



ATID Co.,Ltd

# AT288N Reader Window Demo Guide

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Kyung-Jin Min  
2016-05-25



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From

ATID Co.,Ltd

Document

Writer

Kyung-Jin Min

Date

2016-05-25

Version

v0.1

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V0.1	2016-05-25	Draft		Kyung-Jin Min



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### 1. Objective of Document

This document is used for explaining use of AT288N demo program on Window Operation System for PC

## 2. Name & Functions of Each Parts



- Power Button:** Enable to turn either ON or OFF. When power is on, Tag type lamp, reading mode lamp, antenna power lamp and communication type lamp will be on.
- Tag Type / Sound On or Off:** Select the Tag Type Mode. In case of pressing button, Inventory will be changed to Multi Inventory/ Single Inventory/ Filter Inventory. Also, Beep sound can be turned on or off using this button.
- Communication Type Button:** Communicate with the Host device button. It supports

Bluetooth connectivity and USB connection

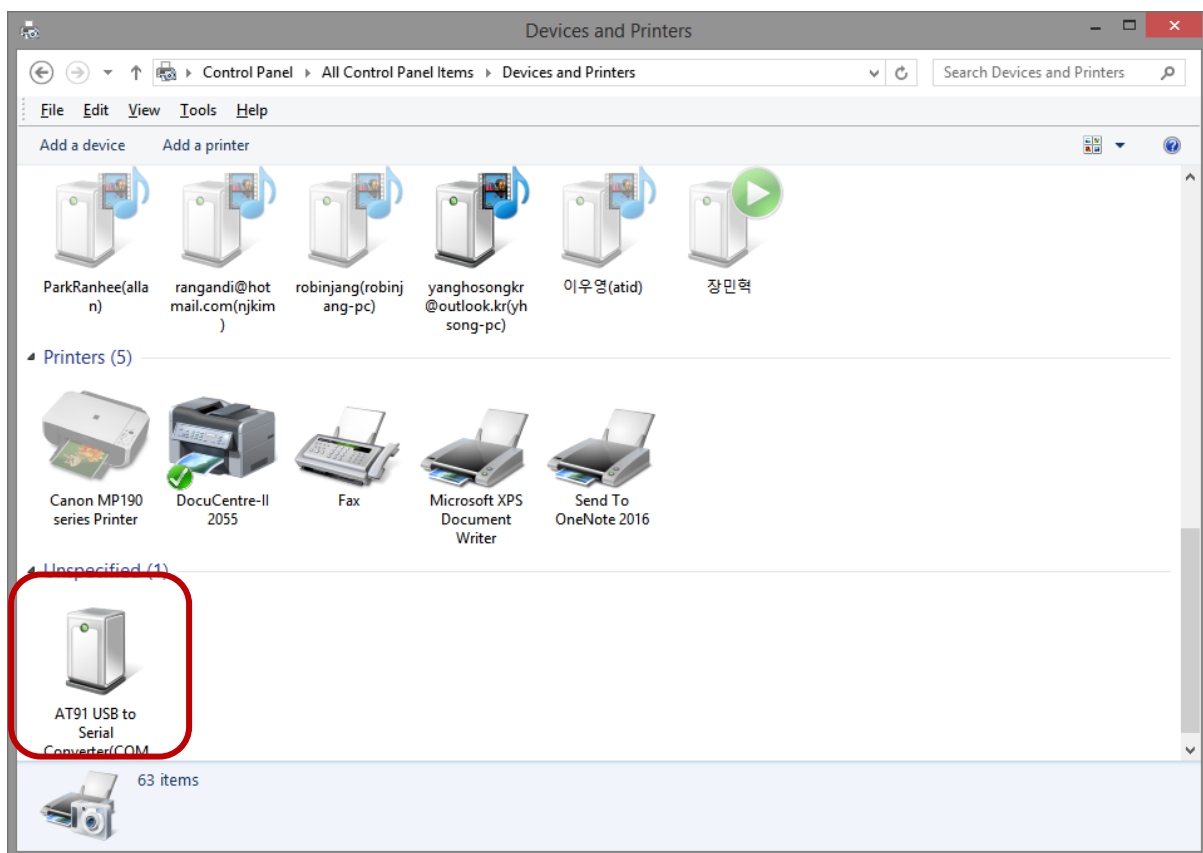
- iv. **Scan Button:** Scan the tag
- v. **Antenna Power Down / Bluetooth Stack Change:** Enables to decrease the UHF Antenna Power Level. Bluetooth Stack will be changed to SPP or HID (BLE will be supported soon) If user presses the button for a second
- vi. **Antenna Power Up:** Enables to increase the UHF Antenna Power Level.

## 3. Connection

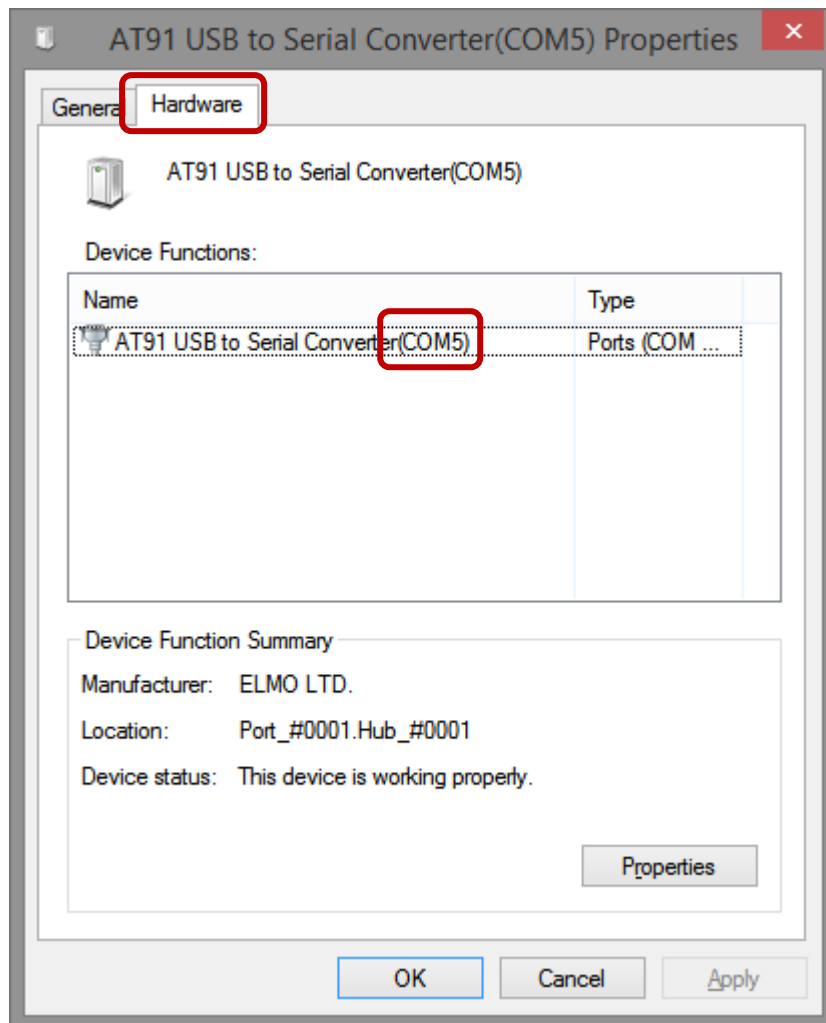
Before running the program, AT288 has to be connected with PC. There are two kinds of way to connect the device with PC. One is USB, another is Bluetooth

### 3.1. USB Connection

Change the communication type to USB. Then, connect the device with PC using USB cable.



In case that internet is connected, driver will be automatically installed.



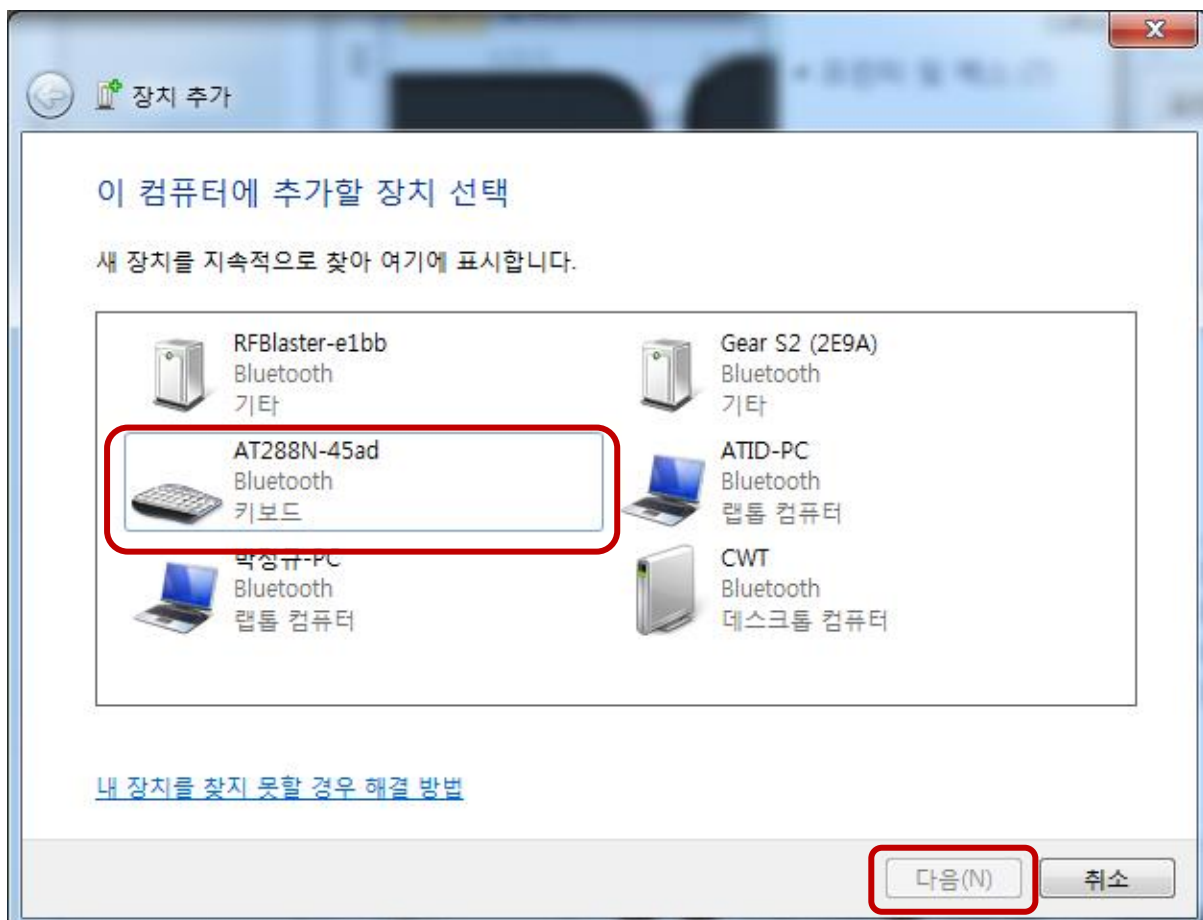
Press right button of mouse and select property menu from the pop up menu.  
Select Hardware tap and then, check serial port number of the installed USB driver.



## 3.2. Bluetooth Connection

Set Bluetooth mode and run Bluetooth Manager on PC. (Instructions to be used for Bluetooth manager are different each Bluetooth products brand, please follow each Bluetooth products

Run Bluetooth Searching



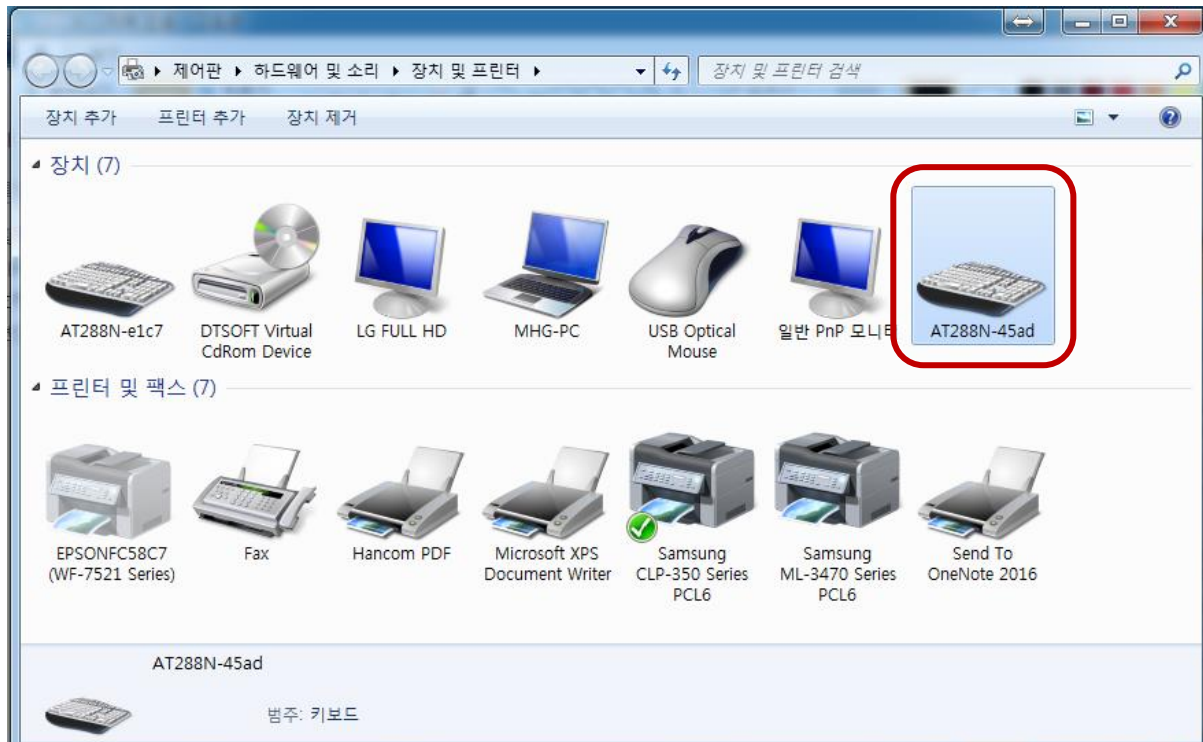
Select AT288N searched by Bluetooth. Then, click next button



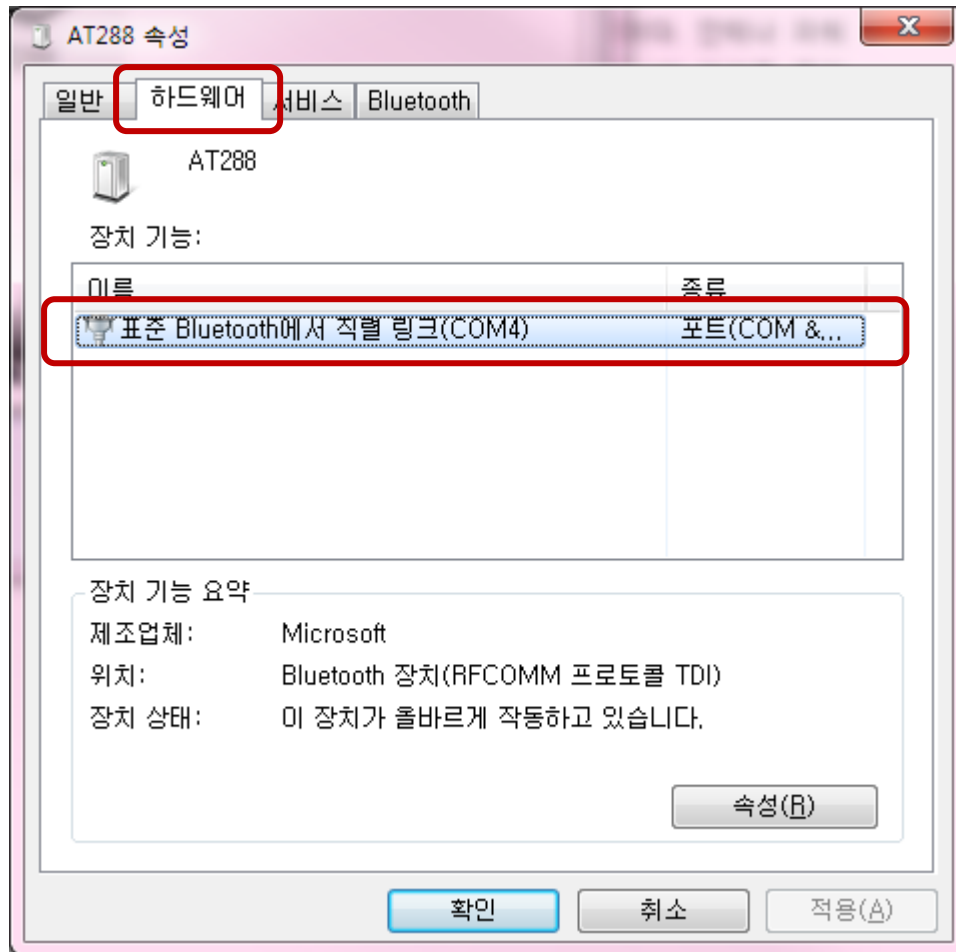
Select "YES" on the screen where the connection code of device is shown. Then, Press next button



After adding Bluetooth, click close button.



Click AT288N added into Bluetooth Manager using right button of mouse. Then, click priority on pop up menu



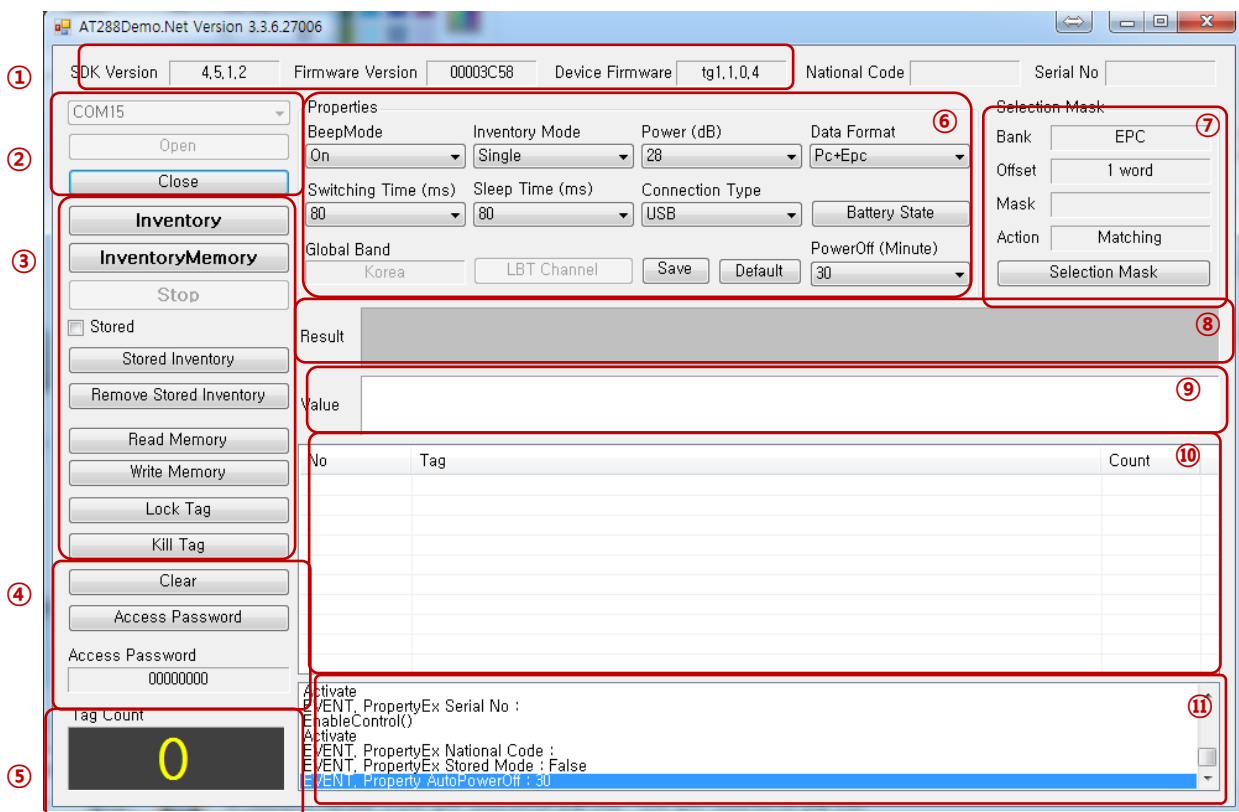
Check Serial Port number by selecting Hardware tap where it is located in priority. The name of Serial Port checked in this section will be used for connection with device in demo program

## 4. Operation

If AT288N SDK Library is exactly installed, AT288NDemo & AT288NDemo.Net icons will be shown on the either desktop or program files of the Start menu.

Demo program can be operated by clicking either AT288NDemo or AT288NDemo.Net. The only difference between those two programs is developed by either VC demo or C# demo

### 4.1. Screen



#### ① Version Information

- i. **SDK Version:** Output version of SDK Library connected
- ii. **Firmware Version:** Output Firmware Version of connected device
- iii. **Device Version:** Output Device Version of connected device

#### ② Connection Control

- i. **Port ComboBox:** Select Serial Port to be connected with device
- ii. **Open Button:** Try connecting with device

iii. **Close Button:** Terminate the connection

## ③ Action Control

i. **Inventory:** Run Inventory Action

ii. **InventoryMemory:** Output the memory, in case of Inventory

AT288N MA is not supported in InventoryMemory (f/w ver: ma.1.2.0.9B)

iii. **Stop:** Stop doing Action in progress such as Inventory, Read Memory, Write Memory, Log Tag, Kill Tag.

iv. **Stored Mode:** Activate or inactivate Stord Inventory Mode

v. **Stored Inventory:** Read Stored Tag List saved in AT288N Memory

vi. **Remove Stored Inventory:** Delete all of Stored Tag Lists saved in AT288N Memory

TagType 6B of AT288N MA is not supported in Read, Write, Lock and Kill  
(f/w ver: ma.1.2.0.9B)

vii. **Read Memory:** Try reading tag memory directly

viii. **Write Memory:** Try writing tag memory directly

ix. **Log Tag:** Try locking tag

x. **Kill Tag:** Try killing tag

AT288N MA is not supported in Kill Tag (f/w ver: ma.1.2.0.9B)

## ④ Access Password

i. **Clear:** Initialize the screen.

ii. **Access Password:** Output the arranged Access Password

## ⑤ Tag Count

Output the number of tag in Inventory list created by Inventory

## ⑥ Reader Properties

i. **Beep Mode:** Set Beep Mode. In case of ON status, beep sound will be working

ii. **Inventory Mode:** Set Inventory algorithm of AT288 Device. AT288N supports Multi mode, Single mode and Filter mode. But, AT288N MA is not supported in Filter Mode

iii. **Power:** Set Antenna Power Gain.

iv. **Data Format:** Set data shown in Inventory

v. **Switching Time:** Set the activating time for Antenna of AT288N

vi. **Sleep Time:** Set the idle time for Antenna of AT288N

vii. **Connection Type:** Set the connection type between AT288N and Host Controller. AT288N supports USB and Bluetooth communication

viii. **Global Band: Set** UHF frequency in accordance with country.

ix. **Power Off:** Set the time for device off when AT288N does not work

**Selection Mask** (TagType 6B of AT288N is not supported)

Output the Selection Mask details set in the current program

- i. **Bank:** Selection Mask Bank
- ii. **Offset:** Selection Mask Start Offset
- iii. **Mask:** Selection Mask Bit
- iv. **Action:** Selection Mask Action
- v. **Selection Mask:** Set Selection Mask details

## ⑦ Result Message

Output the result after working Read Memory, Write Memory, Lock Tag, Kill Tag

## ⑧ Read Value

Output the tag memory value read by Read Memory

## ⑨ Inventory List

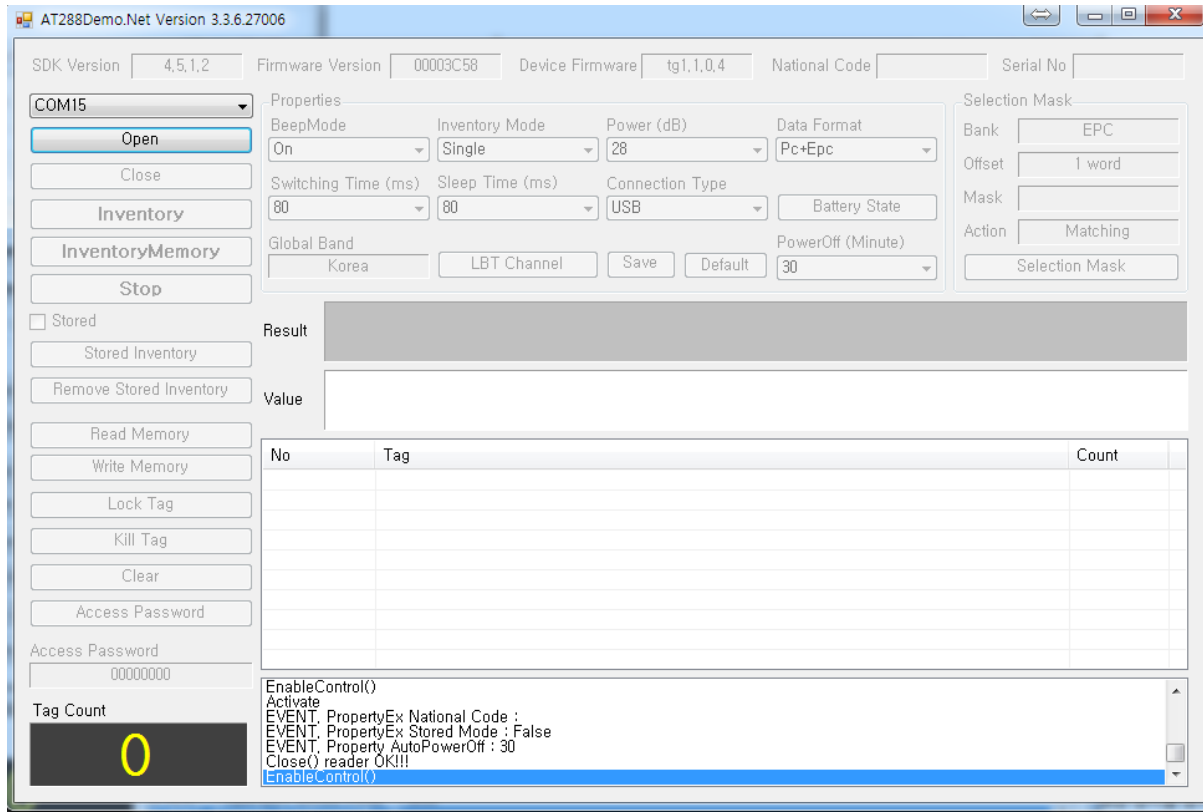
Output the value of read tag by Inventory. The duplicated tag can be only counted

## ⑩ Message List

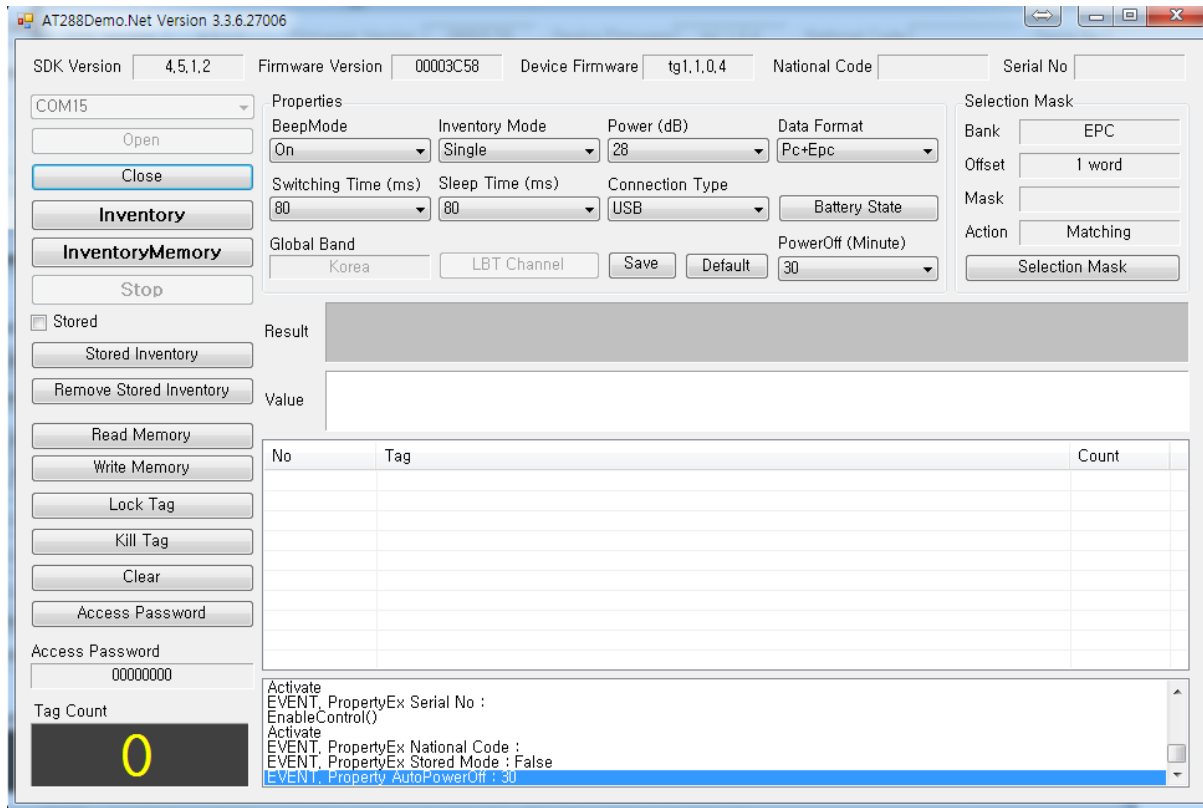
Output the result of communication with AT288N and debugging information



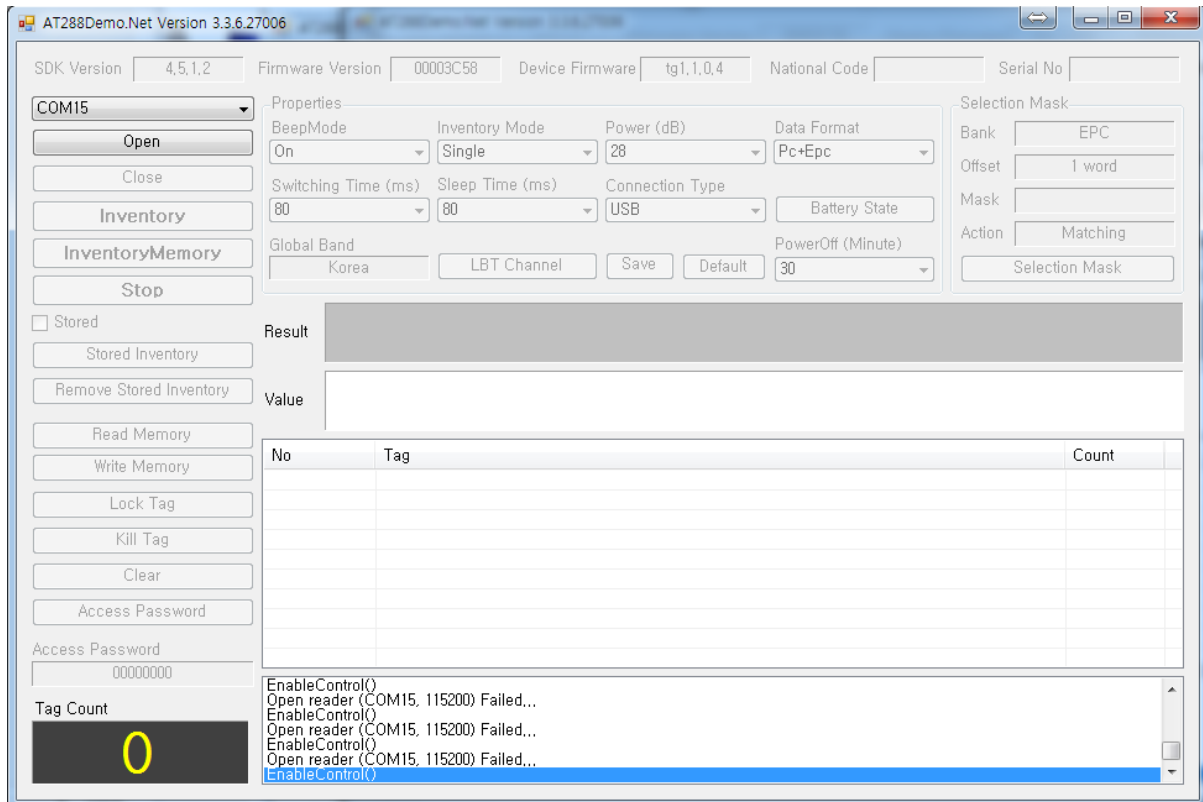
## 4.2. Device Connection



Input the proper Serial Port and then, click open button

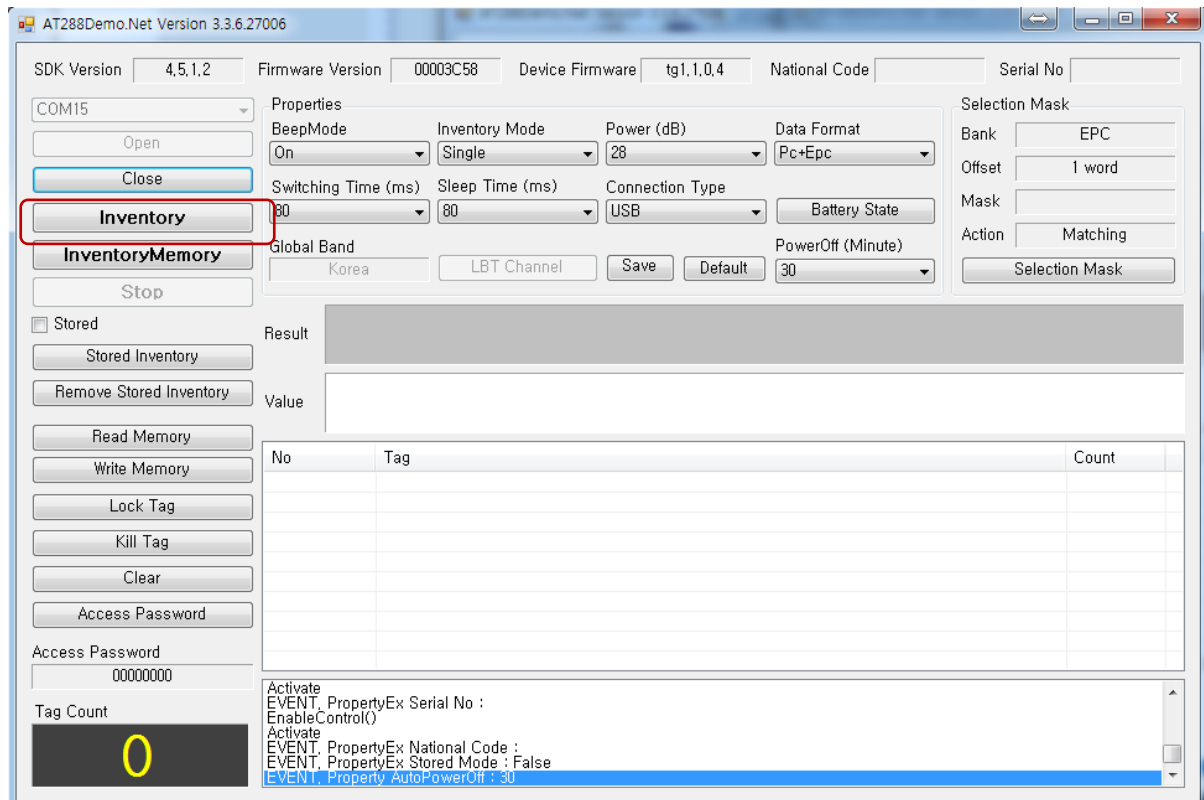


In case of success in connection, the demo will be shown as above.



On the other hand, error code and connection fail message will be shown on the message list box

## 4.3. Inventory



If user wants to do inventory for Tag EPC information, please select "Inventory" button. Then, place the device close to tag and read tag.

AT288Demo.Net Version 3.3.6.27006

SDK Version: 4.5.1.2    Firmware Version: 00003C58    Device Firmware: tg1, 1, 0, 4    National Code:    Serial No:

COM15    Properties: BeepMode: On    Inventory Mode: Multiple    Power (dB): 28    Data Format: Pc+Epc

Switching Time (ms): 80    Sleep Time (ms): 80    Connection Type: USB    Battery State:    Selection Mask: Bank: EPC    Offset: 1 word    Mask:    Action: Matching

Global Band: Korea    LBT Channel:    Save    Default    PowerOff (Minute): 30

☐ Stored    Result:    Value:

Open    Close    Inventory    InventoryMemory    Stop

Read Memory    Write Memory    Lock Tag    Kill Tag    Clear    Access Password

Access Password: 00000000

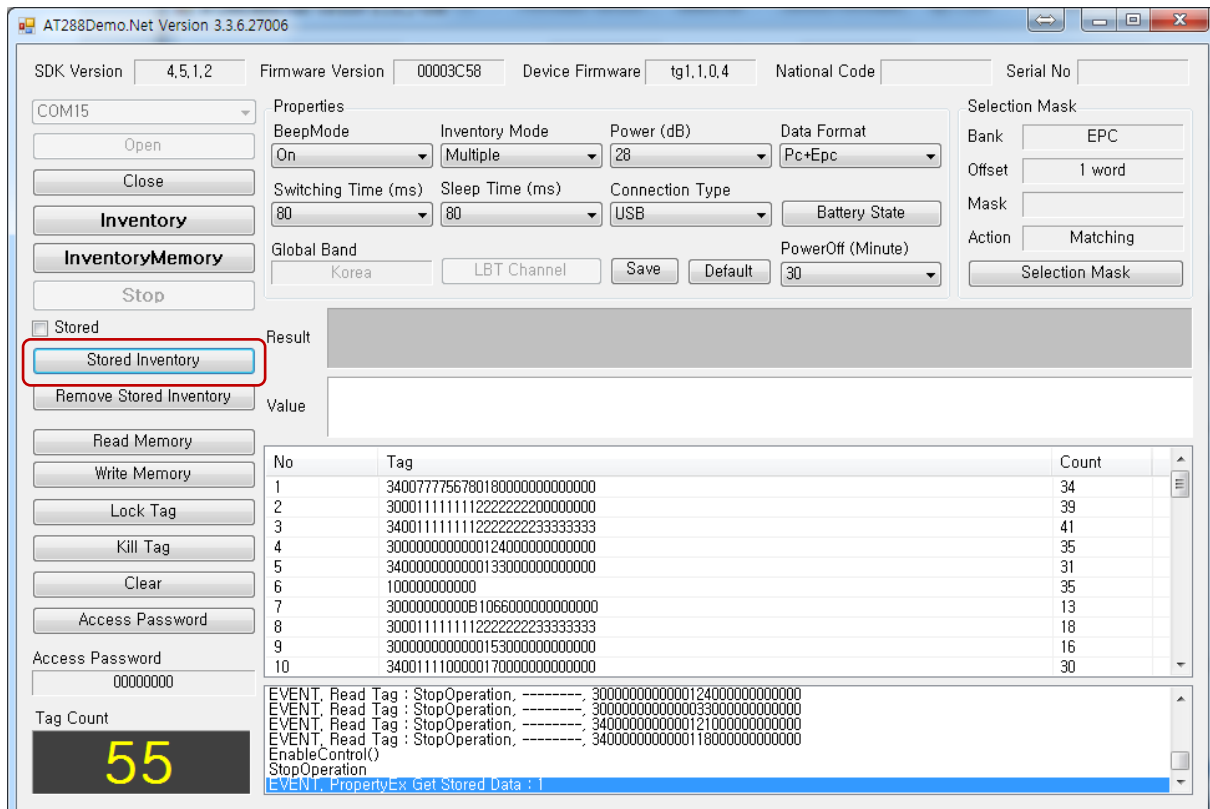
Tag Count: **4**

No	Tag	Count
1	3400777567801800000000000000	1
2	3400111122223333444400000000	20
3	3400000000000161000000000000	19
4	3400111111112222222233333333	19

EVENT, Read Tag : Inventory6CMultiple, 3400000000000161000000000000  
 EVENT, Read Tag : Inventory6CMultiple, 3400111122223333444400000000  
 EVENT, Read Tag : Inventory6CMultiple, 34001111112222222233333333  
 EVENT, Read Tag : Inventory6CMultiple, 34001111112222222233333333  
 EVENT, Read Tag : Inventory6CMultiple, 34007775678018000000000000  
 EVENT, Read Tag : Inventory6CMultiple, 3400111122223333444400000000  
 EVENT, Read Tag : Inventory6CMultiple, 3400000000000161000000000000

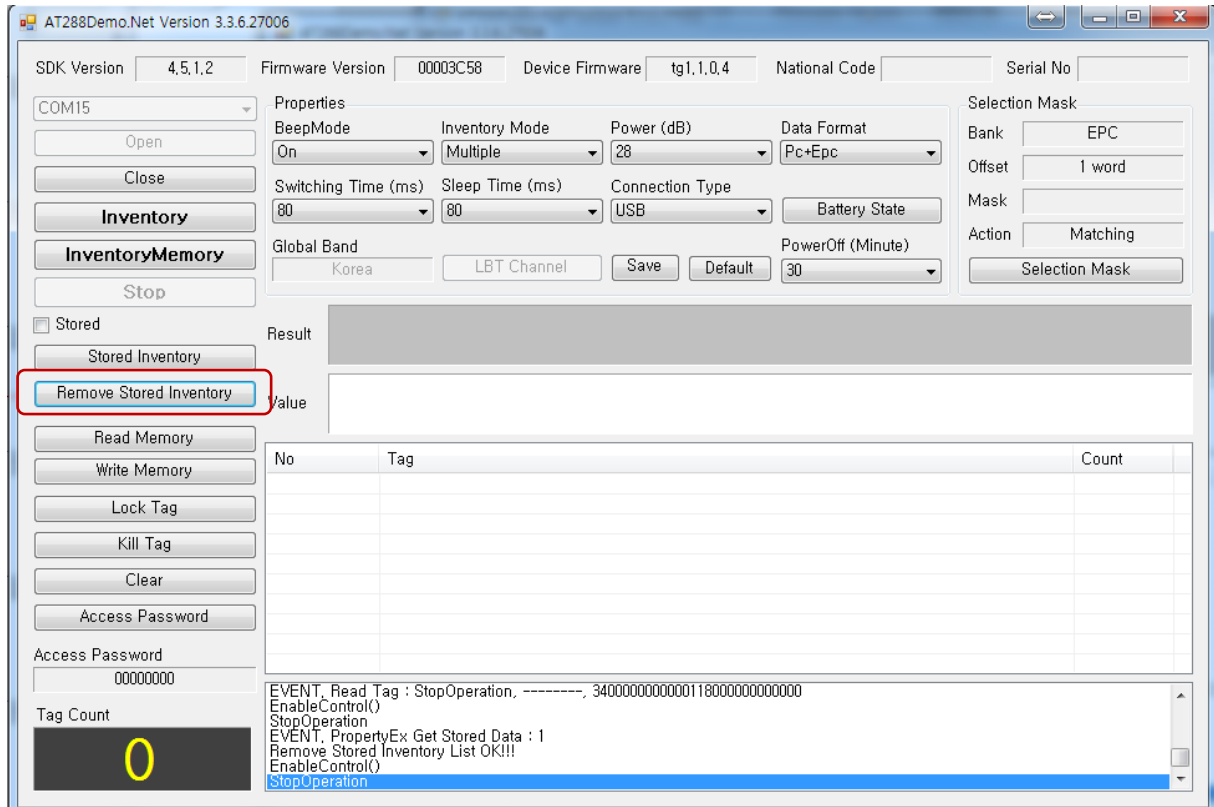
If tag is read, the tag will be outputted. The duplicated tag can be only counted.

## 4.4. Stored Inventory



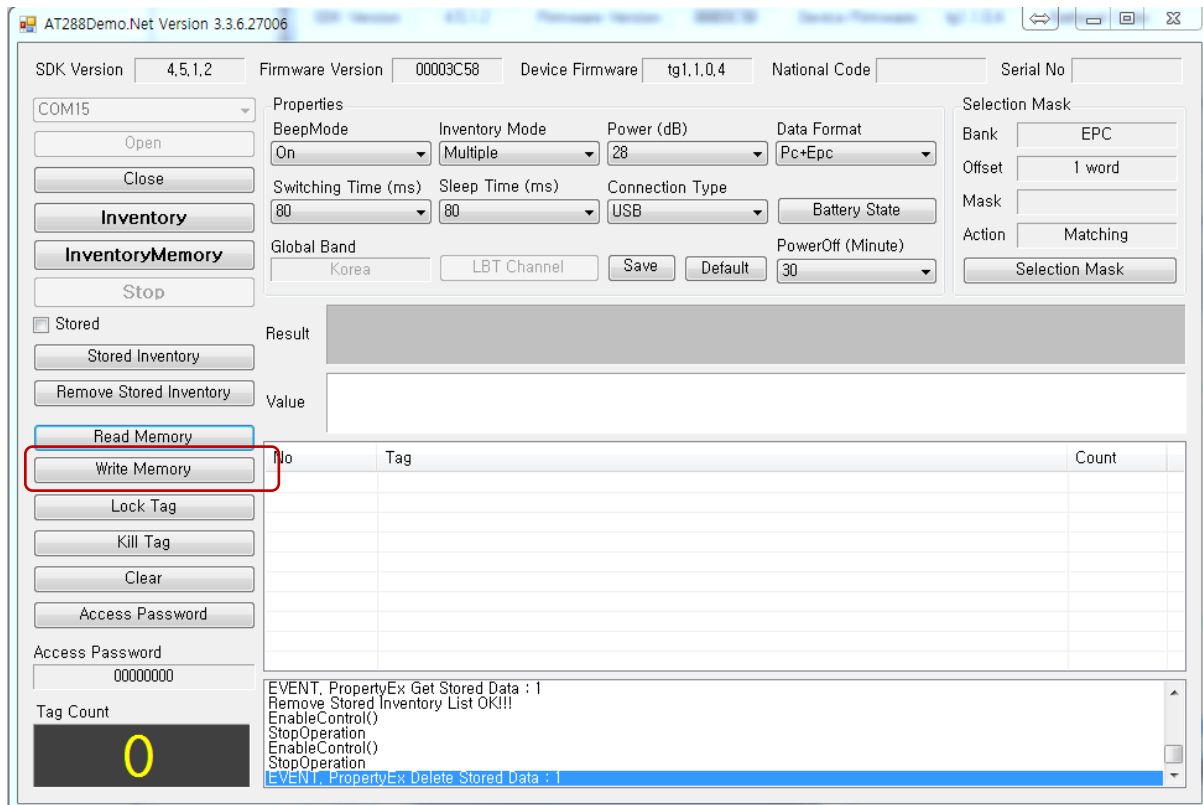
If user implements inventory function in state of stored mode, the read tag list will be saving in the Memory of AT288N. If "Stored Inventory" button is selected, it can be possible to read tag list in AT288N device memory

## 4.5. Remove Stored Inventory

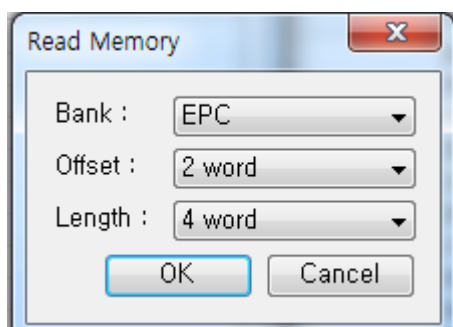


If user wants to delete Tag list saved in AT288N Device Memory, please press "Remove Stored Inventory" button for deleting all of tag lists in AT288N Device Memory.

## 4.6. Read Memory



Click "Read Memory" button



If Read Memory box is shown as above, please select the preferred ones. Then, click Ok button

But, TagType 6B of AT288N MA is not supported (f/w ver: ma.1.2.0.9B)



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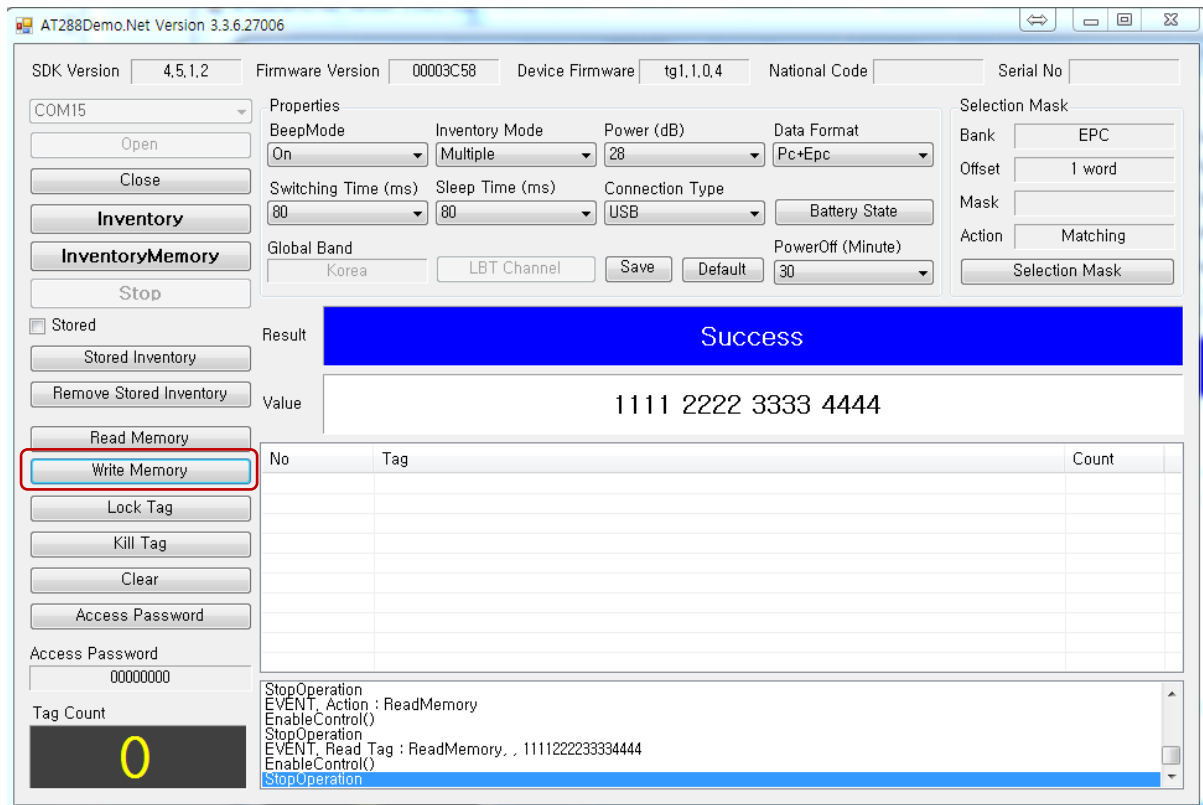
Version

v0.1

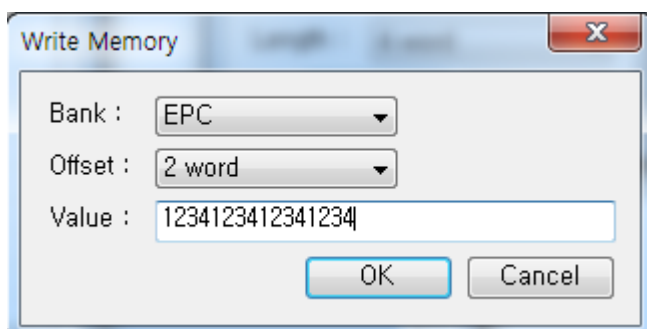
[illegible]

In case of success to read tag memory, result message will be releasing and the read tag memory will be releasing in the value.

## 4.7. Write Memory



Click "Write Memory" button



Select tag memory Bank type, write offset and input write value data as HEX form from popped up window, and then Click "OK" button to start to writing memory.

But, TagType 6B of AT288N MA is not supported (f/w ver: ma.1.2.0.9B)

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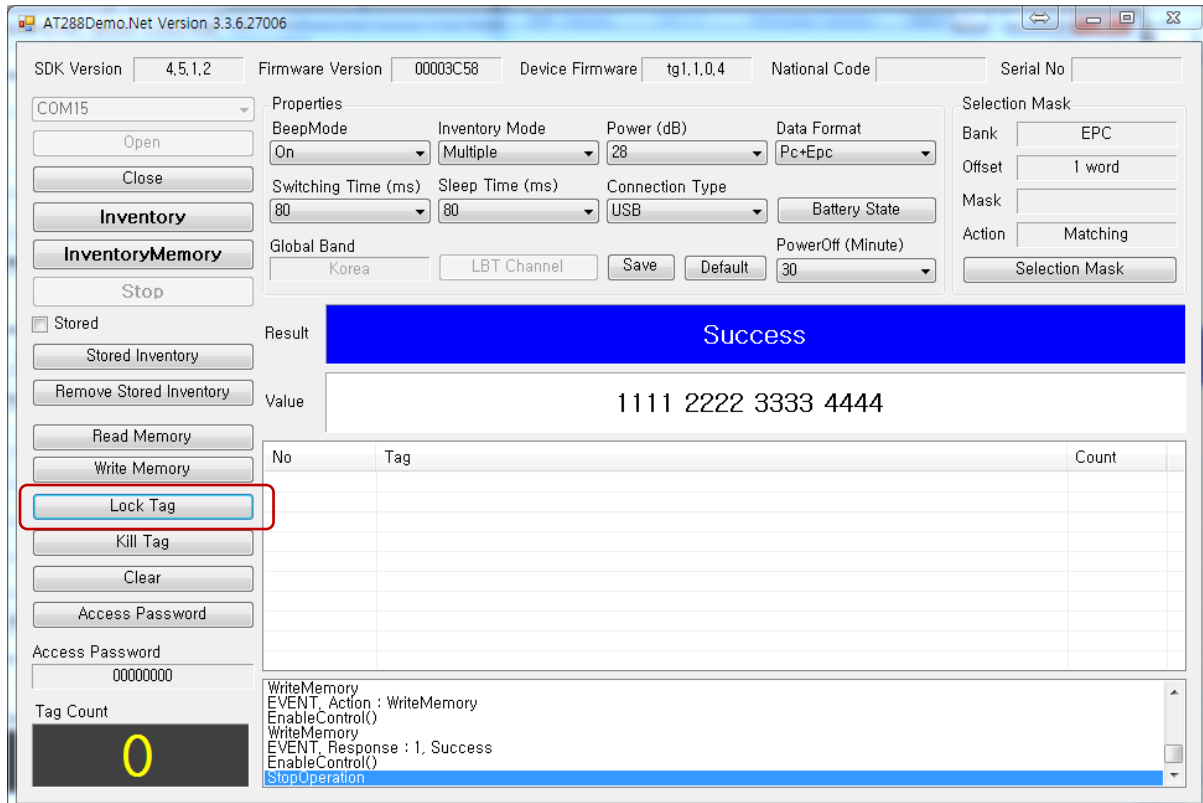
v0.1

The screenshot displays the AT288Demo.Net application window. At the top, it shows the title bar "AT288Demo.Net Version 3.3.6.27006". The main interface is divided into several sections:

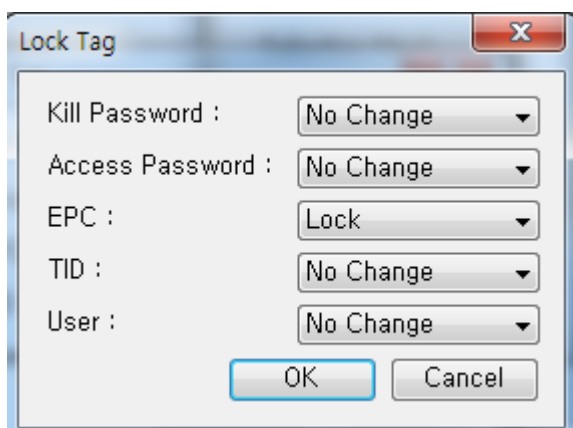
- Header Section:** Contains fields for SDK Version (4.5.1.2), Firmware Version (00003C58), Device Firmware (tg1,1,0,4), National Code, and Serial No.
- Properties Section:** Includes BeepMode (On), Inventory Mode (Multiple), Power (dB) (28), Data Format (Pc+Epc), Switching Time (ms) (80), Sleep Time (ms) (80), Connection Type (USB), Battery State, Global Band (Korea), LBT Channel, Save, Default, and PowerOff (Minute) (30).
- Selection Mask Section:** Includes Bank (EPC), Offset (1 word), Mask, Action (Matching), and Selection Mask.
- Action Buttons:** A vertical column of buttons on the left includes Open, Close, Inventory, InventoryMemory, Stop, Stored, Stored Inventory, Remove Stored Inventory, Read Memory, Write Memory, Lock Tag, Kill Tag, Clear, Access Password, Access Password (00000000), Tag Count, and a large yellow "0" button.
- Result Section:** A blue banner displays "Success".
- Value Section:** Displays the value "1111 2222 3333 4444".
- Table:** A table with columns "No", "Tag", and "Count". It contains one row with values "1", "1111 2222 3333 4444", and "1" respectively.
- Status Bar:** Shows the command history: "WriteMemory", "EVENT.Action : WriteMemory", "EnableControl()", "WriteMemory", "EVENT.Response : 1. Success", "EnableControl()", and "StopOperation".

If write memory is done properly, "Success" message will be shown on result box.

## 4.8. Lock Tag

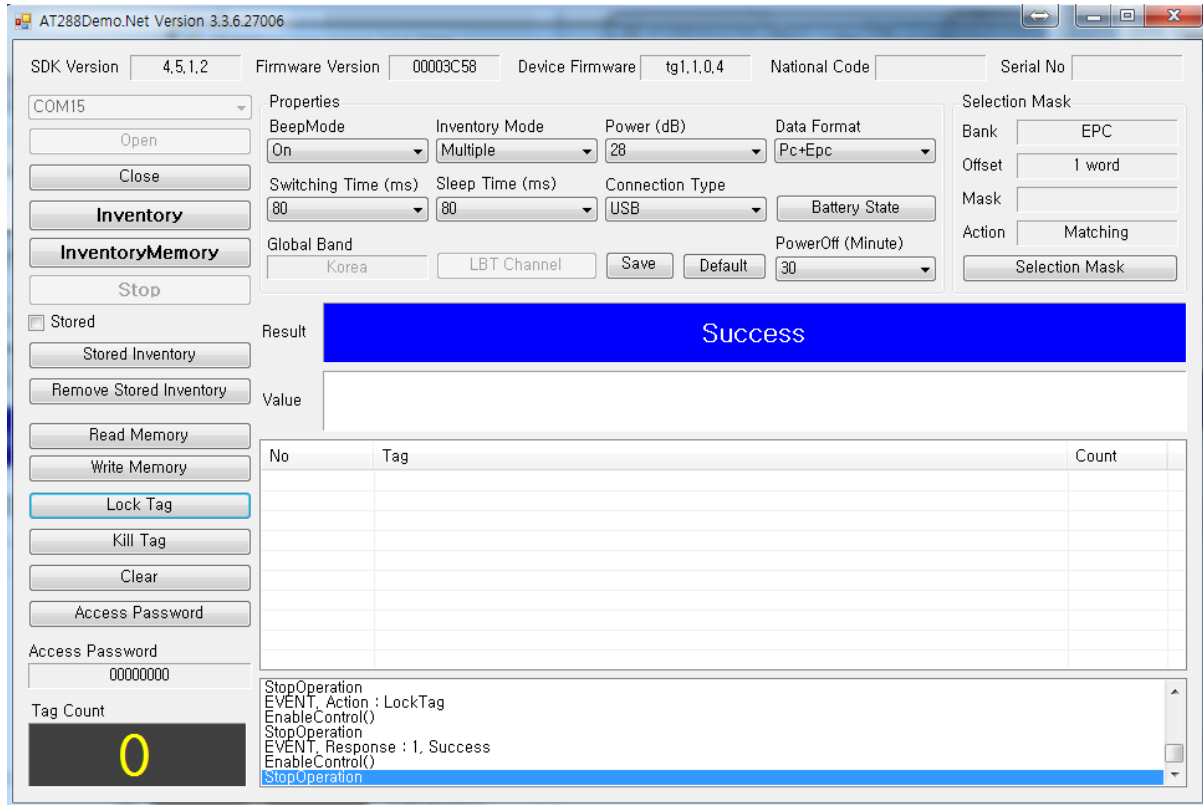


Click "Lock Tag" button to lock tag.



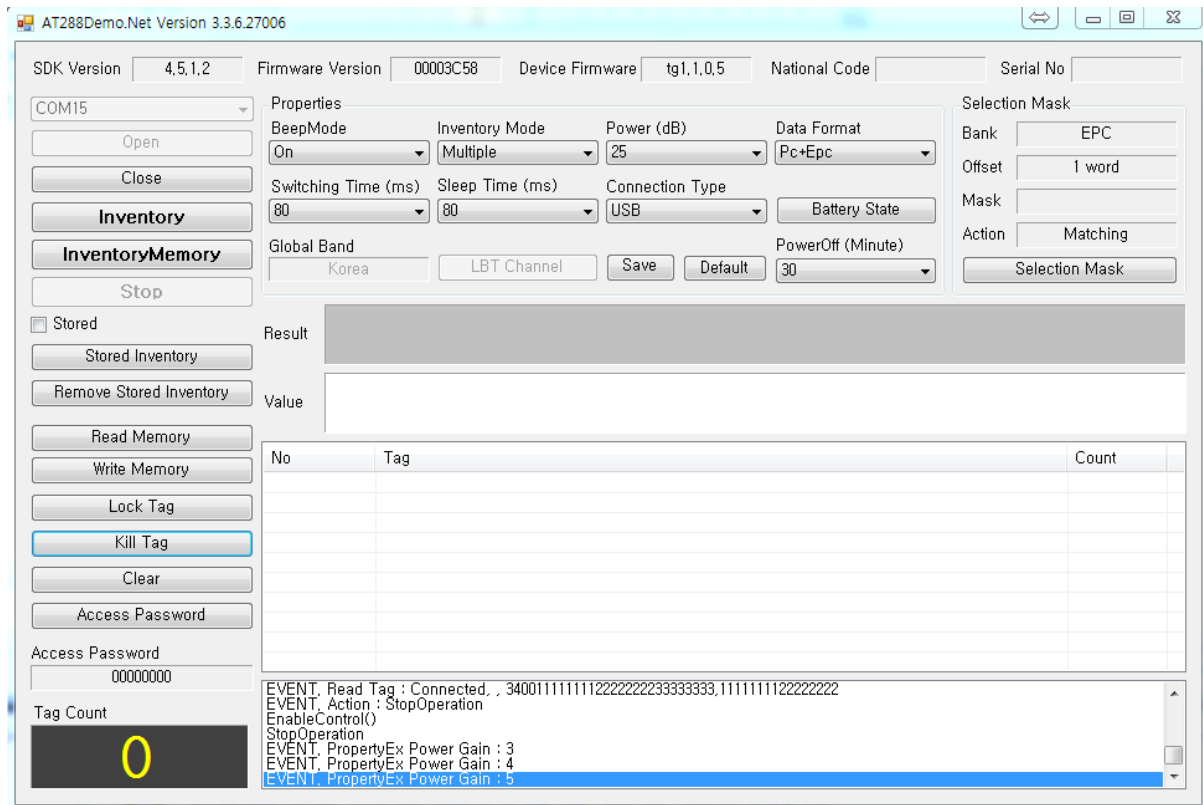
Set the authorization for memory bank where the lock function is needed. Put No change into the settings to memory bank where the lock function does not need. Then, press Okay button

But, TagType 6B of AT288N MA is not supported (f/w ver: ma.1.2.0.9B)

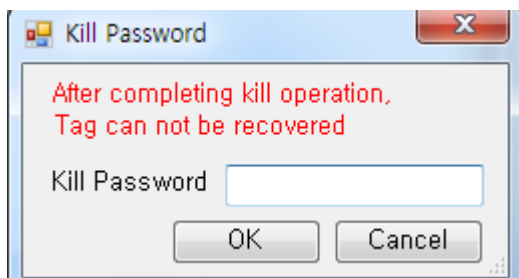


In case of success to lock the tag, the screen will be shown as above.

## 4.9. Kill Tag



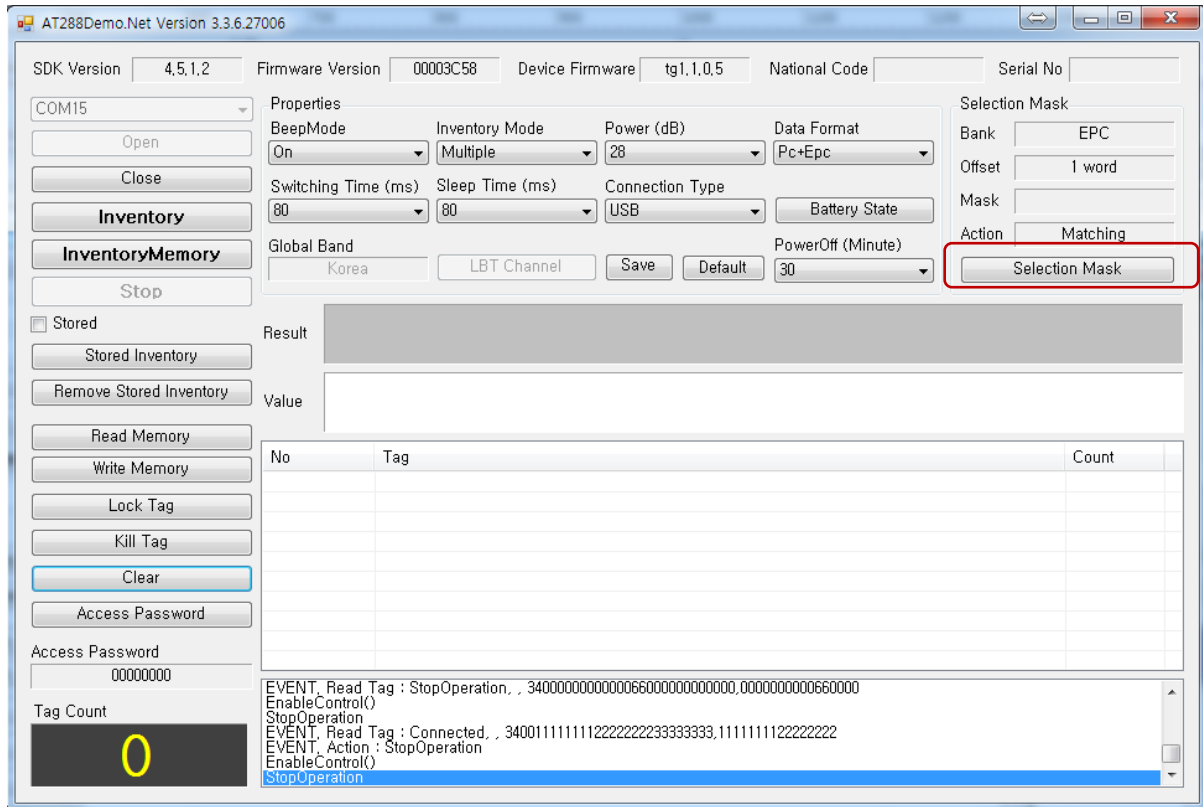
Kill the tag using Kill Tag button. Please note that tag can be unavailable once killed it.



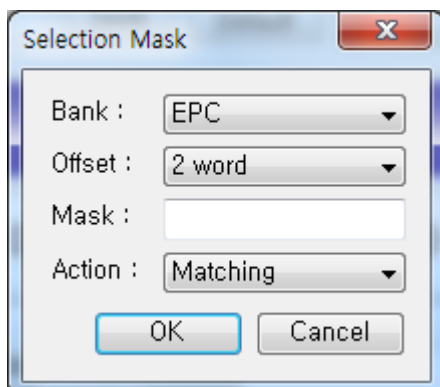
Input Kill password and then, press OK button

But, AT288N MA is not supported (f/w ver: ma.1.2.0.9B)

## 4.10. Selection Mask

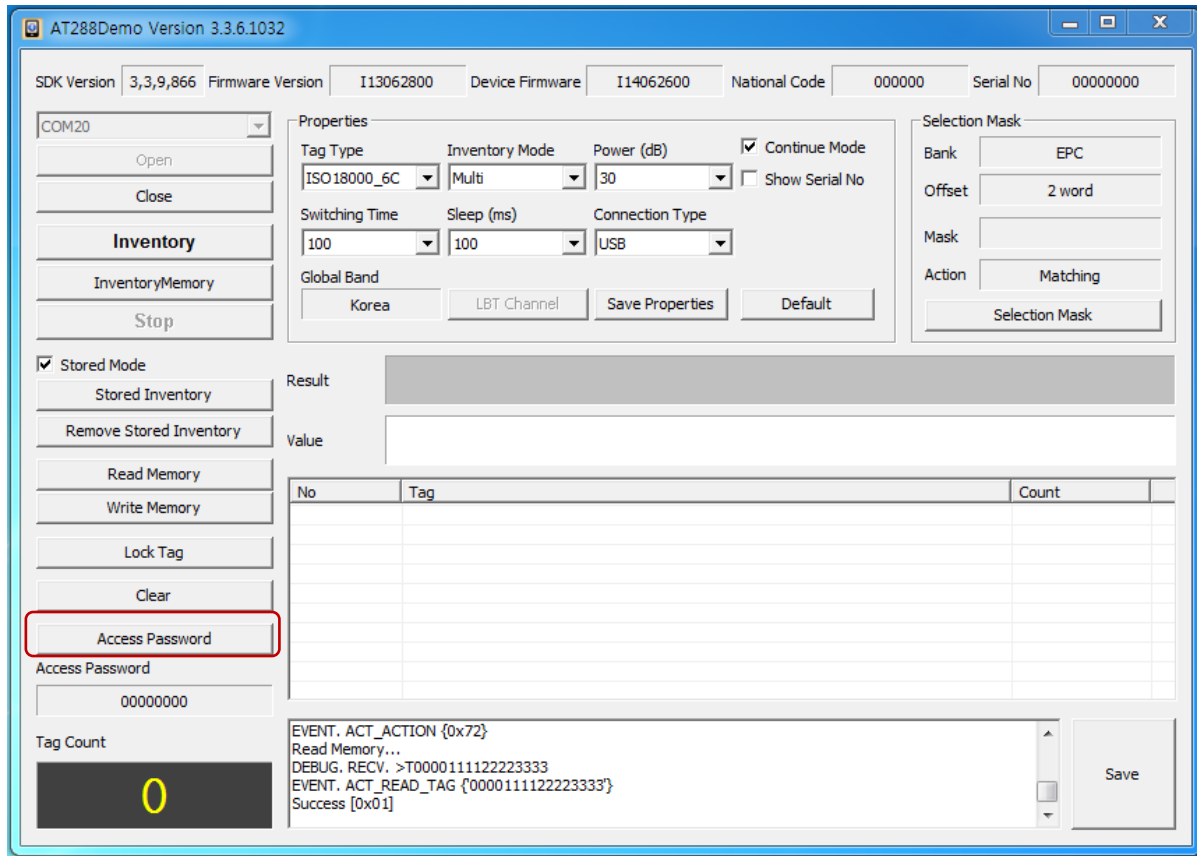


If user wants to run selection mask in Inventory, Read Memory, Write Memory, Lock Tag, Kill Tag, please press "Selection Mask" button

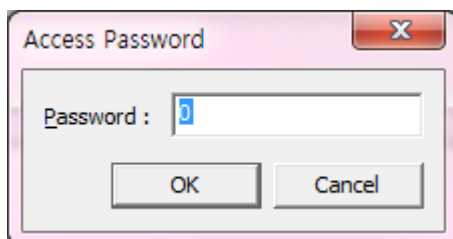


Set selection masking and then, press OK button. The adjusted information will be shown on the right of screen But, TagType 6B of AT288N MA is not supported (f/w ver: ma.1.2.0.9B)

## 4.11. Access Password



If user wants to set Access Password to access the locked tag, please press "Access Password"



Input Access Password. Then, press OK button.

The Access Password will be outputted under the right side of screen