

Asset Connect Software



Table of Contents

Section 1: Getting Started	1 - 2
Section 2: Installing Asset Connect.....	3 - 5
Section 3: Setup With CSL CS108	6 - 8
Section 4: Setup With TSL 1166/1128	9 - 15
Section 5: Setup With iRFID500	16 - 21
Section 6: Basic Operation.....	22 - 27

Section 1: Getting Started

This section contains basic information to get started with the Asset Connect Software. A brief overview of the application is followed by requirements for the computer, readers, and tags. More detailed description of Asset Connect and the readers can be obtained by contacting your local Emerson sales office.

Overview:

Asset Connect Software is used with a PC or tablet and a handheld reader to communicate with the Emerson Asset Management Tag. This include both reading and writing critical asset information and service details stored on the Asset Management Tag.

Asset Connect Software communicates to the reader/writer using Bluetooth wireless technology. The reader/writer then communicates with the Asset Management Tag using UHF RFID wireless technology.

Computer Requirements:

Asset Connect Software is compatible with the Windows® 7 or Windows® 10 operating systems. The user interface is designed to be used on either a PC or tablet.

Communication with the readers is achieved via Bluetooth wireless technology, thus the PC or tablet requires a Bluetooth radio and applicable drivers to be installed.

Compatible Readers:

Asset Connect Software is compatible with multiple commercially available reader/writers, including the following:

Convergence Systems Limited (CSL)

CS 108 Sled Reader

- Read Range < 15 ft
- Circular or Linear Antenna
- IP54 Rating
- Requires Bluetooth Low Energy
- Requires Windows® 10 OS



Technology Solutions (UK) Ltd (TSL®)

1166 Sled Reader

- Read Range < 12 ft
- Circular Antenna
- IP67 Rating
- With Firmware 1.2.1 or newer



Technology Solutions (UK) Ltd (TSL®)

1128 Sled Reader

- Read Range < 7 ft
- Circular Antenna
- IP54 Rating



Extronics Ltd

iRFID500 Intrinsically-Safe Reader

- Read Range < 1 ft
- Linear Antenna
- IP65 Rating
- ATEX and IECEx Zones 0, 1, and 2
- US & Canada Class 1, Div 1, Groups A, B, C, D



NOTE:

The readers/writers are not for sale through Emerson, but Emerson can recommend a supplier.

Read range is dependent on the tag and the distances provided above are from testing with the Asset Management Tag.

Circular antenna designs offer a broad, omnidirectional, reading area. Orientation and alignment of reader and tag are less critical, while read distances are shorter.

Linear antenna designs offer a more directional, focused, longer reading area. Orientation and alignment of the reader and tag are more critical, while read distances are greater.

Compatible Tags:

Asset Connect Software is designed to be compatible with the Emerson Asset Management Tag.



Section 2: Installing Asset Connect

This section contains basic installation information for Asset Connect Software to be installed from the downloaded file. Please follow company policy when installing new software onto your computer. Provided instructions are for a single computer installation only. Complex installations and multiple computer deployments may require a system administrator.

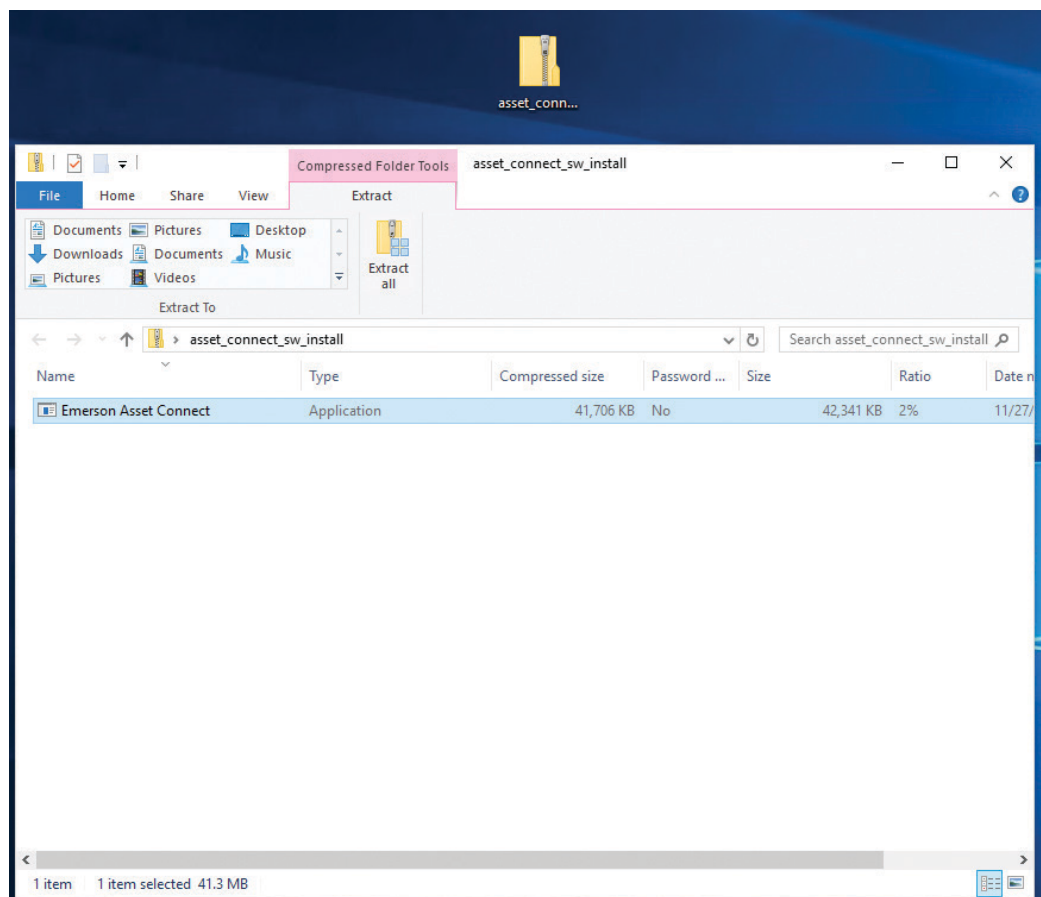
Step 1: Visit webpage

Visit <https://www.emerson.com/en-us/support/software-downloads-drivers> to download the Installation Package. Search for and select Asset Connect.

Step 2: Extract the Installation File from the downloaded compressed file.

The Installation Package file is a zipped/compressed folder and the installation file must be extracted to a new location before running.

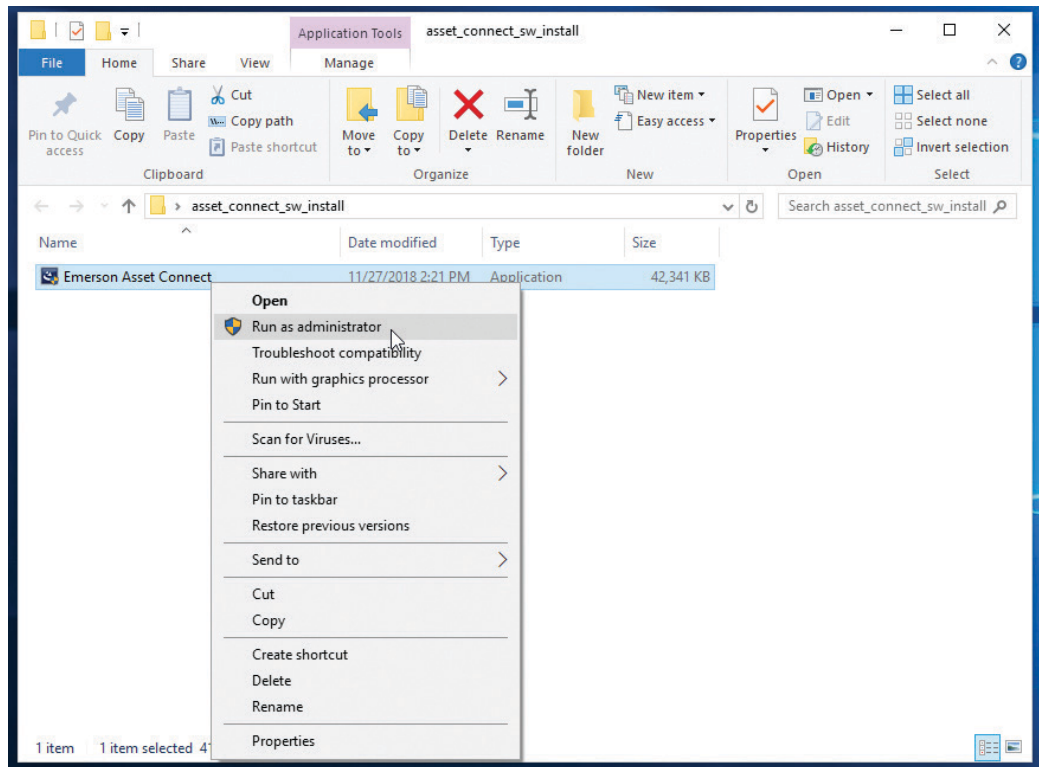
Figure 1-1. Installation File



Step 3: Right-Click on the Installation File and Select 'Run as administrator'.

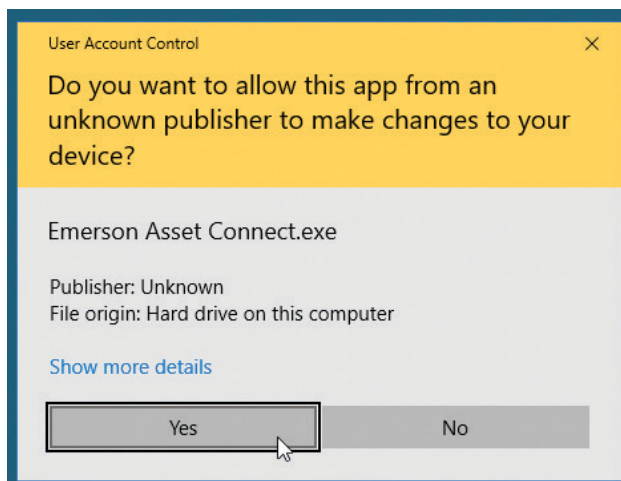
To access the Right-Click context menu on a touchscreen, touch and hold until a square or circle appears. Then release to open the menu.

Figure 1-2. Right Click Menu



Windows® 10 will require you to acknowledge this action via the User Account Control prompt. To proceed, click on Yes.

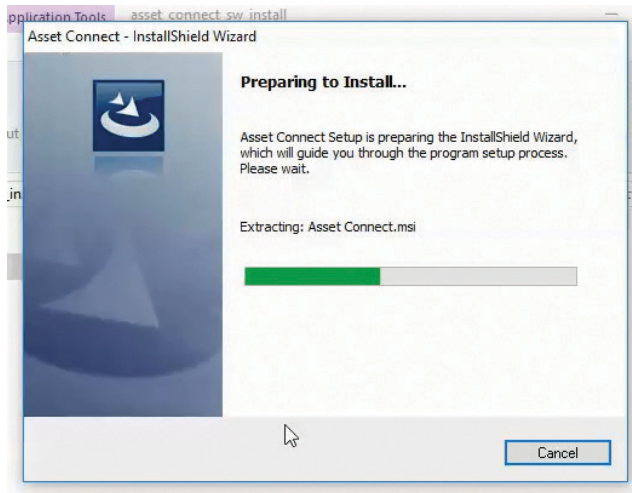
Figure 1-3. Right Click Menu



Step 4: Follow the Installation Wizard prompts as Asset Connect is installed.

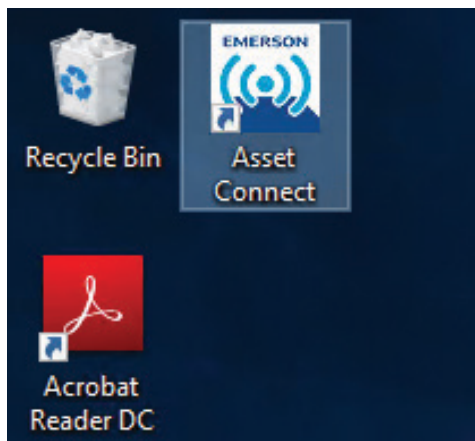
To initiate the installation, click on Next. Review the Current Settings and click on Install. This process can take a couple minutes to complete, be patient. Acknowledge the completion by clicking on Finish.

Figure 1-4. Installation File



Step 5: Follow the Installation Wizard prompts as Asset Connect is installed.

Figure 1-5. Desktop Shortcut



NOTE:

If the desktop shortcut gets deleted, the application's location is in C:\Program Files (x86)\Emerson\Asset Connect\.

Section 3: Setup With CSL CS108

This section contains setup information for using the CSL CS108 sled reader with Asset Connect Software. The CSL CS108 requires a Windows® 10 operating system. Additionally, the version of Windows® 10 must fully support Bluetooth Low Energy (BLE). This includes Version 1709 and newer.

The CSL CS108 is available in both a circular or linear antenna design. This provides the most versatility of the compatible readers. The antenna type is identified on the identification sticker, Cir. Pol. indicates a circular antenna and Hor. Pol. or Ver. Pol. indicate a linear antenna.

Please see the CS108 User Manual for complete understanding of this reader.



Step 1: Turn ON the reader

Figure 2-1 shows the location of the Power button. The button must be held for three (3) seconds, then released. The Power Button LED will glow green when turned ON and the Bluetooth Pairing button LED will blink blue.

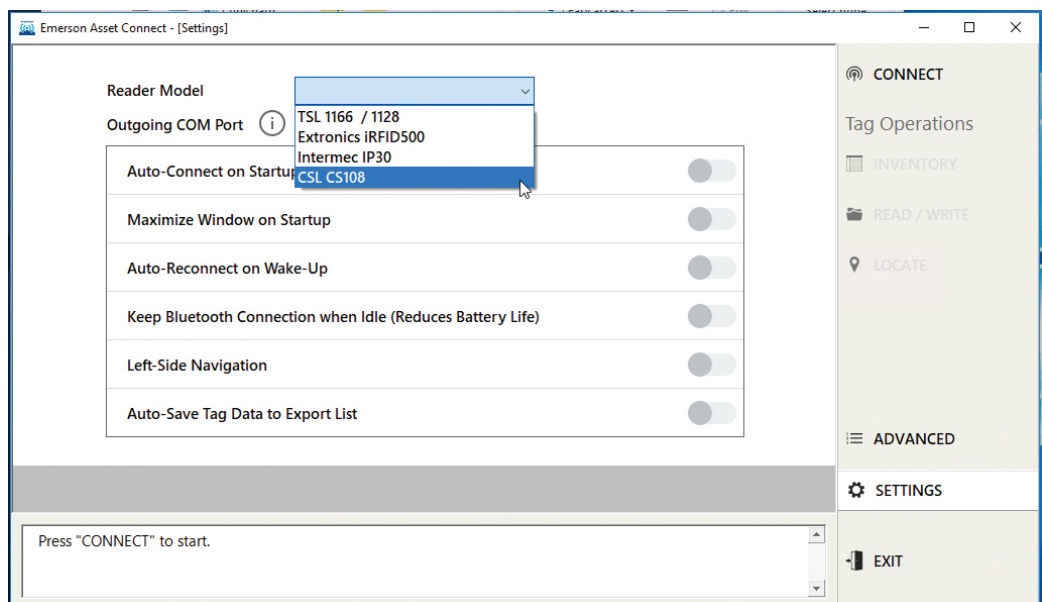
Figure 2-1. CS108 Button Locations



Step 2: Open Asset Connect Software and enter the Setting menu.

Step 3: In the Reader Model dropdown menu, select CSL CS108.

Figure 2-2. Settings Screen, Selecting Reader Type

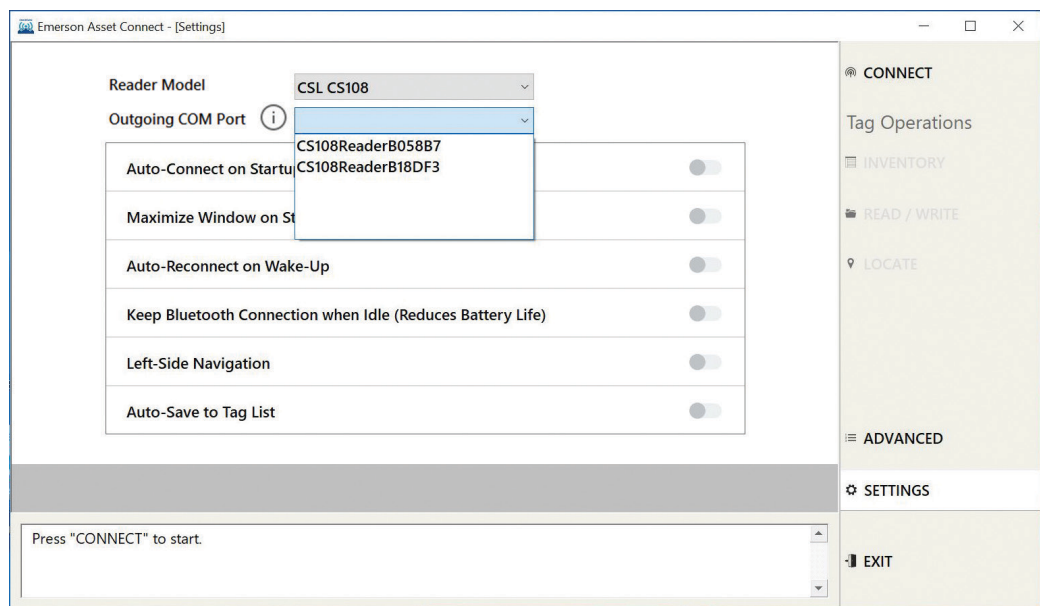


Step 4: In the Unit dropdown menu, select your CSL CS108.

All powered on CS108 devices within range will be shown here. The CS108 configured device name is displayed. This is defaulted to “CS108Reader” plus the last 6 digits of the BT Mac Address. The BT Mac Address is located on the CS108’s identification sticker.

If your reader is NOT displayed in the Unit dropdown, verify that the CS108 unit is powered on and not already connected to another computer. If your reader still does NOT display in the Unit dropdown, verify the PC’s Bluetooth radio drivers are correct and fully support BLE.

Figure 2-3. Settings Screen, Selecting Reader Unit



Step 5: Click on Connect.

The CS108’s Bluetooth Pairing button LED should change to glow steady blue and the initialization process will take place. Allow time for the connection to be complete and the Message Pane will say **Connected to CSL CS108**. Asset Connect will exit the Settings screen after connecting and enter the Inventory screen. Now you can begin use of Asset Connect with the CSL CS108.

Section 4: Setup With TSL 1166/1128

This section contains setup information for using the TSL 1166 and 1128 sled readers with Asset Connect Software. These readers are similar in operation but different in form-factor. Both can be used with a computer which has either Windows® 7 or Windows® 10 and a classic Bluetooth (Basic Rate) radio.

Please see the 1166 or 1128 User Manual for complete understanding of these readers.



Step 1: Turn ON the reader.

Both the 1166 and 1128 can easily be turned ON by pulling the trigger or pressing the Power button. The connection status LED will blink blue as indication of the reader being awake and ready to connect.

Figure 4-1. TSL 1128

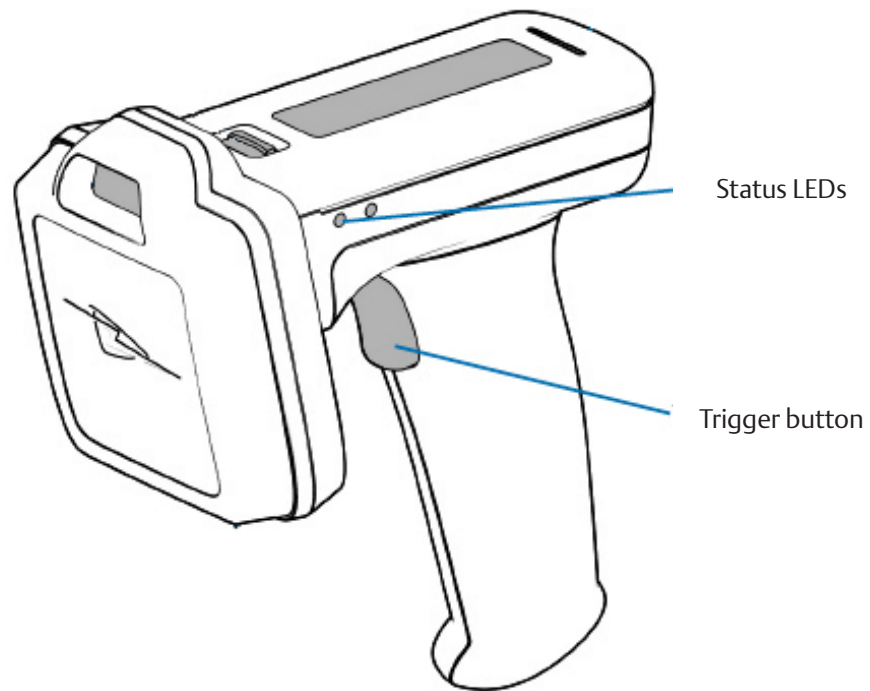
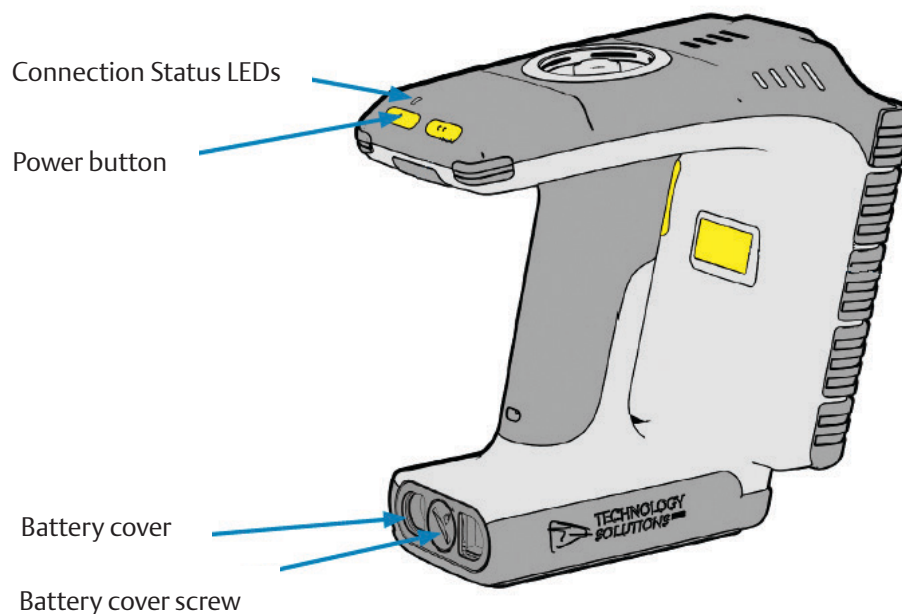


Figure 4-2. TSL 1166

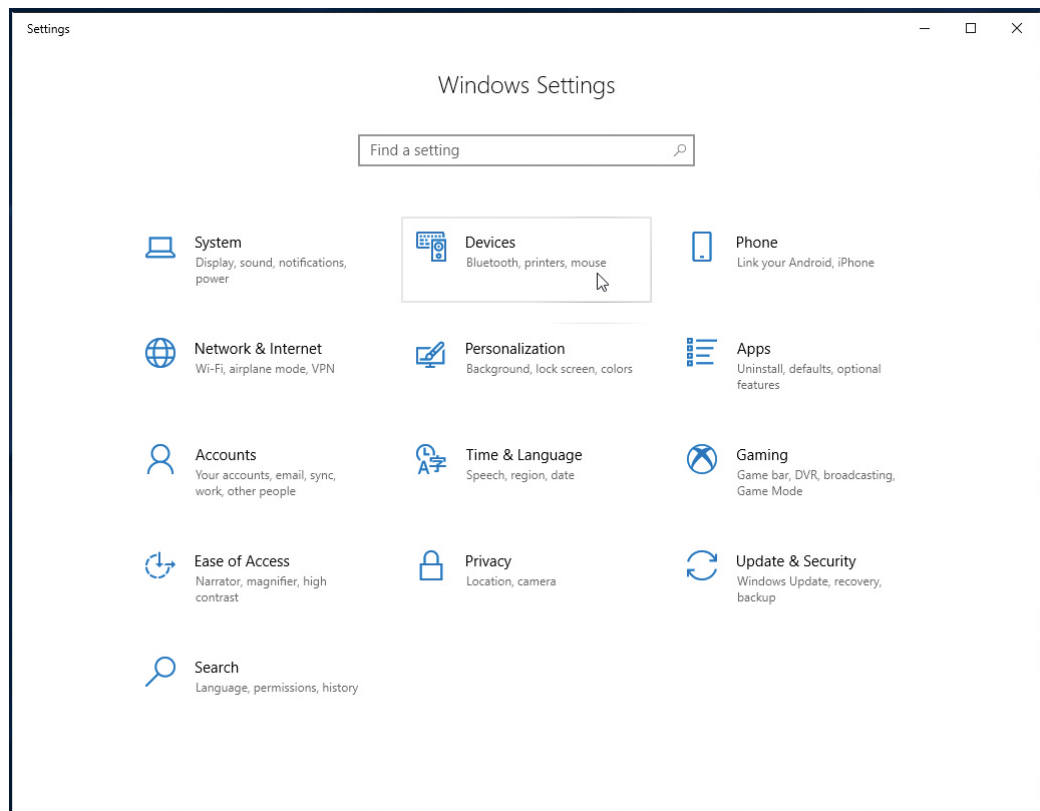


Step 2: Add Bluetooth Device to the computer

The reader will need to be connected to the computer using the Windows® standard Add Bluetooth Device process prior to using it with Asset Connect.

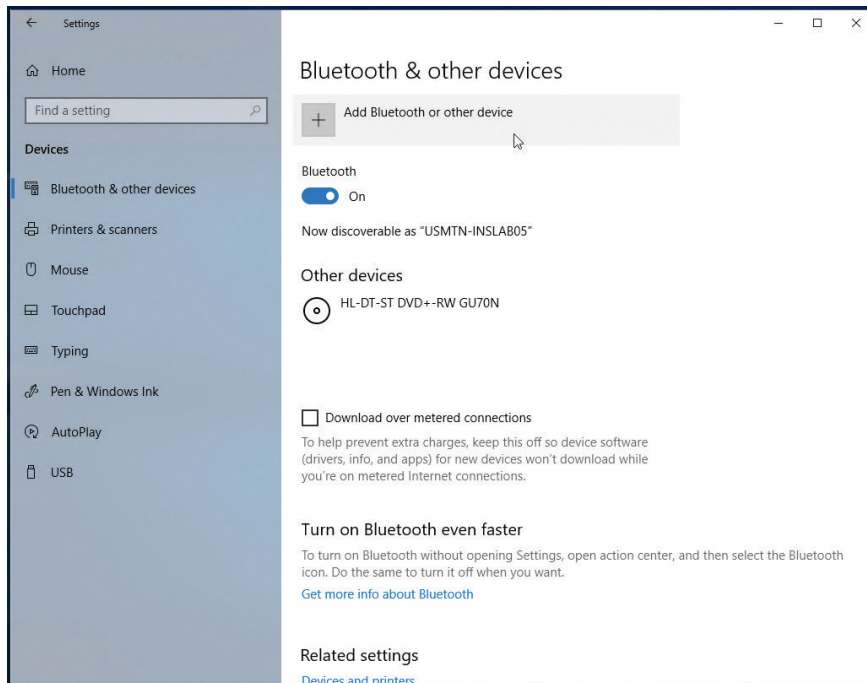
From the Start Menu, select Settings. Then in the Settings window, select Devices.

Figure 4-3. Windows® 10 Settings, Devices



From inside the Devices window, be sure the Bluetooth & other device submenu is selected. Then click on the Add Bluetooth or other device button, as shown in Figure 4-4. Make sure that Bluetooth is turned ON.

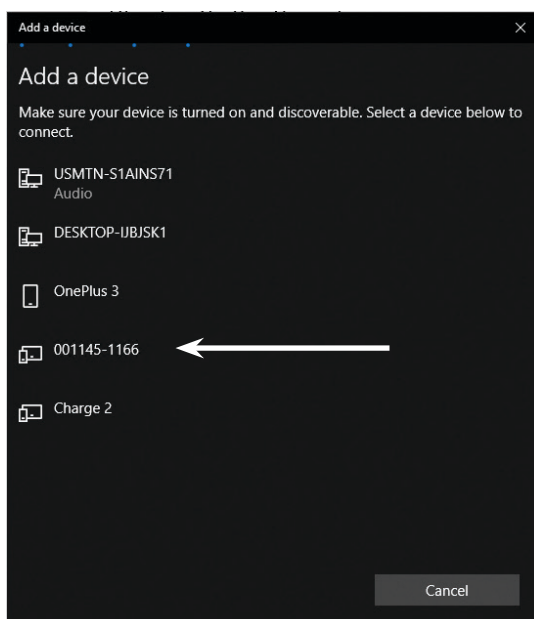
Figure 4-4. Windows® 10 Bluetooth & other devices



Another window will open to add a device.
Select Bluetooth from this window.

Then all the Bluetooth devices in range will be displayed,
similar to Figure 4-5. The TSL readers will show up as the
6-digit serial number followed by the type (1166 or 1128).
Be sure that the reader is still awake and has not timed out

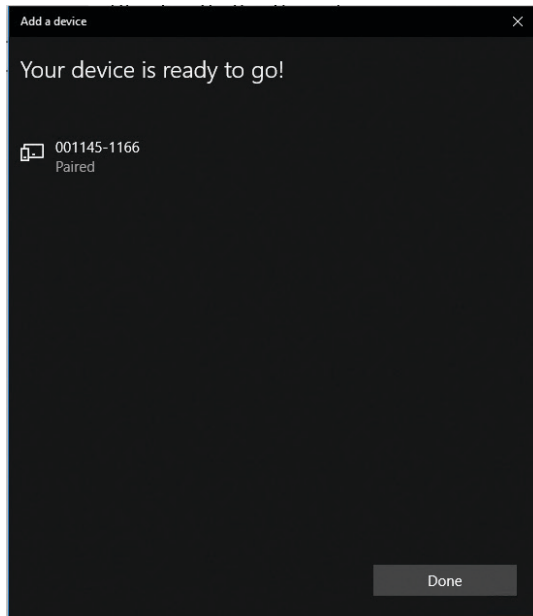
Figure 4-5. Windows® 10 Add a device window



Click on the reader in this list.

Allow time for the connection and pairing process to complete. When finished, your reader has been paired to the computer and is ready to be used by Asset Connect. This process will not need to be repeated for this computer.

Figure 4-6. Windows® 10 Reader Paired



Step 3: Determine the Outgoing COM Port for the reader.

Asset Connect needs to know which Outgoing COM Port is used to communicate with the paired reader. This can be found in the Bluetooth Settings window that can be opened from within Settings or the Taskbar.

From the Start Menu, select Settings. Then in the Settings window, select Devices.

Remember this COM port number for the following steps!

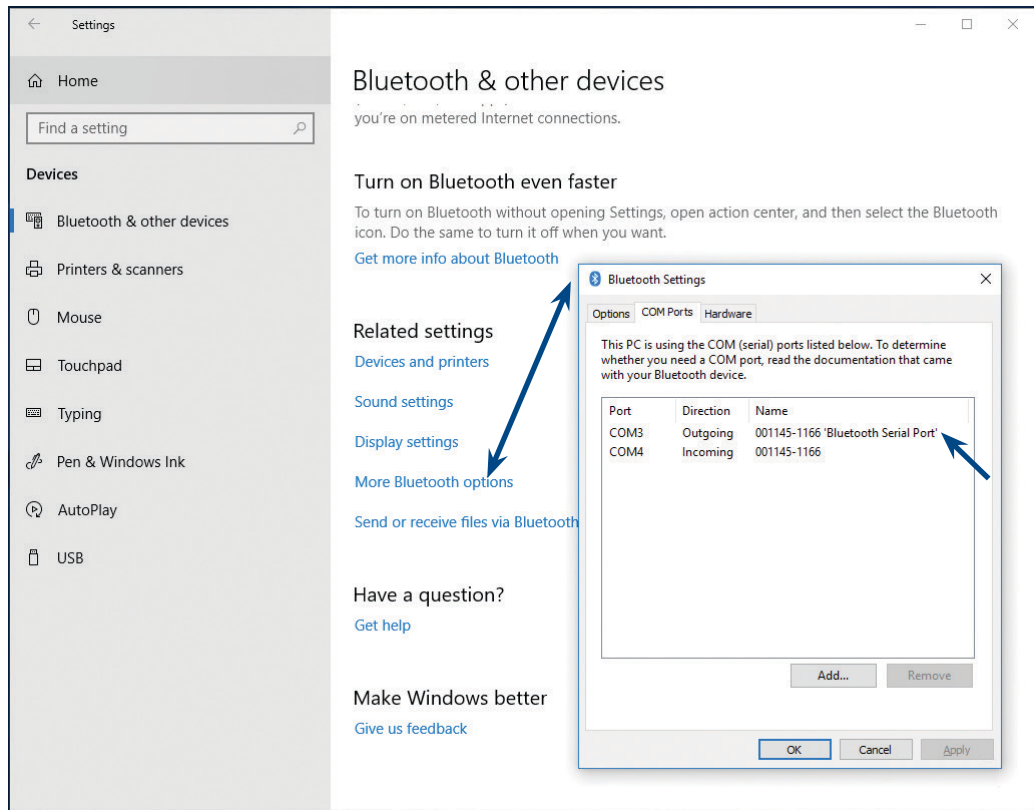
This COM port number will not change for this reader and it can be recorded for future use.

From inside the Devices window, be sure the Bluetooth & other device submenu is selected. Then find the link called More Bluetooth Options as seen in Figure 4-7 and click on it to open the Bluetooth Settings window. You may need to scroll down to find this link.

Within the Bluetooth Settings window, select the COM Ports tab.

Determine the COM port number that matches the paired reader and Outgoing Port direction, as shown in Figure 4-7.

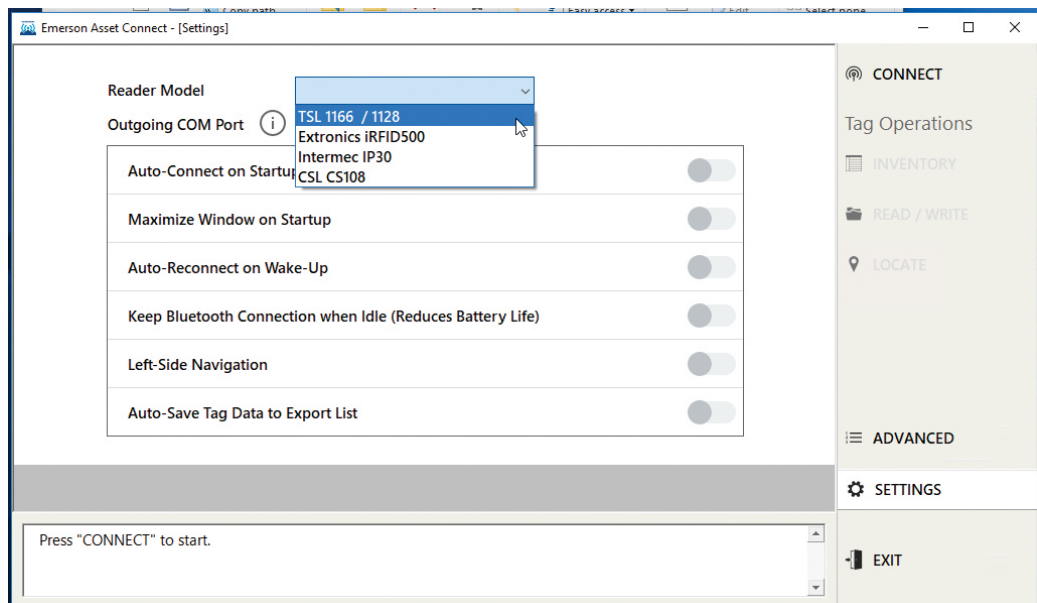
Figure 4-7. Windows® 10 Outgoing COM Port from Settings



Step 4: Open Asset Connect Software and enter the Setting menu.

Step 5: In the Reader Model dropdown menu, Select the TSL 1166 / 1128.

Figure 4-8. Settings Screen, Selecting Reader Type



Step 6: In the **Outgoing COM Port dropdown**, **Select the correct COM port number as determined in Step 3.**

Step 7: **Click on Connect.**

The TSL 1166 / 1128 status LED should change to glow steady blue and the initialization process will take place. Allow time for the connection to be complete and the Message Pane will say Connected to TSL 1166 / 1128 on COM#. Asset Connect will exit the Settings screen after connecting and enter the Inventory screen.

Now you can begin use of Asset Connect with the TSL 1166 or TSL 1128.

Section 5: Setup With iRFID500

This section contains setup information for using the Extronics iRFID500 Intrinsically-Safe reader with Asset Connect Software. The Extronics iRFID500 operates on either a Windows® 7 or a Windows® 10 operating system. Additionally, a computer with a classic Bluetooth (Basic Rate) radio is required.

Please see the iRFID500 User Manual for complete understanding of this reader.



Step 1: Turn ON the reader.

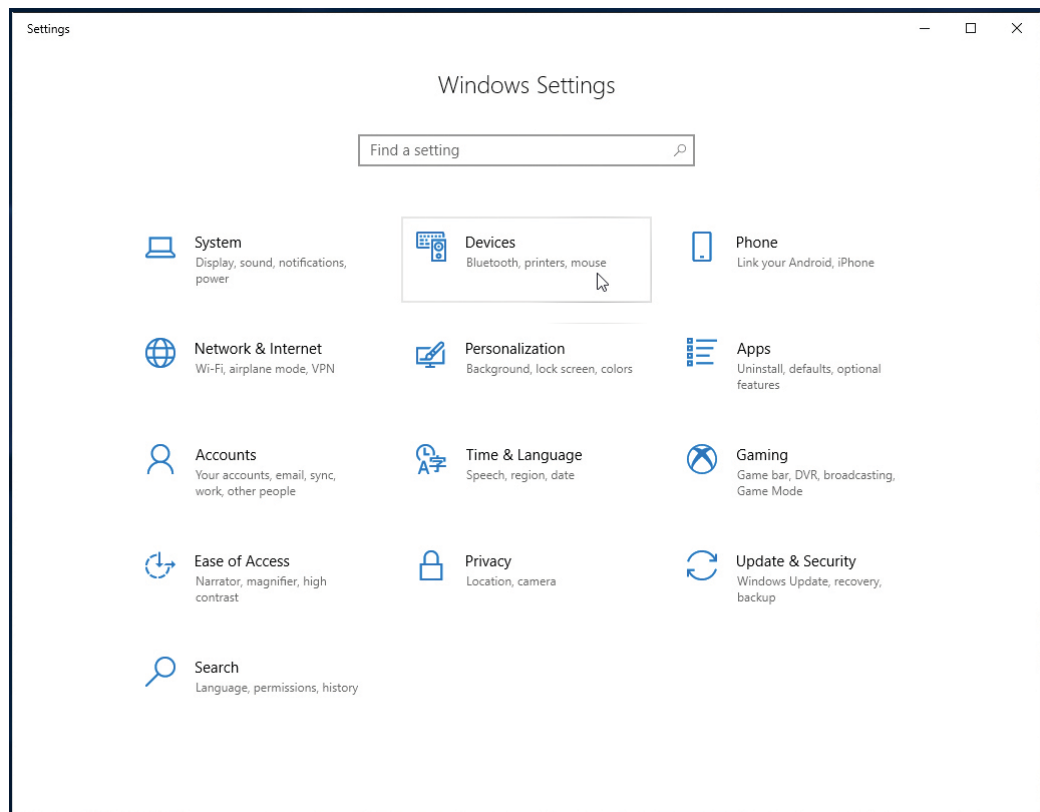
The Extronics iRFID500 can easily be turned ON by pressing the Power Button. The Power LED will turn ON and indicate battery life based on its color. Now the reader is awake and ready to connect.

Step 2: Add Bluetooth Device to the computer.

The reader will need to be connected to the computer using the Windows® standard Add Bluetooth Device process prior to using it with Asset Connect.

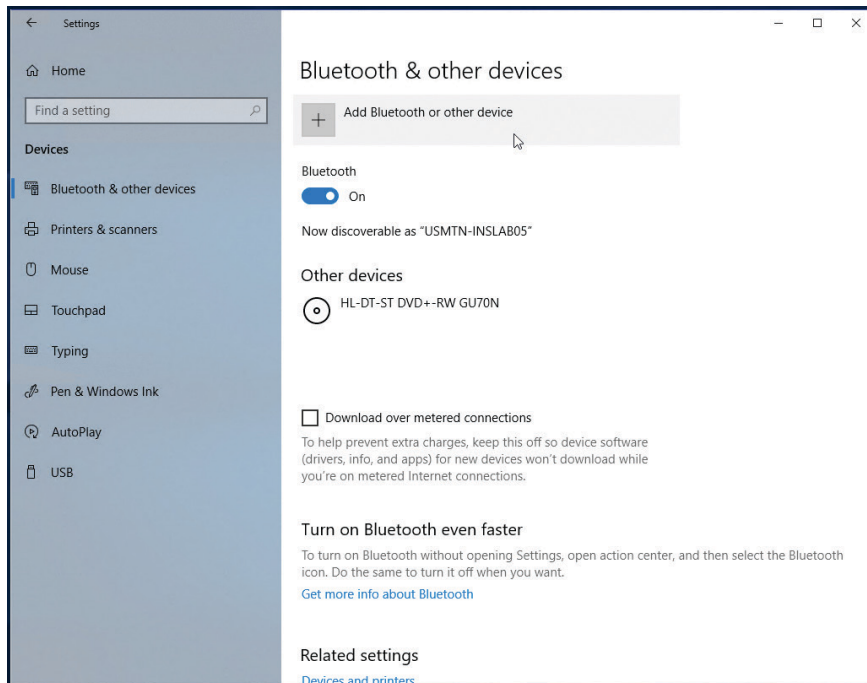
From the Start Menu, select Settings. Then in the Settings window, select Devices

Figure 5-1. Windows® 10 Settings, Devices



From inside the Devices window, be sure the Bluetooth and other device submenu is selected. Then click on the Add Bluetooth or other device button, as shown in Figure 5-2. Make sure that Bluetooth is turned ON.

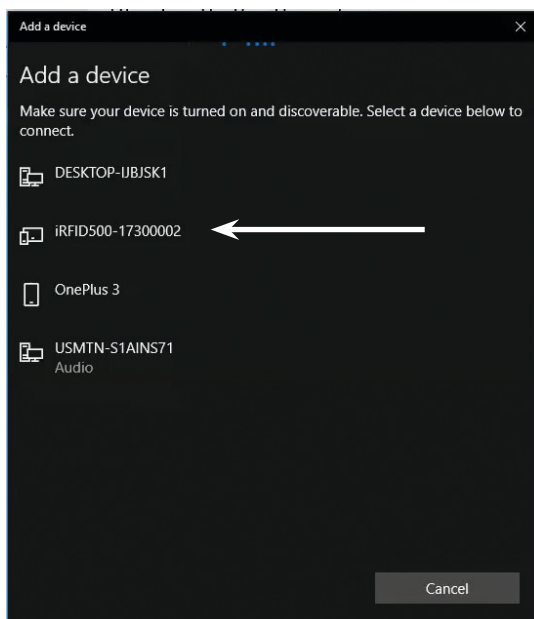
Figure 5-2. Windows® 10 Bluetooth & other devices



Another window will open to add a device.
Select Bluetooth from this window.

Then all the Bluetooth devices in range will be displayed, similar to Figure 5-3. The Extronics iRFID500 reader will show up as the type (iRFID500) and the last 8 digits of the Comms ID number. Be sure that the reader is turned ON.

Figure 4-5. Windows® 10 Add a device window



Click on the reader in this list.

Acknowledge the PIN number by clicking Connect, as shown in Figure 5-4. (There is no need to remember this PIN, but confirm the Comms ID number matches.)

Allow time for the connection and pairing process to complete. When finished, your reader has been paired to the computer and is ready to be used by Asset Connect. This process will not need to be repeated for this computer.

Figure 5-4. Windows® 10 iRFID500 PIN

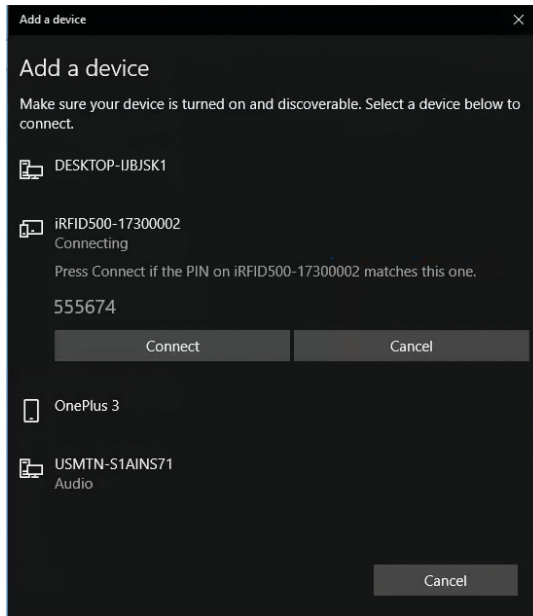
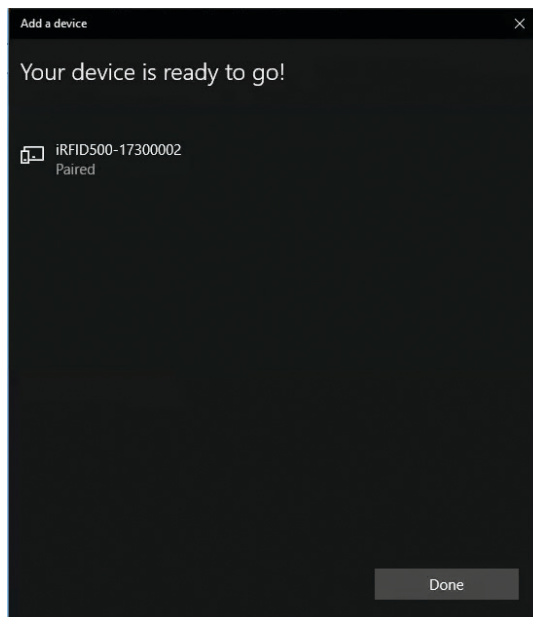


Figure 5-5. Windows® 10 Reader Paired



Step 3: Determine the Outgoing COM Port for the reader.

Asset Connect needs to know which Outgoing COM Port is used to communicate with the paired reader. This can be found in the Bluetooth Settings window that can be opened within Settings or the Taskbar.

From the Start Menu, select Settings. Then in the Settings window, select Devices.

From inside the Devices window, be sure the Bluetooth & other device submenu is selected. Then find the link called More Bluetooth Options as seen in Figure 5-6 and click on it to open the Bluetooth Settings window. You may need to scroll down to find this link.

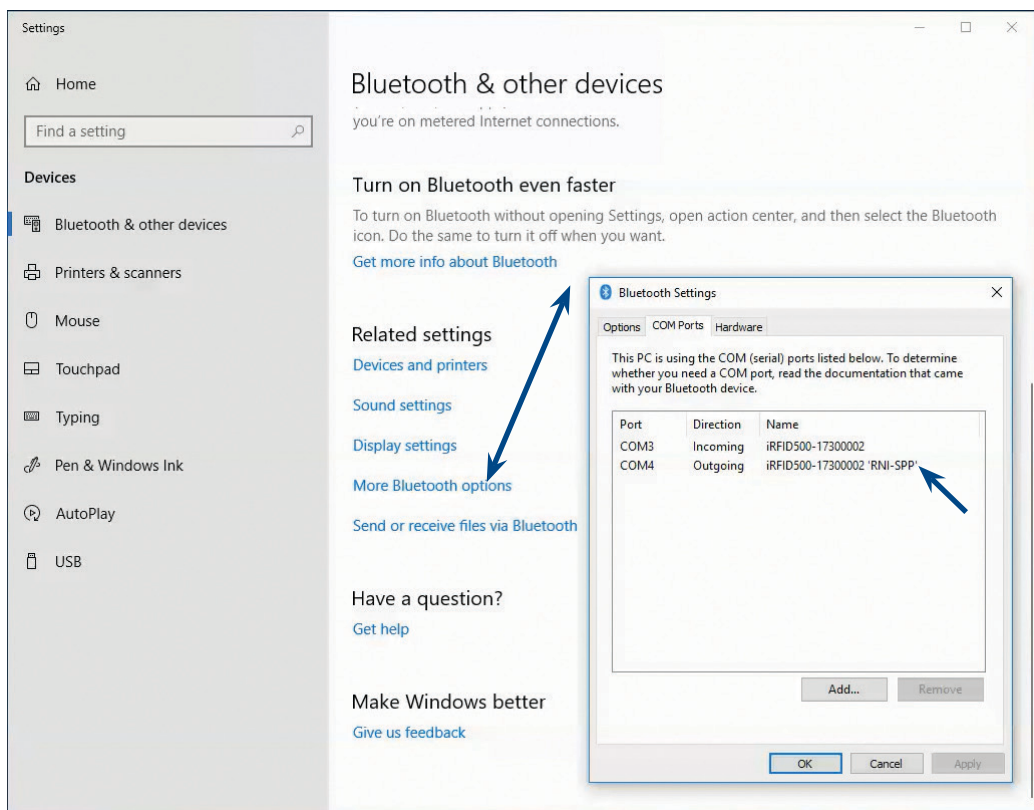
Within the Bluetooth Settings window, select the COM Ports tab. Determine the COM port number that matches the reader and Outgoing Port direction, as shown in Figure 5-6.

Remember this COM port number for the following steps!

This COM port number will not change for this reader and it can be recorded for future use.

At this point, the Settings window can be closed.

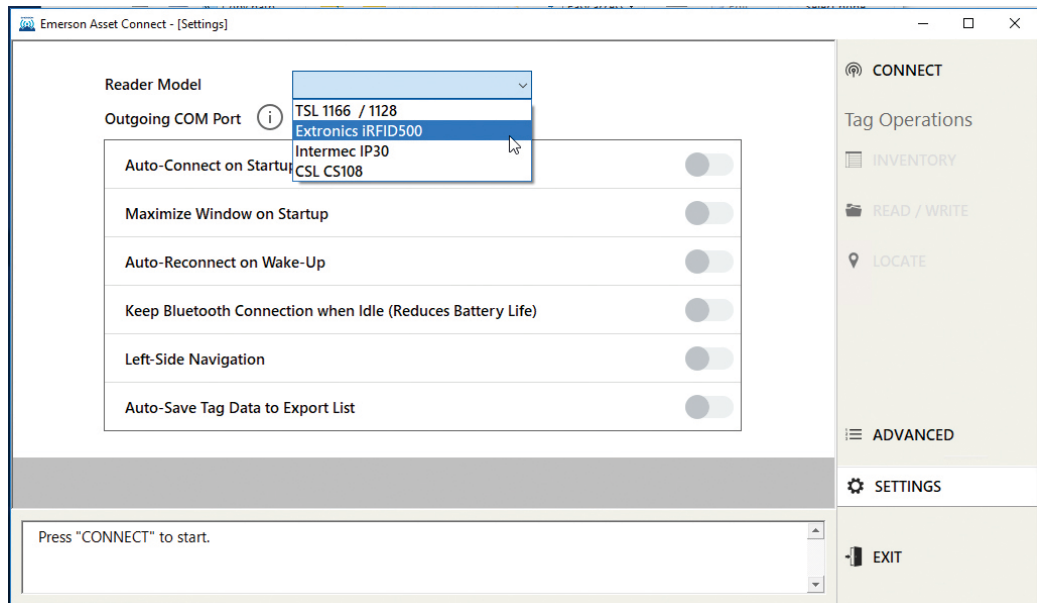
Figure 5-6. Windows® 10 Outgoing COM Port from Settings



Step 4: Open Asset Connect Software and enter the Setting menu.

Step 5: In the Reader Model dropdown menu, select the Extronics iRFID500

Figure 5-7. Settings Screen, Selecting Reader Type



Step 6: In the Outgoing COM Port dropdown, select the correct COM port number as determined in Step 3.

Step 7: Click on Connect.

The Extronics iRFID500 Bluetooth LED should turn ON to steady blue and the initialization process will take place. Allow time for the connection to be complete and the Message Pane will say Connected to Extronics iRFID500 on COM#. Asset Connect will exit the Settings screen after connecting and enter the Inventory screen.

Now you can begin use of Asset Connect with the Extronics iRFID500.

Section 6: Basic Operation

This section contains information to perform basic operations within the Asset Connect Software. This will include the Inventory and Read/Write Tag Operations. Additionally, a brief description of other features that are available within Asset Connect Software. Each reader will have slight uniqueness to messages and operation. This section will be shown using the CSL CS108 reader. The iRFID500 has a push button instead of a trigger, which must be pushed and released to act as a trigger.

Inventory:

The Inventory Tag Operation will allow you to find all the Asset Management Tags within read range of the reader. This action inventories the area around you to find and identify assets.

Most actions within the Asset Connect Software will begin with an Inventory Tag Operation.

Read/Write:

The Read / Write Tag Operation will allow you to read from and write data to an Asset Management Tag. This provides access to all the data on the tag and the ability to change it as well. This action can only be performed on one (1) tag at a time.

This is the primary action used with the Asset Connect Software

Follow the appropriate section for initial setup of a reader. After the initial setup of the reader, Asset Connect Software will cache the selected reader's details. Subsequent use of the same PC or tablet and the same reader will only require the Connect button to be used from the Inventory screen.

Additionally, there is an option to Auto-Connect on Startup found within the Settings screen. When this is selected, the cached reader details will be used to automatically connect when the software is opened.

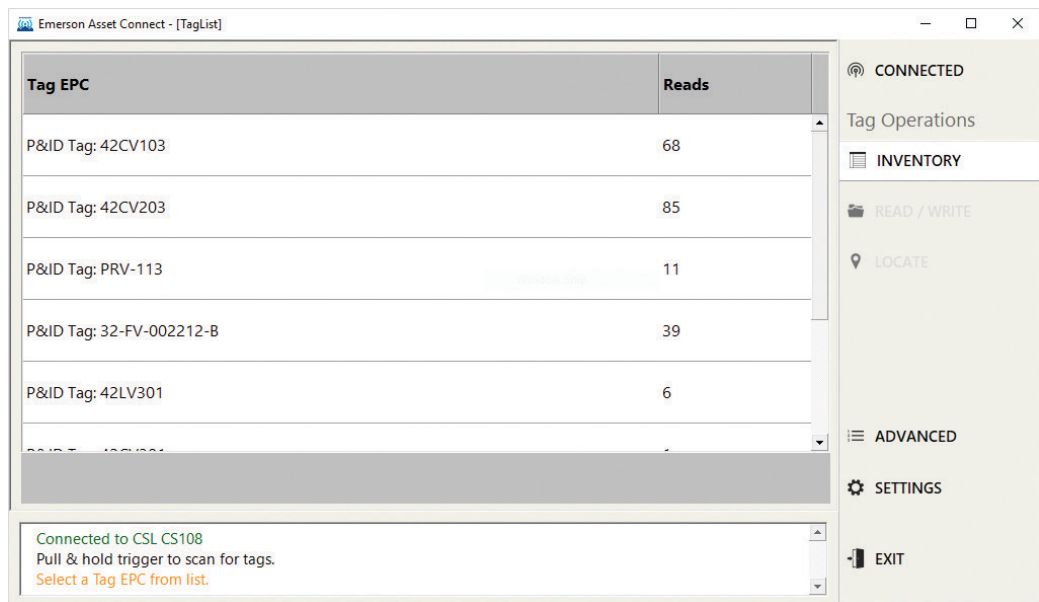
Step 1: Select Inventory from the Navigation bar.

Be sure that a reader is Connected, this is indicated in the Navigation bar.

Step 2: Pull and Hold trigger on Reader and point in direction of Asset Management Tags (iRFID500: Press and Release button)

The reader can be moved and repositioned to better align with the Asset Management Tags' installed location. You will notice the screen populates with all the Asset Management Tags within range, as shown in Figure 6-1. As more tags appear, a scroll bar will become visible and tags will continue to populate inside the Inventory Tag List.

Figure 6-1. Inventory Tag Operation



Each Tag EPC will be displayed along with a Reads value in the window. The Tag EPC is the identifiable name of the asset and its typically a P&ID Tag Number. The Reads value is an indicator of the location of the tags. The more Reads, the closer the tag is to the reader.

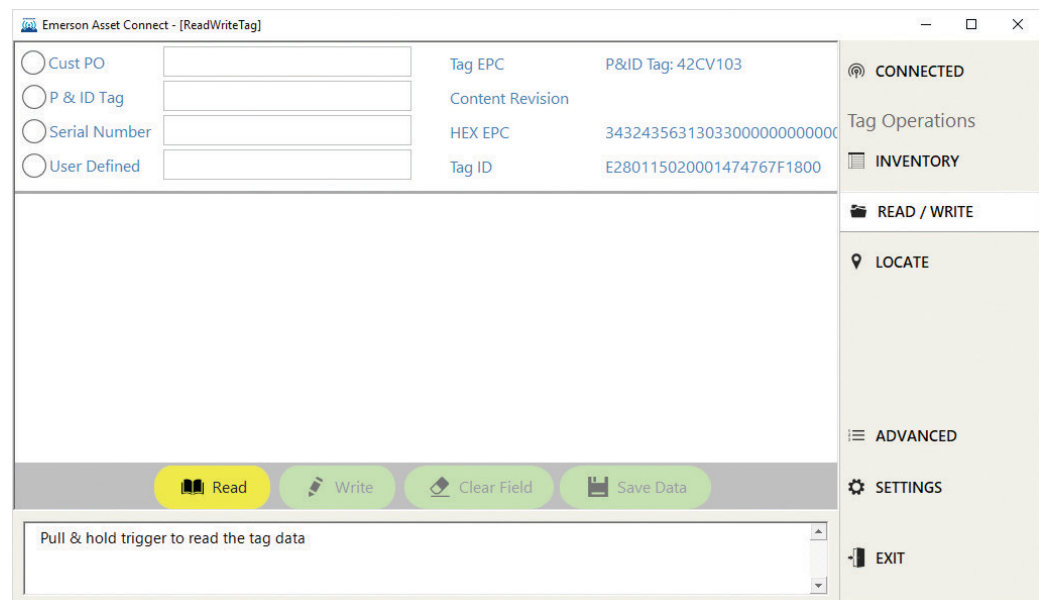
Step 3: Release the trigger on Reader.

The Inventory Tag List will stop populating. Now you can select the asset which you would like to perform a complete Read operation. This will allow you to read all the data on the Asset Management Tag.

Step 4: Double-Click on the desired Tag EPC from the Inventory Tag List

Now the Read / Write Tag Operation is selected in the Navigation bar and the screen will be similar to Figure 6-2. This is the begin of the Read operation.

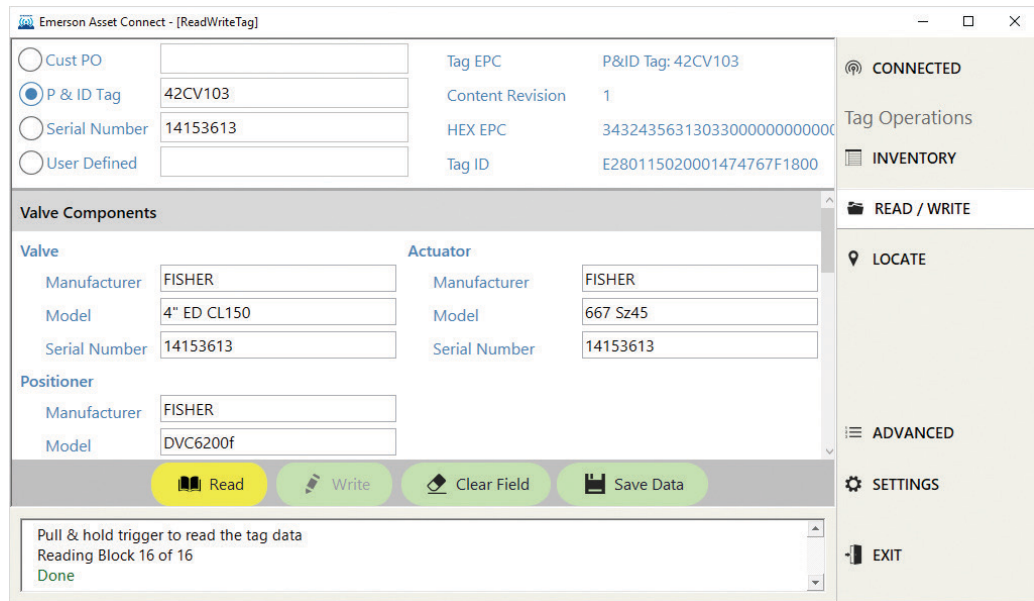
Figure 6-2. Read / Write Tag Operation



Step 5: Pull and Hold Trigger on Reader. (iRFID500: Press and Release button)

Be sure to stay within range of the tag. The Message Pane will indicate Reading Block # of # as the Read operation is performed. This can take a couple seconds depending on the environment and distance between tag and reader. Once the Read operation is completed, the Message Pane will indicate Done and all the data from the tag will be displayed in the window. The reader trigger can now be released. The Read/Write screen will be similar to Figure 6-3. The data displayed is dependent on the Asset Type.

Figure 6-3. Read Operation Complete

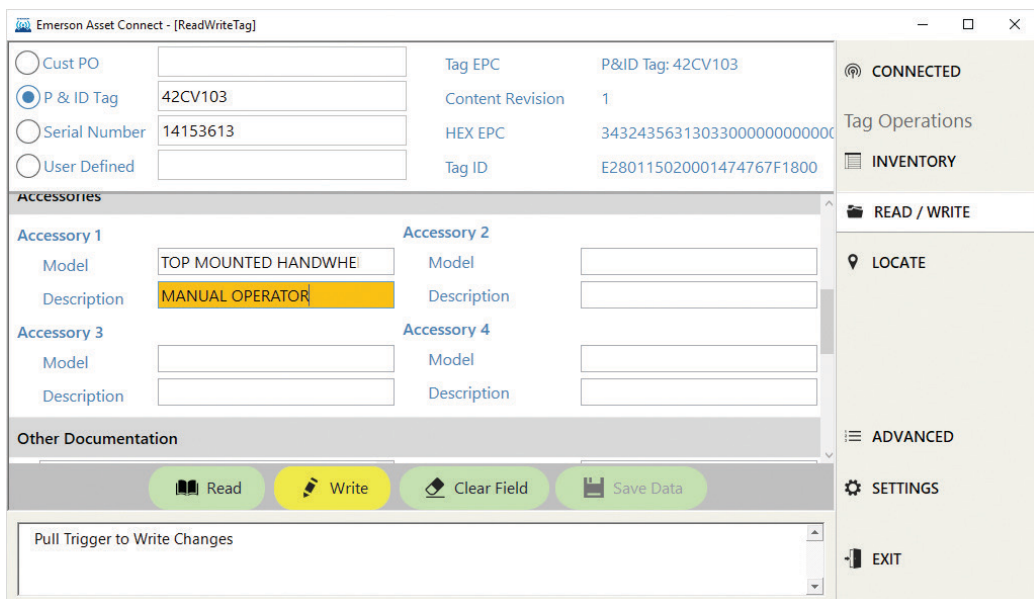


Now if you need to make changes to the data, you can begin a Write operation. This starts with the editing of a field.

Step 6: Click on a Field to enter it.

Notice that when you enter a field, the field changes to an orange color as seen in Figure 6-4.

Figure 6-4. Write Tag Operation



Step 7: Edit the Field and leave it.

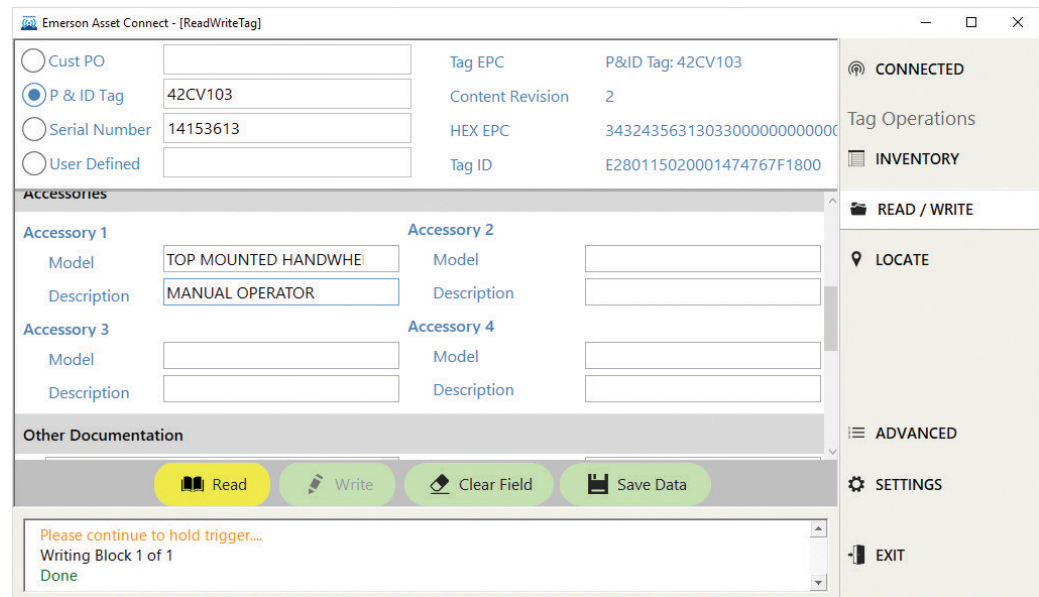
You must exit the field by clicking on another field, by pressing the Tab key, or clicking the Write button. All edited fields will remain an orange color, indicating they don't match the previous Read. When all edits to fields are completed, a Write operation can be performed.

Step 8: Pull and Hold Trigger on Reader. (iRFID500: Press and Release button)

Be sure to stay within range of the tag. The Message Pane will indicate Writing Block # of # as the Write operation is performed. This can take a couple seconds depending on the environment and distance between tag and reader. Once the Write operation is completed, the Message Pane will indicate Done and all the changes will be updated in the tag. The reader trigger can now be released. The data is then re-Read and displayed in the window. The Read/Write screen will be similar to Figure 6-5.

If the Write operation is interrupted, the Message Pane will inform you to try again. This may be due to alignment and distance from the tag to the reader. Take care in observing the reader position and direction when writing as it can improve the success rate of the Write operation. Alignment and orientation is particularly important with readers that have a linear antenna.

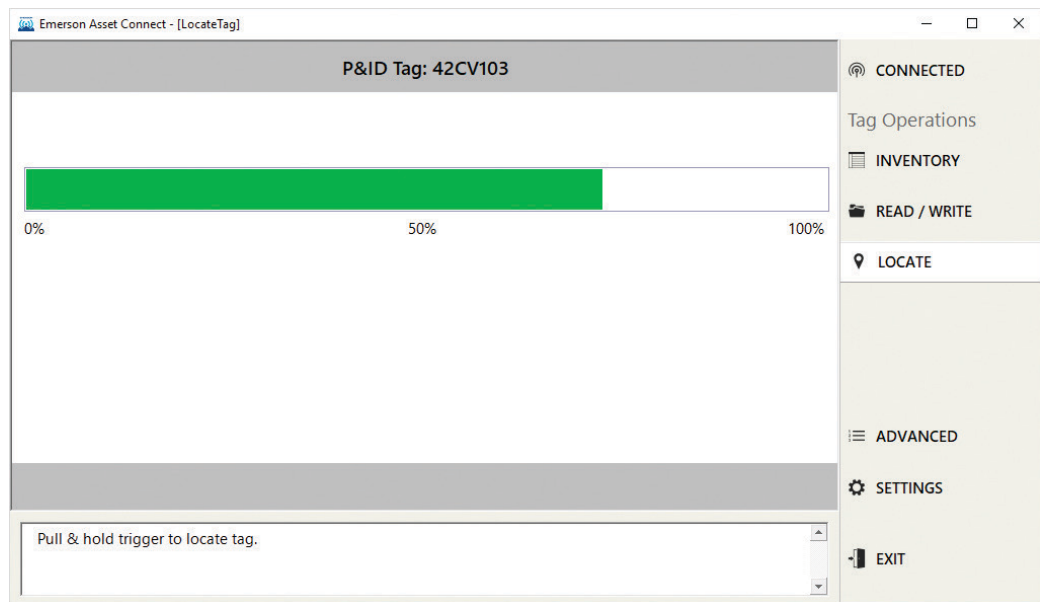
Figure 6-5. Write Operation Complete



After any Read or Write operation, the data can be saved by clicking on the Save Data button. This will store the data from the tag into an Export List, which is an exportable database within the Asset Connect Software. This can be accessed later for other purposes. Additionally, there is an option to Auto-Save Tag Data to Export List found within the Settings screen. When this is selected, tag data will be saved on every read operation.

Finally, there is a Locate Tag Operation that can be useful for identifying the proper asset. This can be accessed from the Inventory or Read/Write Tag Operations. Once Locate has been selected, Pull and Hold the trigger and re-position the reader until the bar graph increases. The greater the percentage of the bar graph, the closer the tag is to the reader. This can assist in differentiating nearby tags.

Figure 6-6. Locate Tag Operation



For information, contact your local Emerson sales office or visit Emerson.com/AssetTag

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