



# SDL Connect

## USER MANUAL



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Visit our website: [www.shearwell.co.uk](http://www.shearwell.co.uk)

## Install the software

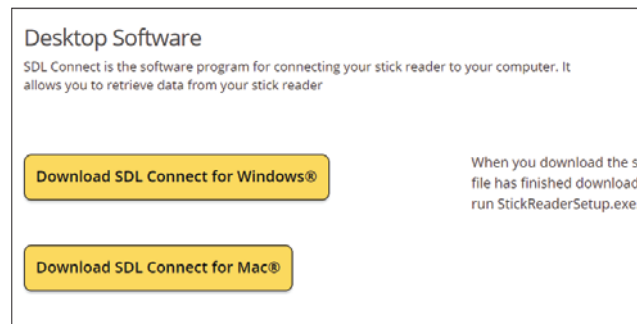
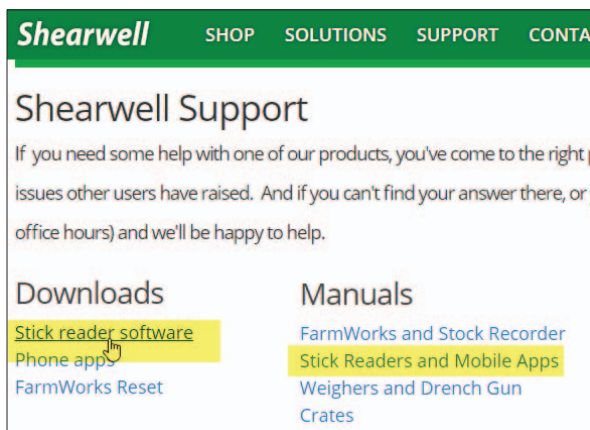
**SDL Connect** is the software program for connecting your Shearwell stick reader to your computer. Install this software on your computer from the Shearwell Data website before you start scanning tags. Changing configurations and keeping the date and time correct are all done through the computer software.

Download from the Shearwell data website

1. Go to the Shearwell Data website - [www.shearwell.co.uk](http://www.shearwell.co.uk)
2. Click on the top link called **Support**.



3. Then look to the left side of the screen for **Downloads**. Click on [Stick reader software](#)
4. Find the link to download the right user manual for your stick reader. Click on the link to download the manual to your computer desktop.
5. Find the link to download software for a Windows computer. Click on the link to download **SDL Connect** for your computer.

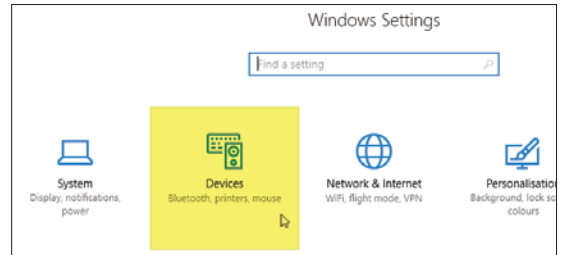
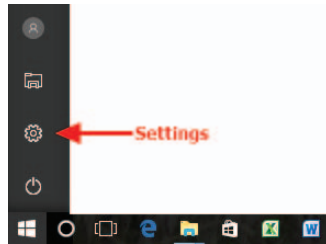
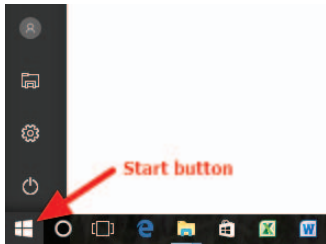


6. Save the program in your Downloads folder on your computer.
7. When the download is finished, double-click the link on the bottom of the screen called **SDLConnect-Setup.exe**. If you do not see the link, go to your Downloads folder and find **SDLConnectSetup.exe**.
8. Click **Yes** to allow the program to make changes to your computer.
9. Select the language for the installation process. This will NOT change the language in the program - only the language used for the setup procedure.
10. On the **Ready to Install** screen, click on **Install**.
11. Click **Finish** to exit the setup program.

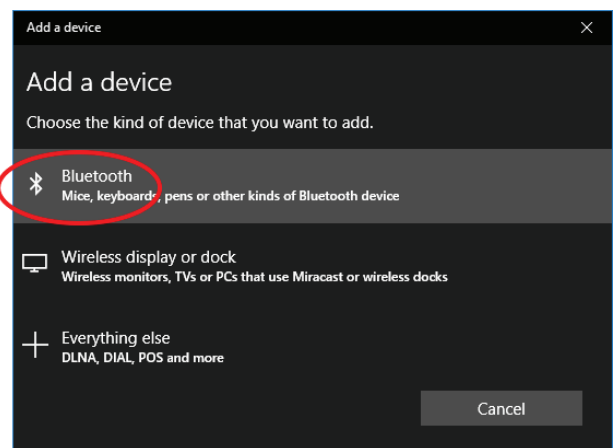
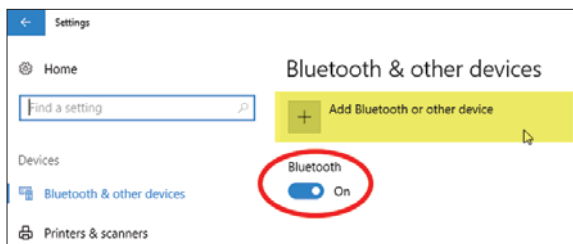
An **SDL Connect** icon and shortcut is now on your computer desktop as a link to open the program.

# Make a Bluetooth connection

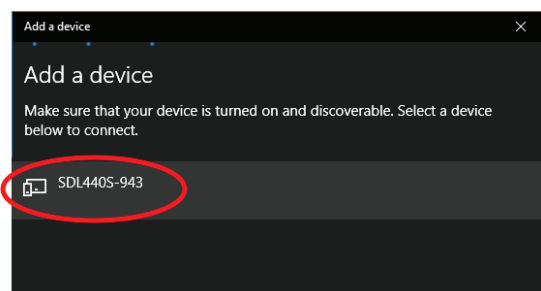
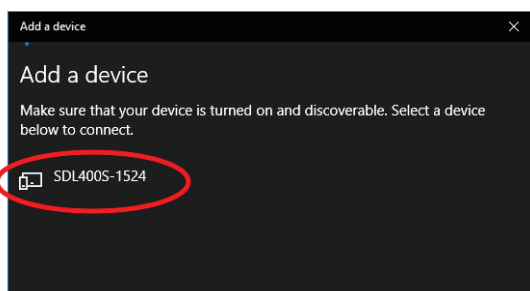
1. Turn on the stick reader you want to link.
2. On your PC, click with your mouse on the Start button. Select **Settings**.
3. Click on **Devices**.



4. Make sure Bluetooth is turned on. Click on **Add Bluetooth or other device**.
5. Select **Bluetooth (Mice, keyboards, etc.)**

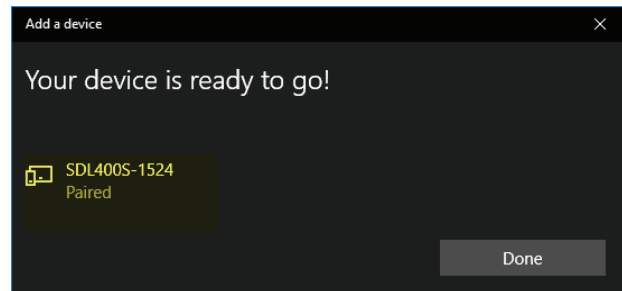
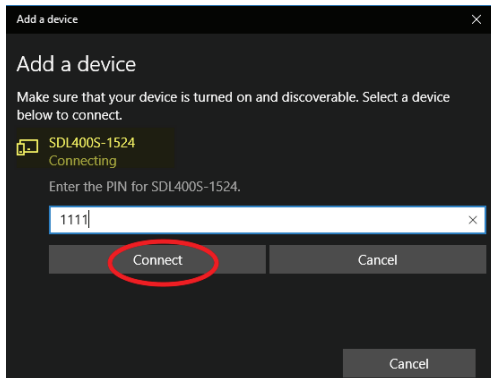


6. Your PC will start searching for Bluetooth signals. When it's finished scanning, the window will show a list of available devices.
7. Look on the label of your stick reader for its Bluetooth name - it will start SDL440S for a blue-handled stick reader, or SDL400s for a red-handled stick reader. For example: SDL440S 1234

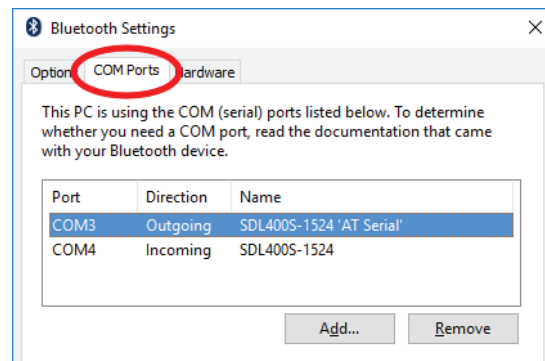
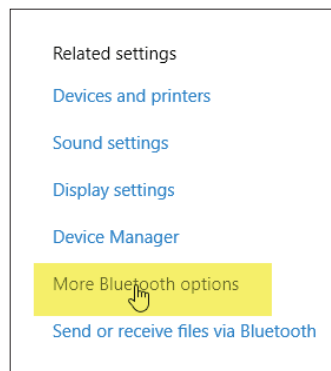


## Make a Bluetooth connection

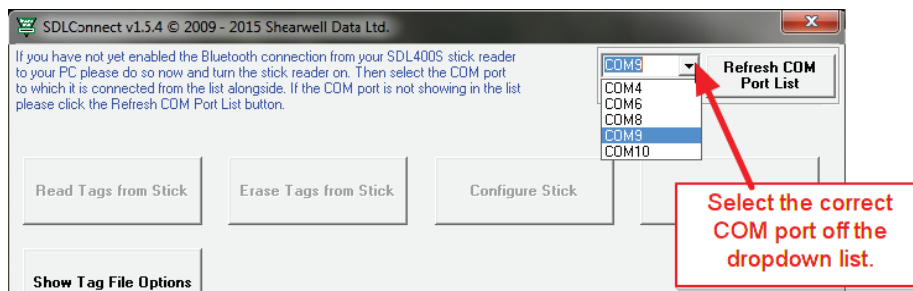
8. Find your EID tag reader's Bluetooth name on the screen and select it. Click **Pair**.
9. For a red-handled stick reader, type in the pairing code **1111**. Click **Connect**. For a blue-handled stick reader there is no pairing code.
10. Allow time for Windows to install the software drivers. Your reader will be shown as "Paired" when it is successfully connected. Click **Done**.



11. When the tag reader has been successfully paired, click on the link to **More Bluetooth Options**. Look on the **Com Ports** tab. Make a note of the Outgoing Serial (COM) port number which will be required for SDL Connect software. Click **Cancel** to exit.



12. Double-click the **SDL Connect** icon on your computer desktop. The software will open.
13. Click on the COM port dropdown list on the right side of the screen. Select the COM port number you recorded earlier. When a successful connection is made the buttons that were grayed out will become active. After the first time you will not need to enter your COM port number again.



**Note:** A message window that says "No serial ports found" means that your stick reader does not have a Bluetooth connection to your computer.

- » If you are using a Bluetooth dongle make sure it is plugged in.
- » Follow the instructions on Page 3 to pair your EID tag reader. If it is already paired but the program is not opening, you might need to un-pair it (*Remove device*) and then re-pair again.

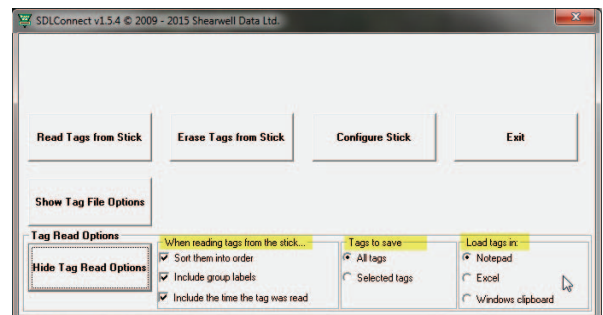
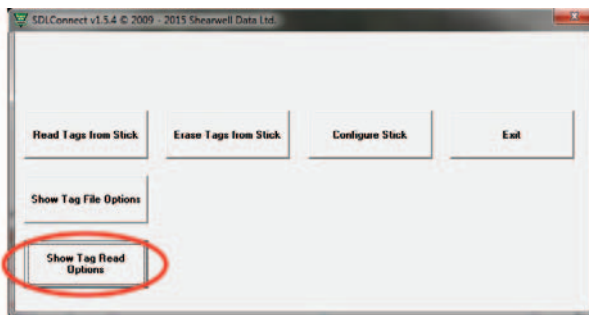
## Options for downloading tags

EID numbers stored on a stick reader can be downloaded into your computer using **SDL Connect**. Before you start, click on **Show Tag Read Options** to set your preferences. Click **Hide Tag Read Options** to close the option screen.

### Tag read options

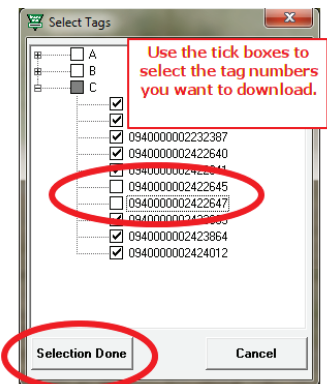
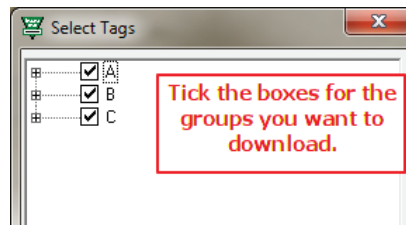
When reading tags from the stick...

- **Sort them into order** means arranging the numbers from lowest to highest tag number.
- **Include group labels** means show the group (Ex. Group A, Group B, Group C, etc.).
- **Include the time the tag was scanned** means show the date and time each tag was scanned.



### Tags to save

- **All tags from stick** means show all the groups and all the tags.
- **Selected tags from stick** means you can select a specific group and then select which tag numbers in that group.



### Load tags in:

- **Notepad** means a text file that can also be saved as a CSV (comma separated values) file that is easily imported into a spreadsheet or a database application.
- **Excel** means as a spreadsheet in Microsoft Excel. *Note: The program detects whether Excel is installed on your computer. If it is not installed then Notepad is the default.*
- **Windows Clipboard** means the selected tag numbers are copied and ready to paste into a holding register or animal movement document, such as for the NLMD-LT or the Animal Reporting and Movement Service (ARAMS). Numbers on the clipboard can be pasted into any Windows program.

### MS Excel format

Tag or EID	Group	Date/Time	D	E	F
UK0244220 12474	A	2013-09-17 7:22:45 AM			
UK0244220 12475	A	2013-09-17 7:22:45 AM			
UK0244220 12476	A	2013-09-17 7:22:43 AM			
UK0244220 12685	A	2013-09-17 7:22:44 AM			
0940000002138896	B	2013-09-17 7:24:14 AM			
0940000002152586	B	2013-09-17 7:24:15 AM			
0940000002153680	B	2013-09-17 7:24:16 AM			
0940000002168955	B	2013-09-17 7:24:19 AM			
0940000002423925	B	2013-09-17 7:24:18 AM			

### Notepad format

```

Tag import 2013-09-17 7:26:31 AM for group A
File Edit Format View Help
UK0244220 12476, A, 2013-09-17 7:22:43 AM
UK0244220 12685, A, 2013-09-17 7:22:44 AM
UK0244220 12474, A, 2013-09-17 7:22:45 AM
UK0244220 12475, A, 2013-09-17 7:22:45 AM
Total for group A: 4
    
```

### Windows clipboard format

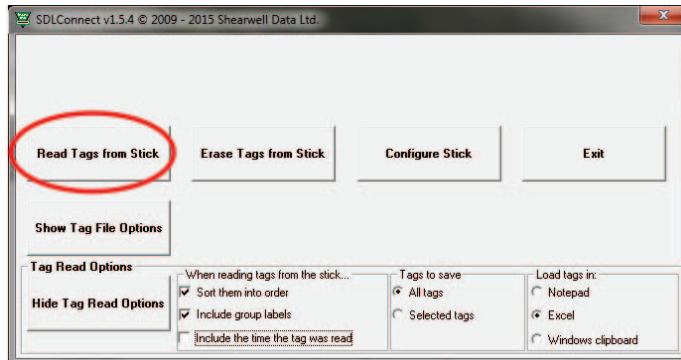
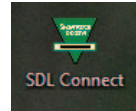
```

0826024422015281, A, 21/02/2014 9:26:45 AM
0826024422019012, A, 21/02/2014 9:26:45 AM
0826024422019027, A, 21/02/2014 9:26:43 AM
0826024422019077, A, 21/02/2014 9:26:45 AM
0826024422030386, A, 21/02/2014 9:26:44 AM
Total for group A: 5
    
```

Total: 5

## Download tag numbers

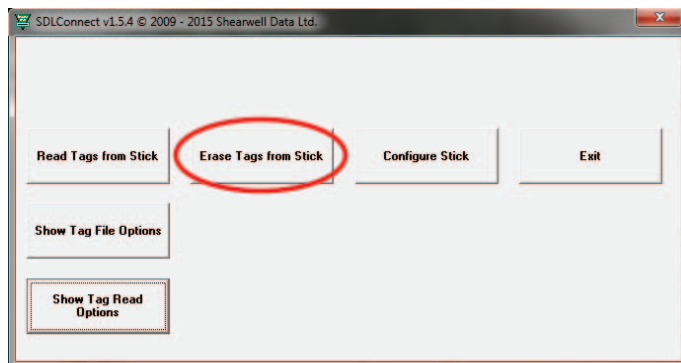
1. Switch on the stick reader and check the battery level is good.
2. Double-click the **SDL Connect** icon on your computer desktop. The software will open.
3. Click **Read Tags from Stick**.



4. If viewing the numbers in an Excel or Notepad format you can save the data. Go to **File > Save As**, name the file and select a location.

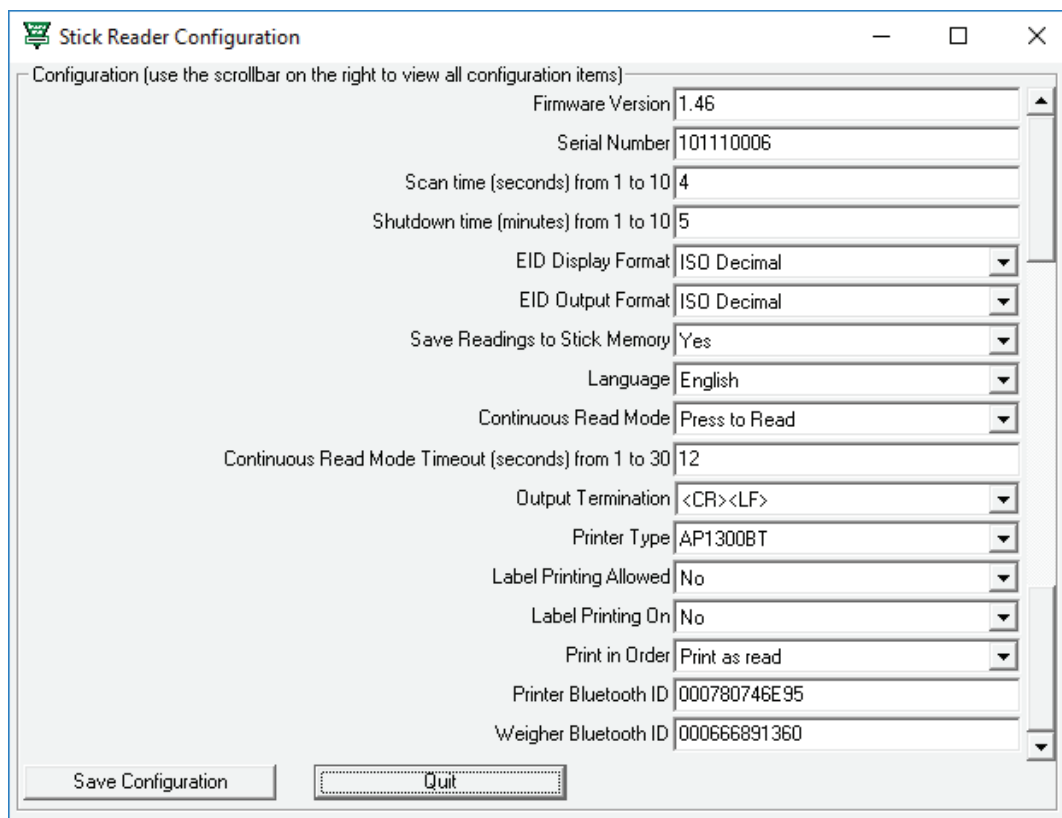
### Erase tag numbers from the stick reader

Downloading tags into the computer does not remove the numbers from the stick reader's memory. To erase tags, you can click on the **Erase Tags** button, and then click **Yes** to confirm. You can also erase tags on the stick reader itself - select **Erase Tags** as a menu option when you turn on the stick reader.





## Configurations



The screenshot shows a window titled "Stick Reader Configuration" with a scrollbar on the right. The window contains the following settings:

Setting	Value
Firmware Version	1.46
Serial Number	101110006
Scan time (seconds) from 1 to 10	4
Shutdown time (minutes) from 1 to 10	5
EID Display Format	ISO Decimal
EID Output Format	ISO Decimal
Save Readings to Stick Memory	Yes
Language	English
Continuous Read Mode	Press to Read
Continuous Read Mode Timeout (seconds) from 1 to 30	12
Output Termination	<CR><LF>
Printer Type	AP1300BT
Label Printing Allowed	No
Label Printing On	No
Print in Order	Print as read
Printer Bluetooth ID	000780746E95
Weigher Bluetooth ID	000666891360

At the bottom of the window, there are two buttons: "Save Configuration" and "Quit".

### Firmware Version

This is the current software version number on the stick reader.

### Serial Number

This is the stick reader's serial number. This is also printed on the Shearwell label on the back of the stick reader.

### Scan time (seconds) from 1 to 10

This is the length of time the stick reader will search for an EID tag before giving a failed read signal. Type in a scan time from 1 to 10 seconds. The default time is 4 seconds.

### Shutdown Time (minutes) from 1 to 10

This is the length of time the stick reader will be inactive before it shuts off automatically. Type in a shutdown time from 1 to 10 minutes. The default time is 5 minutes.

### EID Display Format

This is how EID numbers are shown on the stick reader's display screen. This also controls how EID numbers will appear in print-outs. [Tag Lookup](#) is the format when a tag (bucket) file is loaded.

### EID Output Format

This is the format for information the stick reader sends to any connected Bluetooth device, such as a printer or weigh head. Instructions for linking those devices will indicate what format they require. [Tag Lookup](#) is the format when a tag (bucket) file is loaded.

### Save Readings to Stick Memory

This is the same as [Disable Memory](#) on the stick reader menu. Select **No** to disable the memory; select **Yes** to enable the memory.

## Configurations

### Language

Select a language for the display. The computer must also have the [Control Panel > Region and Language](#) options set to the same language.

### Continuous Read Mode

This is the same as the Rapid Read option on the stick reader's menu. The stick reader will scan continuously for EID tags without the user pushing the green button for each animal. If no tags are found, the stick reader will stop scanning after 12 seconds. [Press to Read](#) means the stick reader scans for a tag only when the green button is pushed; when a tag is read the green button must be pushed again to scan for another tag.

### Continuous Read Timeout (seconds) 1 to 30

This is the length of time the stick reader will scan for tags in Continuous Read mode. If no tags are detected in this time then the stick reader will give a long beep and stop scanning. The default time is 12 seconds. Type in a scan time from 1 to 30 seconds.

### Output termination

This setting affects how the EID number is sent to a weigh scale.

### PRINTING OPTIONS *(Only applicable to a stick reader linked to a mobile printer)*

#### Label Printing Allowed

The [Print label](#) menu option is only available on the stick reader when the **Configure Stick** option is set to [Yes](#).

Label printing is a specialized function so the default is set to [No](#).

#### Label Printer On

If Label Printing is allowed, then the actual label printing function can be turned on or off by selecting [Yes](#) or [No](#). This option activates the Bluetooth printer after each animal is scanned - a label of each EID number is printed after each tag is read.

#### Print in Order

EID numbers will be printed in numerical order.

Please note: Printing will be slower when this is selected.

Please note: [Print Order](#) does not work if the EID display option is set to [Tag Lookup](#).

To save your changes click on [Save Configuration](#). To cancel and exit click on [Quit](#).

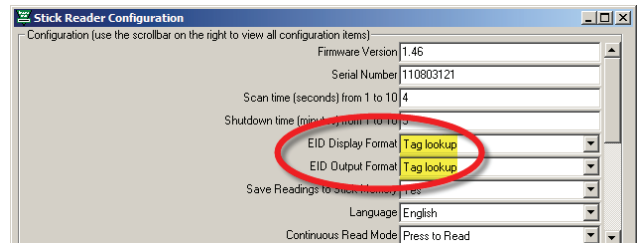


## Working with tag files

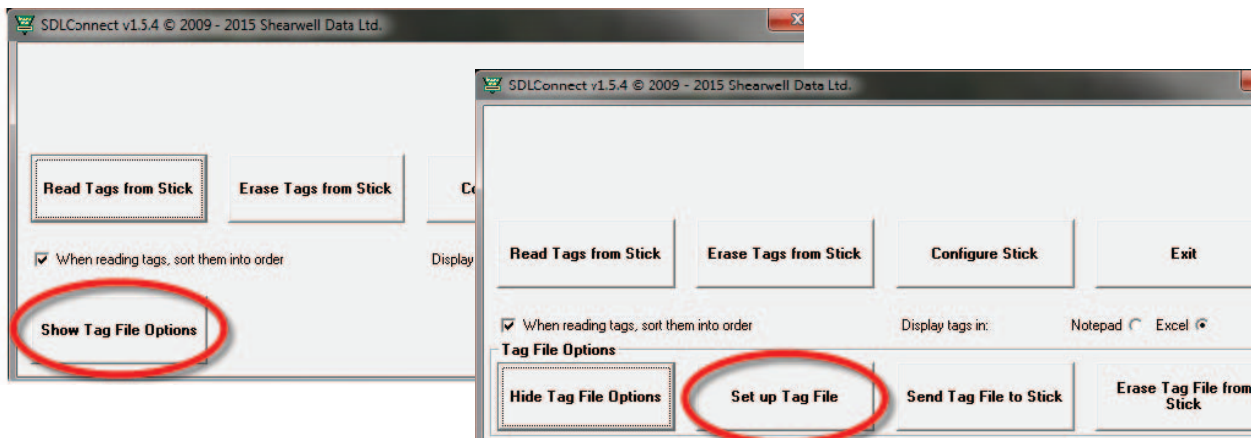
- A 'WYSIWYG' tag has an electronic number (EID) that is the same as the number printed on the outside of the tag.
- A 'non-WYSIWYG' tag has an electronic number (EID) that is different than the number printed on the outside of the tag.
- A tag file is for non-WYSIWYG tags - a cross-reference between the EID inside the tag and the number printed on the outside.
- A tag file loaded into the stick reader software allows the stick reader to display the outside number instead of the internal EID number. Your tag manufacturer will supply this file for you when you purchase non-WYSIWYG tags.

To load a tag file onto your stick reader:

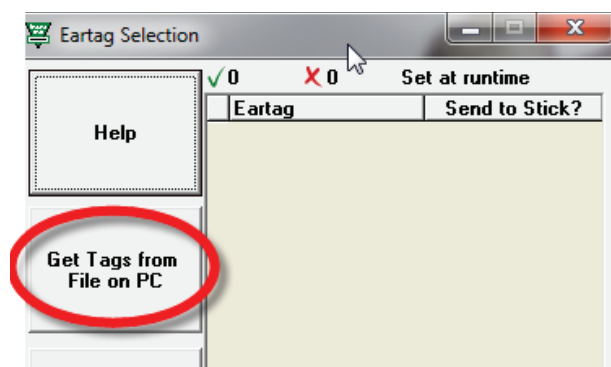
1. Turn on the stick reader.
2. Open **SDL Connect** on your computer desktop. Click on **Configure Stick**.
3. Change EID Display Format to **Tag Lookup**.
4. Change EID Output Format to **Tag Lookup**.
5. Click **Save Configuration** and **Quit**.



**Note:** The stick reader will still read and print WYSIWYG tag numbers even when it is configured for a tag file and the format is set to Tag Lookup.



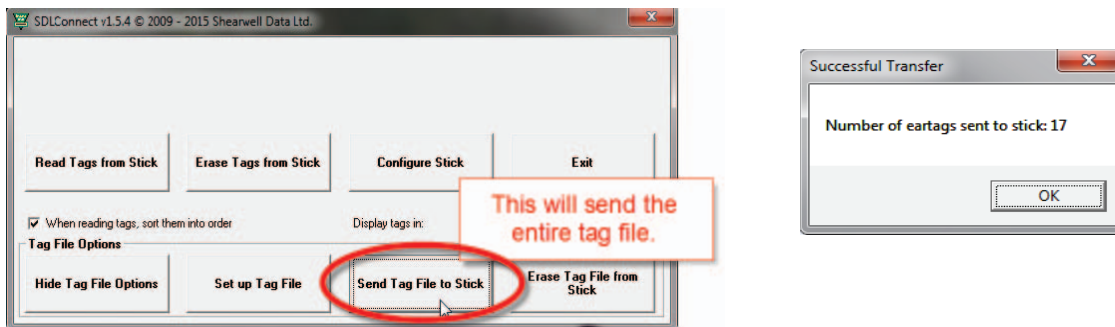
6. The tag file provided by your tag supplier must be saved on your computer.
7. Click on the **Tag File Options** button.
8. Select **Set up Tag File**.
9. Select **Get Tags from File on PC**. Find the tag file from your tag manufacturer - accepted tag formats are Shearwell, Allflex and FarmPlan. For all others please check with Shearwell Support.
10. If you do not have a tag file you can make your own text file in Notepad. Call Shearwell Support for more information.



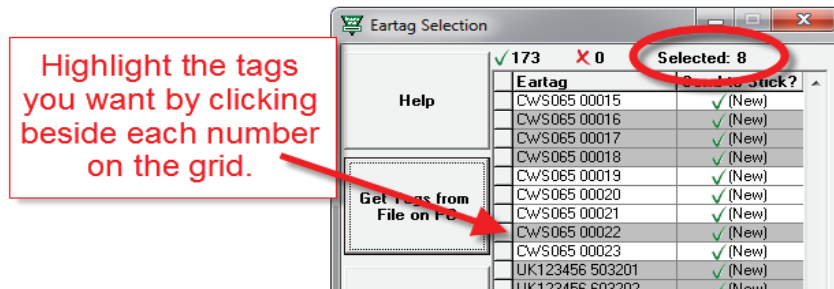
## Working with tag files on a stick reader

### Select tags to send to the stick reader

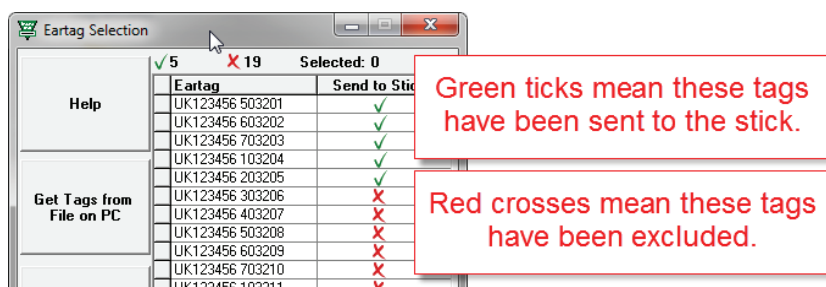
1. The tag file will open with two columns of information. The eartag column shows the name/number that will be displayed when the tag is scanned by the stick reader.
2. The **Send to Stick** column displays a green tick and **(New)** beside each name/number. **(New)** means the number has not previously been sent to the stick reader.
3. If you wish to send the entire list of tags to the stick reader click **Save & Exit**.
4. Click on the **Send Tag File to Stick** button. A confirmation screen will display the number of tags exported.



5. To send only selected tags to the stick reader highlight the tags you want on the grid. To select multiple tags hold down the control key, or hold down the shift key while selecting the first and last number in a series.



6. Click on **Select Tags to Send to Stick**. Tags that have been sent will now have only a green tick beside. All tags will remain on the grid for selection next time the program is opened.
7. Tags that are NOT to be sent to the stick can be highlighted on the grid. Click on **Deselect Tags from the List**. A red cross will be visible beside the number when it is deselected.
8. Delete tags that you will never want to send to the stick reader to reduce the size of the tag file. Highlight the unwanted tags on the grid and click on **Delete Selected Tags from the List**. If you change your mind you must import the tag file again to restore those numbers to the grid.



# EID Tag Formats

## Definitions

### WYSIWYG Tags

- “What You See Is What You Get”. A ‘WYSIWYG’ tag has an electronic number (EID) that is the same as the number printed on the outside of the tag.
- UK sheep born after Jan 1, 2010 must have an official WYSIWYG tag.
- “Slaughter tags” are also WYSIWYG, although only the flock mark is visible on the outside.

### Non-WYSIWYG Tags

- A tag with an electronic number (EID) that is different than the number printed on the outside of the tag.
- A tag file is for non-WYSIWYG tags - a cross-reference between the EID inside the tag and the number printed on the outside.

## EID format options

Some countries and equipment manufacturers require EID numbers to be transmitted in a specific format. The SDL400S stick reader is able to transmit EID numbers in various formats. Changes to the EID format are made through the **Configure Stick** function on the computer software.

### UK WYSIWYG (Sheep)

- Displays UK, followed by a space and the 7-digit flock number, followed by a space and the 5-digit individual animal number.
- The stick reader set to UK WYSIWYG will display non-UK tags in decimal format.

### Decimal

Displays the full 16-digit EID number

### Tag Lookup

- Used with a tag file for non-WYSIWYG tags.
- The EID number programmed into the tag microchip is cross referenced to another number that will be displayed when the tag is scanned.

### ISO Decimal

- The EID number is shown, minus the first 0 of the country code and with a space between the country code and the remaining 12 digits.

### Full ISO

- The screen will alternate between the 15-digit EID number and six additional digits that are the retag counter, the species identifier and three reserved digits.

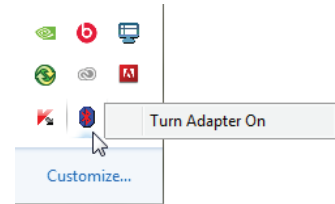
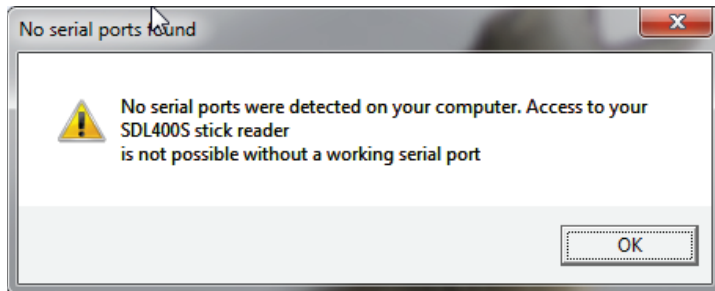
### Hexadecimal

- All the information on the microchip are displayed in hexadecimal on screen , including the retag counter, species identifier and the three reserved digits.

# Trouble-shooting

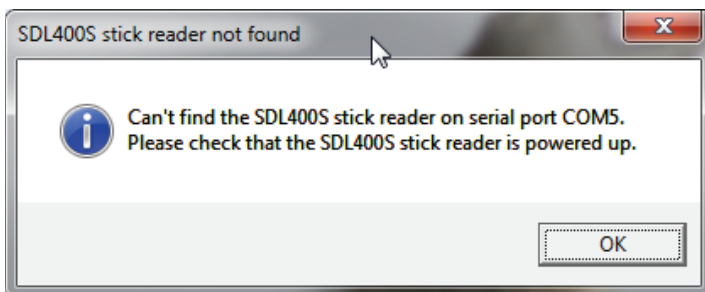
## Error messages on the computer

### 1. Can't connect the tag reader to the computer



- Check the Bluetooth adapter is plugged into a USB port (Windows).
- Look at the Bluetooth icon on your computer desktop or taskbar - is there a red or blue symbol? The Bluetooth adapter might be disabled.
- Microsoft Windows updates on the PC sometimes break the Bluetooth connections. If the tag reader has stopped connecting then it might just need to be paired again - see page 3 for instructions.

### 2. SDL Connect won't open because it can't find your tag reader



- check the EID tag reader is turned on. For stick readers make sure the battery level is good.
- check that the right COM port is selected. Look in the BT Manager to see which COM port it should be on. (Page 4)

### 3. Losing Bluetooth connection between the stick and a printer or weigher

- Battery level in the stick reader is getting low - insert fresh batteries or stop and recharge.
- Printer battery level is getting low - stop and re-charge the printer.

### 4. Losing Bluetooth connection between the stick reader and the computer

- Battery level in the stick reader is getting low - insert fresh batteries or stop and recharge.

### 5. Losing Bluetooth connection between the SDL 150 race reader and the stock recorder

- The slightest drop in power or loss of voltage will break the Bluetooth link.
- Make sure the race reader is on mains power or a 12V battery (not a generator).
- Extension leads must be in good condition.

### 6. Wrong date and time on a stick reader

- Date and time are automatically sent to the stick reader from the computer software when the stick connects. A stick reader that isn't used very frequently will run down the back-up battery that runs the internal clock. To correct the date and time connect the stick reader and **SDL Connect** before you intend to use it.

*If all else fails - remove the tag reader from your Bluetooth Devices and re-pair it. (Page 3)*