



GPScanID Software

User Manual

(Version 2.0)

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

GPScanID Limited

Contents

1. GETTING STARTED	5
1.1 SYSTEM REQUIREMENT.....	5
1.2 GETTING THE SOFTWARE.....	6
1.3 INSTALLATION	7
1.4 ESTABLISH CONNECTION	13
1.4.1 Serial Connection	13
1.4.2 Update (Drivers)	14
1.4.3 Bluetooth Connection	15
1.5 COUNTRY SELECTION	16
2. MAIN SCREEN.....	17
2.1 FUNCTION SIDEBAR	17
2.2 WORKSPACES	18
2.3 STATUS BAR.....	21
3. OPERATIONS	22
3.1 MEMORY SPACE.....	22
3.2 OPEN	23
3.3 SAVE	23
3.4 CREATE SESSIONS.....	24
3.5 DOWNLOAD SESSIONS.....	24
3.6 CLEAR (SESSION)	25
3.7 DELETE (SESSION)	26
3.8 RESTORE (SESSION)	26
3.9 UPLOAD TO READER	27
3.10 PRINT	28
3.11 SETUP.....	29
3.11.1 Reader Configuration	29
3.11.2 Advanced Configuration	31
3.11.3 Upload Configuration	32
3.11.4 ID and Tag Configuration	33
3.11.5 Connection Configuration.....	34
3.11.6 Software/Firmware Updates	35
3.11.6.1 Update Reader	36
3.11.6.2 Update Driver.....	42
3.11.6.3 Update GPScanID Software	42
3.12 HELP	43
3.13 EXIT	43
4. NLIS FUNCTION	44
4.1 PRODUCER TRANSFER	44
4.2 THIRD PARTY TRANSFER	46
4.3 TAG BUCKET.....	48
4.4 TAG REPLACEMENT	49
4.5 BEAST REPORT	51

1. Getting Started

The GPScanID Software enables users to transfer the RFID records in 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 GPS100-Cable or GPS150-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[†]:

<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.

[†] It is recommended to use the Microsoft Edge™ web browser to download for stability and security settings.

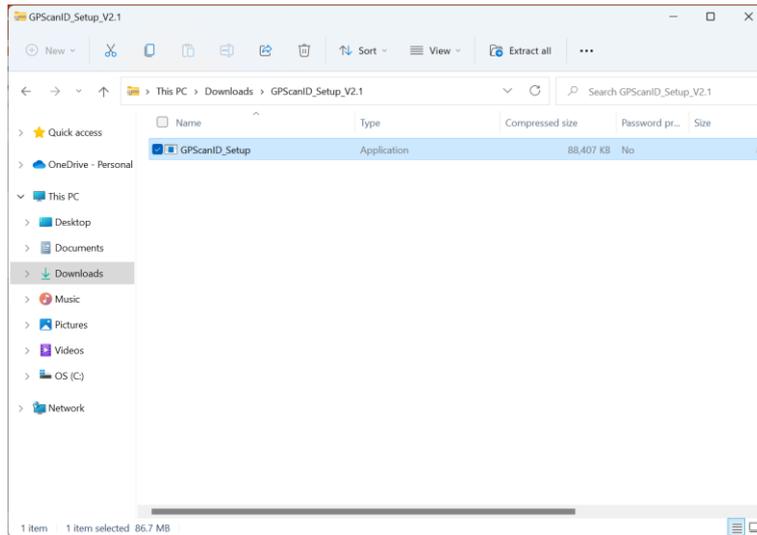
1.3 Installation

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

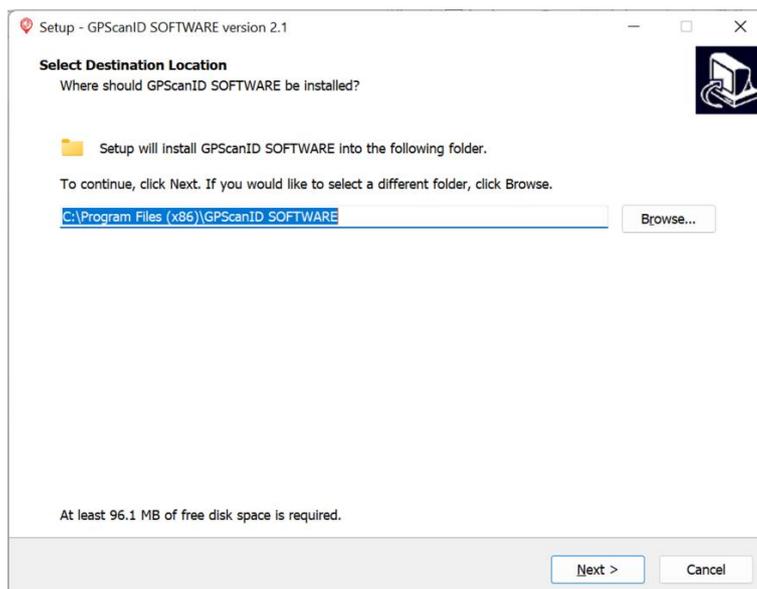
GPScanID_Setup_Vx.x.zip

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.

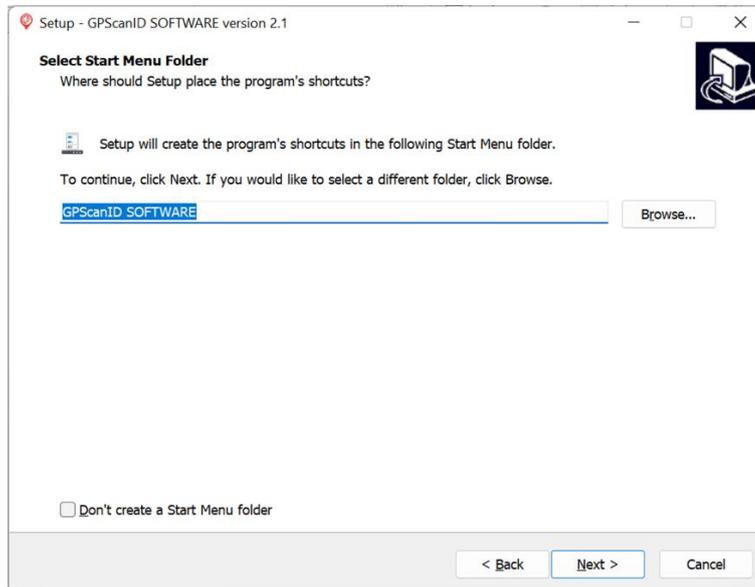


The following screen appears and prompts the user to select the location where the software will be installed. (Unless you have specific file location requirements, you can save the file to the suggested program file location.)



Click **Next >** to continue.

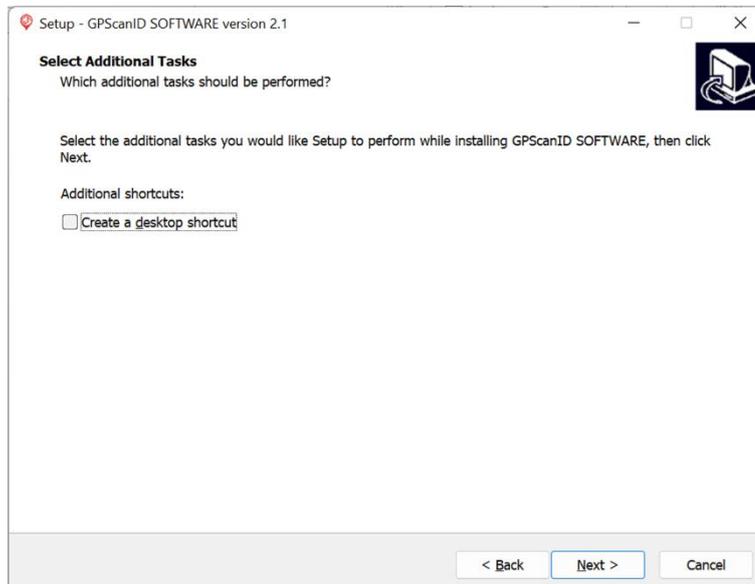
The following window appears to prompt the user for a **Folder name** in which the software will be placed as a program shortcut in the Windows™ **Start Menu**. (The default name is GPScanID SOFTWARE).



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.

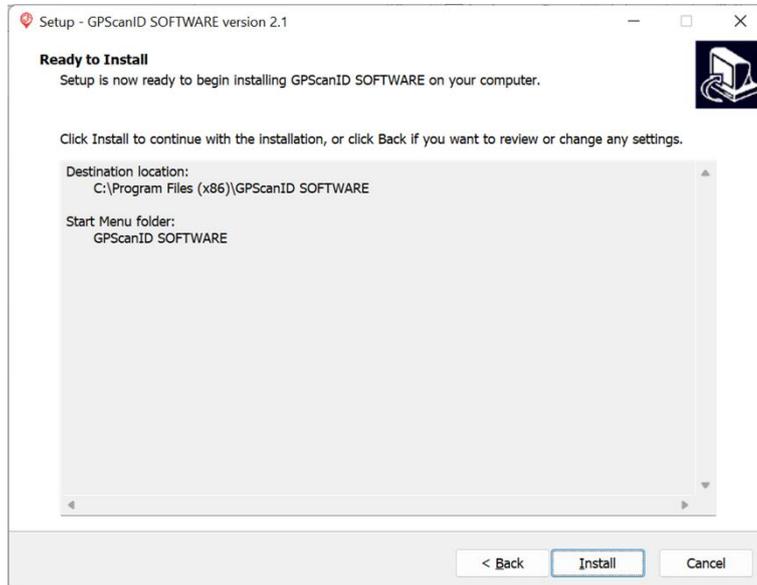


Click **Next >** to continue.

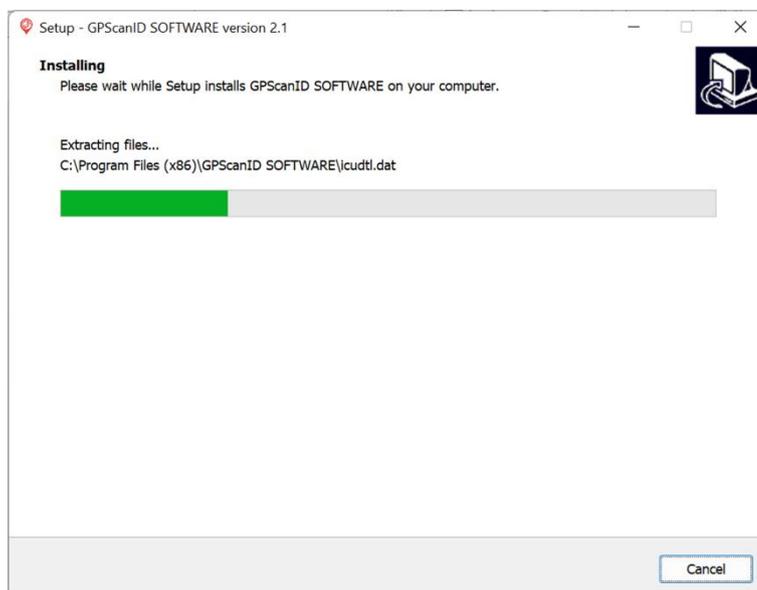
The following screen summarizes the tasks to be performed in the installation.

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

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

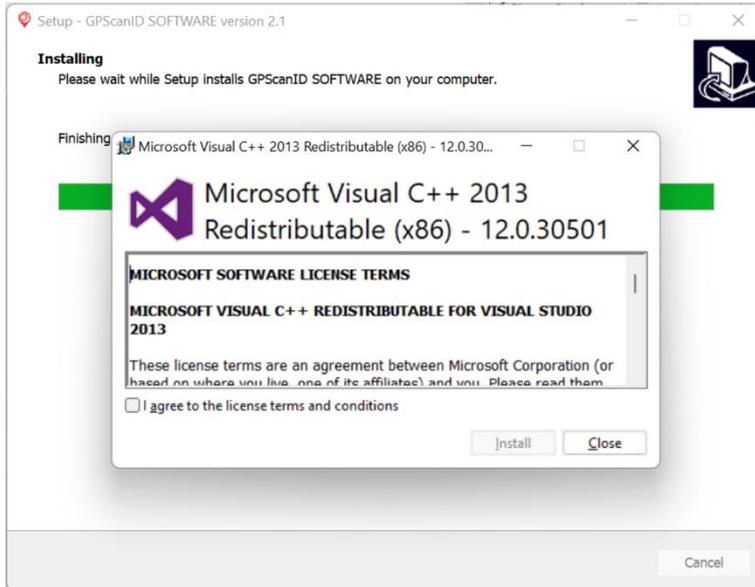


The following screen appears and indicates the progress of the installation until it is completed.

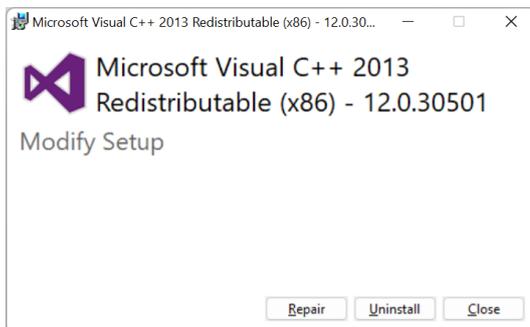


After installing the main software, installation of Microsoft Visual C++ follows.

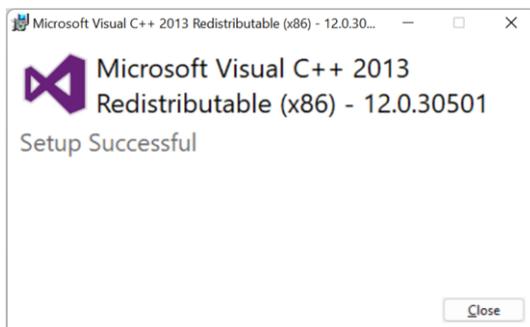
If your PC does not have Microsoft Visual C++ installed, the following screen appears. Check the 'I agree to the license terms and conditions' box, then press **I**nstall.



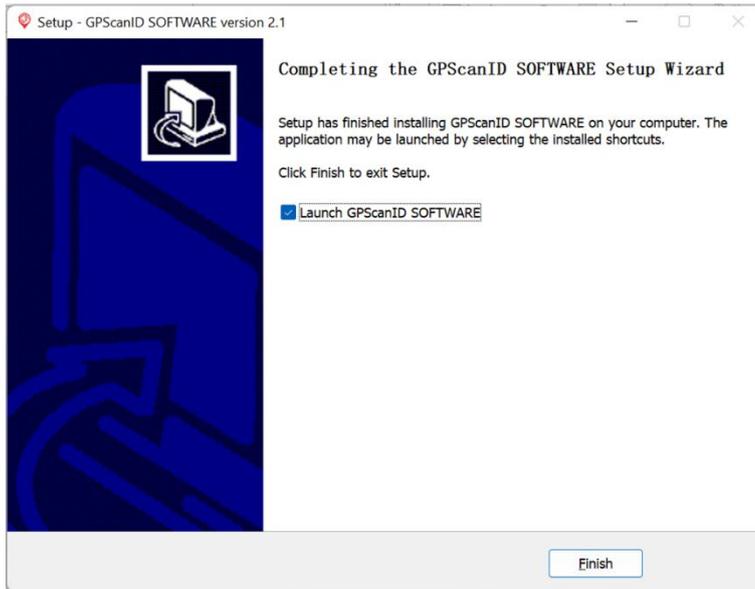
If your PC already has Microsoft Visual C++ installed, the following screen appears. Press **R**epair to update the settings.



Press **C**lose when setup is completed.



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



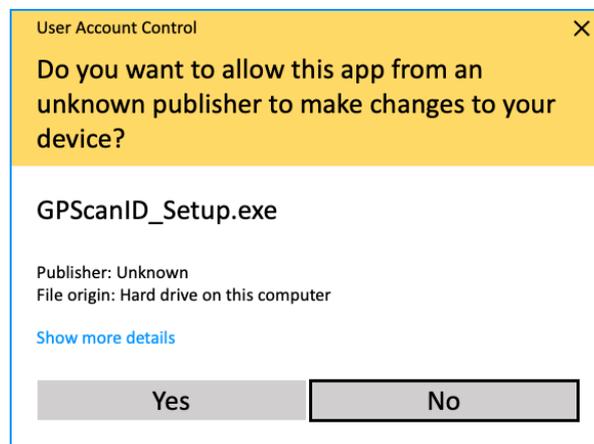
Depending on the Windows™ version in your PC, certain drivers may need updating. Please refer to Section 1.4.2 for more details.

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 with the existing folder name.

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 software installation. We have listed the corresponding actions below. It is recommended to use the Microsoft Edge™ web browser for downloading the software.

The following security warnings may appear when executing **GPScanID_Setup.exe**:

a.



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

b.



Action: Press **More info**

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

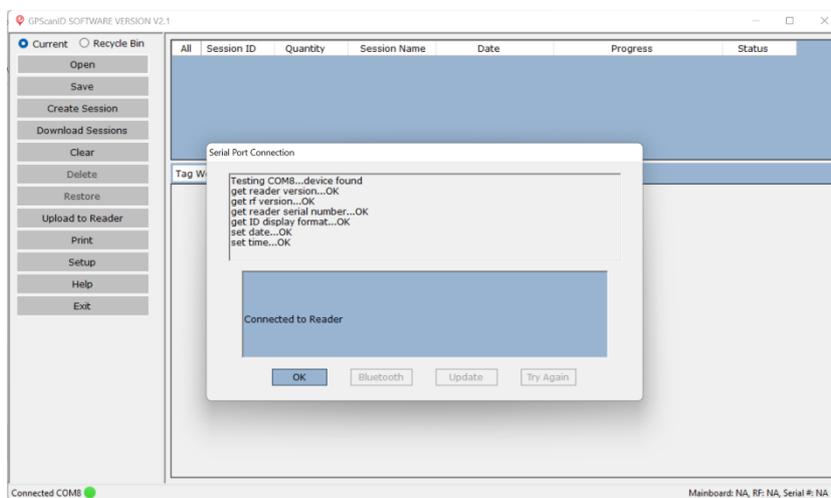


1.4 Establish Connection

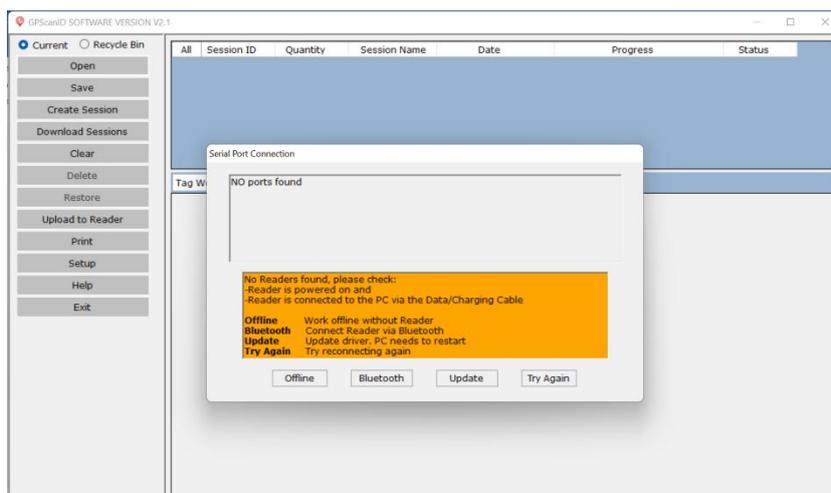
The next step is to establish a connection between the reader and the PC. The GPScanID Series RFID reader supports both serial connection (such as USB or RS-232) or wireless connection (such as Bluetooth). The GPScanID Software will always try to establish a serial connection first. If this fails, the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

1.4.1 Serial Connection

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



If the connection failed, the following message is displayed.



Please check the port and physical connections between the reader, cable and PC.

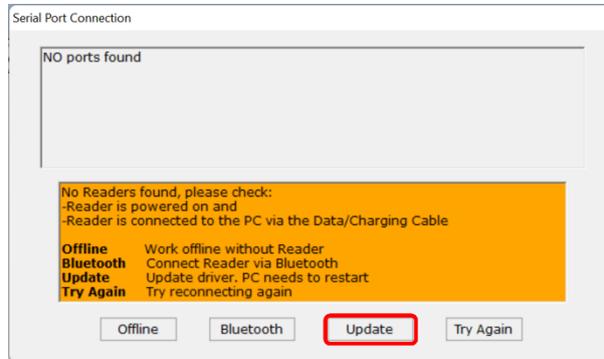
From the Reader, select **Settings / Connection / Cable / Connect To PC**.

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

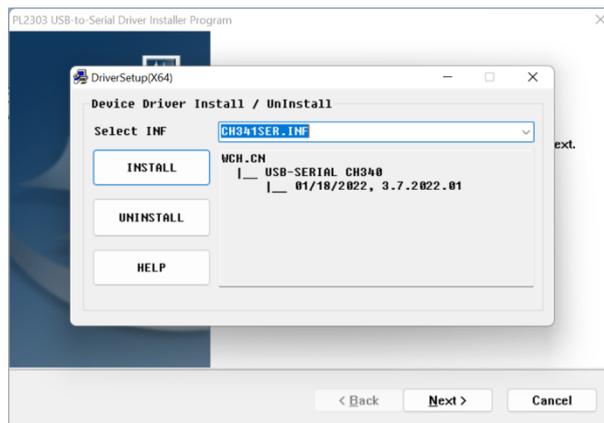
1.4.2 Update (Drivers)

Some Windows 11 PC's may have USB driver compatibility issues which causes the reader unable to connect.

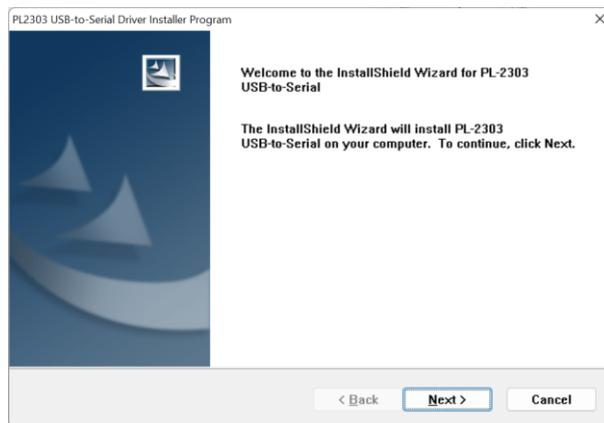
When this happens, press **Update** in the following window. Two USB drivers will be updated.



Press **INSTALL** when the following screen appears. Press **x** on the top right-hand corner to close it when installation is completed.



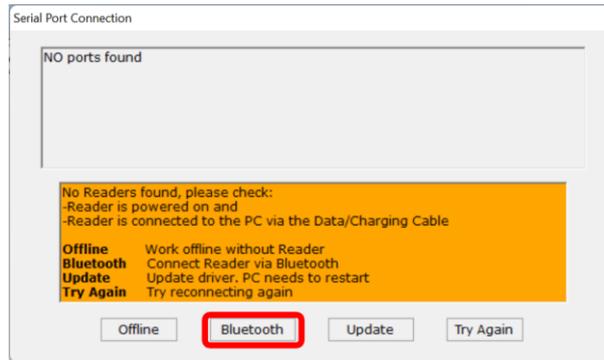
Press **Next >** when the following window appears.



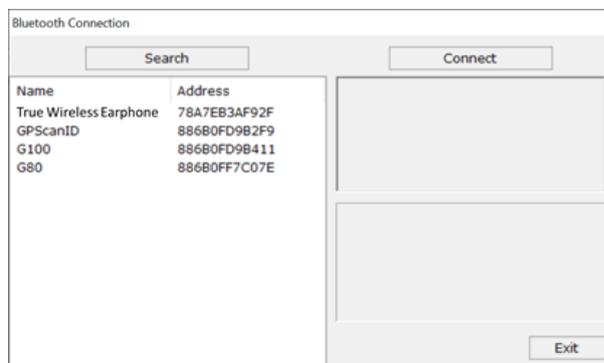
You may need to reboot your PC after the second installation is completed. The reader should now be able to connect.

1.4.3 Bluetooth Connection

If serial connection is unavailable, you have the option to connect via Bluetooth.



To connect via Bluetooth, turn on the Bluetooth function in both the PC and the Reader (refer to the Reader’s User Manual for detailed instructions). Press **Bluetooth** and the following window appears:

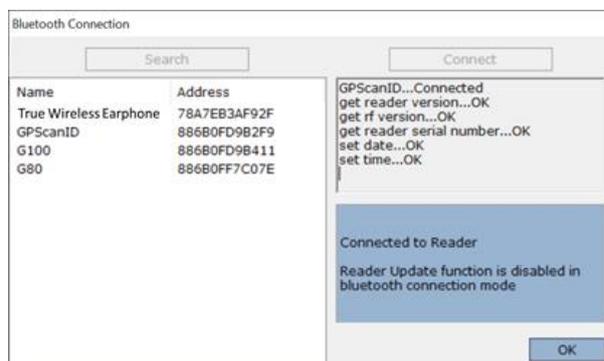


[Search]: Search for nearby Bluetooth devices, then select the reader you wish to connect with.

[Connect]: Connect to the selected reader.

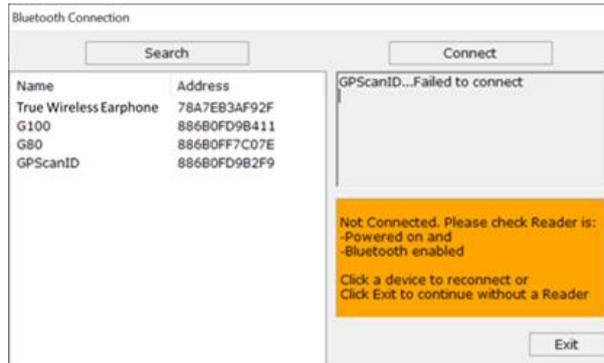
[Exit]: Exit the Bluetooth connection screen and operate the software without connecting a reader.

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, and they are paired.

Users can either:

- (1) Press **Search** to search again, then select the reader and press **Connect** to try connecting 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 completed with serial connection. Bluetooth connection cannot be used for updates.

1.5 Country Selection

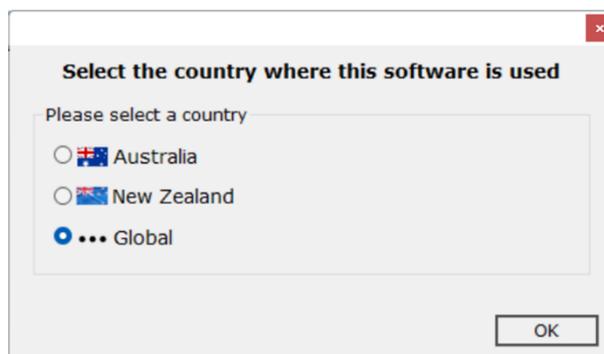
Before entering the main screen of the software, you need to select the country where this software is used. This sets up i) the date format for display in the software and saving to external .csv files, and ii) the country database to record livestock transactions.

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

For Global, date format is set as: YYYYY/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 further countries through software updates.

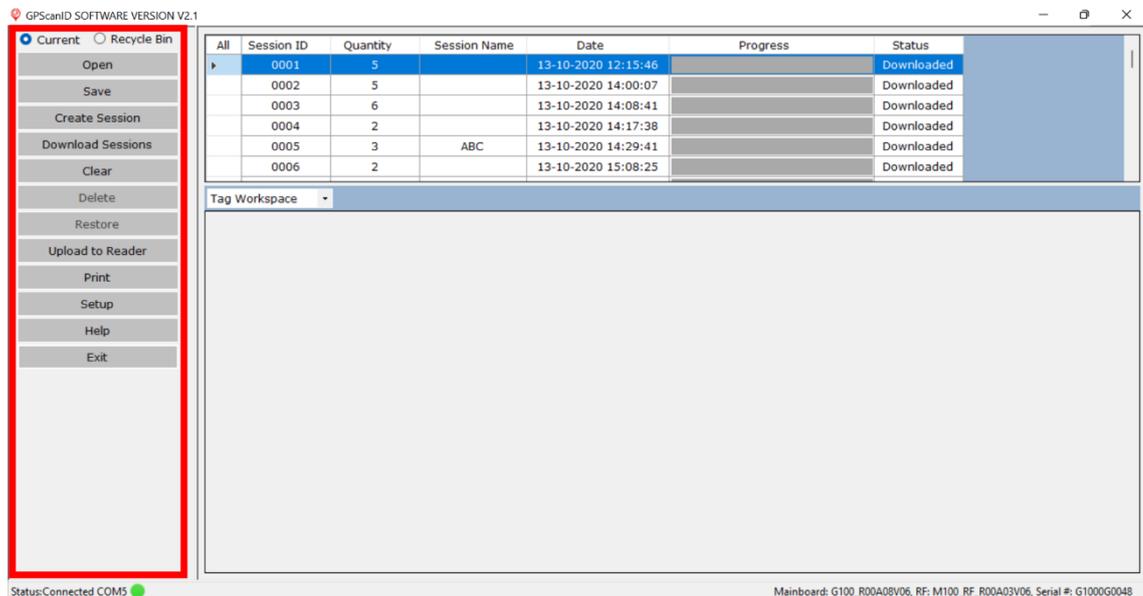
2. Main Screen

Once the software is launched and a connection is established, all sessions in the reader will automatically be downloaded. There are 4 main sections making up 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**:

(1) Session Workspace

The workspace lists all the Current Session IDs that have been downloaded to the software or cleared Session IDs stored in the **Recycle Bin**. The following information is available for each session:

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

GPScanID SOFTWARE VERSION V2.1

Current Recycle Bin

All	Session ID	Quantity	Session Name	Date	Progress	Status
▶	0001	5		13-10-2020 12:15:46		Downloaded
	0002	5		13-10-2020 14:00:07		Downloaded
	0003	6		13-10-2020 14:08:41		Downloaded
	0004	2		13-10-2020 14:17:38		Downloaded
	0005	3	ABC	13-10-2020 14:29:41		Downloaded
	0006	2		13-10-2020 15:08:25		Downloaded

Tag Workspace

Status: Connected COM5

Mainboard: G100_R00A08V06, RF: M100_RF_R00A03V06, Serial #: G1000G0048

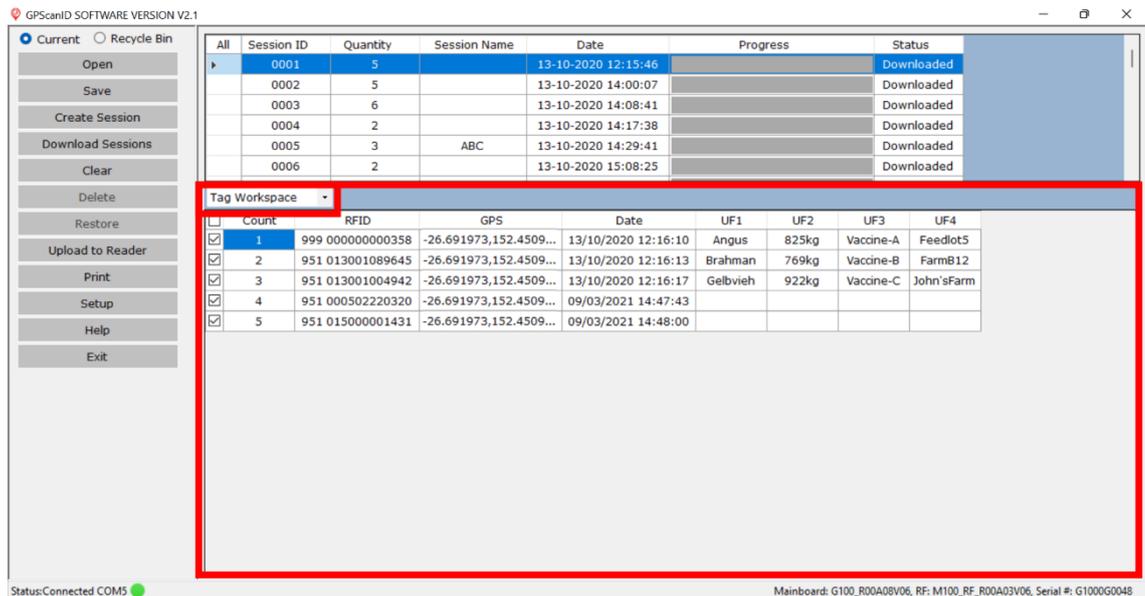
(2) Tag/Map Workspace

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.

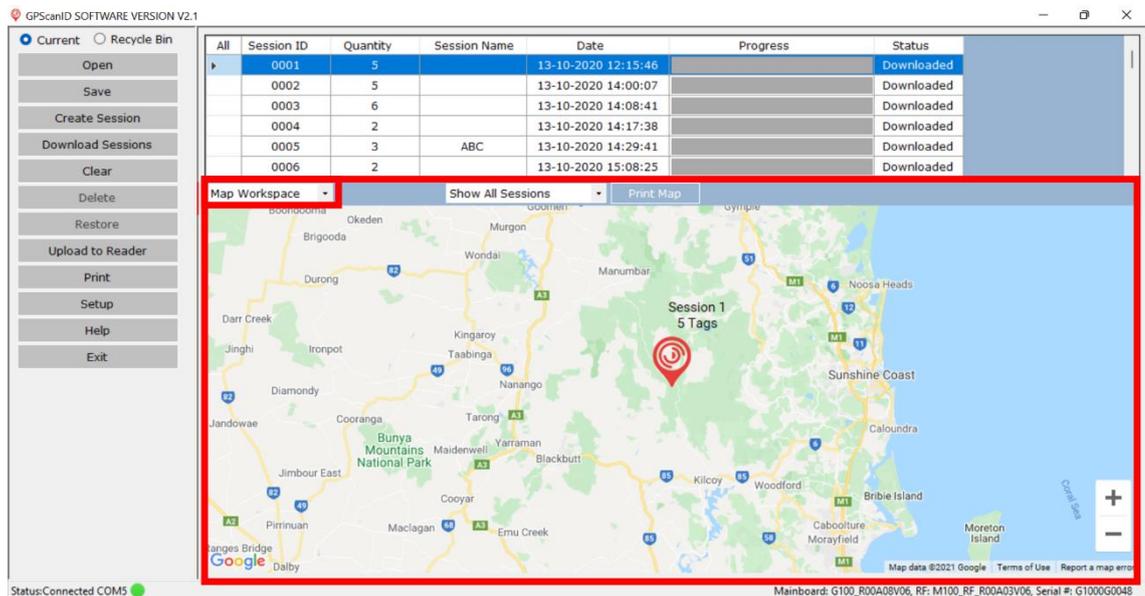
Tag Workspace shows the detailed list of all IDs stored in the selected session. The following information is displayed:

- **Count:** Location of ID stored in the session.
- **RFID:** The recorded RFID number.
- **GPS:** GPS co-ordinates of the tag at the time it was read, 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.



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.

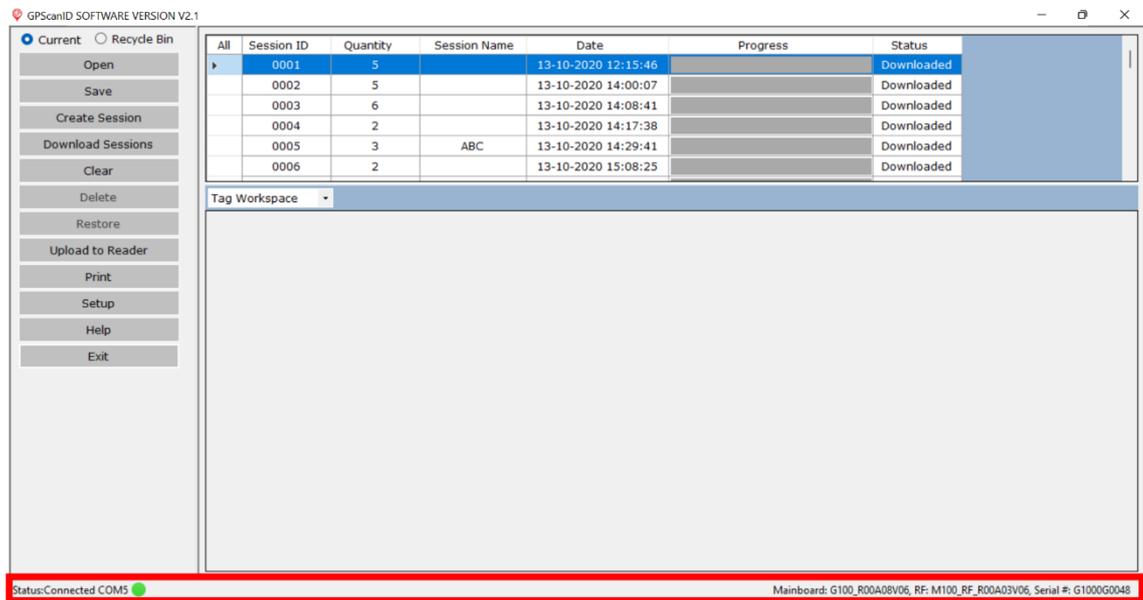
[Show Selected]: To show the location of the selected session.

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 of the sessions in the map by pressing the **Print Map** button.

2.3 Status Bar

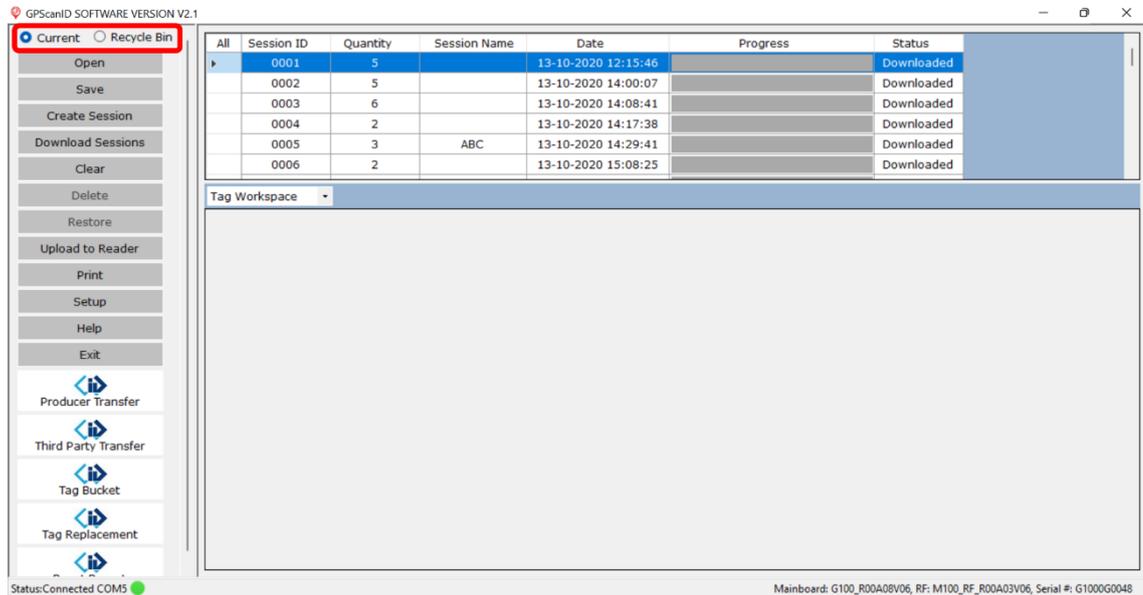
The status bar at the bottom left of the window displays the connection status, whether via **COM port**, **Bluetooth**, or **Disconnected**. The bottom right corner shows the Reader's Mainboard, RF Firmware Versions and its Serial Number respectively.



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**.

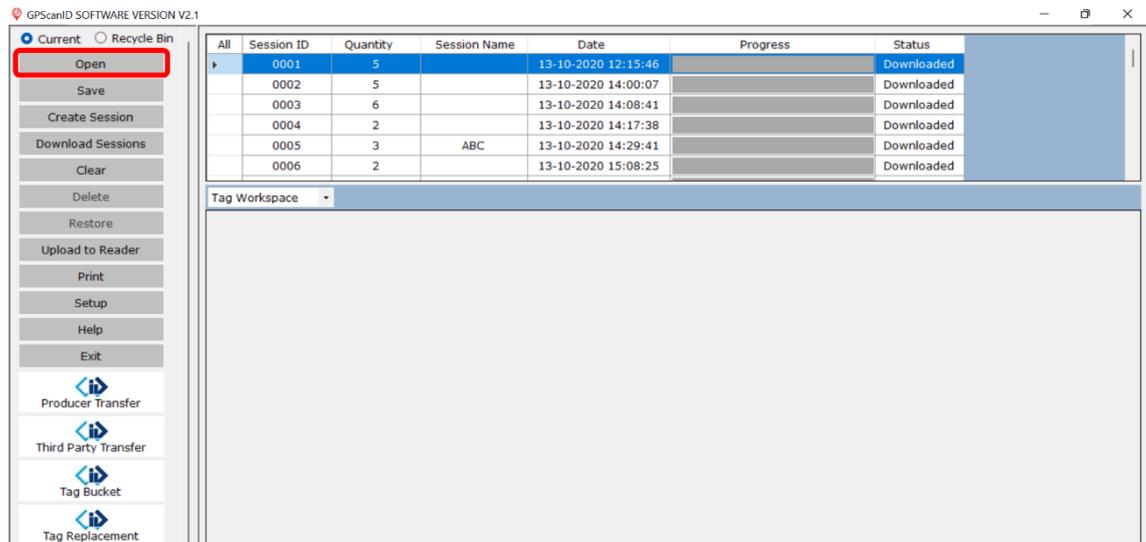


- **Current:** Displays the current sessions downloaded from the reader. This is the default memory space displayed in the software.
- **Recycle Bin:** This is a temporary memory space where cleared sessions are stored. Sessions in the **Recycle Bin** are only assessable from this software and not from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

As sessions stored in the **Recycle Bin** will be deleted when the maximum memory space or number of sessions are exceeded, it is highly recommended to restore them back to the **Current** Memory Space or save them in the PC (see Section 3.3).

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.

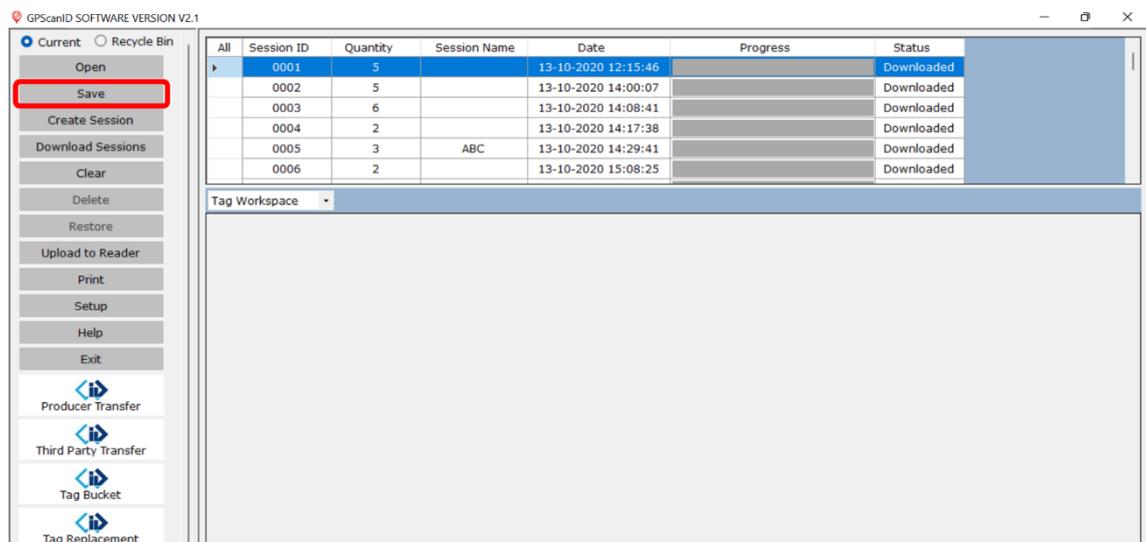


The software can only open csv file in the following format:

```
Session ID,Quantity,Session Name,Session Date,Source,Count,RFID,GPS,Date,UF1,UF2,UF3,UF4
31,4,,05/12/2021 17:42:05,Current,1,951 000310561643 ,-37.765662;144.947837,05/12/2021 17:46:18,,,,
31,4,,05/12/2021 17:42:05,Current,2,951 000310562029 ,-37.765662;144.947837,05/12/2021 17:46:22,,,,
31,4,,05/12/2021 17:42:05,Current,3,951 000310562838 ,Not Recorded,05/12/2021 17:46:30,,,,
31,4,,05/12/2021 17:42:05,Current,4,951 000310562860 ,Not Recorded,05/12/2021 17:47:16,,,,
```

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**.

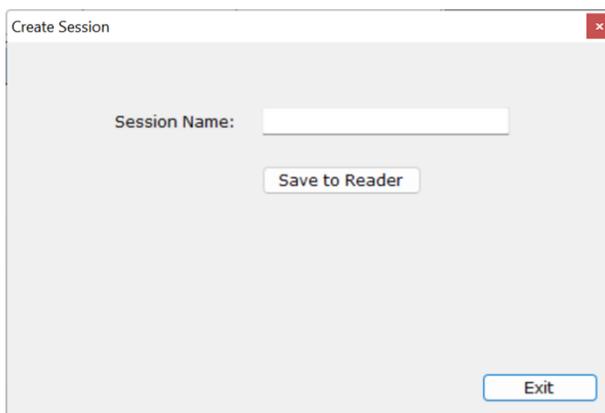
To save multiple sessions, press and hold the **Ctrl** key to select the **Session IDs**, then press **Save**.

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

3.4 Create Sessions

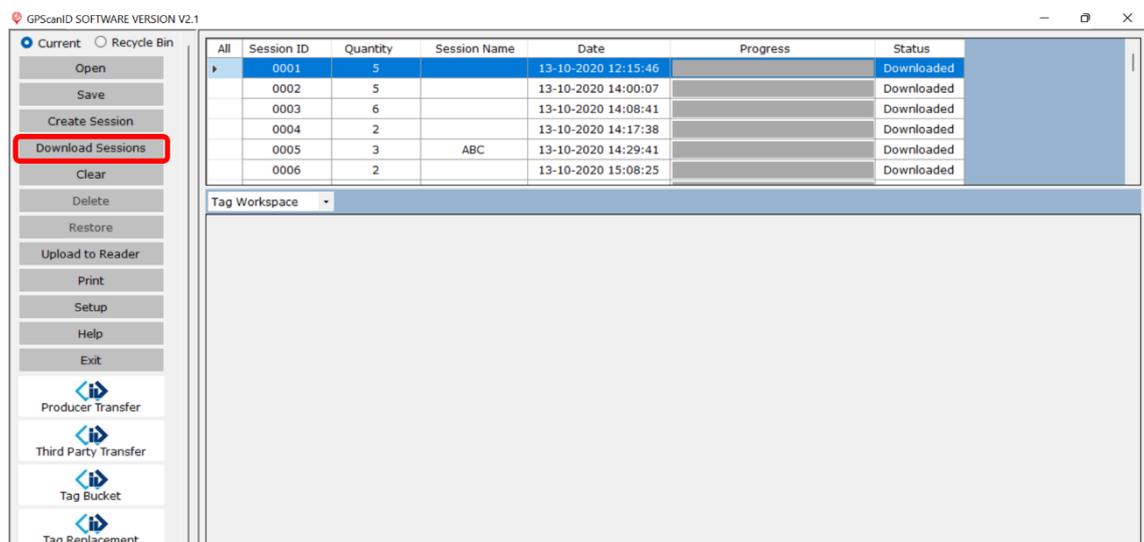
This function enables you create a session with up to 15-character long **Session Name** in the reader. Enter the name in **Session Name** field, press **Save to Reader** when finished. You can keep creating sessions using this function. Press **Exit** when finished.

* 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 1.4 for details in establishing connection with the reader).



3.6 Clear (Session)

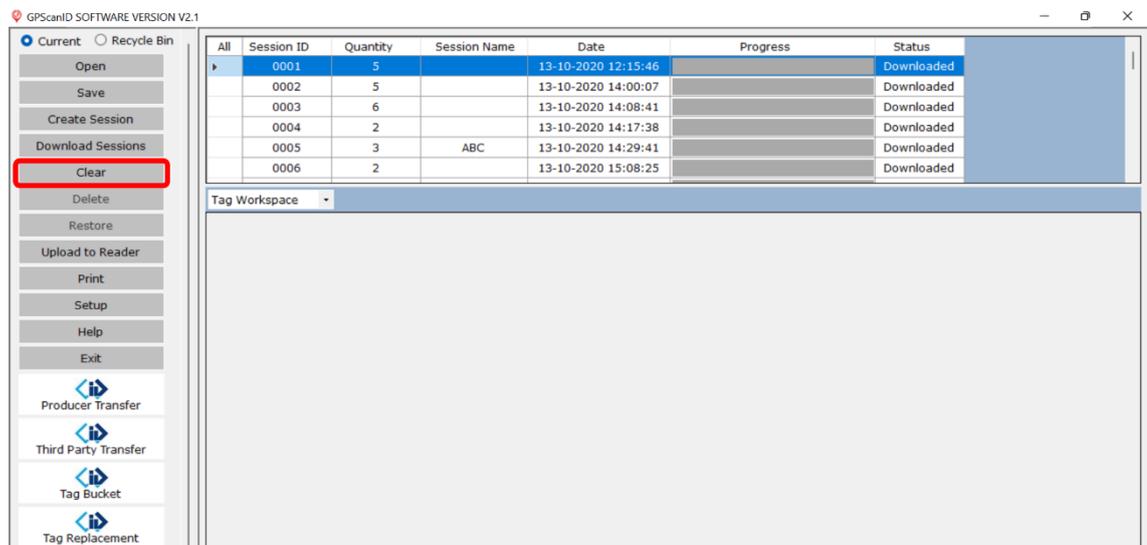
This function pushes the selected session(s) from the **Current** memory space to the **Recycle Bin**. Cleared sessions are not deleted, they are simply moved to another memory location. They can be restored back to the **Current** memory space by using the **Restore** function.

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.



The screenshot displays the GPScanID Software Version V2.1 interface. On the left is a sidebar with a menu of options: Open, Save, Create Session, Download Sessions, Clear (highlighted with a red box), Delete, Restore, Upload to Reader, Print, Setup, Help, Exit, and several transfer options (Producer Transfer, Third Party Transfer, Tag Bucket, Tag Replacement). The main area features a table with columns: All, Session ID, Quantity, Session Name, Date, Progress, and Status. The table contains six rows of session data, all with a 'Downloaded' status. Below the table is a 'Tag Workspace' section.

All	Session ID	Quantity	Session Name	Date	Progress	Status
	0001	5		13-10-2020 12:15:46		Downloaded
	0002	5		13-10-2020 14:00:07		Downloaded
	0003	6		13-10-2020 14:08:41		Downloaded
	0004	2		13-10-2020 14:17:38		Downloaded
	0005	3	ABC	13-10-2020 14:29:41		Downloaded
	0006	2		13-10-2020 15:08:25		Downloaded

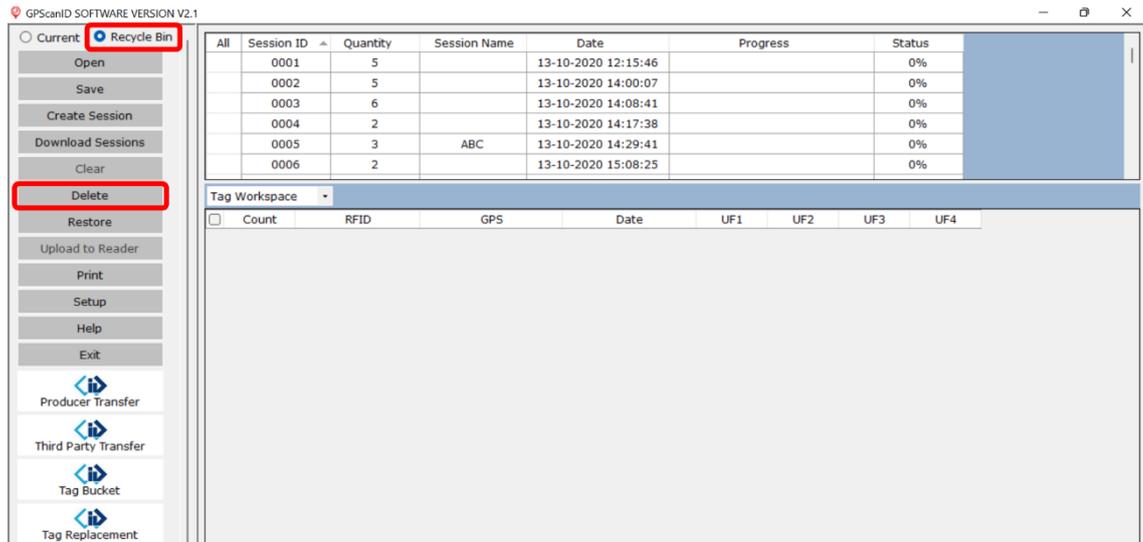
3.7 Delete (Session)

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).



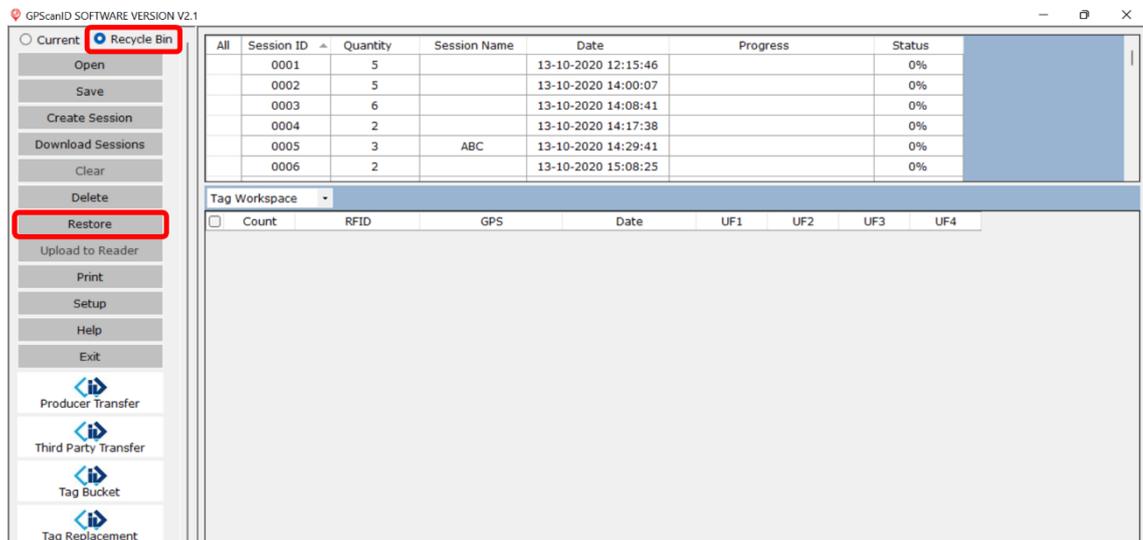
3.8 Restore (Session)

This function is only available in the **Recycle Bin**. It moves the selected 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[†] relevant to the **ID Number** in the cells under columns **UF1 to UF4**, then press **Upload to Reader** to save it in the reader.

[†] 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.

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** (highlighted with a red box), Print, Setup, Help, and Exit. The main window is divided into two sections. The top section shows a table of sessions:

All	Session ID	Quantity	Session Name	Date	Progress	Status
	0001	5		13-10-2020 12:15:46		Downloaded
	0002	5		13-10-2020 14:00:07		Downloaded
	0003	6		13-10-2020 14:08:41		Downloaded
	0004	2		13-10-2020 14:17:38		Downloaded
	0005	3	ABC	13-10-2020 14:29:41		Downloaded
	0006	2		13-10-2020 15:08:25		Downloaded

The bottom section is titled 'Tag Workspace' and contains a table with columns: Count, RFID, GPS, Date, UF1, UF2, UF3, and UF4. The 'Upload to Reader' button in the sidebar is highlighted with a red box.

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

At the bottom of the window, the status bar shows 'Status: Connected COM5' and hardware information: 'Mainboard: G100_R00A08V06, RF: M100_RF_R00A03V06, Serial #: G1000G0048'.

3.10 Print

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

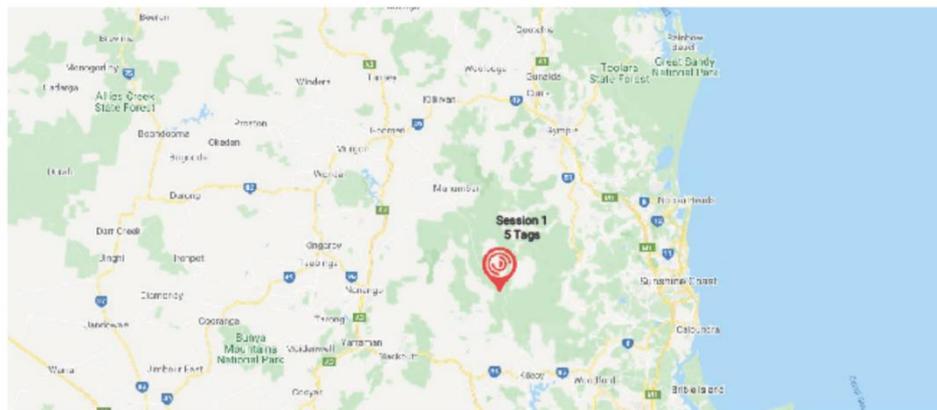
The **Print** function allows you to print one session at a time. To print multiple sessions, please print them one-by-one.

The screenshot shows the GPScanID software interface. On the left sidebar, the 'Print' button is highlighted with a red rectangle. The main window displays a table of sessions and a 'Tag Workspace' table.

All	Session ID	Quantity	Session Name	Date	Progress	Status
	0001	5		13-10-2020 12:15:46		Downloaded
	0002	5		13-10-2020 14:00:07		Downloaded
	0003	6		13-10-2020 14:08:41		Downloaded
	0004	2		13-10-2020 14:17:38		Downloaded
	0005	3	ABC	13-10-2020 14:29:41		Downloaded
	0006	2		13-10-2020 15:08:25		Downloaded

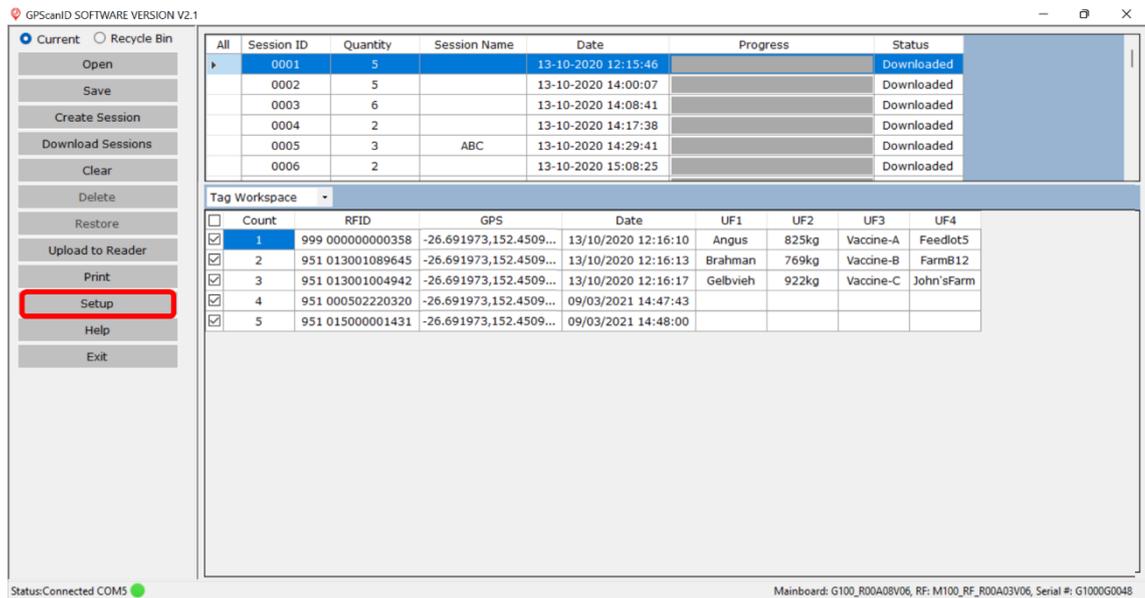
Count	RFID	GPS	Date	UF1	UF2	UF3	UF4	
<input checked="" type="checkbox"/>	1	999 000000000358	-26.691973,152.4509...	13/10/2020 12:16:10	Angus	825kg	Vaccine-A	Feedlot5
<input checked="" type="checkbox"/>	2	951 013001089645	-26.691973,152.4509...	13/10/2020 12:16:13	Brahman	769kg	Vaccine-B	FarmB12
<input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

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.



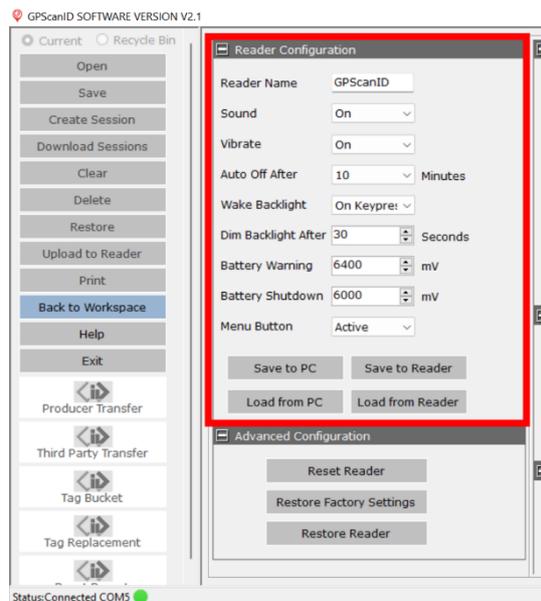
3.11 Setup

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



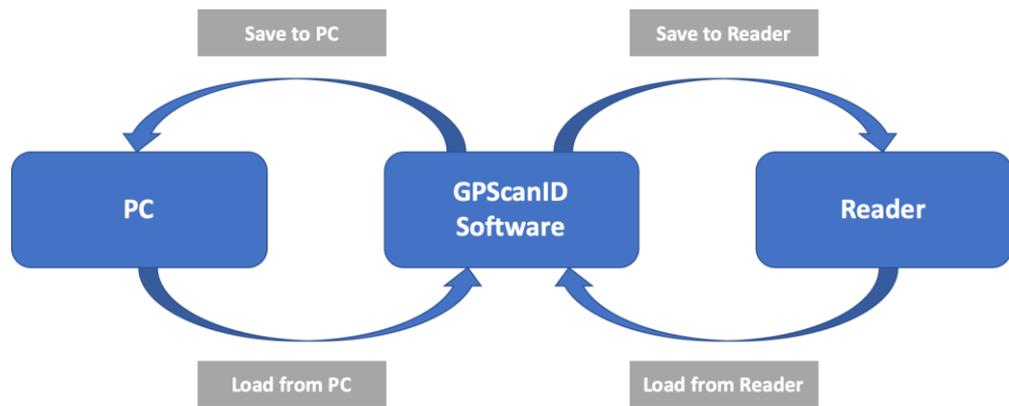
3.11.1 Reader Configuration

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.

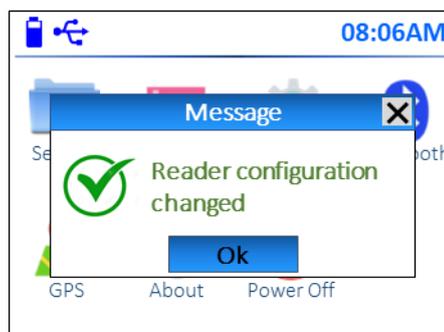


When modifying the **Reader Name**, please note it has a maximum length of 8 alphanumeric digits and only a...z, A...Z, or 0...9 is acceptable. Space or other special characters cannot be used.

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.



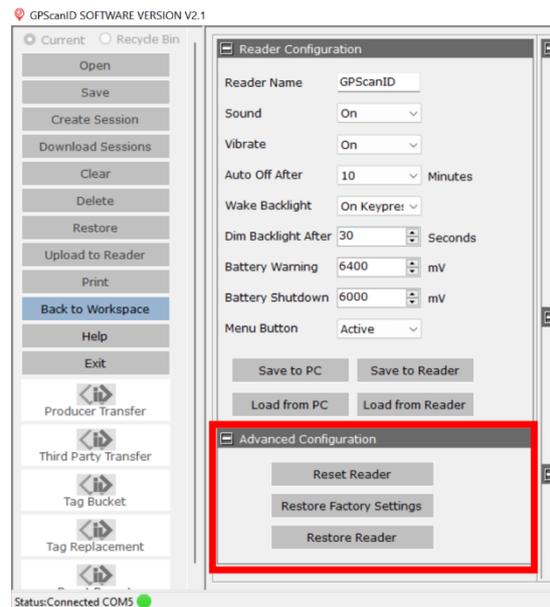
3.11.2 Advanced Configuration

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.

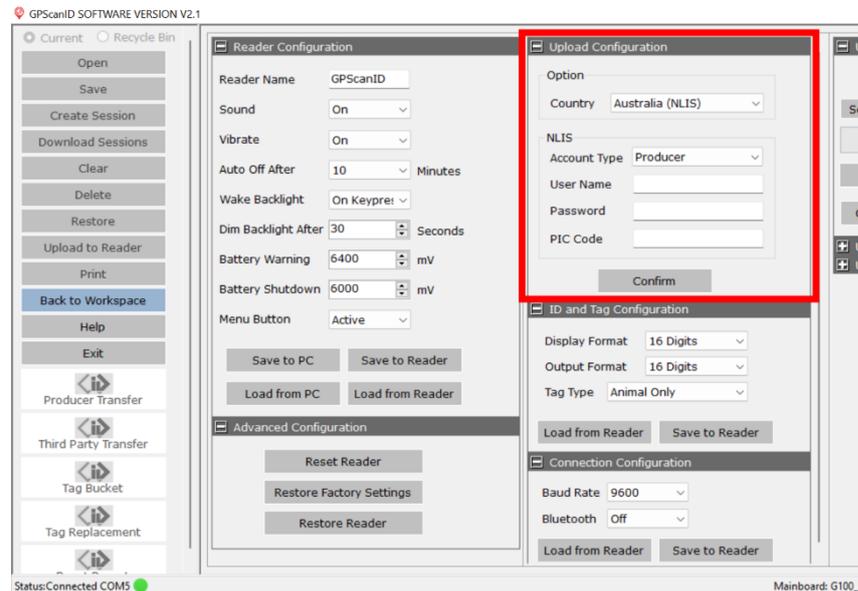
Restore Factory Setting: Restores the reader to its original factory settings. All recorded Sessions and IDs remain unchanged in the reader and will not be deleted.

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 in this version.

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.

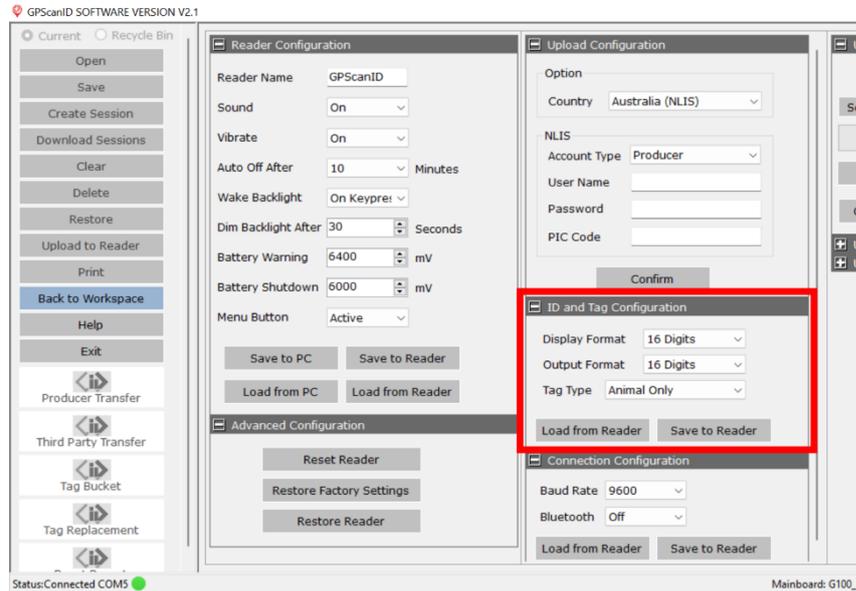
Password: Password of the NLIS account.

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

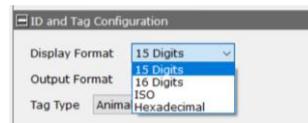
Confirm: When all details have been entered, press **Confirm** to save.

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** in the Software.

**** Note:** The NLIS functions only accepts ID(s) in 16-digit format. That is, 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 out from the reader. This may be required to interface with some third-party herd management software.

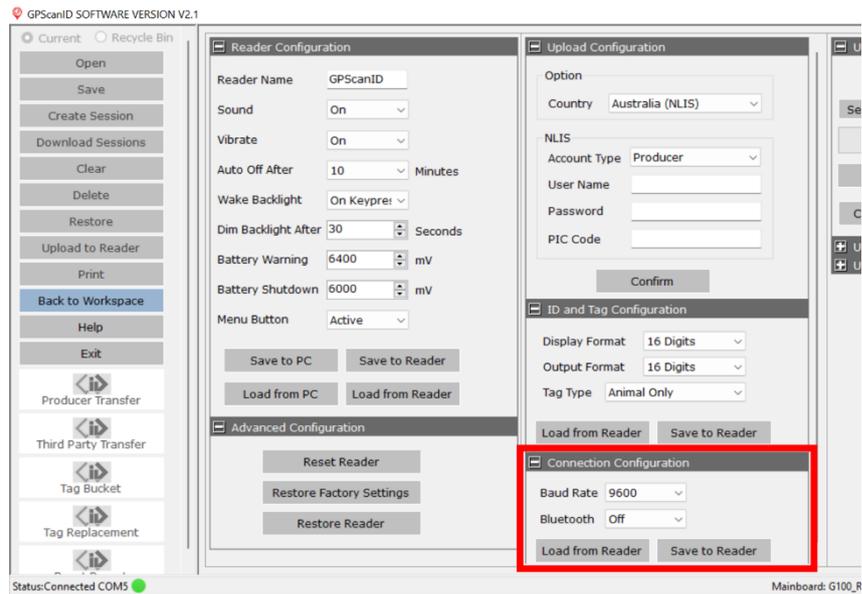
To change the tag type readable by the reader, press the pull-down menu in **Tag Type** to select either **Animal Only** or **Animal and Industrial**, then press **Save to Reader**.

3.11.5 Connection Configuration

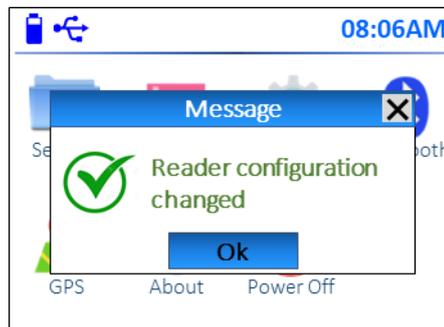
This section allows you to set the connection parameters such as the baud rate and/or enable/disable the Bluetooth function of the reader. Baud rate is the speed in which information is transferred in a communication channel between the reader and the connected device. The default factory baud rate is 9,600 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.

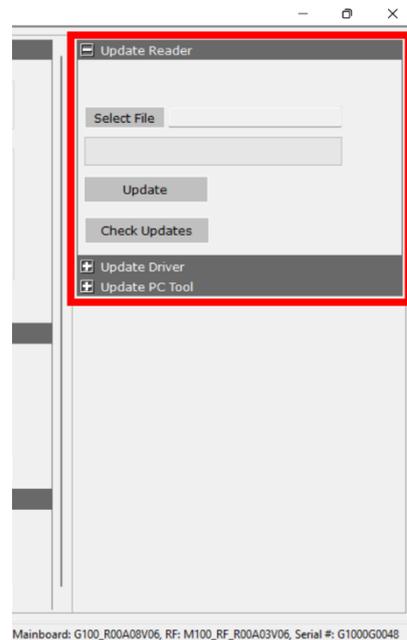


If a new configuration (either the baud rate or Bluetooth On / Off) is saved to the Reader, the following warning screen will be displayed on the Reader.



3.11.6 Software/Firmware Updates

We will provide software fixes, features enhancements and introduce new features to the reader over time. The revised 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.

3.11.6.1 Update Reader

There are 3 different firmware in the reader, each responsible for managing different functions:

Mainboard: Manages the reader functionalities.

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

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

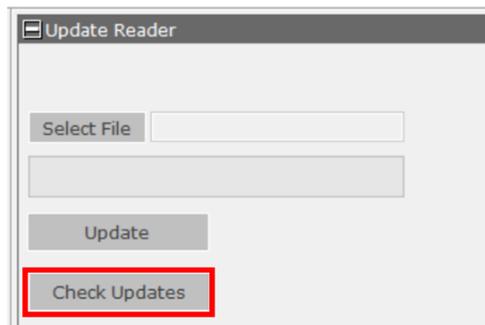
To automatically update any one or all of the reader firmware:

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

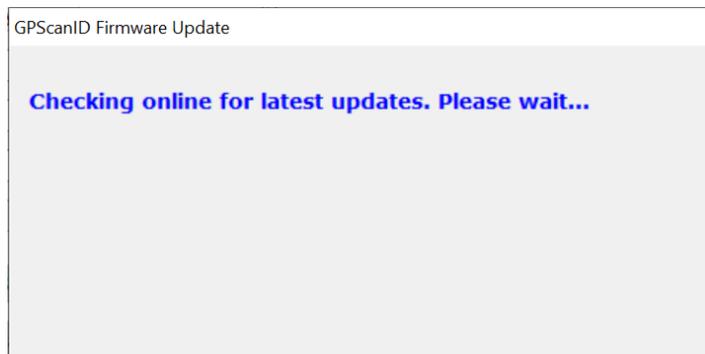
Step 2: Launch the GPScanID software.

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

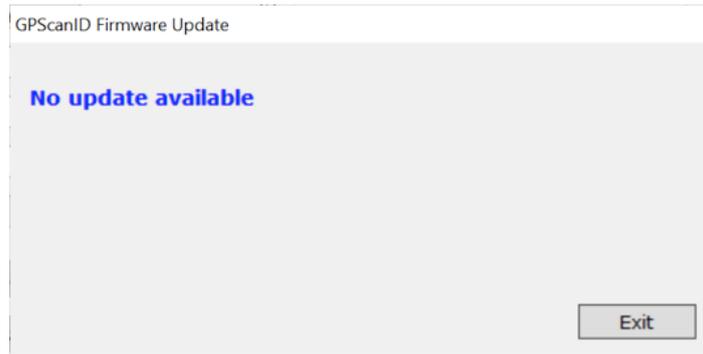
Step 4: Press **Check Updates** in the **Update Reader** section.



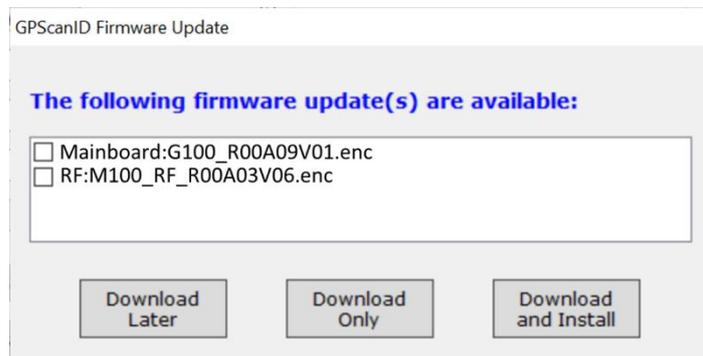
Step 5: The software will check online updates for all 3 firmware.



Step 6a: If no update is available, the following window appears. 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.

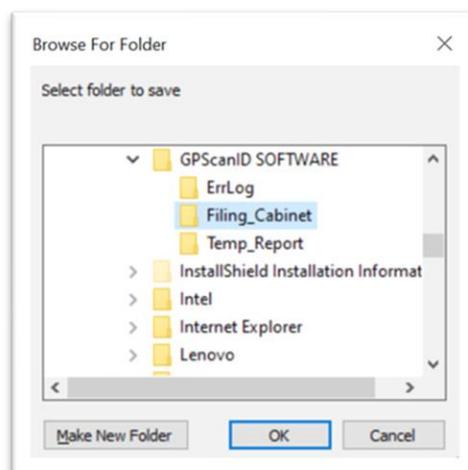


Press **Download Later** to exit this download screen and do not take any further actions.

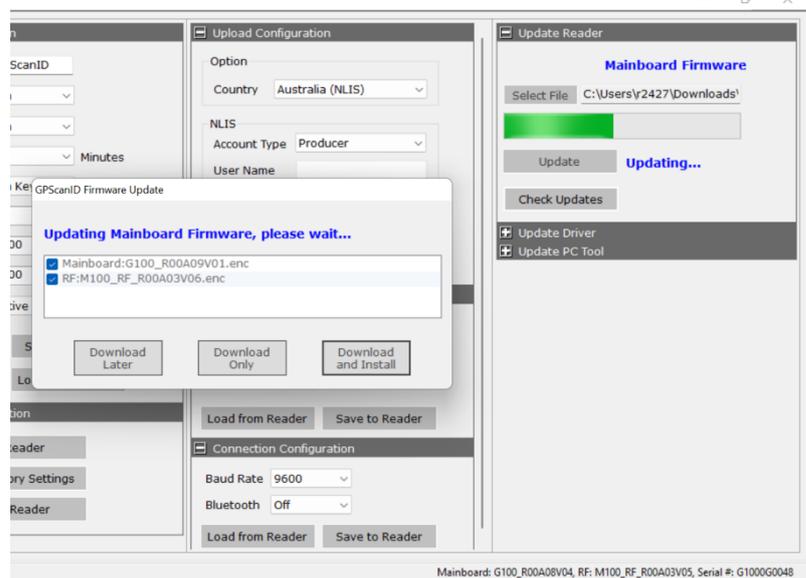
Press **Download Only** to download the updates and install later.

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

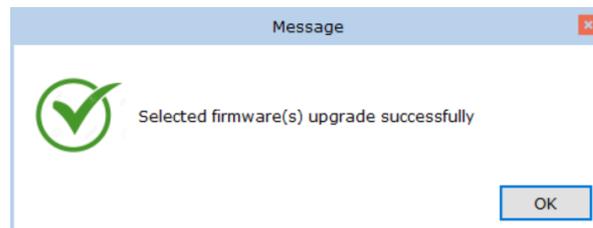
Step 7: If **Download Only** or **Download and Install** is selected, the following screen appears to prompt the user to identify the location where the new firmware will be stored. The default location is the folder where the GPScanID Software is installed. Press **OK** to confirm.



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.

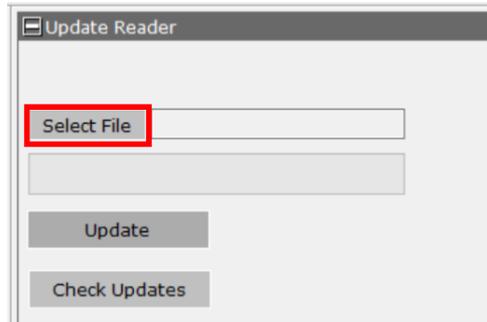


Step 9: The following window will appear when the update is completed. Press **OK** to exit.

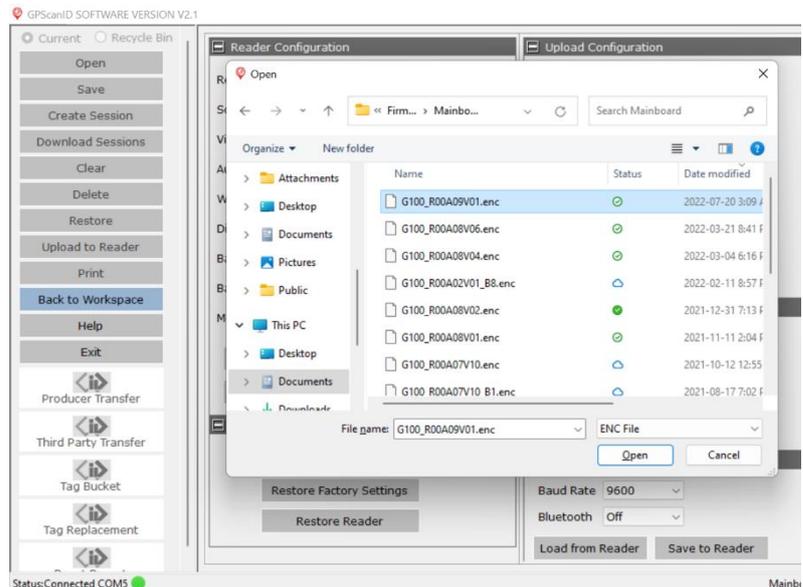


To manually select a specific reader firmware update (whether it is Mainboard, RF or Bluetooth), follow Steps 1 to 3 above to connect the reader with the software, then proceed with the steps below.

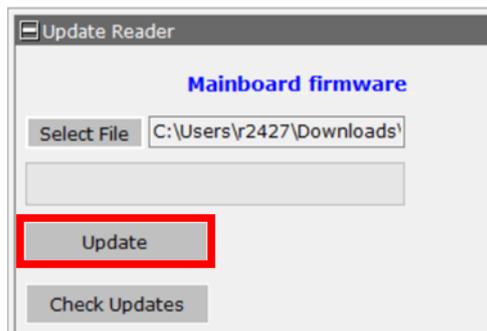
Step 4: Press **Select File** in the **Update Reader** section.



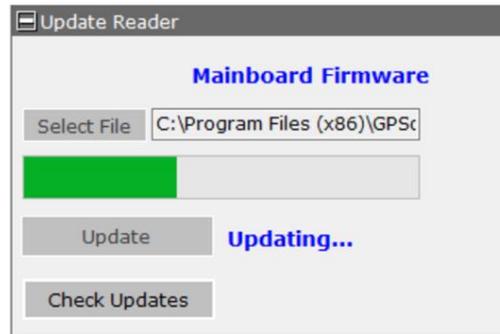
Step 5: Use the File manager window to locate the previously downloaded firmware. Press **Open** to confirm.



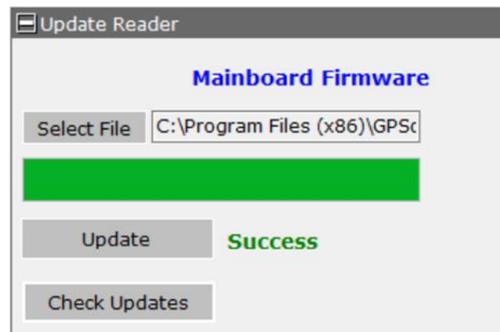
Step 6: The software detects and displays the type of firmware to be updated. Press **Update** to start the update.



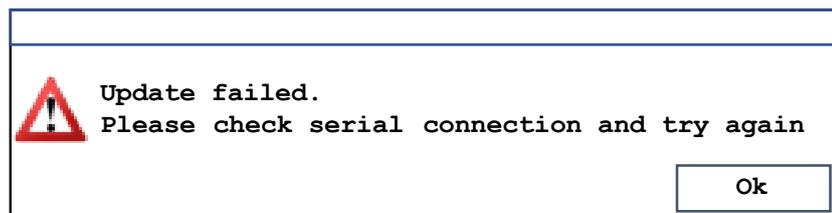
Step 7: The progress bar displays the status of the update and **Updating...** will display next to the **Update** button.



Step 8: If the update is successful, **Success** is displayed (in green) next to the **Update** button.



If either the serial port fails or a power failure occurs during firmware update, and the Reader fails to turn on, the following warning window is displayed on the PC.



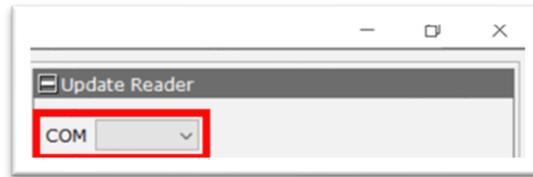
Follow the steps below to reinstall the firmware update.

With the reader still connected to the PC:

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

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

Step 3: Press **Update** in the **Update Reader** section. The following **COM** pull-down menu appears:



Step 4: Choose the Serial Port used in the latest connection.

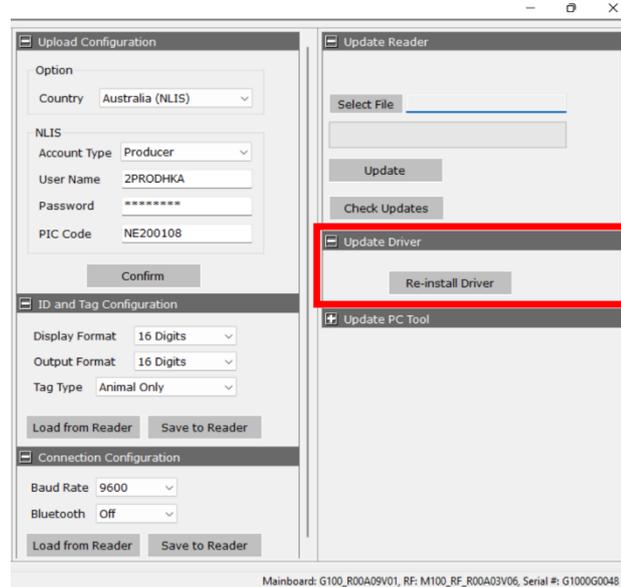
Step 5: Press **Update**. The red LED in the reader will start flashing within 10 seconds. The progress bar indicates the update progress.

Step 6: Wait till the update is completed.

The reader should now turn on. In the event of continued issues, please contact your distributor for technical assistance.

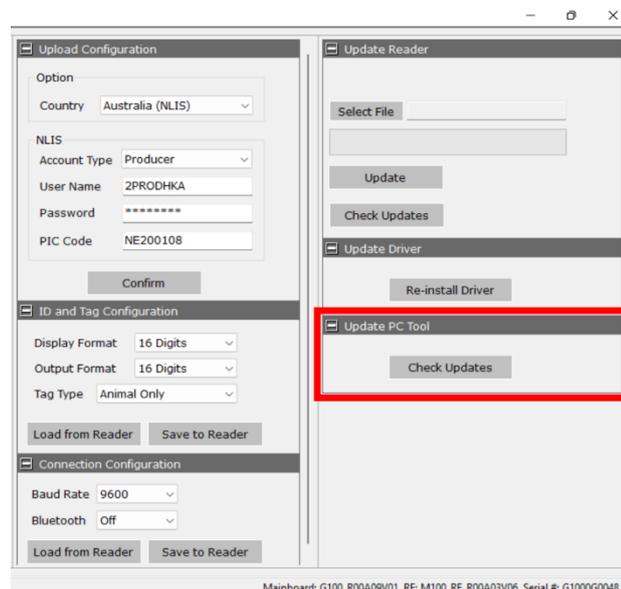
3.11.6.2 Update Driver

To re-install the driver for the GPScanID software, press **Re-install Driver** under the **Update Driver** section and refer to Section 1.4.2 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 and installed from our website. 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.

4. NLIS Function

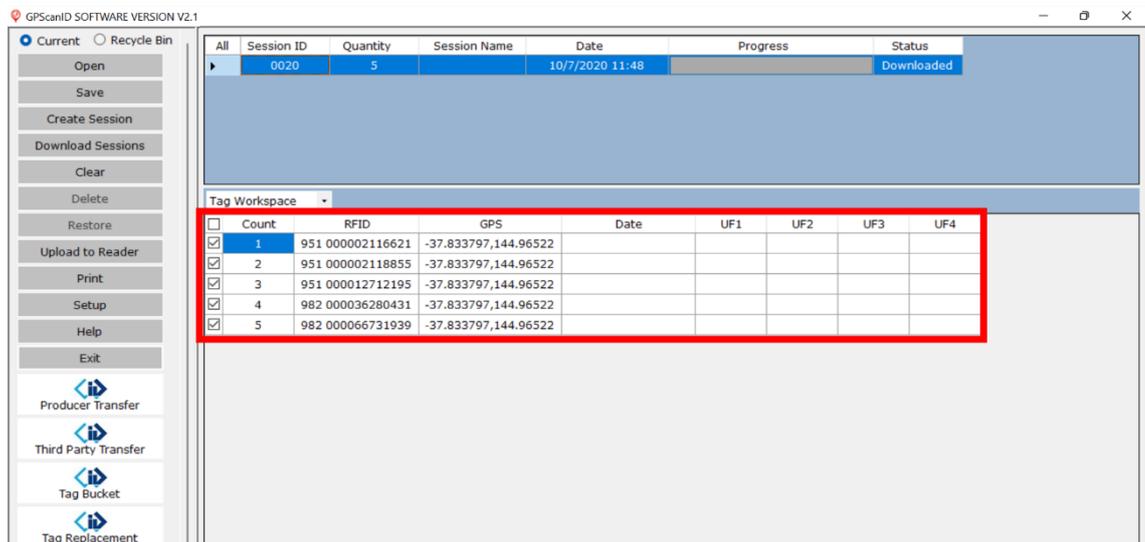
The following section outlines the functions built into the GPScanID software for communicating with the Australia’s National Livestock Identification System (NLIS) database.

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.

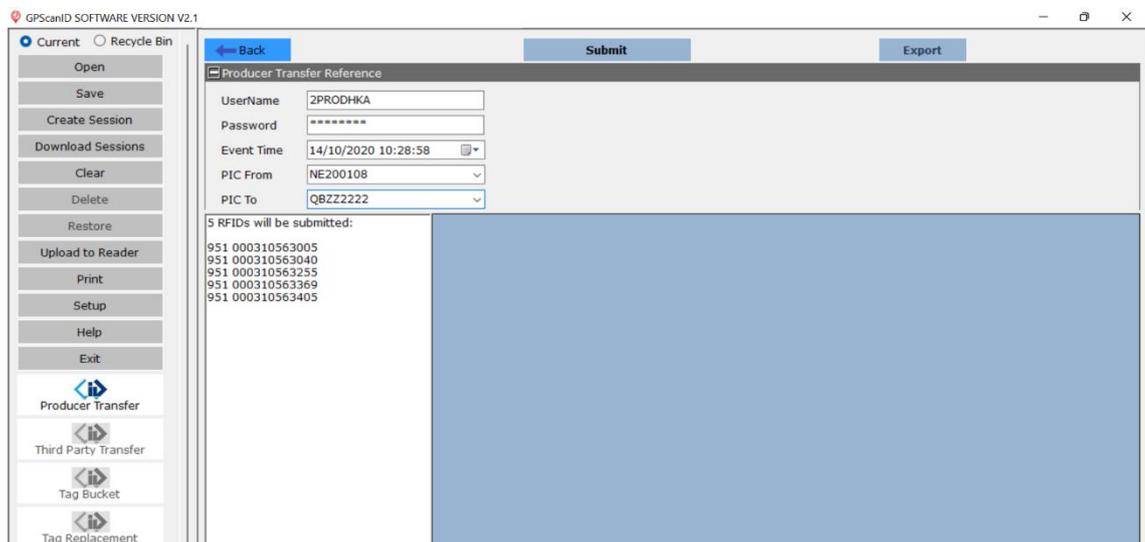
4.1 Producer Transfer

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.

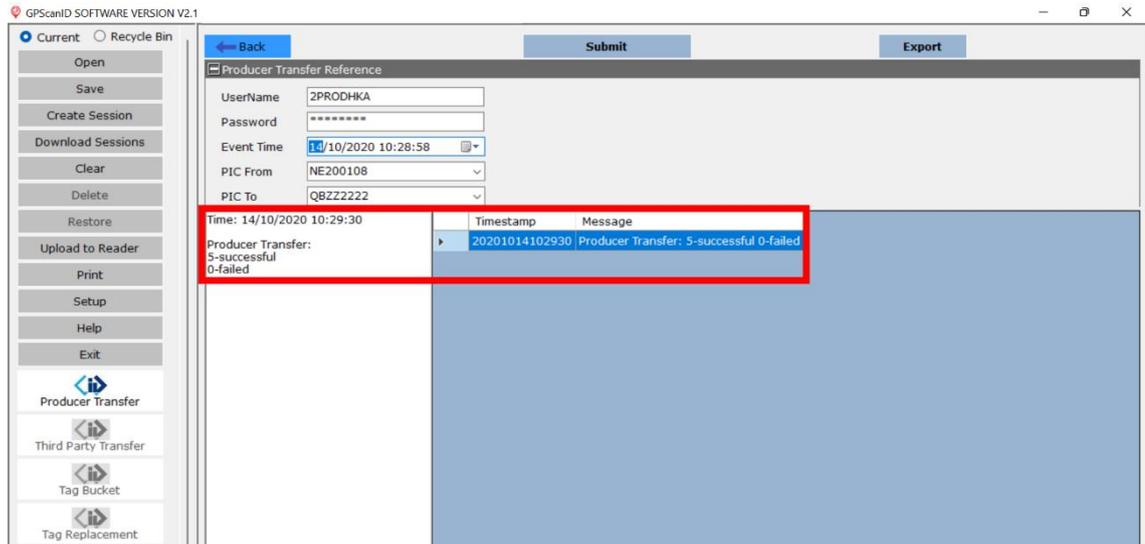
Password: The corresponding password.

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,UFL,UF2,UF3,UF4
0020,5,ALL,31/03/2021 14:28:29,Current,1,951 000000000358 ,-37.833797;144.96522,03/04/2021 14:28:39,Angus,825kg,Vaccine-A,Feedlot 5
0020,5,ALL,31/03/2021 14:28:29,Current,2,951 013001089645 ,-37.833797;144.96522,15/04/2021 14:28:54,Brahman,769kg,Vaccine-B,Farm B12
0020,5,ALL,31/03/2021 14:28:29,Current,3,951 013001004942 ,-37.833797;144.96522,15/04/2021 14:29:00,Gelbvieh,922kg,Vaccine-C,John's Farm
0020,5,ALL,31/03/2021 14:28:29,Current,4,951 000502220320 ,Not Recorded,15/04/2021 14:29:05,1,2,3,4
0020,5,ALL,31/03/2021 14:28:29,Current,5,951 015000001431 ,Not Recorded,15/04/2021 14:29:30,,,,,
```

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.

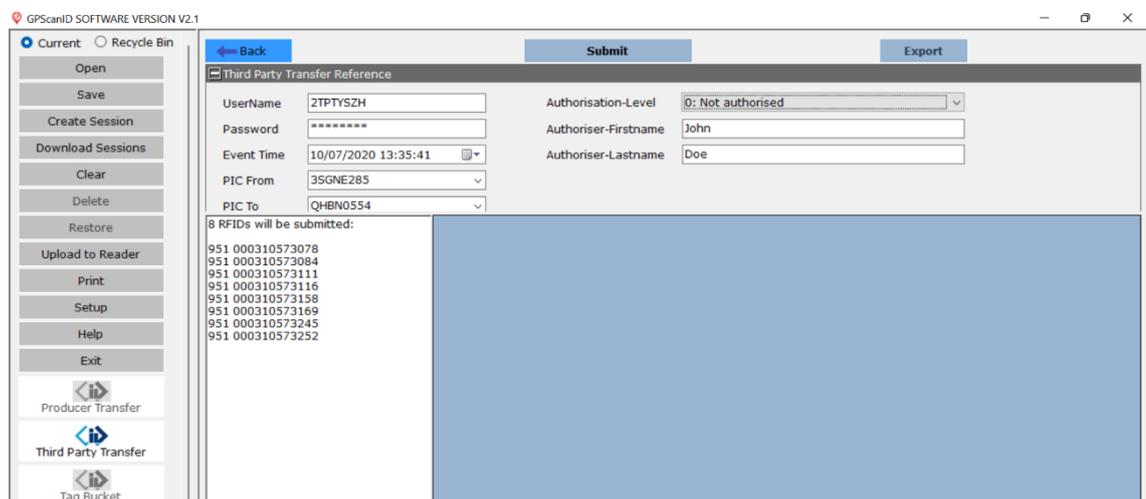
You must log in with a Third-Party Account to use this function.

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.

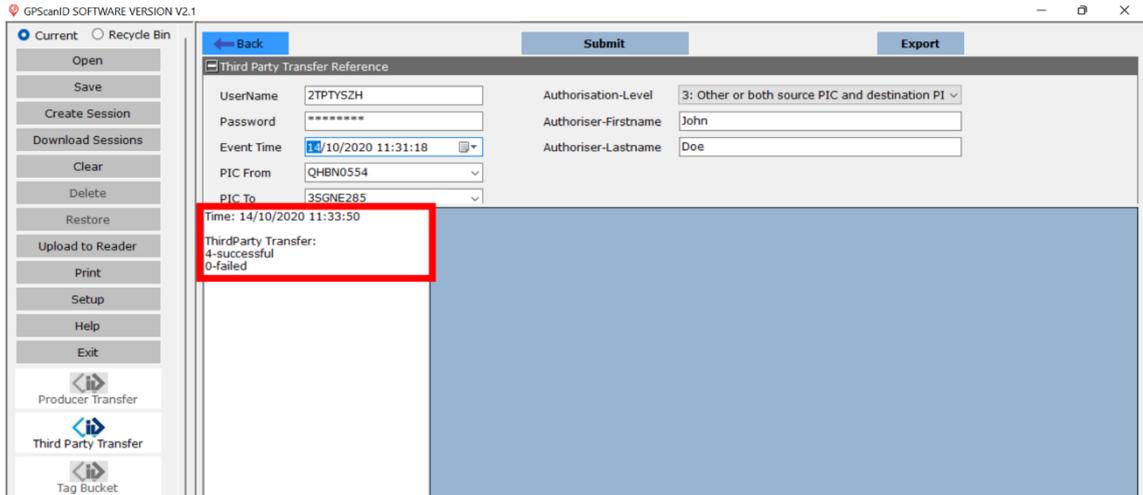
Step 2: Press **Third Party Transfer**.

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

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



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,U1,U2,U3,U4
0020,5,ALL,31/03/2021 14:28:29,Current,1,951 000000000358 ,-37.833797;144.96522,03/04/2021 14:28:39,Angus,825kg,Vaccine-A,Feedlot 5
0020,5,ALL,31/03/2021 14:28:29,Current,2,951 013001089645 ,-37.833797;144.96522,15/04/2021 14:28:54,Brahman,769kg,Vaccine-B,Farm B12
0020,5,ALL,31/03/2021 14:28:29,Current,3,951 013001004942 ,-37.833797;144.96522,15/04/2021 14:29:00,Gelbvieh,922kg,Vaccine-C,John's Farm
0020,5,ALL,31/03/2021 14:28:29,Current,4,951 000502220320 ,Not Recorded,15/04/2021 14:29:05,1,2,3,4
0020,5,ALL,31/03/2021 14:28:29,Current,5,951 015000001431 ,Not Recorded,15/04/2021 14:29:30,,,,
    
```

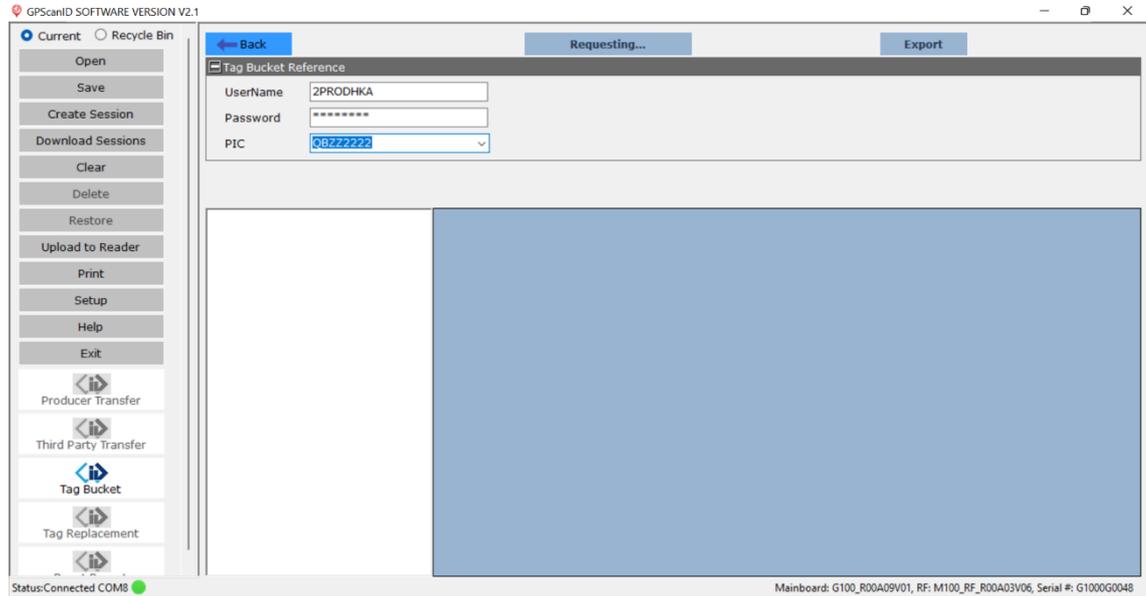
Note: Date should be saved in **DD/MM/YYYY HH:MM:SS** format to be displayed properly in the software. Please use a text editor, such as WordPad instead of Microsoft Excel™ to open and edit the file to prevent potential formatting issues.

4.3 Tag Bucket

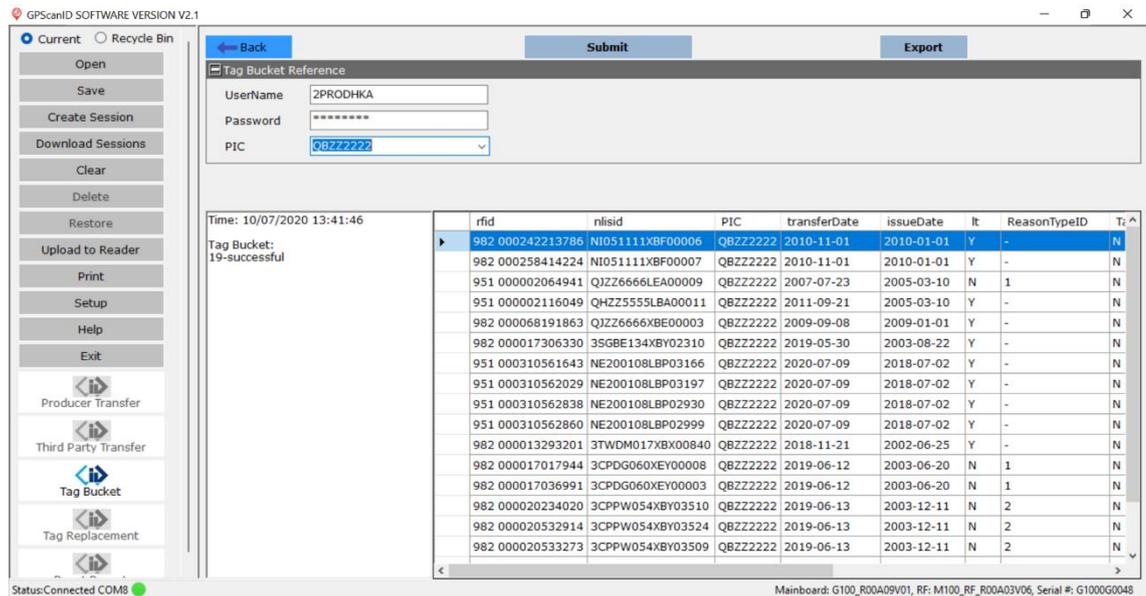
The Tag bucket function searches all IDs registered under the user specified PIC.

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.

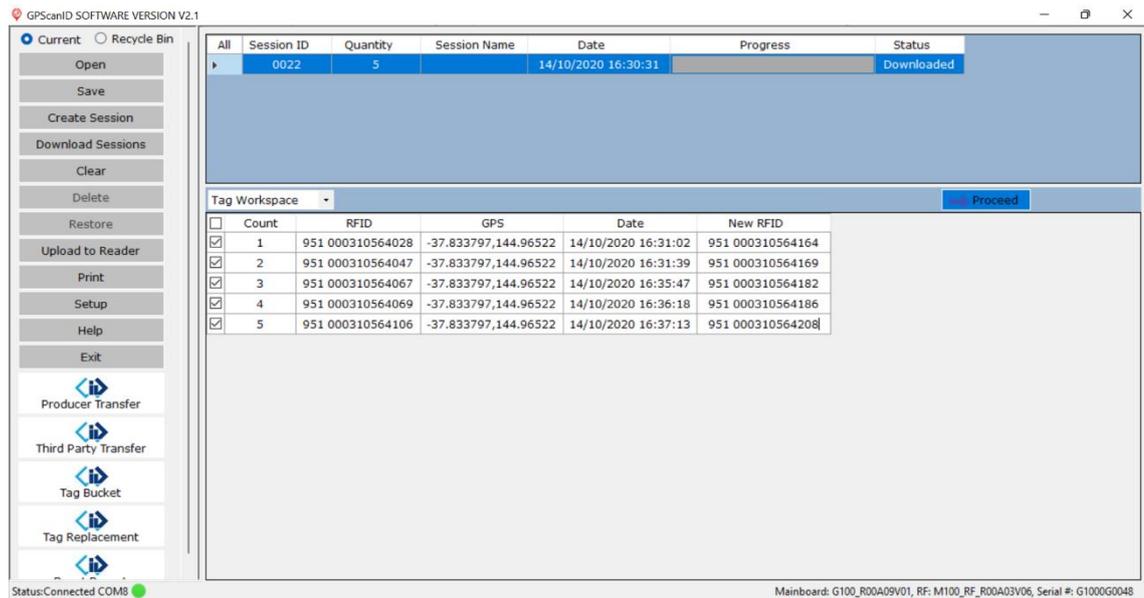
4.4 Tag Replacement

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**.

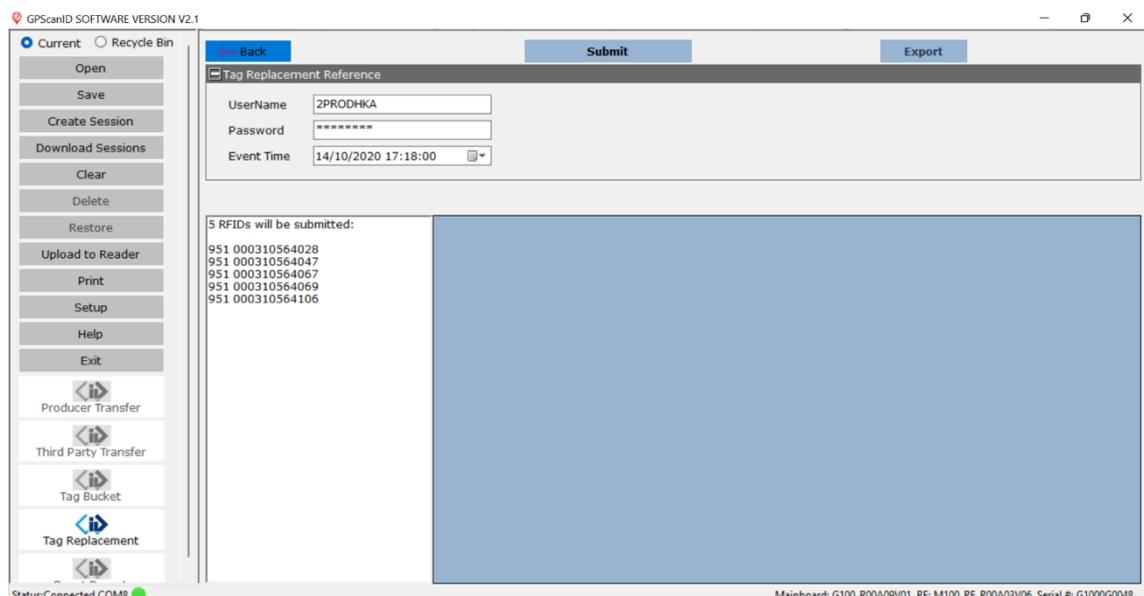
Step 3: Select the IDs to be replaced and enter the corresponding new IDs under the **New RFID** column (all IDs are being replaced in the following example).



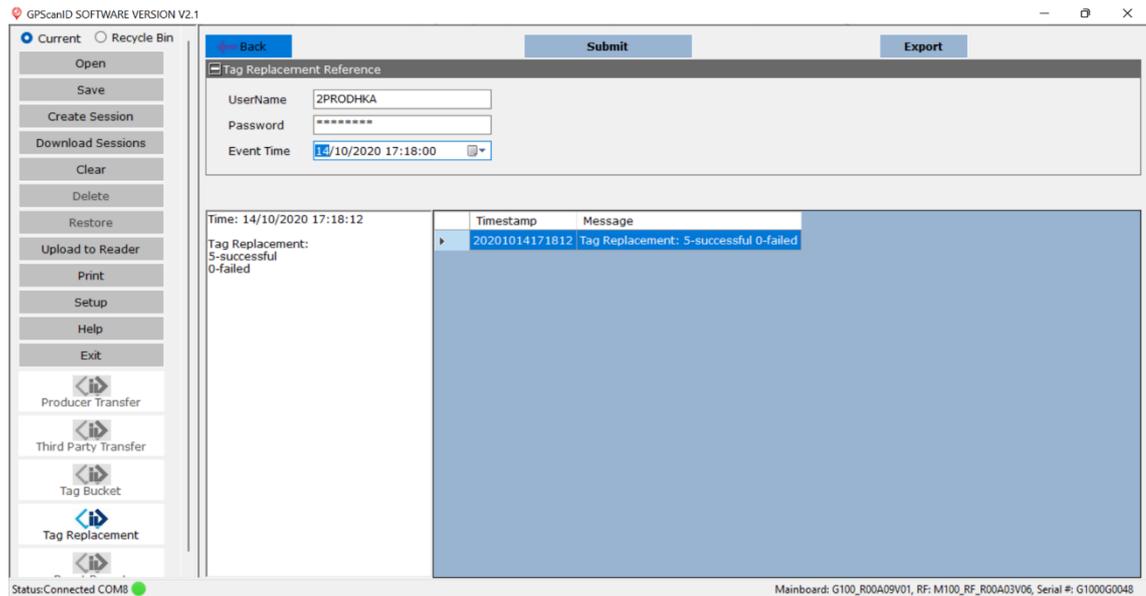
Step 4: Press **Proceed** when all new RFID entries are completed.

Please ensure to enter a space after the 3rd digit. The new IDs should be in the format XXX XXXXXXXXXXXXX.

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



The status of the Tag Replacement is updated below:



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,UFL,UF2,UF3,UF4
0020,S,ALL,31/03/2021 14:28:29,Current,1,951 000000000358 ,-37.833797;144.96522,03/04/2021 14:28:39,Angus,825kg,Vaccine-A,Feedlot 5
0020,S,ALL,31/03/2021 14:28:29,Current,2,951 013001089645 ,-37.833797;144.96522,15/04/2021 14:28:54,Brahman,769kg,Vaccine-B,Farm B12
0020,S,ALL,31/03/2021 14:28:29,Current,3,951 013001004942 ,-37.833797;144.96522,15/04/2021 14:29:00,Gelbvieh,922kg,Vaccine-C,John's Farm
0020,S,ALL,31/03/2021 14:28:29,Current,4,951 000502220320 ,Not Recorded,15/04/2021 14:29:05,1,2,3,4
0020,S,ALL,31/03/2021 14:28:29,Current,5,951 015000001431 ,Not Recorded,15/04/2021 14:29:30,,,,
    
```

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.

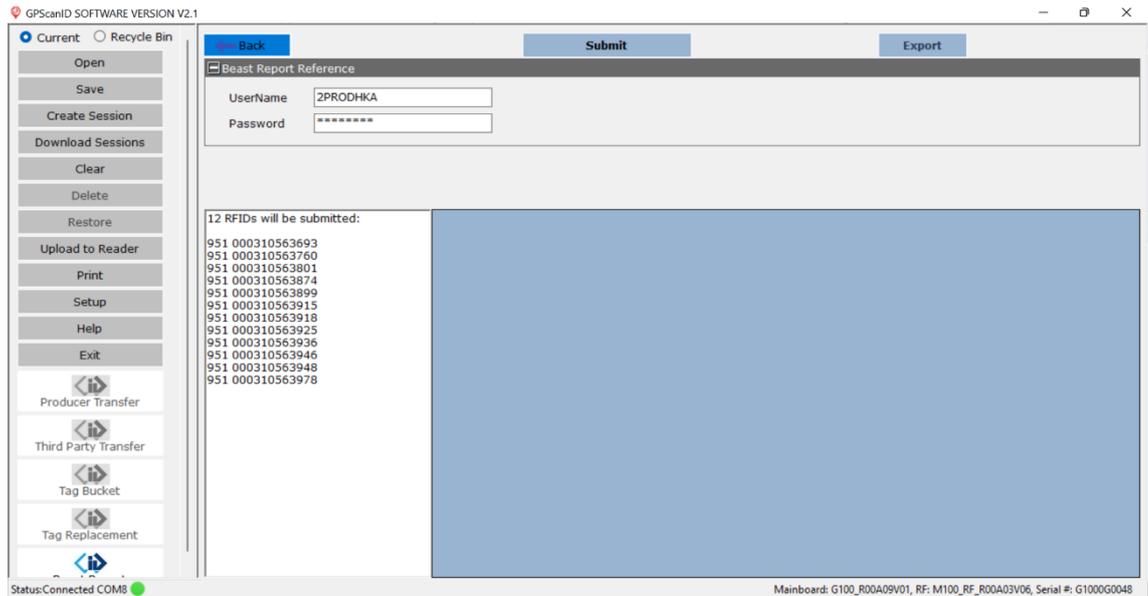
4.5 Beast Report

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.

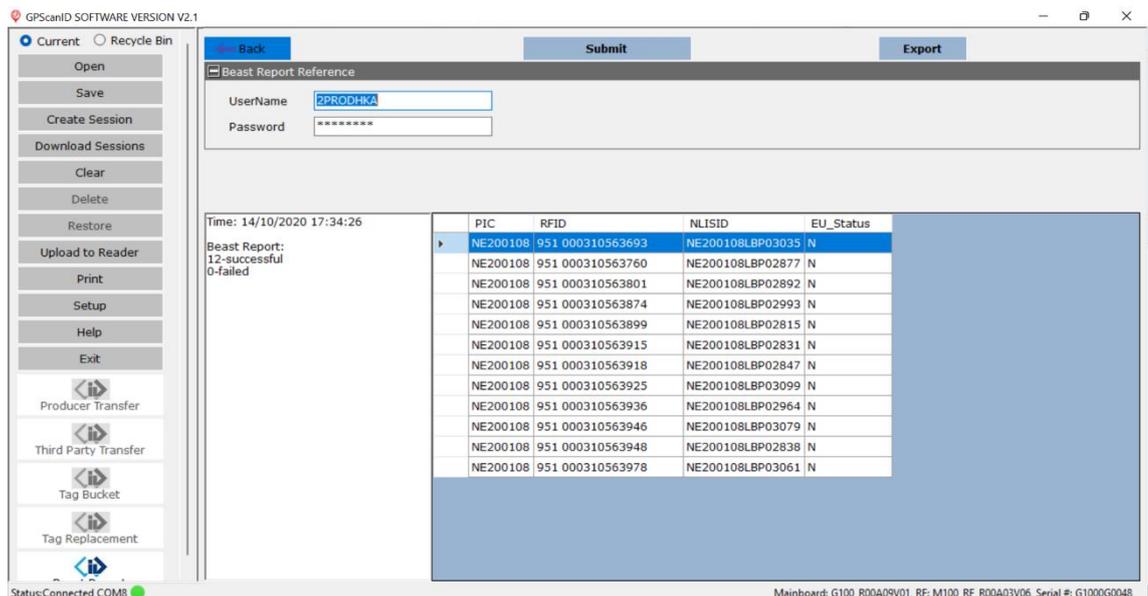
Step 3: Press **Beast Report**.



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.