CS203 Callback based API Demo Application Program
Quick Start Guide v0.4

21 July 2009

I. Introduction

This document will describe the details about the CS203 demo application program (CS203_Callback-API_DemoApp) that is based on the Callback-Based API set. Software developers can refer to this demo program for programming CS203 based on this new set of API.

II. Program Structure

The demo application program consists of several different single functions:

CS203 GPIO	Demonstrate the GPIO and IP setting function of the reader
CS203 Start Stop Debug	Demonstrate start stop reader function
CS203 CALLBACK API DEMO	Demonstrate basic operation of the reader. E.g., inventory, read and write etc...
CSLibrary	All necessarily library files will put to this folder
Document	User Documents

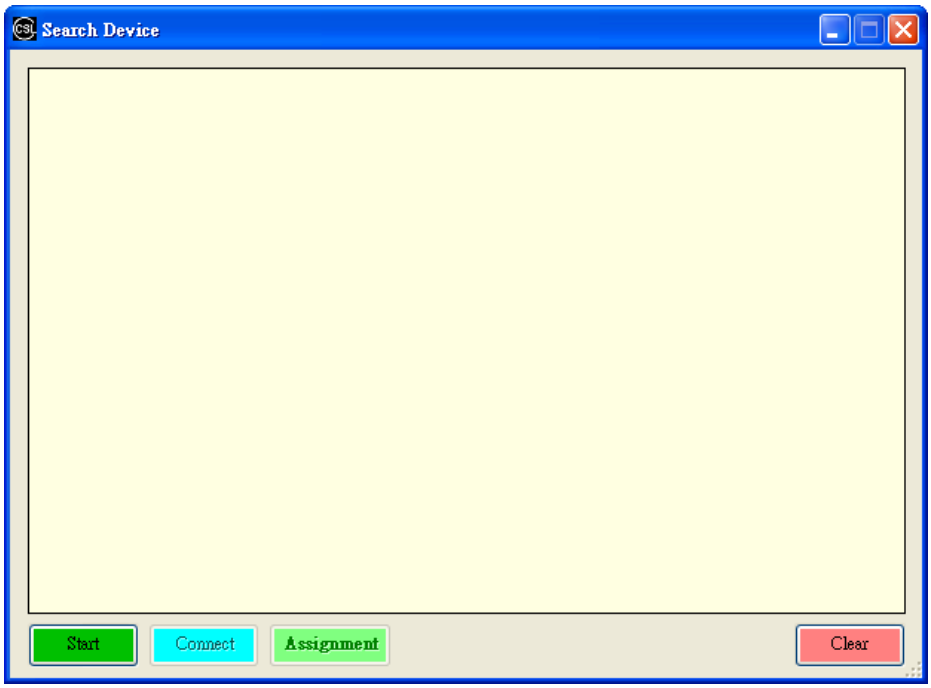
III. Build Project Requirement

To build demo application successfully, you need to install Microsoft Visual Studio 2005 (with Visual C# component and SP1 patch) or above. For more detailed information, please go to Microsoft webpage (http://msdn.microsoft.com/en-us/vstudio/default.aspx).

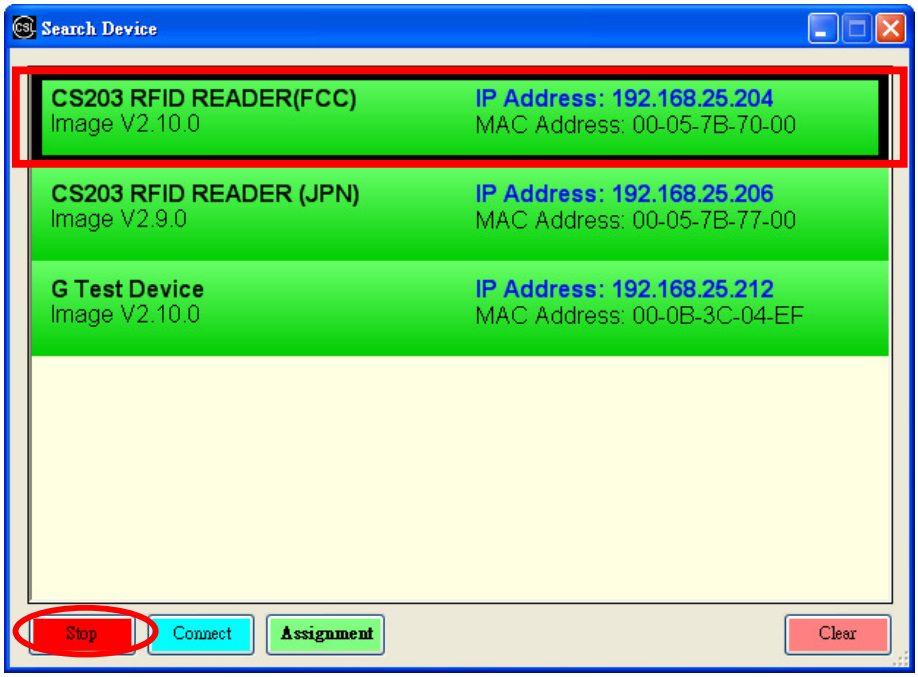
Visual Studio 2005 SP1 - http://www.microsoft.com/downloads/details.aspx?familyid=bb4a75ab-e2d4-4c96-b39d-37baf6b5b1dc&displaylang=en

IV. CS203 CALLBACK API DEMO Demo Program Operations

A. Netfinder



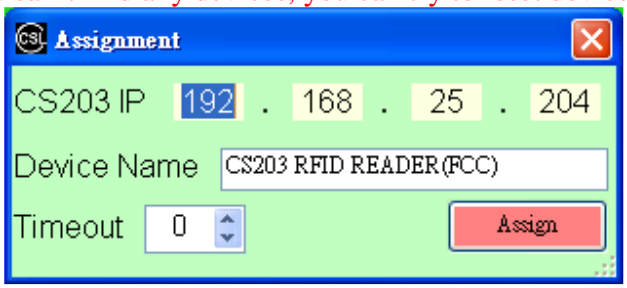
For the latest demo application, you can choose specific device to connect.



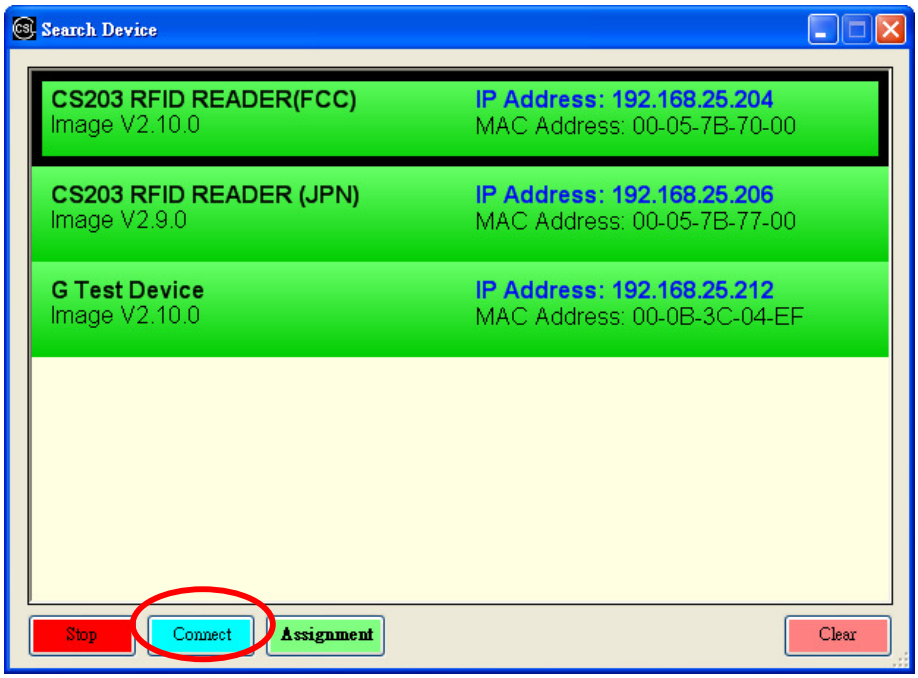
Click “Start” button to search device in the same network.

If you found a device, you can change target device IP address or Device Name and tcp timeout.

If you can't find any devices, you can try to reset device first.



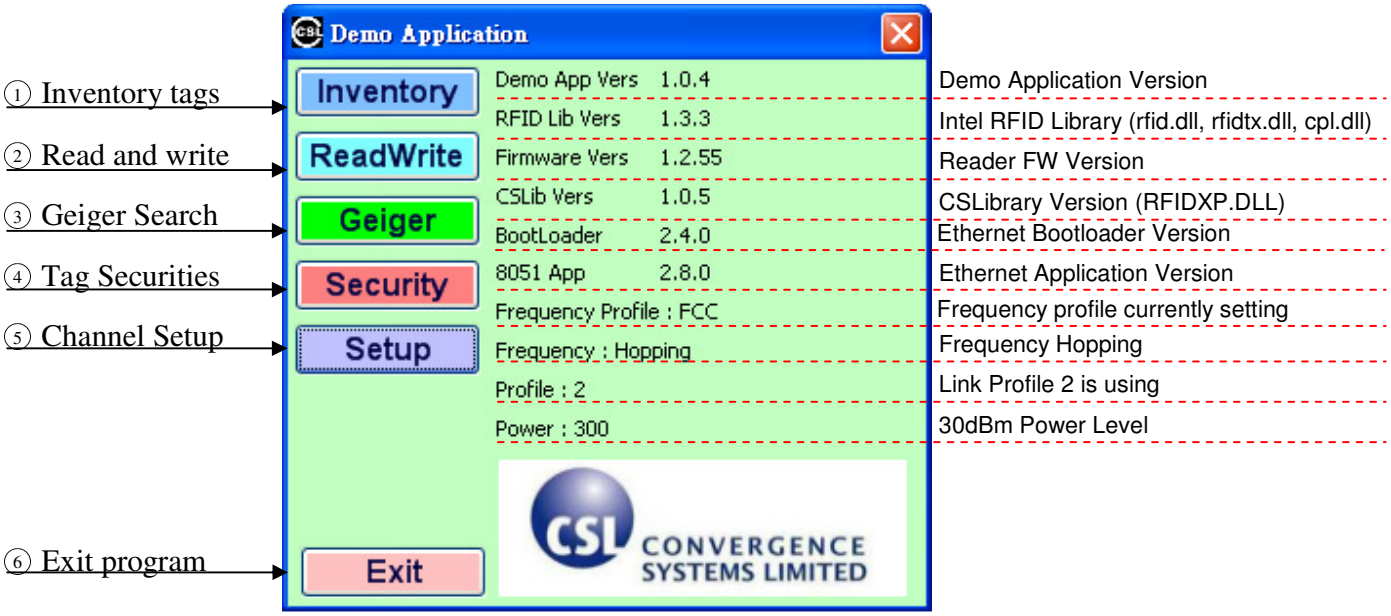
Change the IP address as you want and set TCP timeout to be zero at this moment.



Choose a device and click "Connect" button.

B. Main Menu

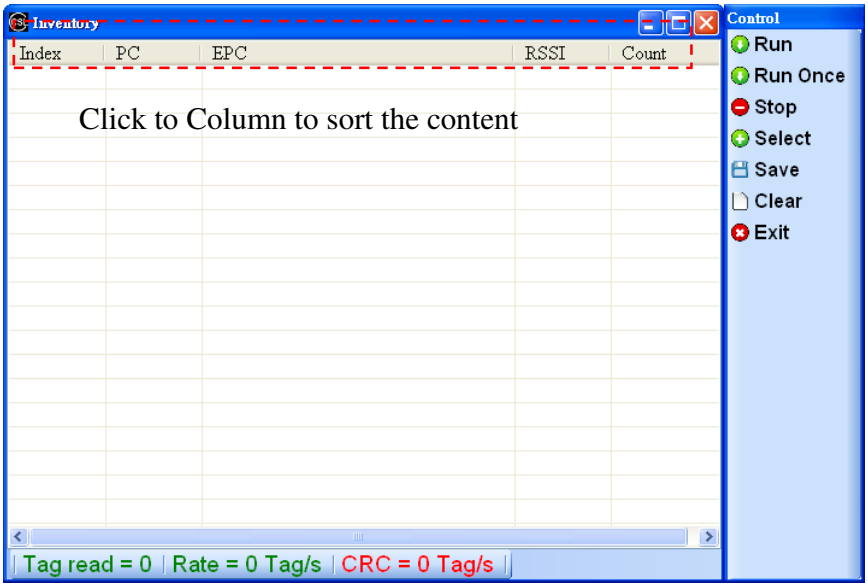
In main menu of the CS203 CALLBACK API DEMO program, the configuration information of the reader is shown and you can select the various functions.

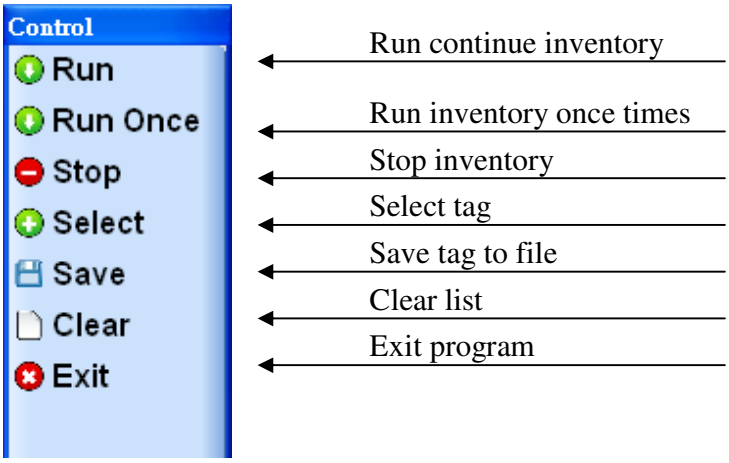


C. Inventory

This page demonstrates the tag inventory functions for reading tags continuously with the RSSI value and read count.

Click the “Run” button to start reading tags.

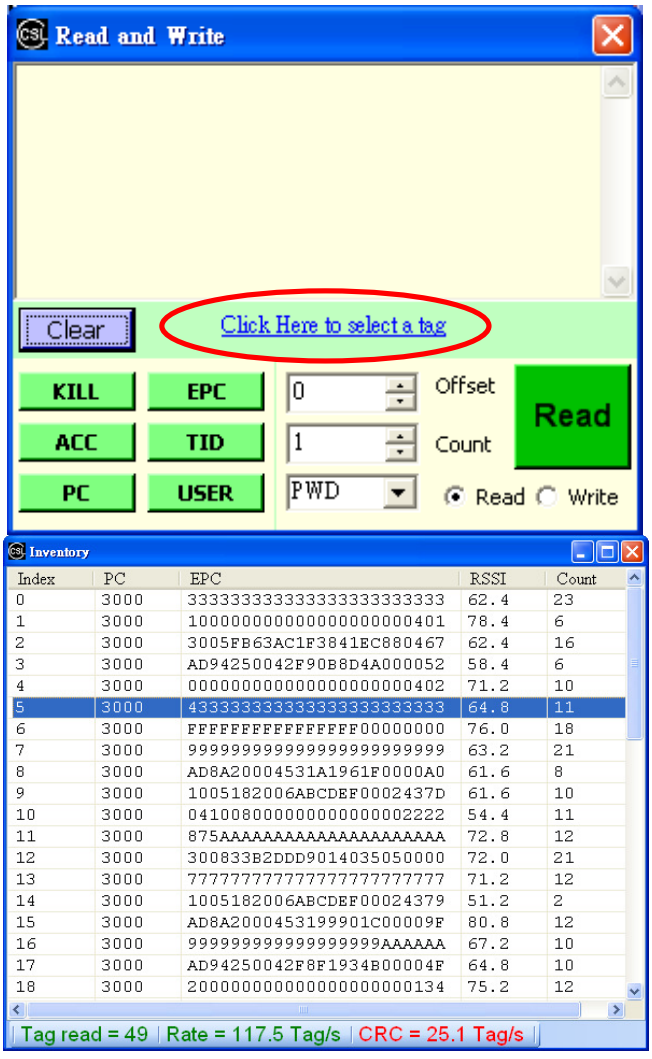




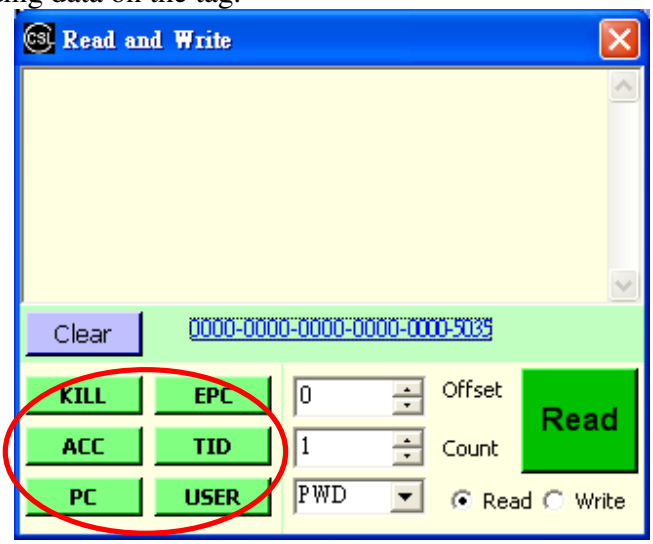
D. Read/Write

This page demonstrates the function of reading and writing different memory banks of a selected tag.

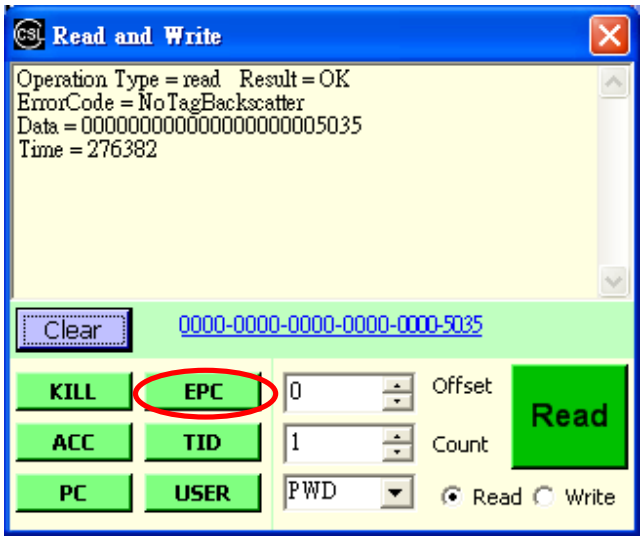
Click on the “Click Here to select a tag” to scan for and select the tag you want to access.



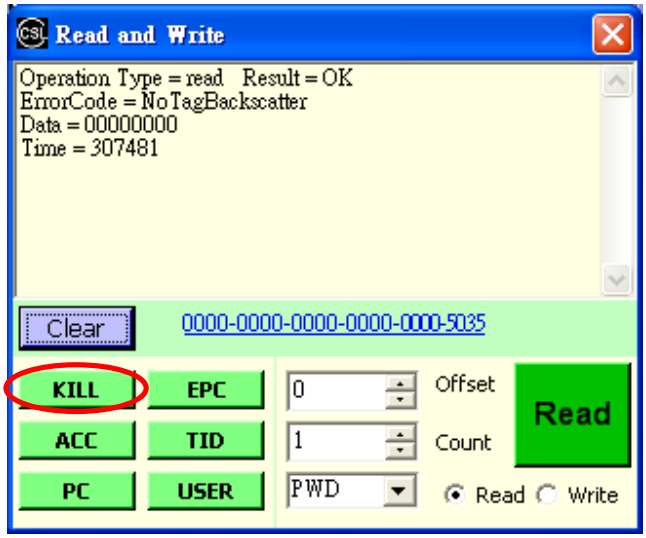
After the tag is selected, you can click on the left hand side buttons to read the corresponding data on the tag.



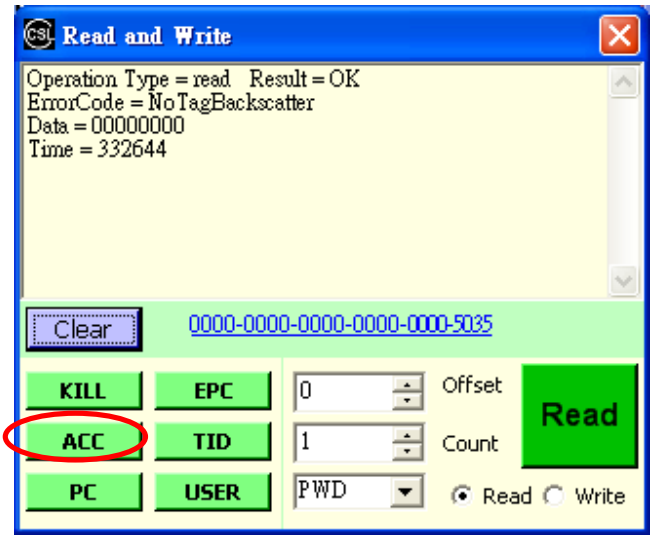
Read EPC: click on the "EPC" button to read the EPC ID



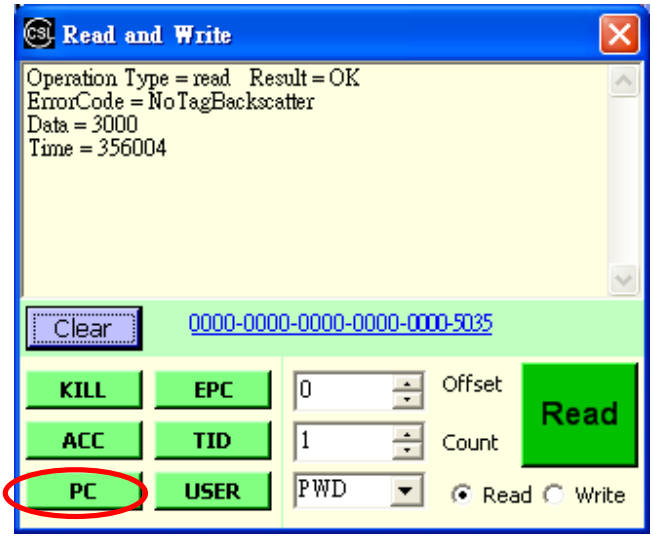
Read Kill Password: click on the "Kill" button to read the kill password



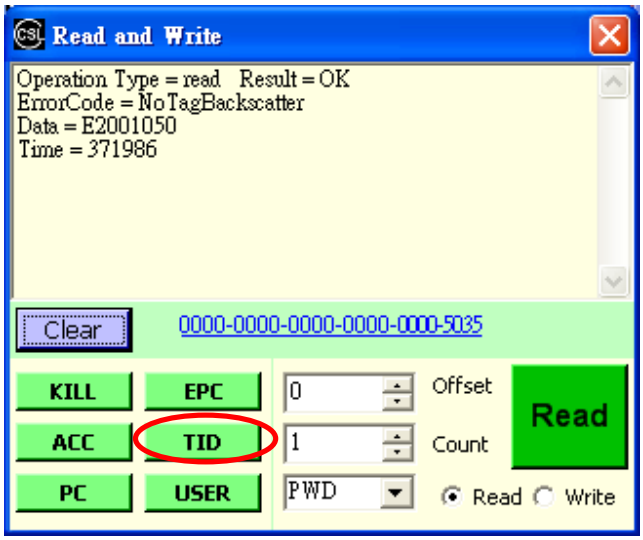
Read Access Password: click on the "ACC" button to read the access password.



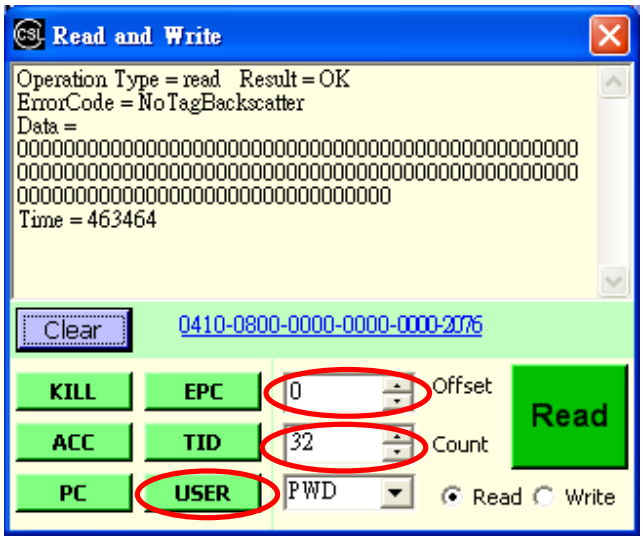
Read Protocol Control (PC): click on the "PC" button to read the PC value.



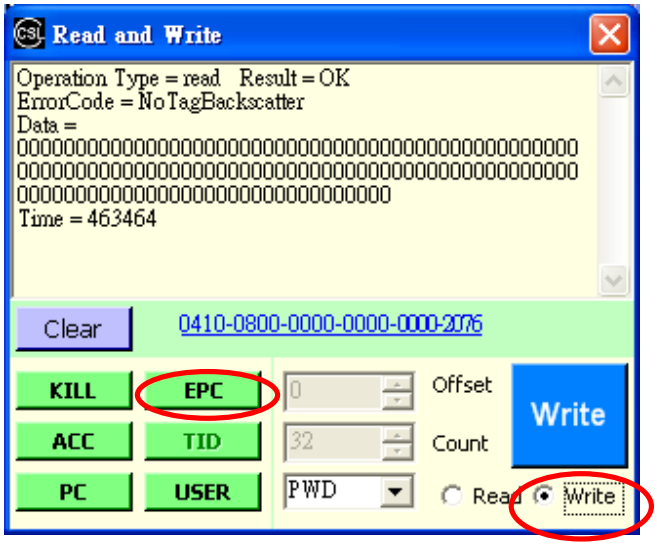
Read TID Value: click on the "TID" button to read the TID value.

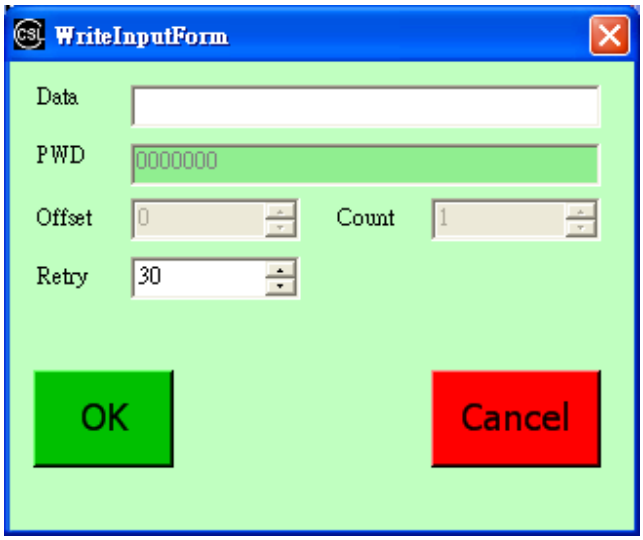


Read User Memory: Set the offset word and length of words you want to read for the user memory bank and click “USER” button to read it.

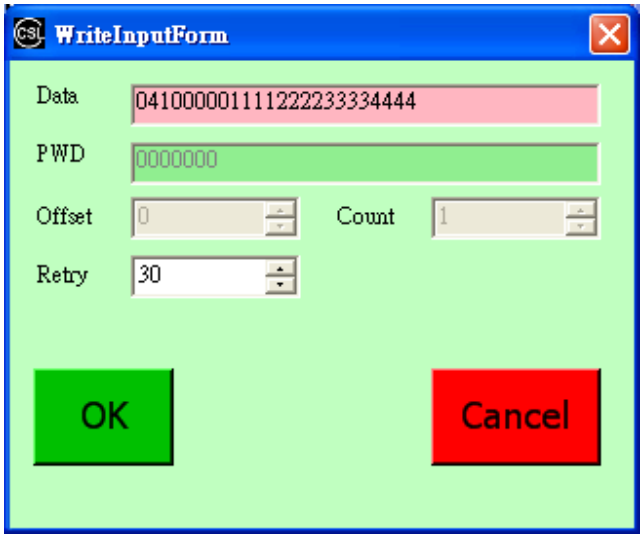


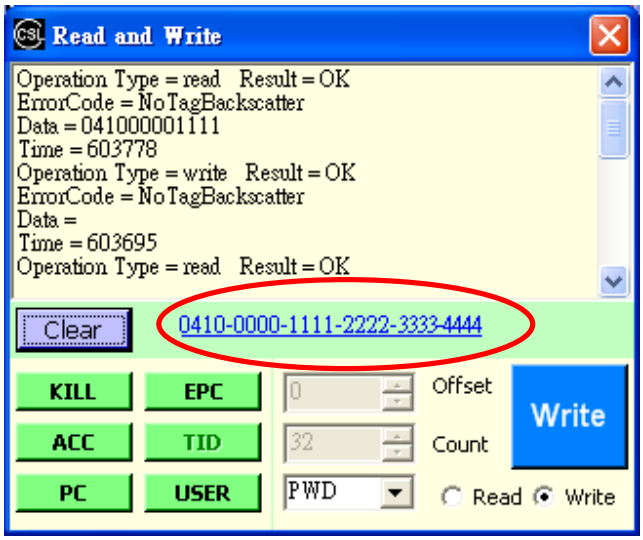
Write EPC: select “Write” and click on “EPC” button to enter the write EPC page





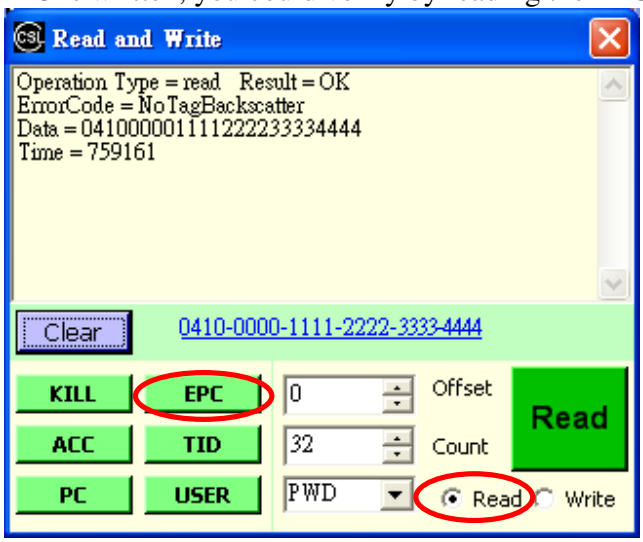
Input the new EPC ID in the “Data” field and then click “OK” button



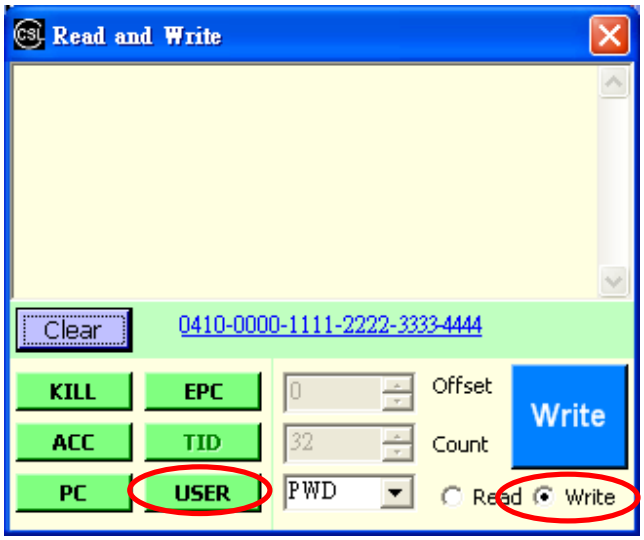


If write success, not error will show on the screen.

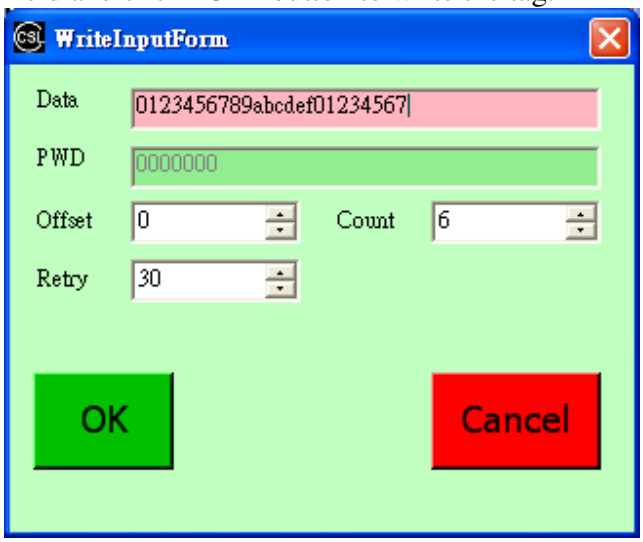
After the EPC is written, you could verify by reading the EPC ID again

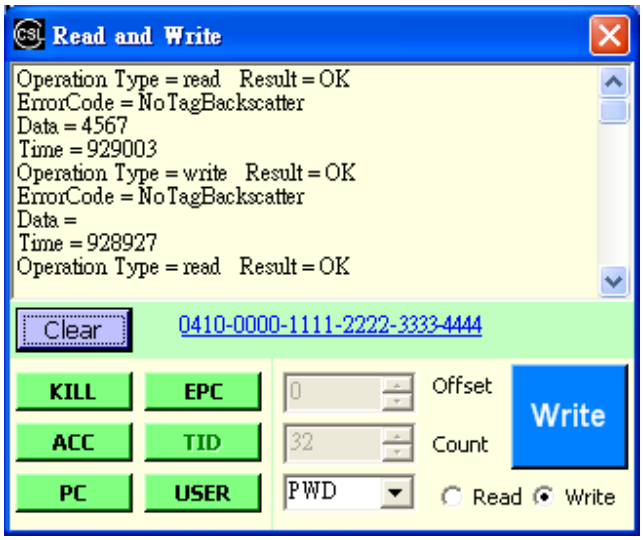


Write User Memory: select "Write" and click on "USER" button to enter the write user memory page.

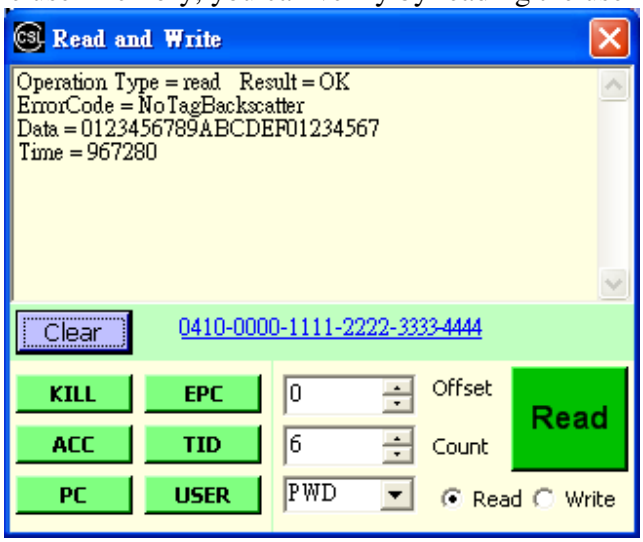


Select the offset word and length of words you want to write, then input the data into “Data” field and click “OK” button to write the tag.



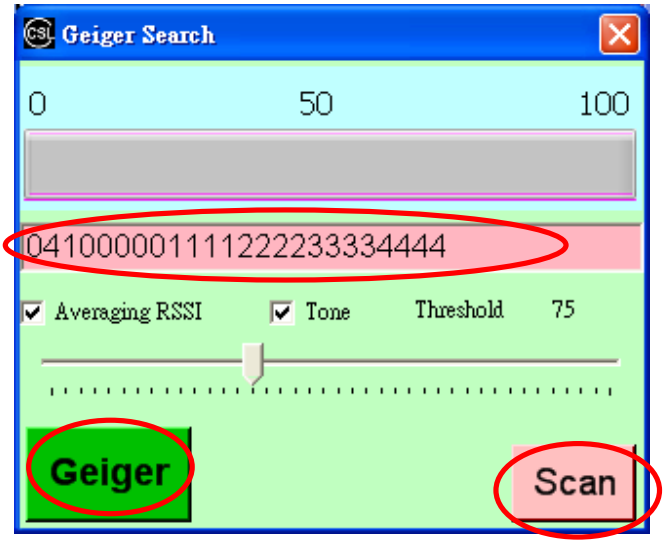


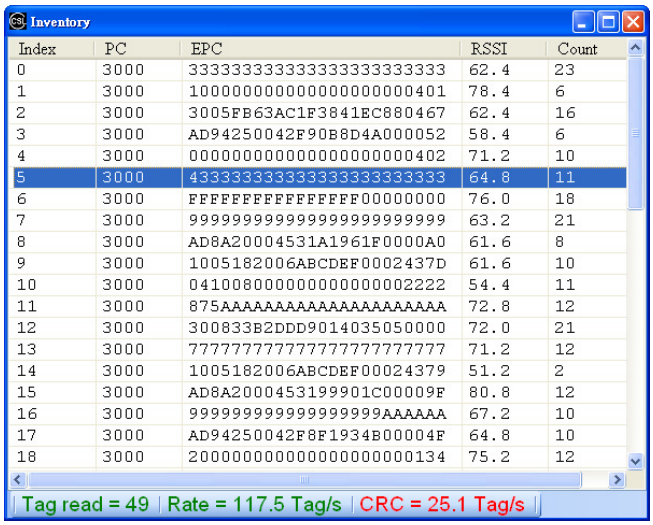
After writing the user memory, you can verify by reading the user memory again.



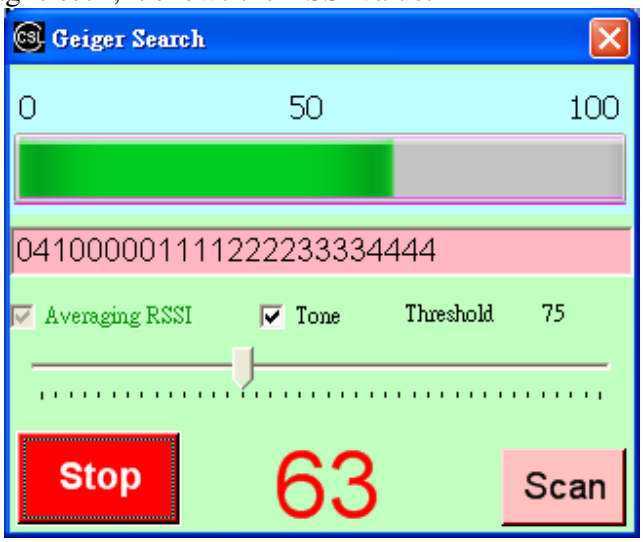
E. Geiger Counter Search

This page demonstrates the Geiger counter tag search mode. Input the EPC ID of the tag or scan a tag you want to search and then click the “Geiger” button.



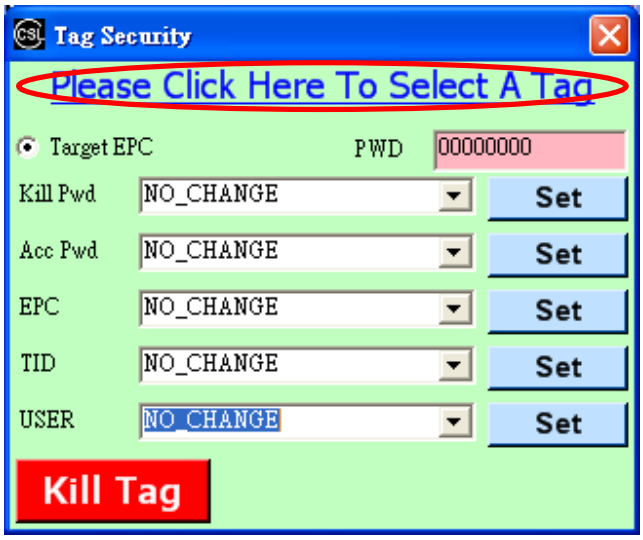


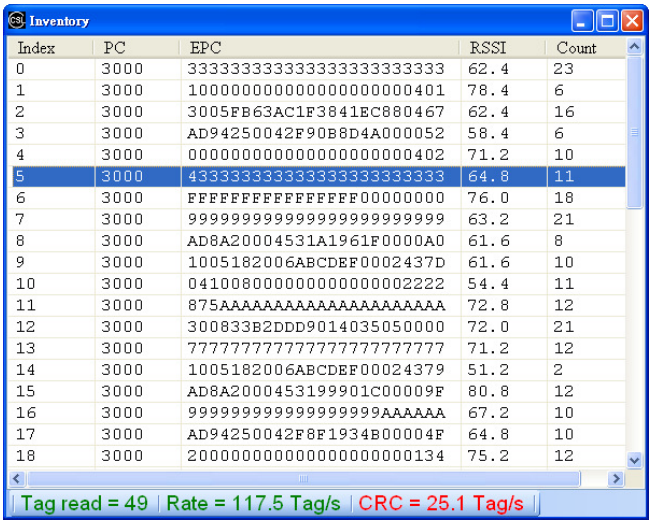
When the tag is seen, it shows the RSSI value.

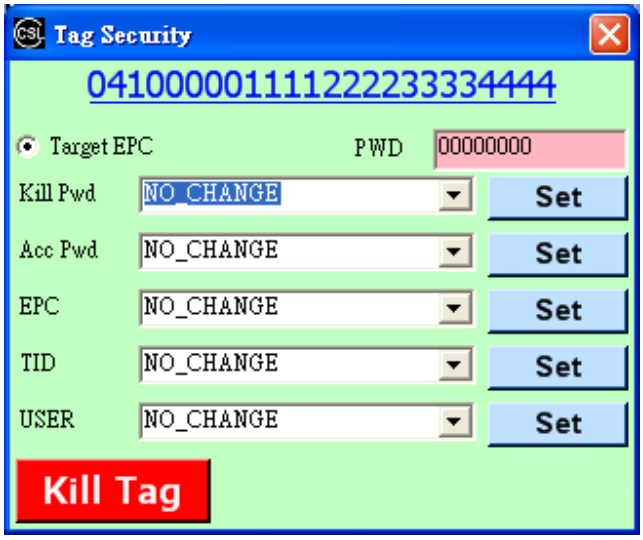


F. Tag Security

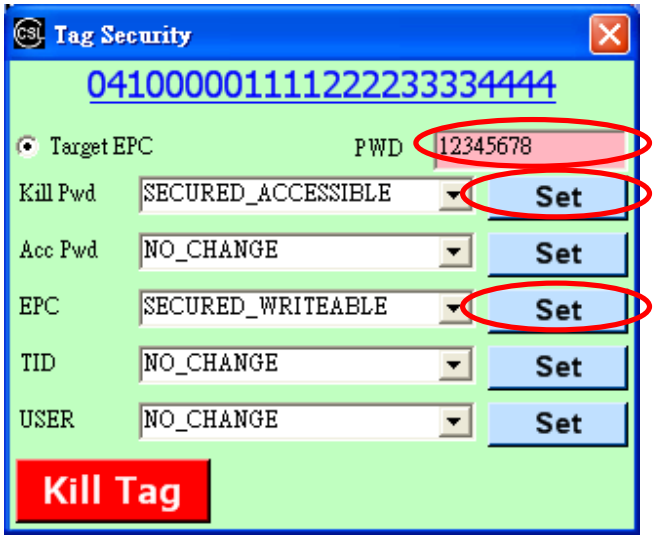
This page demonstrates the tag security operations (lock, unlock and kill)







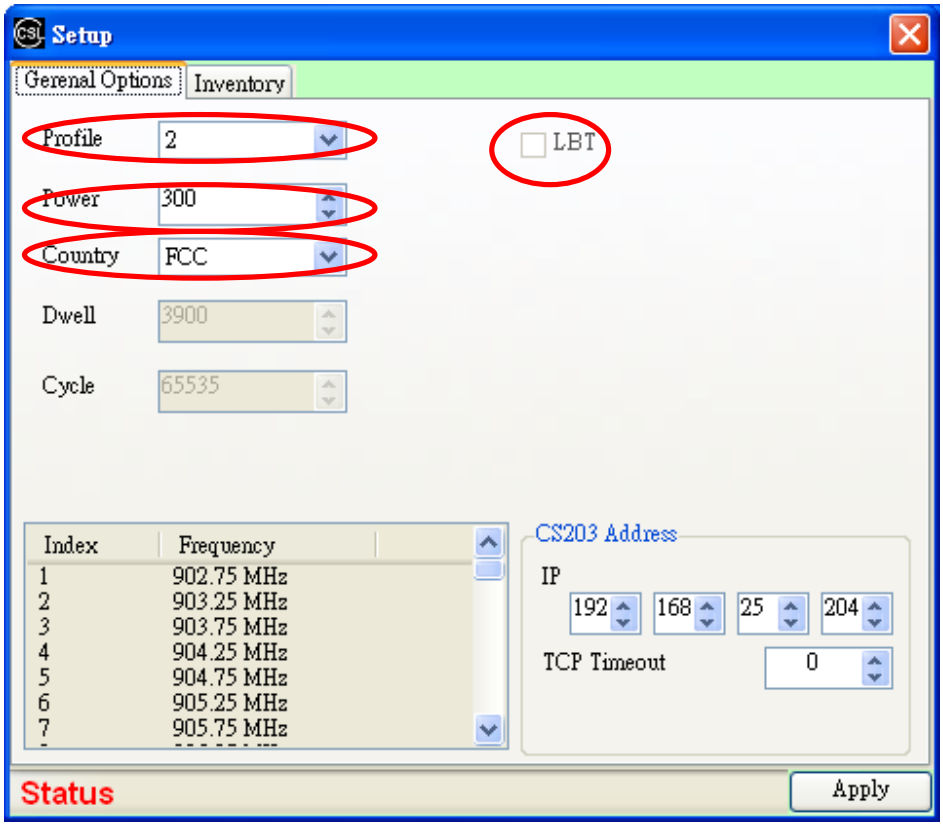
Enter the access password in “PWD” and click “Set” button to set the security setting.

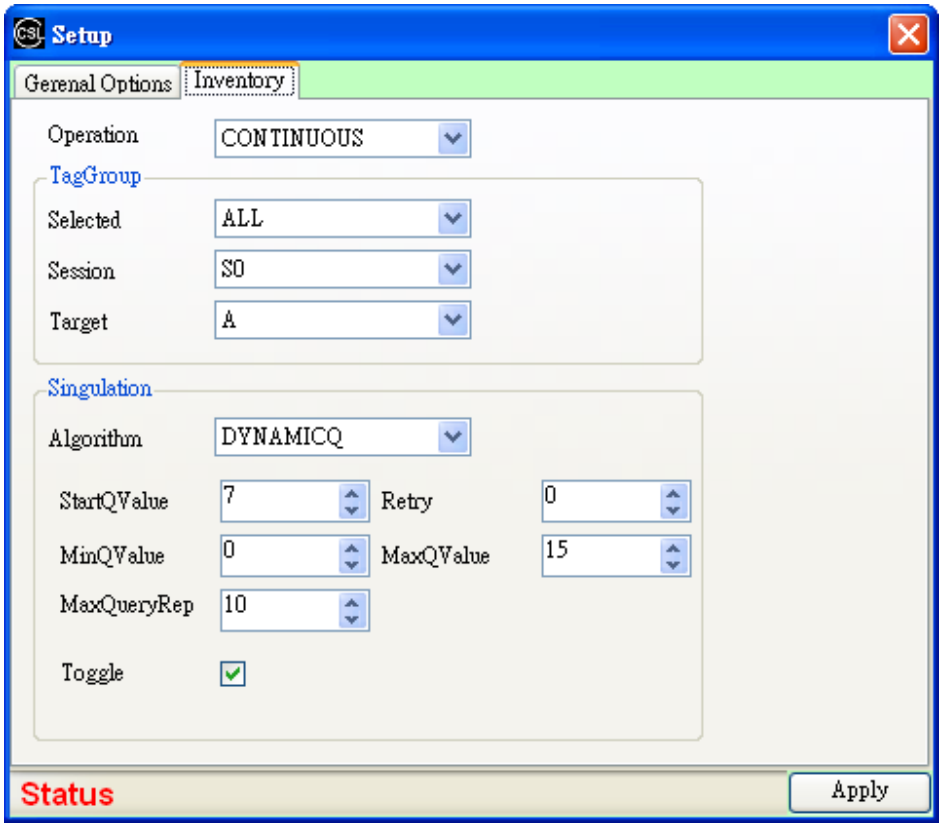

Tag Security
04100000111122223333444
Target EPC
PWD
12345678
Kill Pwd
SECURED_ACCESSIBLE
Set
Acc Pwd
NO_CHANGE
Set
EPC
SECURED_WRITEABLE
Set
TID
NO_CHANGE
Set
USER
NO_CHANGE
Set
Kill Tag

G. Setup

The “Setup” page allows the user to configure the country setting and link profile.

For FCC, you can only set link profile, power and country but not the fixed frequency channel.





For JPN, you can set fixed frequency channel and LBT.