version of the software is available, it will prompt the user to download and update. Otherwise, it will display **No update available**. Press **Exit** to exit



**\*\* GPScanID Software V2.0 and above includes additional driver support for Windows™ 11. This requires the software to be directly downloaded from our website and installed manually. The **Update PC Tool** function will not be able to update the software. Please check our website for further information.**

### 3.12 Help

The **Help** section lists the **Function Buttons** and **Frequently Asked Questions (FAQ)** in a series of topics about operating the GPScanID software.

**Function Buttons** list the functionality of each button in the software.

**FAQs** provide a list of topics of frequently asked questions. You can navigate to each topic for assistance.



### 3.13 Exit

The **Exit** function prompts the user to exit the GPScanID software. Press **OK** to exit the software.

### 3.14 Search & Alert

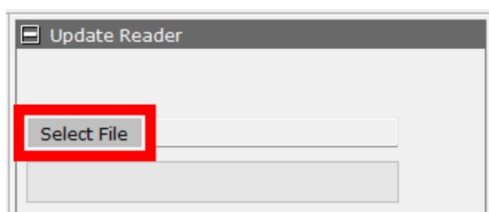
This feature enables users to upload predefined **Search Session(s)** of IDs to the Reader. The Reader alerts the user if the read IDs are either present or missing in the selected **Search Session**. We will focus on the software aspects in using this function here.

To use this function, you have to create **Search Session(s)** in your PC, then use the **GPScanID Software** to upload to the Reader.

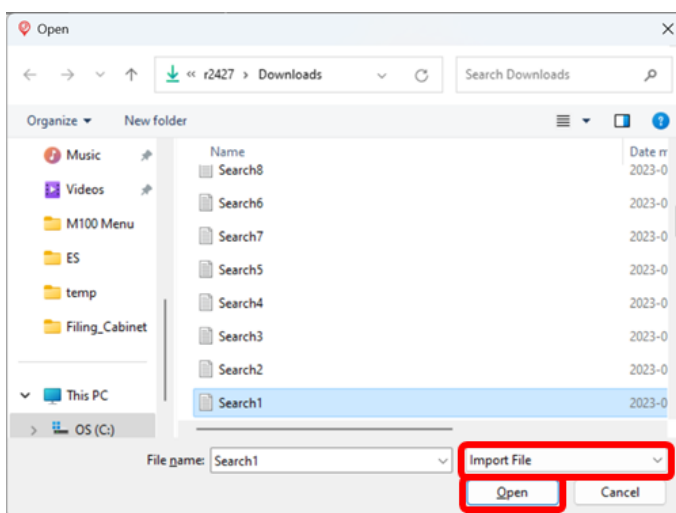
To create a **Search Session**, you can either modify an existing saved session or manually create one. The **Search Session** is a .csv file and takes the same format as the export file. See example below:

```
Session ID,Quantity,Session Name,Session Date,Source,Count,RFID,GPS,Date,UF1,UF2,UF3,UF4
0002,3,,07/01/2019 06:26:05,Current,1,951 013001004919 ,Not Recorded,07/01/2019 06:26:09,,,,
0002,3,,07/01/2019 06:26:05,Current,2,951 000000003189 ,Not Recorded,07/01/2019 06:26:16,,,,
0002,3,,07/01/2019 06:26:05,Current,3,951 013001004919 ,Not Recorded,09/01/2019 07:18:41,,,,
```

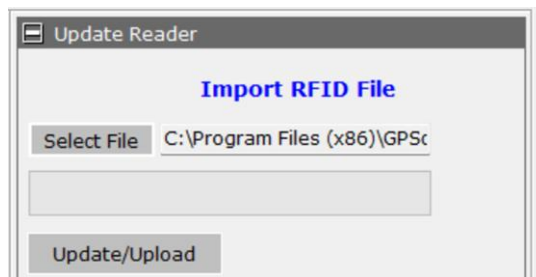
To upload a **Search Session**, go to the **Setup** menu of the GPScanID Software. Press **Select File** from the **Update Reader** menu.



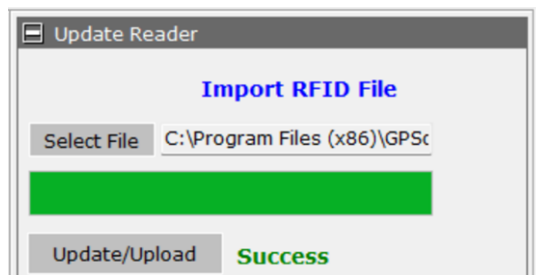
The File Manager appears. Select **Import File** from the pull-down menu to locate the **Search Session** file. Click the file to select, then press **Open** to continue.



The wording **Import RFID File** appears. Press **Update/Upload** to upload it to the reader.



If the upload is successful, **Success** appears next to the **Update/Upload** button.



\*\* The reader can store up to 10 **Search Sessions** with a maximum of 2,000 IDs each. If the maximum number of **Search Sessions** is reached, you must delete one or more **Search Session(s)** before you can upload again.

## 4. NLIS Function

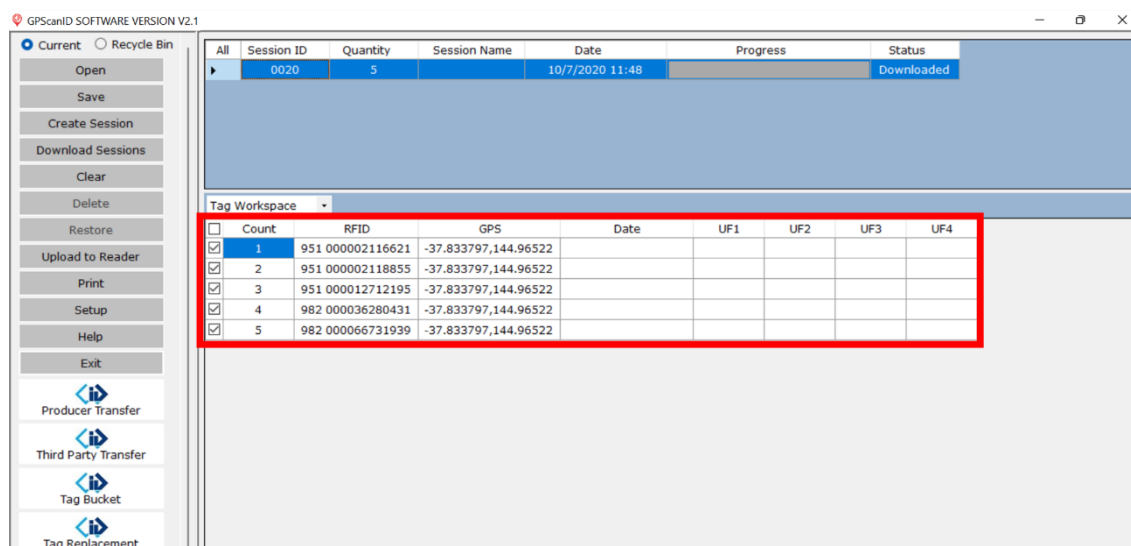
The following section outlines the functions built into the GPScanID software for communicating with the Australia's National Livestock Identification System (NLIS) database.

Please note IDs must be in **15-digit** format to access these functions. IDs from **Tag Workspace** (whether downloaded from reader or imported Excel files) in different ID format cannot communicate with the NLIS database.

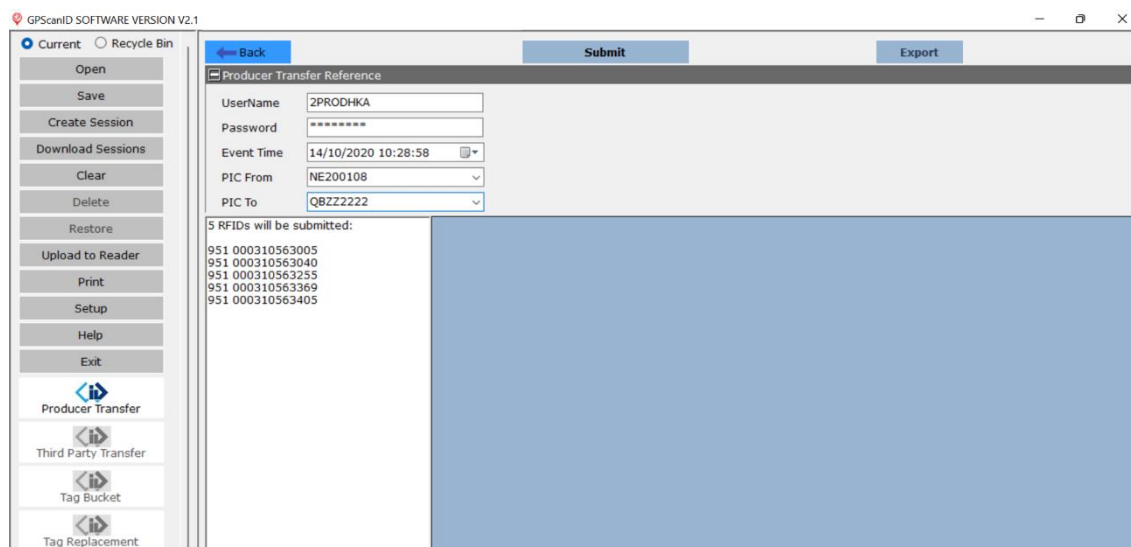
### 4.1 Producer Transfer

The **Producer Transfer** function allows you to transfer livestock from one location (or Property Identification Code (PIC)) to another.

**Step 1:** Select a session from the Session Workspace. It can be **Current**, **Recycle Bin** or **Open** from a previously saved file (The example below shows opening a saved file). Select all IDs or specific IDs to be transferred.



**Step 2:** Press **Producer Transfer**. The following screen appears.



**Step 3:** Enter and check all input fields and click **Submit**.

**User Name:** Your NLIS user name.

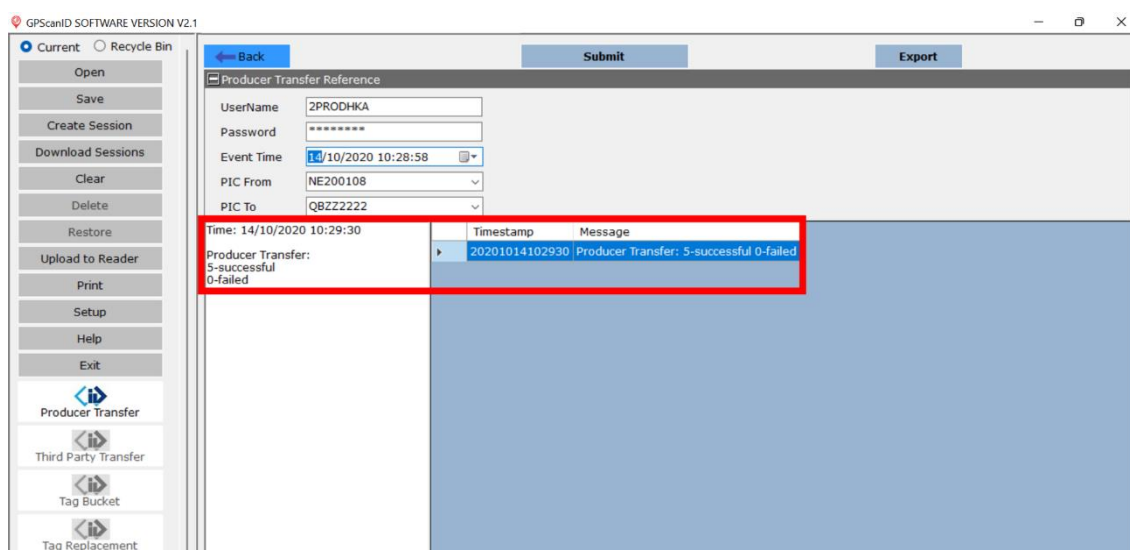
**Password:** The corresponding password.

**Event Time:** Time in which the event takes place. (Optional. This field defaults to the system time).

**PIC From:** The originating Property Identification Code.

**PIC To:** The destination Property Identification Code.

When all details and IDs have been verified, press **Submit**. The status of the transfer is shown below:



If the **Transfer** operation fails, an error message will be displayed in the description part of the screen outlining the reason for failure. The operation can fail either partially or in full. The main reasons for failure are:

- The tags are not registered on the PIC being transferred from; or
- The tags are not registered on the Database.

When performing a **Transfer** by opening a previously saved .csv file, please ensure the file is saved in the correct format as shown in the example below:

```
Session ID,Quantity,Session Name,Session Date,Source,Count,RFID,GPS,Date,UF1,UF2,UF3,UF4
0001,5,,13/10/2020 12:15:46,Current,1,999 000000000358 ,-26.691973;152.450918,13/10/2020 12:16:10,Angus,825kg,Vaccine-A,Feedlot5
0001,5,,13/10/2020 12:15:46,Current,2,951 013001089645 ,-26.691973;152.450918,13/10/2020 12:16:13,Brahman,769kg,Vaccine-B,FarmB12
0001,5,,13/10/2020 12:15:46,Current,3,951 013001004942 ,-26.691973;152.450918,13/10/2020 12:16:17,Gelbvieh,922kg,Vaccine-C,John
0001,5,,13/10/2020 12:15:46,Current,4,951 000502220320 ,Not Recorded,09/03/2021 14:47:43,,,,,
0001,5,,13/10/2020 12:15:46,Current,5,951 015000001431 ,Not Recorded,09/03/2021 14:48:00,,,,,
```

Note: Date should be saved in **DD/MM/YYYY HH:MM:SS** format to be displayed properly in the software. Please use a text editor, such as WordPad instead of Microsoft Excel™ to open and edit the file to prevent potential formatting issues.

## 4.2 Third Party Transfer

The Third-Party Transfer function is operated by third party account holder which is an intermediary in livestock transaction (buyer, seller etc). If you are asked to record a livestock movement for someone else's property but their PIC is not linked to your third-party account, submit this transaction to record the movement on the database.

You must log in with a Third-Party Account to use this function.

**Step 1:** Select a session from the **Session Workspace**. It can be **Current**, **Recycle Bin** or **Open** from a previously saved file in the PC.

**Step 2:** Press **Third Party Transfer**.

**Step 3:** Enter the following input fields and press **Submit**.

- |                               |   |
|-------------------------------|---|
| <b>User Name:</b>             | User Name for the NLIS Third Party Account.   |
| <b>Password:</b>              | The corresponding password.   |
| <b>Event Time:</b>            | Time in which the event takes place (Optional. Default to system time).   |
| <b>PIC From:</b>              | The originating Property Identification Code.   |
| <b>PIC To:</b>                | The destination Property Identification Code.   |
| <b>Authorisation-Level:</b>   | Specifies the level of authorization given by a third party to perform a Producer Transfer transaction:<br>0: Not authorized.<br>1: Source PIC or vendor.<br>2: Destination PIC or buyer.<br>3: Other or both source PIC and destination PIC. |
| <b>Authoriser-First Name:</b> | Vendor First Name.  |
| <b>Authoriser-Last name:</b>  | Vendor Last Name.   |

The screenshot displays the GPScanID Software Version V2.1 interface. On the left is a sidebar menu with options: Open, Save, Create Session, Download Sessions, Clear, Delete, Restore, Upload to Reader, Print, Setup, Help, Exit, and icons for Producer Transfer, Third Party Transfer (selected), and Tag Bucket. The main window has a title bar 'GPScanID SOFTWARE VERSION V2.1' and buttons for Back, Submit, and Export. The 'Third Party Transfer Reference' form contains the following fields:

UserName	2TPTYSZH	Authorisation-Level	0: Not authorised
Password	*****	Authoriser-Firstname	John
Event Time	10/07/2020 13:35:41	Authoriser-Lastname	Doe
PIC From	3SGNE285		
PIC To	QHBN0554		

Below the form, it states '8 RFIDs will be submitted:' followed by a list of 8 RFID numbers: 951 000310573078, 951 000310573084, 951 000310573111, 951 000310573116, 951 000310573158, 951 000310573169, 951 000310573245, and 951 000310573252. A large blue rectangular area is present at the bottom right of the form.



The status of the transfer is shown below:

GPScanID SOFTWARE VERSION V2.1

Current Recycle Bin

Open

Save

Create Session

Download Sessions

Clear

Delete

Restore

Upload to Reader

Print

Setup

Help

Exit

Producer Transfer

Third Party Transfer

Tag Bucket

Back Submit Export

Third Party Transfer Reference

UserName: 2TPTYSZH

Authorisation-Level: 3: Other or both source PIC and destination PI

Password: \*\*\*\*\*

Authoriser-Firstname: John

Event Time: 14/10/2020 11:31:18

Authoriser-Lastname: Doe

PIC From: QHBN0554

PIC To: 3SGNE285

Time: 14/10/2020 11:33:50

ThirdParty Transfer:  
4-successful  
0-failed

If the **Transfer** operation fails, an error message will be displayed in the description part of the screen outlining the reason for failure. The operation can fail either partially or in full. The main reasons for failure are:

- The tags are not registered on the PIC being transferred from; or
- The tags are not registered on the Database.

When performing a **Transfer** by opening a previously saved .csv file, please ensure the file is saved in the correct format as shown in the example below:

```
Session ID,Quantity,Session Name,Session Date,Source,Count,RFID,GPS,Date,UF1,UF2,UF3,UF4
0001,5,,13/10/2020 12:15:46,Current,1,999 0000000000358 ,-26.691973;152.450918,13/10/2020 12:16:10,Angus,825kg,Vaccine-A,Feedlot5
0001,5,,13/10/2020 12:15:46,Current,2,951 013001089645 ,-26.691973;152.450918,13/10/2020 12:16:13,Brahman,769kg,Vaccine-B,FarmB12
0001,5,,13/10/2020 12:15:46,Current,3,951 013001004942 ,-26.691973;152.450918,13/10/2020 12:16:17,Gelbvieh,922kg,Vaccine-C,John
0001,5,,13/10/2020 12:15:46,Current,4,951 000502220320 ,Not Recorded,09/03/2021 14:47:43,,,,
0001,5,,13/10/2020 12:15:46,Current,5,951 015000001431 ,Not Recorded,09/03/2021 14:48:00,,,,
```

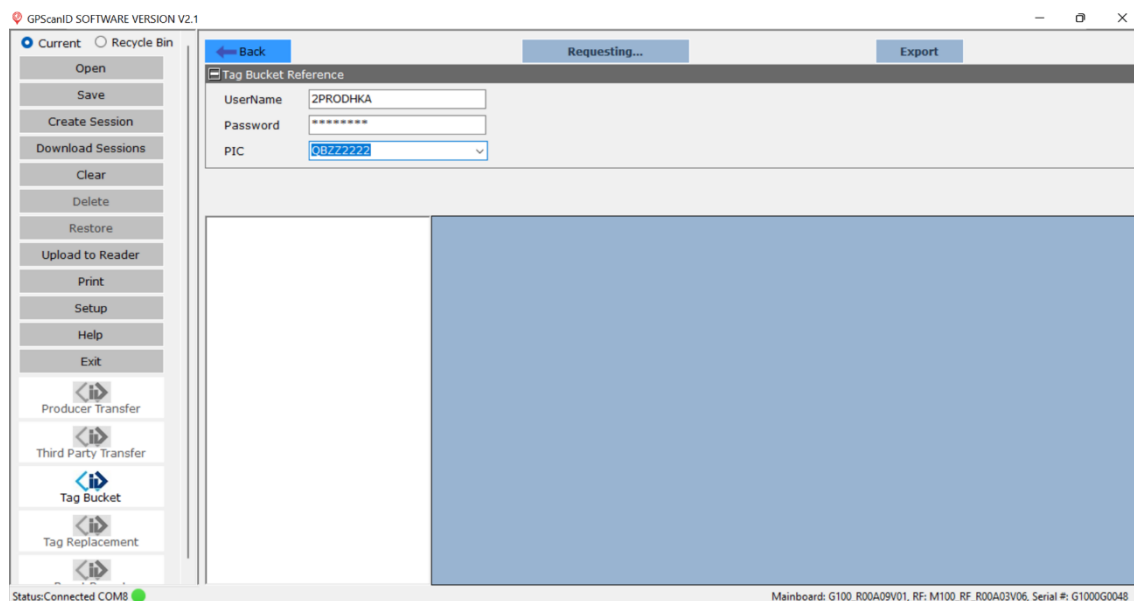
Note: Date should be saved in **DD/MM/YYYY HH:MM:SS** format to be displayed properly in the software. Please use a text editor, such as WordPad instead of Microsoft Excel™ to open and edit the file to prevent potential formatting issues.

## 4.3 Tag Bucket

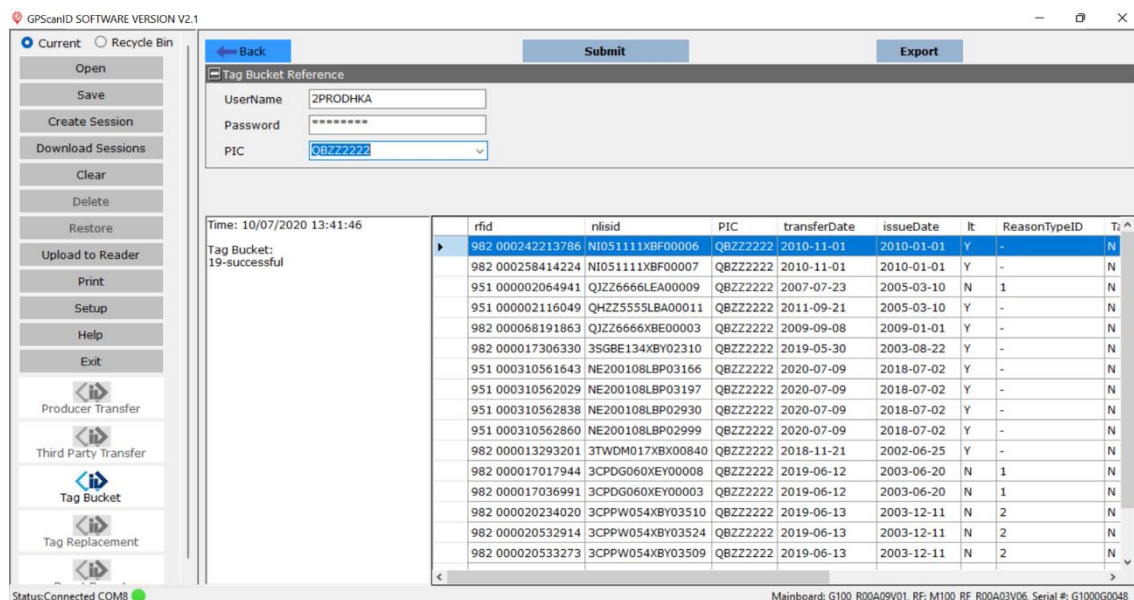
The Tag bucket function searches all IDs registered under the user specified PIC.

**Step 1:** Press **Tag Bucket**.

**Step 2:** Enter User Name, Password and PIC to be inquired then press **Submit**.



All IDs registered under the PIC will be displayed.



You can press **Export** to save the records as an excel file in the PC.

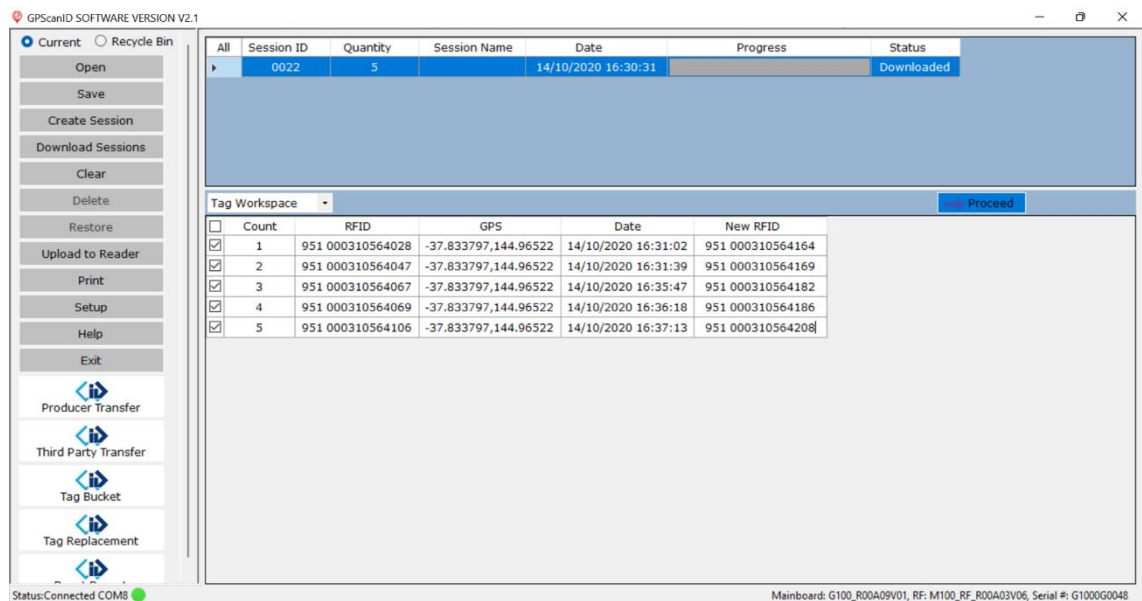
## 4.4 Tag Replacement

The Tag Replacement function is used to replace lost/broken tags with new ones.

**Step 1:** Select a session from the Session Workspace. It can be **Current**, **Recycle Bin** or **Open** from a previously saved .csv file in the PC.

**Step 2:** Press **Tag Replacement**.

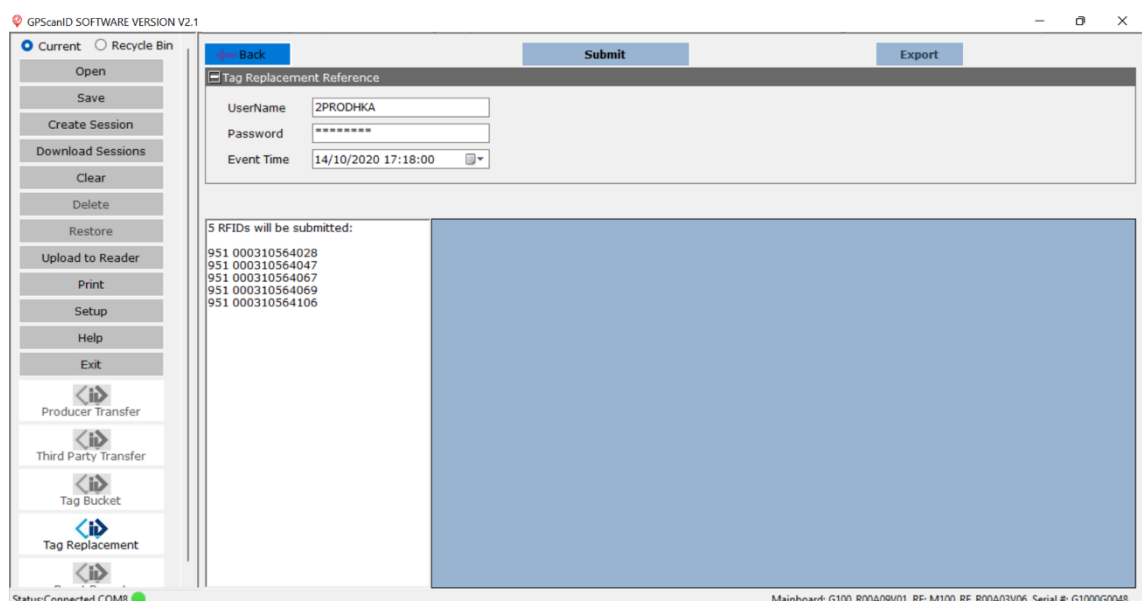
**Step 3:** Select the IDs to be replaced and enter the corresponding new IDs under the **New RFID** column (all IDs are being replaced in the following example).



**Step 4:** Press **Proceed** when all new RFID entries are completed.

Please ensure to enter a space after the 3<sup>rd</sup> digit. The new IDs should be in the format XXX XXXXXXXXXXXX.

**Step 5:** Modify the **Event Time** if required, then press **Submit**.



The status of the Tag Replacement is updated below:

GPScanID SOFTWARE VERSION V2.1

Current Recycle Bin

Open

Save

Create Session

Download Sessions

Clear

Delete

Restore

Upload to Reader

Print

Setup

Help

Exit

Producer Transfer

Third Party Transfer

Tag Bucket

Tag Replacement

Status: Connected COM8

Mainboard: G100\_R00A09V01, RF: M100\_RF\_R00A03V06, Serial #: G1000G0048

Tag Replacement Reference

UserName: 2PRODHKA

Password: \*\*\*\*\*

Event Time: 14/10/2020 17:18:00

Time: 14/10/2020 17:18:12

Timestamp	Message
20201014171812	Tag Replacement: 5-successful 0-failed

If the **Tag Replacement** operation fails, an error message will be displayed in the description part of the screen outlining the reason for failure. The operation can fail either partially or in full. The main reasons for failure are:

- The tags are not registered on the PIC being transferred from; or
- The tags are not registered on the Database.

When performing **Tag Replacement** by opening a previously saved .csv file, please ensure the file is saved in the correct format as shown in the example below:

```
Session ID,Quantity,Session Name,Session Date,Source,Count,RFID,GPS,Date,UF1,UF2,UF3,UF4
0001,5,,13/10/2020 12:15:46,Current,1,999 000000000358 ,-26.691973;152.450918,13/10/2020 12:16:10,Angus,825kg,Vaccine-A,Feedlot5
0001,5,,13/10/2020 12:15:46,Current,2,951 013001089645 ,-26.691973;152.450918,13/10/2020 12:16:13,Brahman,769kg,Vaccine-B,FarmB12
0001,5,,13/10/2020 12:15:46,Current,3,951 013001004942 ,-26.691973;152.450918,13/10/2020 12:16:17,Gelbvieh,922kg,Vaccine-C,John
0001,5,,13/10/2020 12:15:46,Current,4,951 000502220320 ,Not Recorded,09/03/2021 14:47:43,,,
0001,5,,13/10/2020 12:15:46,Current,5,951 015000001431 ,Not Recorded,09/03/2021 14:48:00,,,
```

Note: Date should be saved in **DD/MM/YYYY HH:MM:SS** format to be displayed properly in the software. Please use a text editor, such as WordPad instead of Microsoft Excel™ to open and edit the file to prevent potential formatting issues.

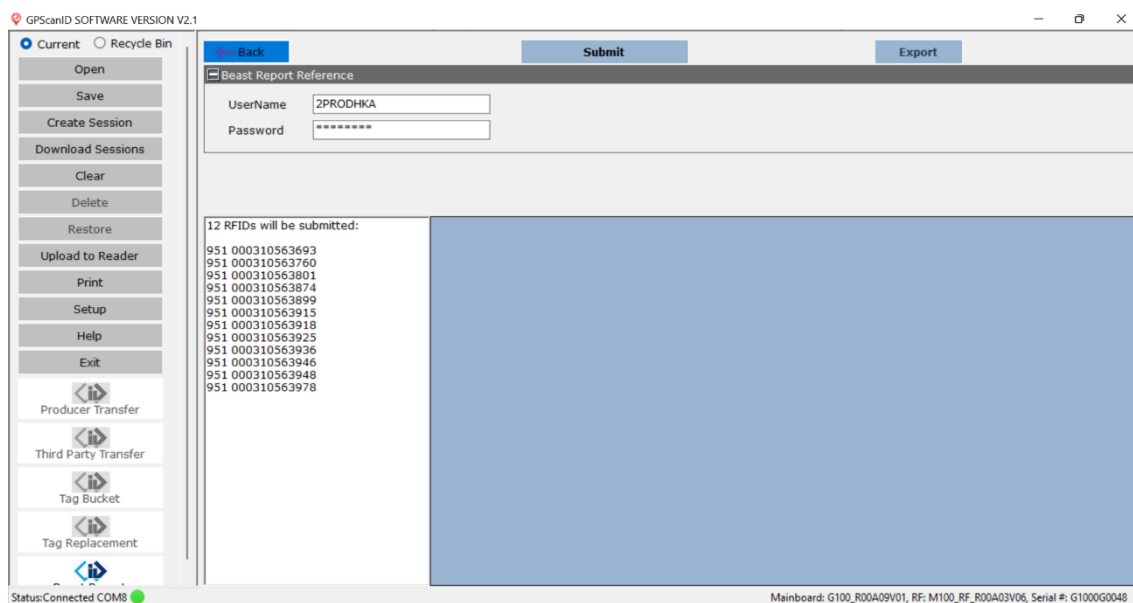
## 4.5 Beast Report

The **Beast Report** function enables queries to be made about the selected IDs from the NLIS database.

**Step 1:** Select a session from the Session Workspace. It can be **Current**, **Recycle Bin** or **Open** from a previously saved file in the PC.

**Step 2:** Select all tags in the session or the tags to be inquired from the session.

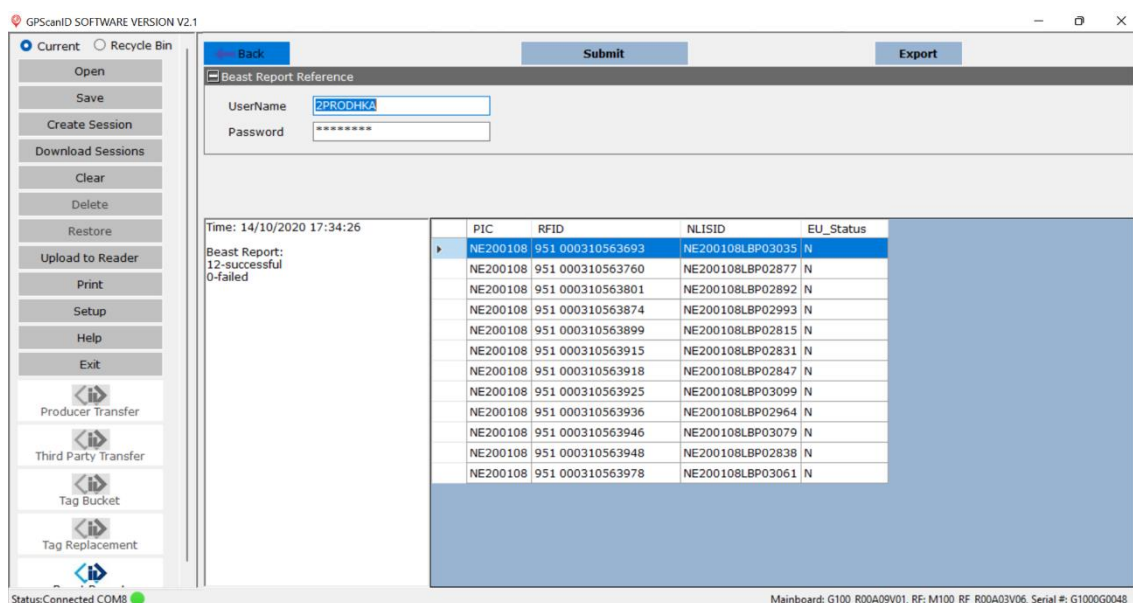
**Step 3:** Press **Beast Report**.



**Step 4:** Enter **User Name** and **Password**, if blank.

**Step 5:** Press **Submit**.

**Step 6:** Information about the IDs are displayed as follows:



You can press **Export** to save the records as an excel file in the PC.

If the **Beast Report** query fails, an error message will be displayed in the description part of the screen outlining the reason for failure. The query can fail either partially or in full. The main reasons for failure are:

- The tags are not registered on the PIC being queried; or
- The tags are not registered on the Database.