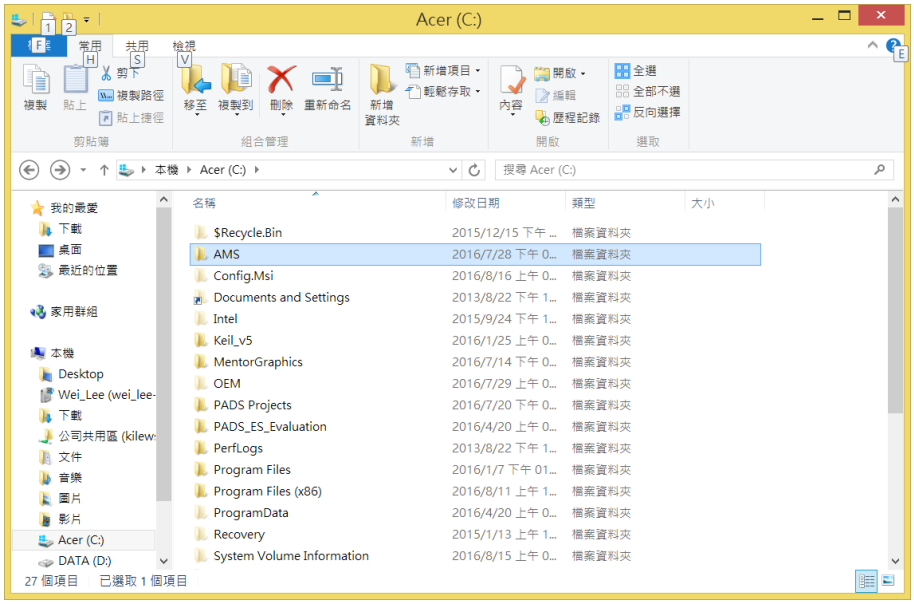
KL-CTDS

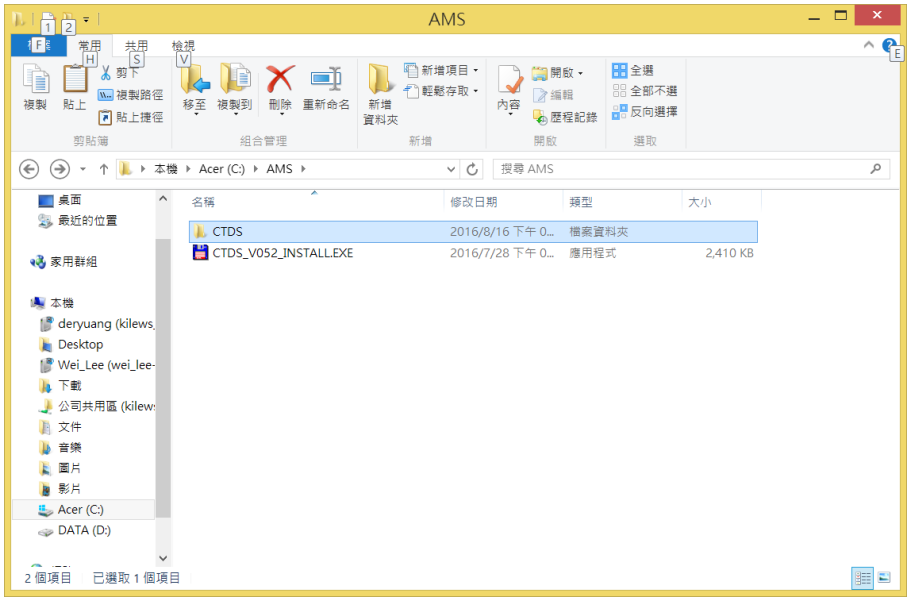
DAS (Data Acquisition System)
Installation & Operation Manual

Data Acquisition System

- **Installation Process:**
  1. Create an AMS file under the C:\ (You may have permissions issue in WIN10 when you do this, please contact with supervisor if when facing with this inquirement)

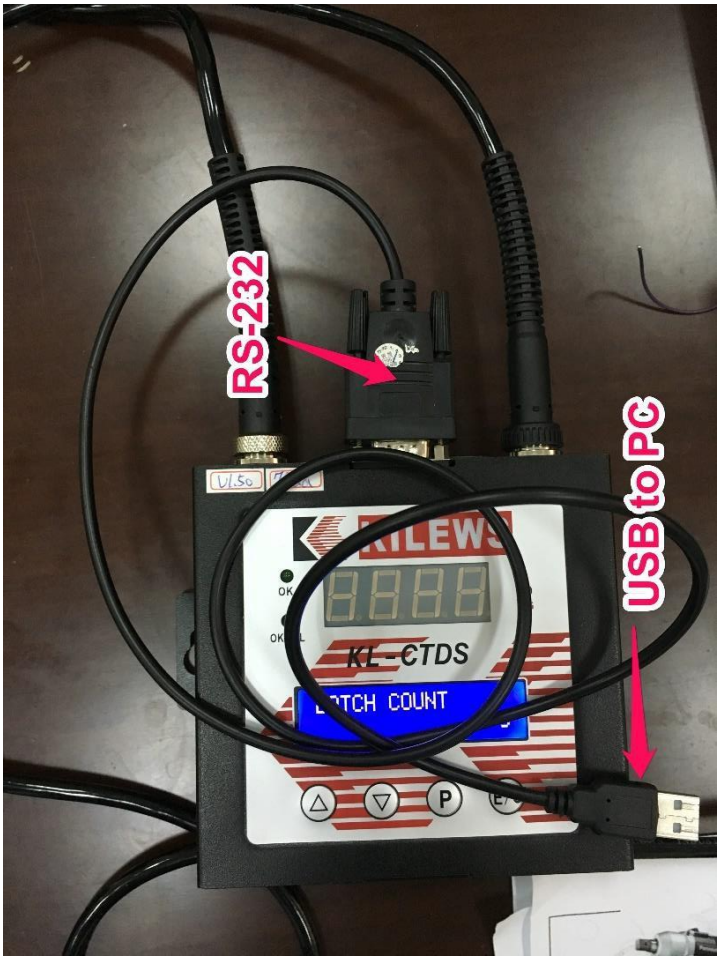


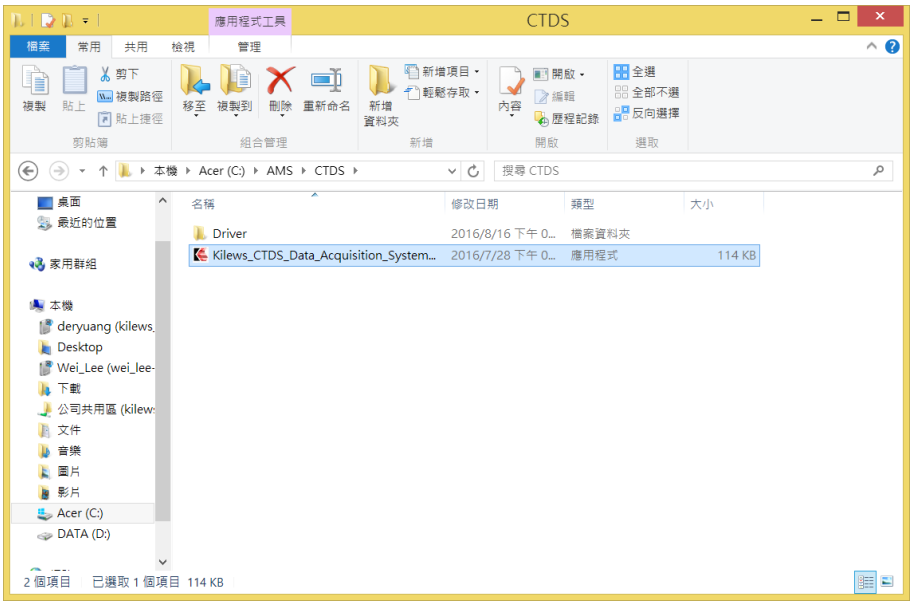
  2. Please copy the software “CTDS_V052.EXE” into AMS file.
  3. Executive installation file of CTDS_V052.EXE
  4. Installation program will be under the CTDS subdirectory of AMS file



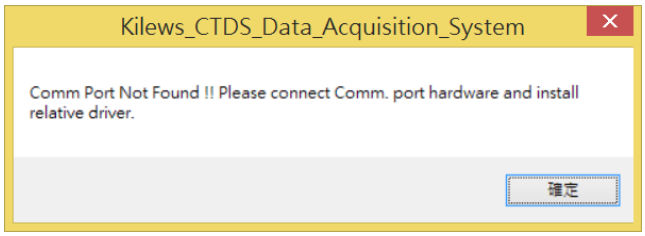
  5. The driver of “USB TO RS232” must be installed when first time executive

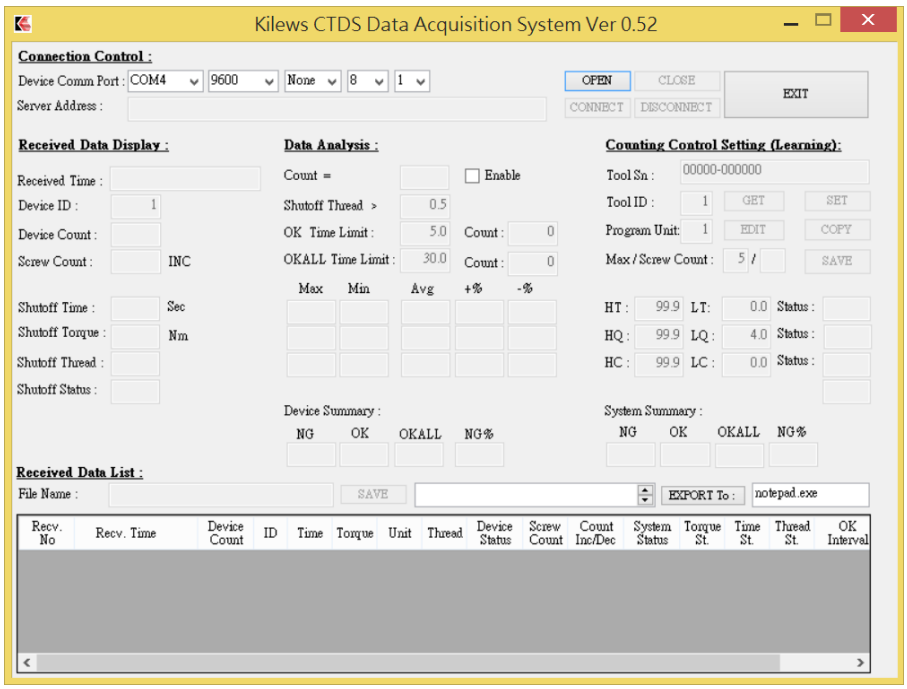
CTDS_Data_Acquisition_System.exe, connect the USB TO RS232 cable for CTDS and PC then executive the DAS software.





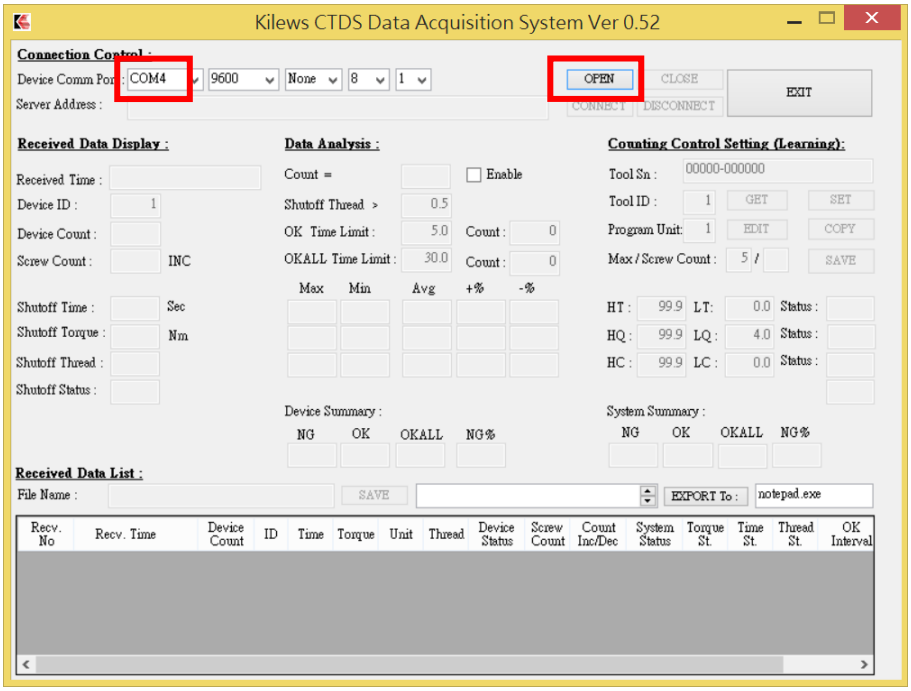
Below window will pop up for remind if USB TO RS232 driver is not installed properly; Once settled, you can adding a software shortcut as a quick link icon and place it in desktop, which is convenient for next time use.

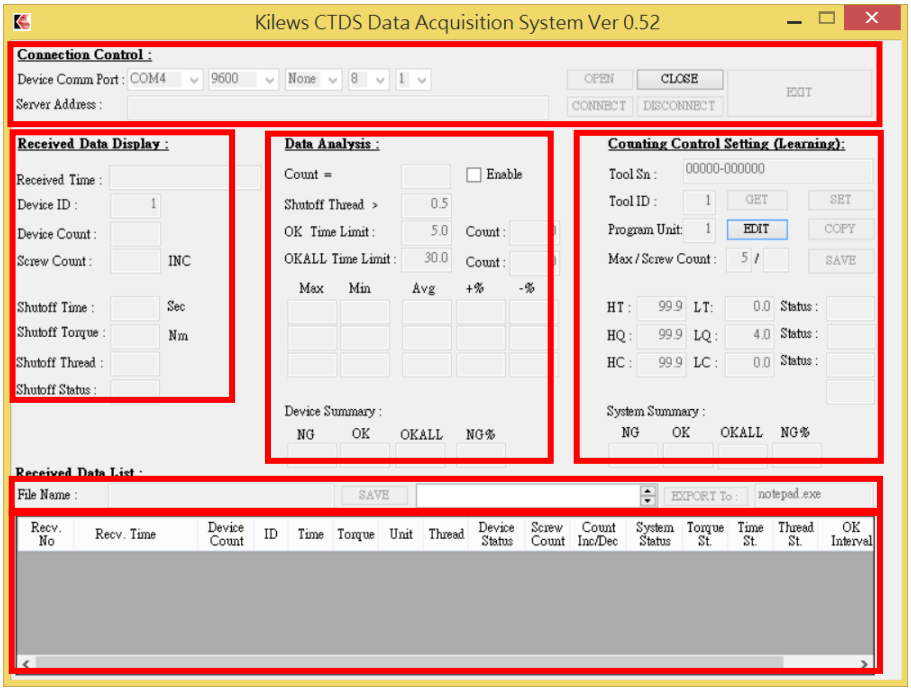




- **Interface Description**

1. **Executive CTDS_Data_Acquisition_System.exe，the COM Port position suppose show automatically as below when COM Port connected.**
2. **Make sure again RS232 TO USB cable connect COM Port is correct，select “OPEN” to make a link.**


Kilews CTDS Data Acquisition System Ver 0.52
Connection Control :
Device Comm Port : COM4 9600 None 8 1
OPEN
CLOSE
EXIT
Server Address :
CONNECT
DISCONNECT
Received Data Display :
Received Time :
Device ID : 1
Device Count :
Screw Count : INC
Shutoff Time : Sec
Shutoff Torque : Nm
Shutoff Thread :
Shutoff Status :
Data Analysis :
Count =
Enable
Shutoff Thread > 0.5
OK Time Limit : 5.0 Count : 0
OKALL Time Limit : 30.0 Count : 0
Max Min Avg +% -%
Device Summary :
NG OK OKALL NG%
Counting Control Setting (Learning):
Tool Sn : 00000-000000
Tool ID : 1 GET SET
Program Unit: 1 EDIT COPY
Max / Screw Count : 5 / SAVE
HT : 99.9 LT: 0.0 Status :
HQ : 99.9 LQ : 4.0 Status :
HC : 99.9 LC : 0.0 Status :
System Summary :
NG OK OKALL NG%
Received Data List :
File Name :
SAVE
EXPORT To : notepad.exe
Recv. No
Recv. Time
Device Count
ID
Time
Torque
Unit
Thread
Device Status
Screw Count
Count Inc/Dec
System Status
Torque St.
Time St.
Thread St.
OK Interval


Kilews CTDS Data Acquisition System Ver 0.52
Connection Control :
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OPEN
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Server Address :
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Shutoff Status :
Data Analysis :
Count =
Enable
Shutoff Thread > 0.5
OK Time Limit : 5.0 Count :
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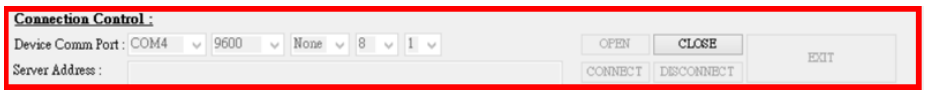
Max Min Avg +% -%
Device Summary :
NG OK OKALL NG%
Counting Control Setting (Learning):
Tool Sn : 00000-000000
Tool ID : 1 GET SET
Program Unit: 1 EDIT COPY
Max / Screw Count : 5 / SAVE
HT : 99.9 LT: 0.0 Status :
HQ : 99.9 LQ : 4.0 Status :
HC : 99.9 LC : 0.0 Status :
System Summary :
NG OK OKALL NG%
Received Data List :
File Name :
SAVE
EXPORT To : notepad.exe
Recv. No
Recv. Time
Device Count
ID
Time
Torque
Unit
Thread
Device Status
Screw Count
Count Inc/Dec
System Status
Torque St.
Time St.
Thread St.
OK Interval

3. Link Setting (Connection Control)

Communication Comm port (Device Comm Port)：This program will executive automatically when COM port connect with PC (COM Port)、(Baud Rate 9600)、(Parity bit None)

(8、1) Regarding to software programing (Please DO NOT change this setting)

(Server Address)：Server IP (This function is under development)



4. Display information in real-time(Received Data Display)

(Received Time)：Shows recorder time as computer time

(Device ID)：Indicated equipment ID (1~255)

(Device Count)：Shows how many fastening times has been record after power on, it will recalculate once if executive power recycle or ID changed during the process.

(Screw Count)：Read and displayed the screw count number

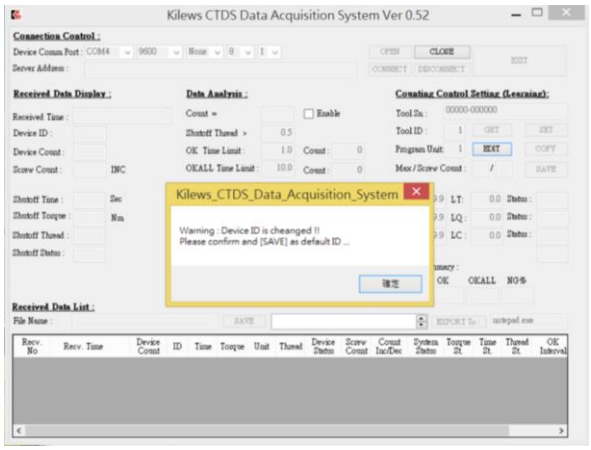
(Shutoff Time)：Read and displayed the screw shutoff time

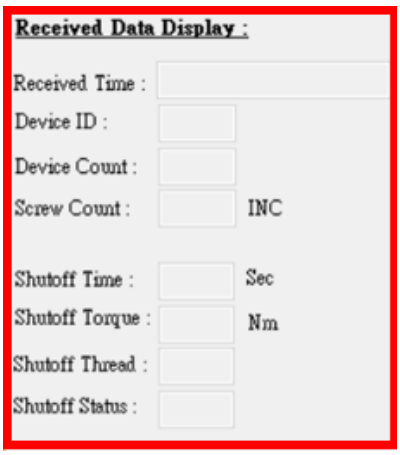
(Shutoff Torque)：Read and displayed the screw shutoff torque value.

(Shutoff Thread)：Read and displayed the screw shutoff thread number.

(Shutoff Status)：Read and displayed the screw shutoff status.

Note：Below window will pop up when executive first time program connection (OPEN), this is just for reminding, click “確定” button to confirm it. Since the program will search equipment ID automatically therefore it will be occurred every time when equipment ID has been changed.





5. Data Analysis

(Enable) ：”Enable” check must be selected for turn on Data analysis function

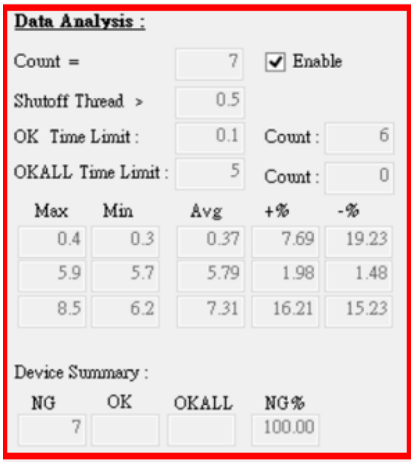
(Count) ：Count screw shutoff number (The requirement of this counting must be over than 0.5 thread)

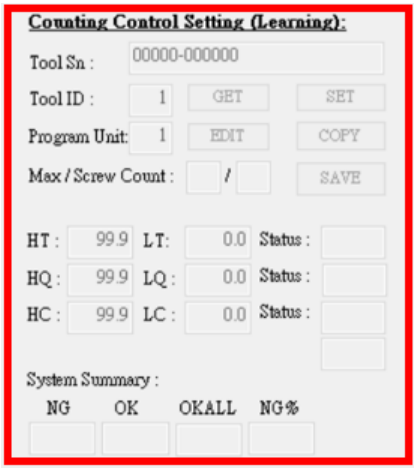
(Shutoff Thread) ：Count screw shutoff thread, the requirement of this counting must be over than 0.5 thread, otherwise it does not count.

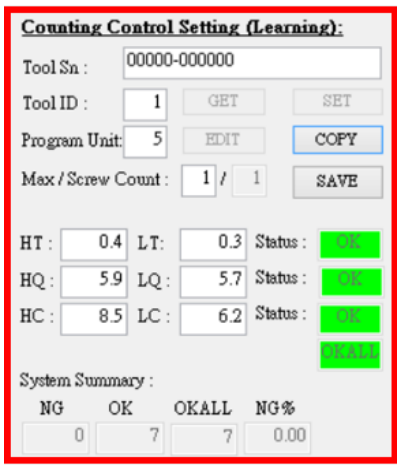
(OK Time Limit) ：The requirement of this counting as fastening time must over than this OK setting time.

(OKALL Time Limit) ：The requirement of this counting as fastening time must over than this OKALL setting time.

(Device Summary) ：The status of statistics result from equipment site







Use this automatic learning function by turn on the “Enable” to learn current fastening object’s max, min and average value of time, torque and thread numbers, we also need to press “EDIT” and “COPY” button to completed the learning progress, then learning data will be sent to computer site for next fastening screw status judgment.

6. (Counting Control Setting /Learning)

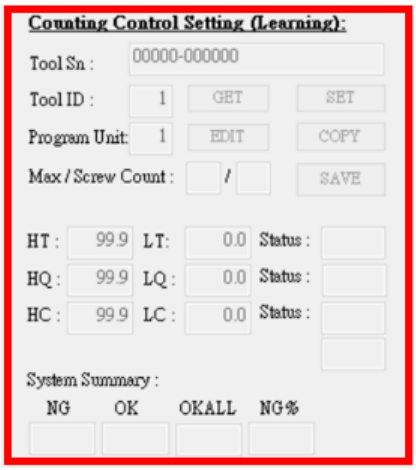
(Tool Sn) ：Tool serious number (This function is under development)

(Tool ID) ：Tool ID number (This function is under development)

(Program Unit) ：Program Unit number (This function is under development)

(Max/Screw Count) ：Max batch of screw number /Current screw count number

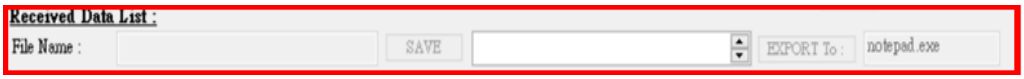
(System Summary) ：The status of statistics result as calculated from computer site



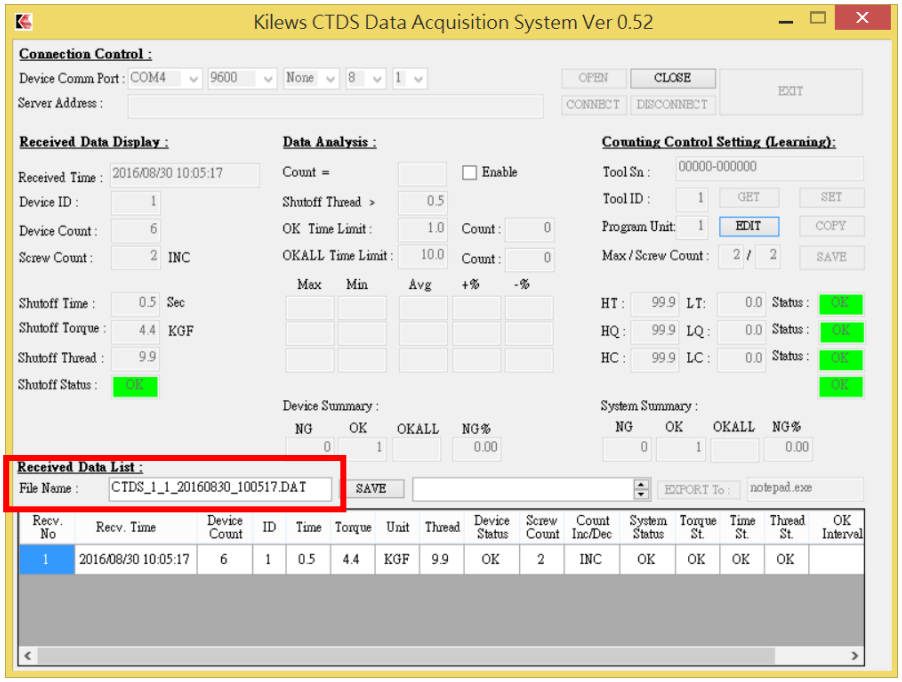
Note：Please be noted that KL-CTDS Program has one-way (V1.X) and two-ways (V2.X) transformation method, currently version of KL-CTDS is using one-way (V1.X) for data transformation method, therefore we can use automatically learning function to learn Time, Torque and thread numbers then press COPY to save it to DAS, we also can modify the setting values by KL-CTDS itself if we are not using auto learn function here.

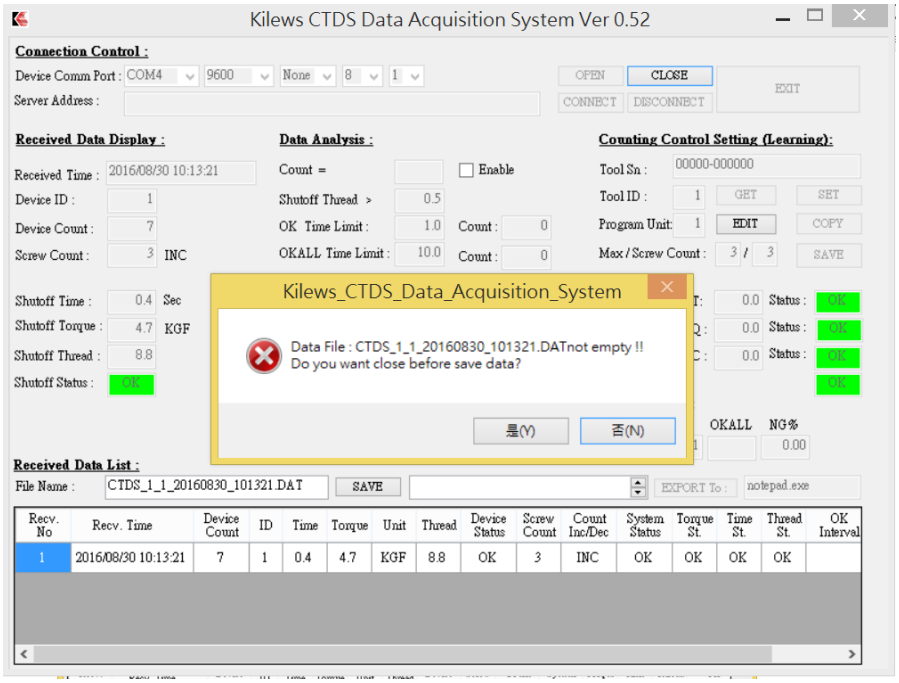
7. Received Data saved and export

7.1 Received Data save



The program will generate the File-name automatically when if this is the first time use software, in additional, the remind window will pop up when executive leave/close the program without saved.



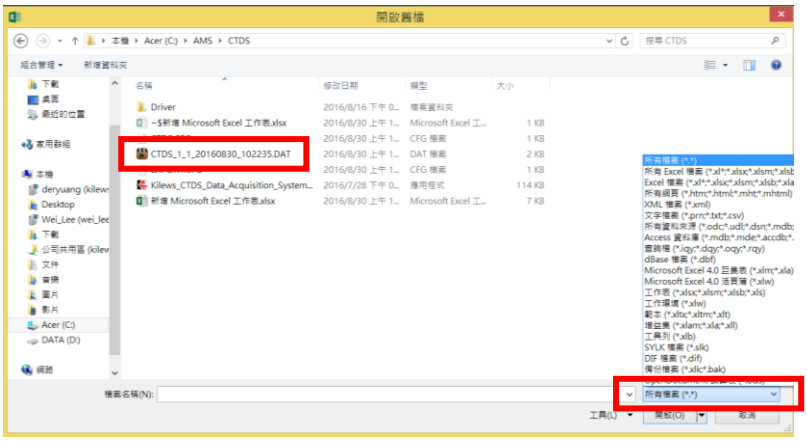


File-name format specification：CTDS_1_1_20160930_101321.DAT

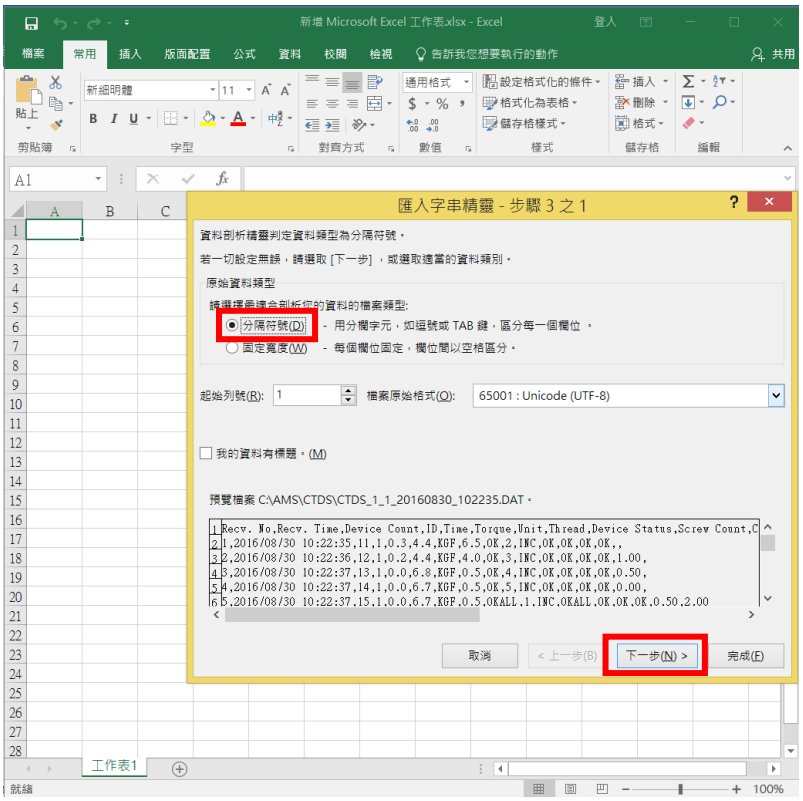
CTDS_(Device ID)_(Tool ID)_Date_Time.DAT

7.2 Data Export

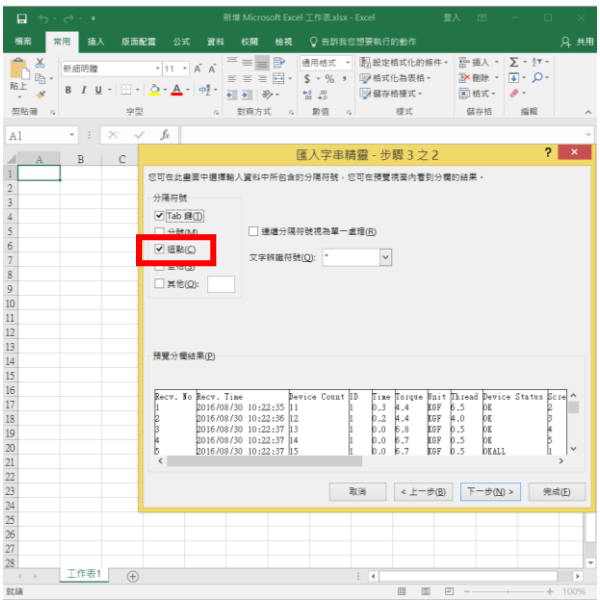
Method 1：Use EXCLE to open DAS export file(*.DAT)，please select “All file” to open this file



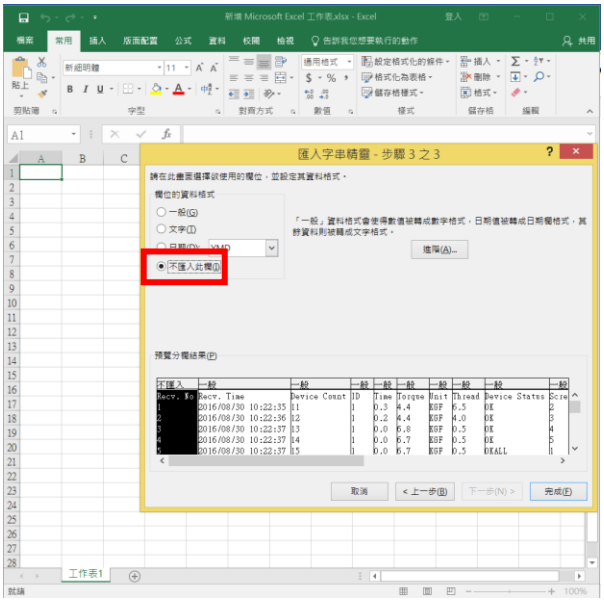
Step 1: Select “spacing symbol” and enter for next step



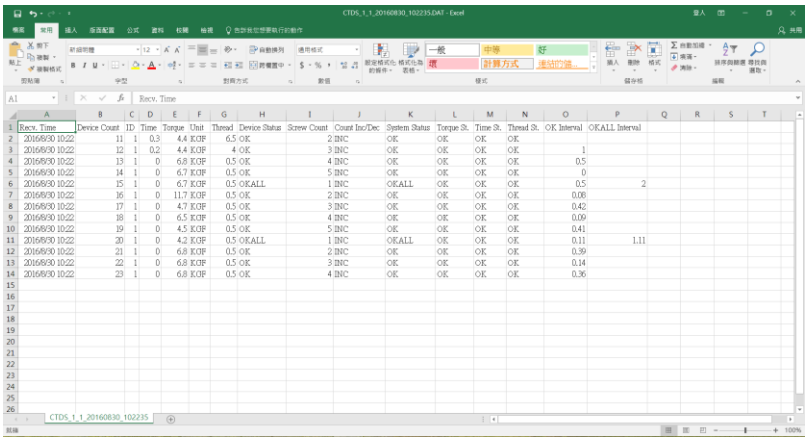
Step 2: Checked “commas” option as shows in below and then go for next step



Step 3: Select “do not Import this column” then go for next step

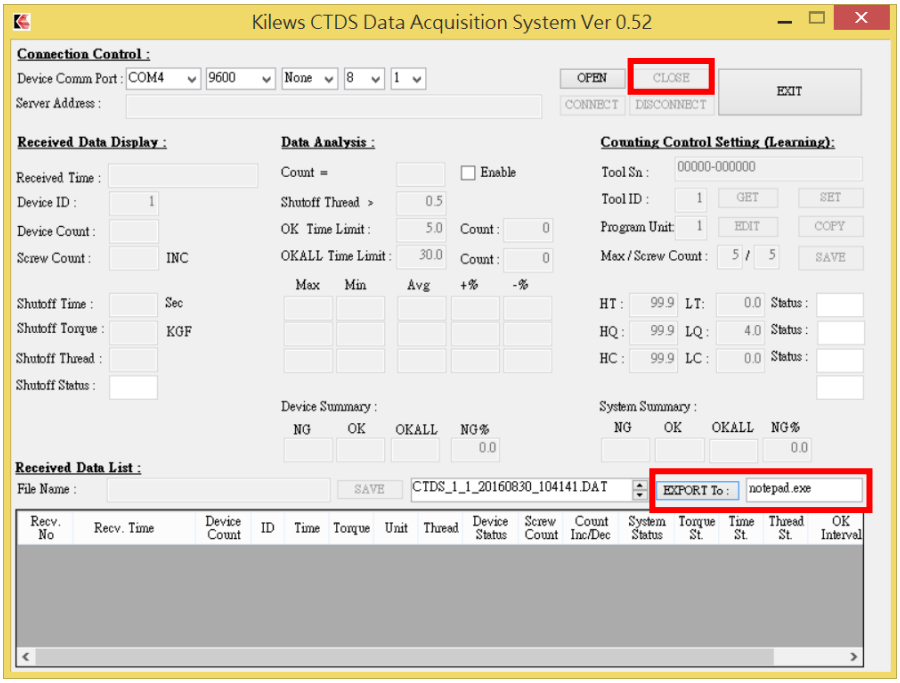


- Explore completed.

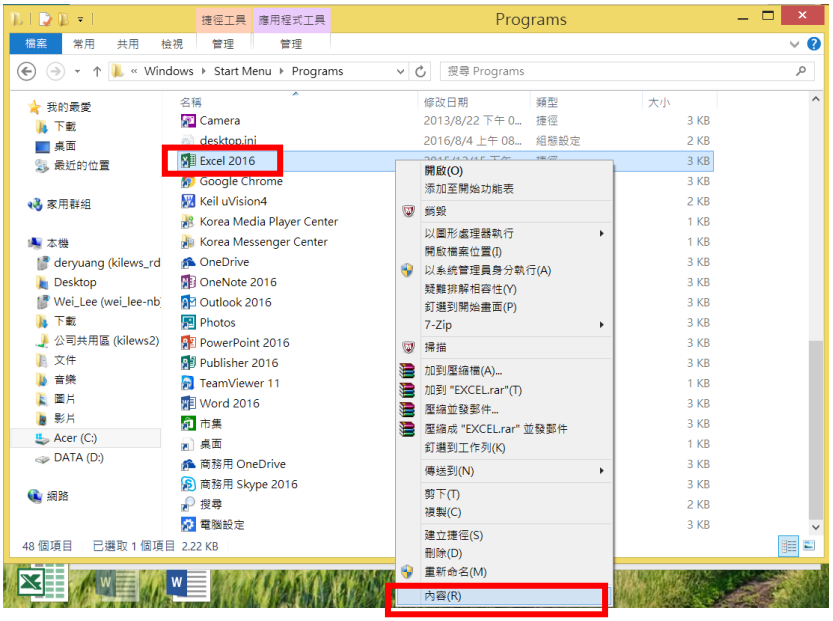


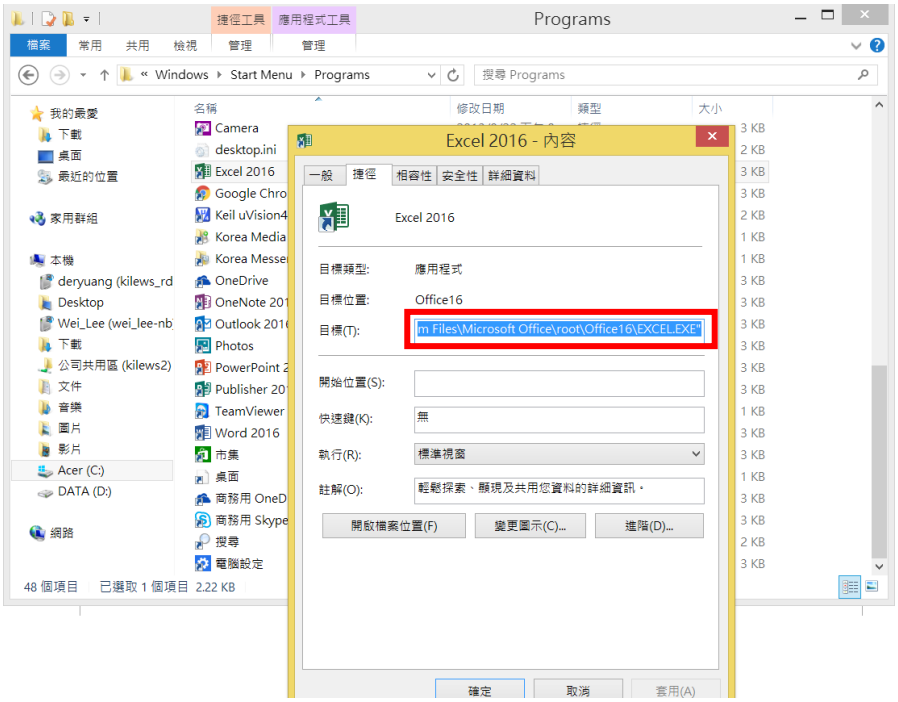
Method 2： Data file format output to EXCEL directly

- Saved the data and leave the executive page, then change the path of export format to EXCEL

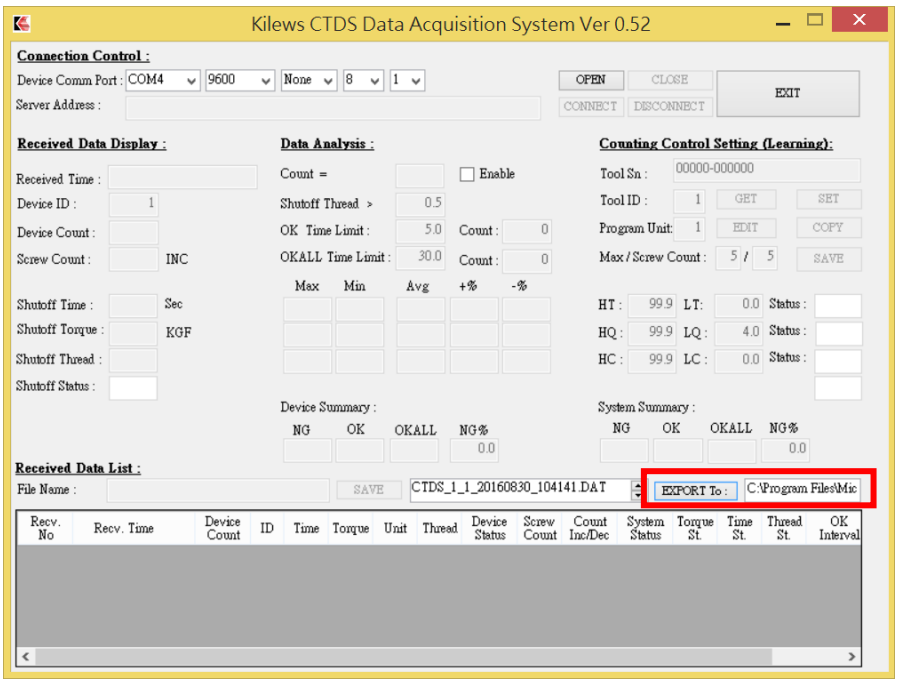


The path of export in Windows 10 as below:
(C:\ProgramData\Microsoft\Windows\Start Menu\Programs); Search excel executive path by manual is requirement if Windows in different version.





When EXCEL software location has been found, then check the content of EXCEL for path information, please copy this path and paste it to export format (Please remember to cancel the “Quotation Marks” of the path)



8. Received Data List, please refer comment in below

(Reve No) : Received number

(Reve Time) : Received time

(Device Count) : Device count times

(ID) : Equipment ID number

(Shutoff Status) : Equipment site Shutoff Status

(Time) : Equipment site Shutoff Time

(Torque) : Equipment site Shutoff Torque

(Unit) : Torque unit selection

(Thread) : Equipment site Shutoff Thread number

(Device Status) : Equipment site shutoff status

(Screw Count) : Screw Count Number

(Count Inc/Dec) : Screw count way (Increase / Decrease)

(System Status) : Computer site Shutoff Status

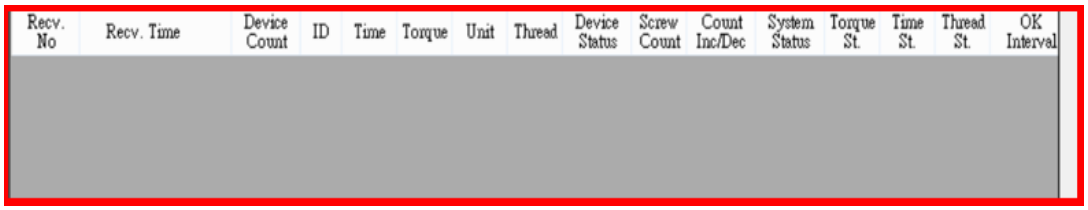
(Torque St.) : Computer site Shutoff torque

(Time St.) : Computer site Shutoff time

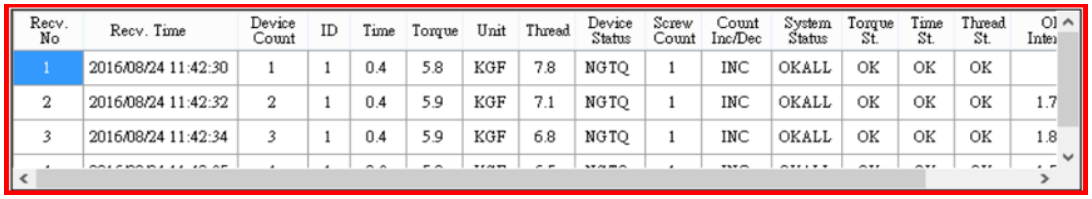
(Thread St.) : Computer site Shutoff thread

(OK interval) : Interval time (Sec.) between current OK and last OK

(OKALL interval) : Interval time (Sec.) between current OKALL and last OKALL.



Recv. No	Recv. Time	Device Count	ID	Time	Torque	Unit	Thread	Device Status	Screw Count	Count Inc/Dec	System Status	Torque St.	Time St.	Thread St.	OK Interval



Recv. No	Recv. Time	Device Count	ID	Time	Torque	Unit	Thread	Device Status	Screw Count	Count Inc/Dec	System Status	Torque St.	Time St.	Thread St.	OI Inte
1	2016/08/24 11:42:30	1	1	0.4	5.8	KGF	7.8	NGTQ	1	INC	OKALL	OK	OK	OK	
2	2016/08/24 11:42:32	2	1	0.4	5.9	KGF	7.1	NGTQ	1	INC	OKALL	OK	OK	OK	1.7
3	2016/08/24 11:42:34	3	1	0.4	5.9	KGF	6.8	NGTQ	1	INC	OKALL	OK	OK	OK	1.8