FAQ and Troubleshooting

View the following advices on most frequently asked questions.

About Fingerprint Reader of TR4050-10

1. **What are "Finger-Only", "Card-Only" and "Card+Fingerprint"**
- They are three kinds of access modes.
    (1) Finger-Only: Once registered, the user gains access by scanning his/her fingerprint in TR4050-10.
    (2) Card-Only: Once registered, the user gains access by scanning his/her card (with ID-code) in TR4050-10.
    (3) Card+Fingerprint: Once registered, the user gains access by each scanning both his/her card and fingerprint. The fingerprint template of user is stored in his/her card.

2. **Is there any difference between "User Card A" (For Finger-Only/Card-Only) and "User Card B" (For Card+Fingerprint) coming with TR4050-10**
- The difference between User Card A and User Card B is the format. User Card A is formatted for Finger-Only or Card-Only usage. User Card B is formatted for Card+Fingerprint usage. You can't use User Card A for Card+Fingerprint mode and can't use User Card B for Finger-Only or Card-Only mode.

3. **Is TR4050-10 set to "Offline" or "Online" operating mode when it is shipped**
- No, the operating mode is not set by TR4050-10. It is determined by what kind of system you want to operate.

(1) Offline: It is a standalone system. Only TR4050-10 is used. Registering fingerprint is done only through Manager Enroll Card and User Card.

(2) Online: It is an integrated system. TR4050-10 is used with your computer. Registering fingerprint is done by the software *SmaFinger Database*.

4. If you use the offline operating mode and want to access by fingerprint only, why does it still need User Card A to register the fingerprint

- The function of User Card here is to provide a corresponding ID-code for the user during the register process. Without the ID-code, there is no way to identify the user.

5. If you want the fingerprint template to be stored in the card (not in TR4050-10), what kind of User Card do you need

- Use User Card B. 1K Mifare card can take fingerprints up to two fingers and 4K can take that up to four fingers.

6. If "Feedback: Not Found (Open COM is false)" message instead of "Put your finger" message appears in the software *SmaFinger Database* when you try to register your fingerprint

- Follow the steps as below to assign Comm. Port in the software.
  (1) Connect TR4050-10 with your computer via RS232 cable.
  (2) Power on TR4050-10.
  (3) Click in [Tool]\ [Configuration].
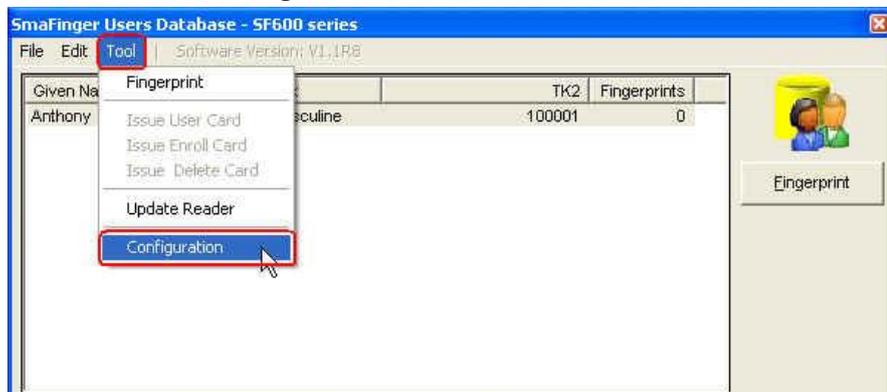
  (4) Select [AutoScan…] in [Assign Programmer].

(5) Click [Auto Scan].
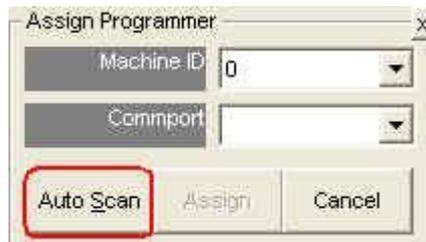
(6) Once the Comm. Port is found and the Comm. Port number shows in [Commport], click [Assign].
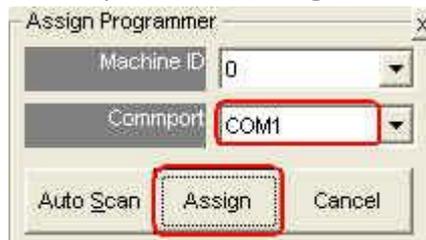
(7) Click [OK] to exit.

7. **If you want to access by fingerprint only, what is the maximum number of fingerprints that can be stored in TR4050-10**

- The maximum number of fingerprint templates stored in TR4050-10 is 1900. 100 user cards (for those whose fingerprints cannot be registered) and 1900 fingerprints are allowed to each TR4050-10.

8. **If you want to transfer the fingerprint templates from one TR4050-10 to the other TR4050-10**

- In case of the offline operating mode, the fingerprints cannot be transferred from one TR4050-10 to the other TR4050-10.
- In case of the online operating mode, once the fingerprints are registered by the software *SmaFinger Database*, the software will build a database in your computer. You can use [Append Fingerprints] function in the software *SmaFinger Database* to transfer the selected users and their selected fingerprints from your computer to any TR4050-10 that is connected with the computer.

9. **Is it possible to connect one TR4050-10 to the other TR4050-10 in order to transfer the fingerprint templates directly to all TR4050-10 time recorders connected in series**

• TR4050-10 doesn't support it. See "8. If you want to transfer the fingerprint templates from one TR4050-10 to the other TR4050-10" to transfer the fingerprint templates.

10. **Is it possible to transfer the fingerprint templates from your computer to TR4050-10 via network (TCP/IP)**

• Transferring fingerprint templates from your computer to TR4050-10 is via RS232 connection. If you want it to be transferred via TCP/IP, it needs an Ethernet to RS232 converter, like our product "DS100R".

11. **Is it possible to copy the database built in the software *SmaFinger Database* from one computer to the other computer**

• Use [Export Database] function ([File]\ [Export Database]) of the software *SmaFinger Database* to get the database file (*.mdb). In the other computer, use [Import Database] function ([File]\ [Import Database]) of the software to import the database file.

12. **If you want to know how many fingerprint template(s) is stored in TR4050-10**

• Once TR4050-10 is connected successfully with the software *SmaFinger Database*, [Fingerprints] field in [Readers] inspection of the software will show the number of fingerprint templates stored in TR4050-10.

13. Why does it still show old ID-code on the display of TR4050-10 even you have updated the new "Serial Number" for the user in the software *SmaFinger Database*

- It is because that the user's fingerprint(s) and its original corresponding ID-code are already stored in TR4050-10. If you want the user to have a new ID-code, follow the steps as below.
    (1) Delete this user's fingerprint(s) coming with the original ID-code in TR4050-10 first.
    (2) Enter a new ID-code in [Serial Number] box for this user and then click [Update].
    (3) Transfer the user's fingerprint(s) coming with the new ID-code to TR4050-10.

14. If you want to set the fingerprint reader of TR4050-10 to default settings

- Follow the steps as below.
    (1) Install the software *Mifare Reader Utility*. (If you don't have the software, contact GIGA-TMS.)
    (2) Connect TR4050-10 with your computer via RS232 cable.
    (3) Power on TR4050-10.
    (4) Open the software *Mifare Reader Utility*.
    (5) Click [Auto Scan], once TR4050-10 is detected, "SF600-00 On COM Number" message will appear at the bottom of the window.
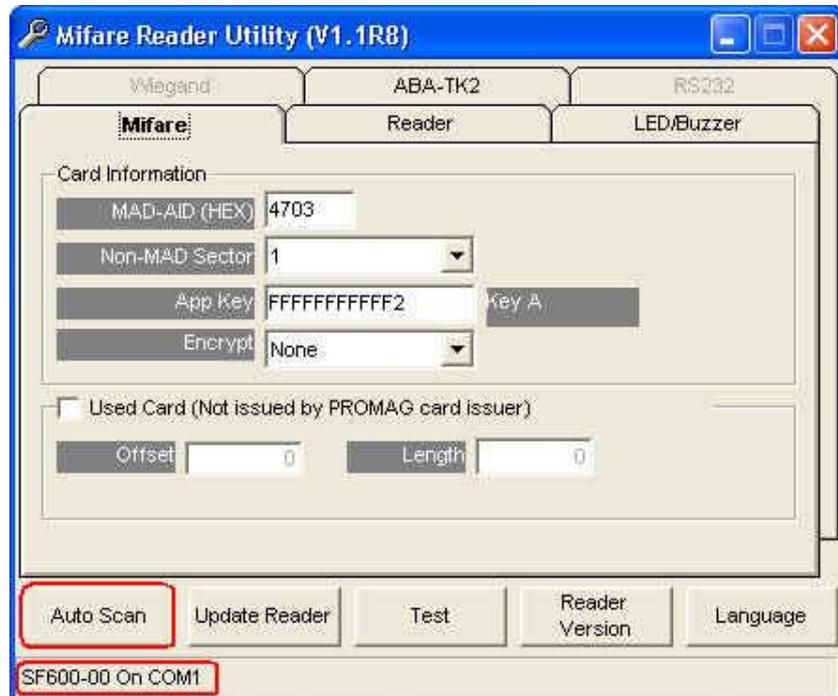
(6) Under [Mifare] tab, set the same settings as below. Then click [Update Reader] to save the settings to TR4050-10.
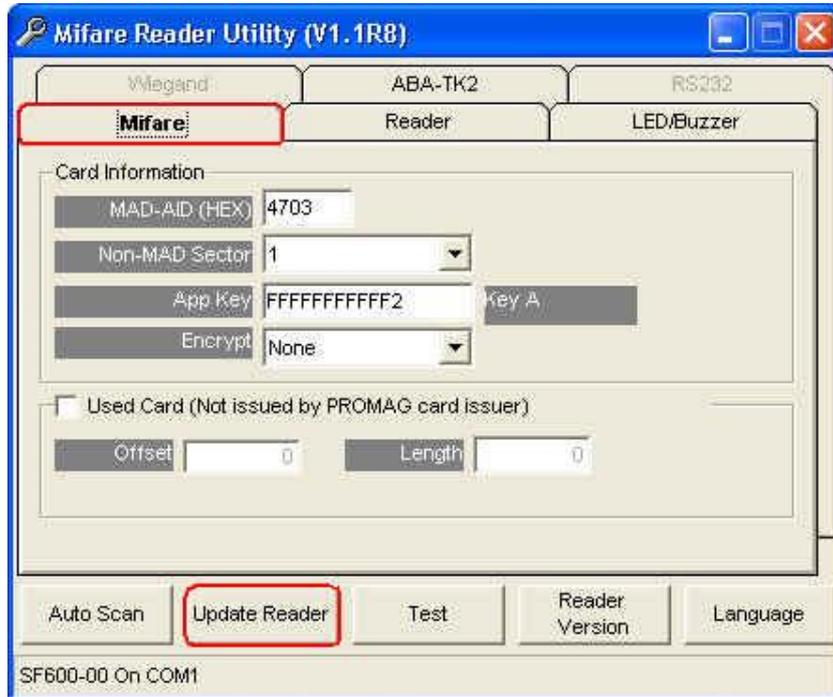
(7) Under [Reader] tab, set the same settings as below. Then click [Update Reader] to save the settings to TR4050-10.
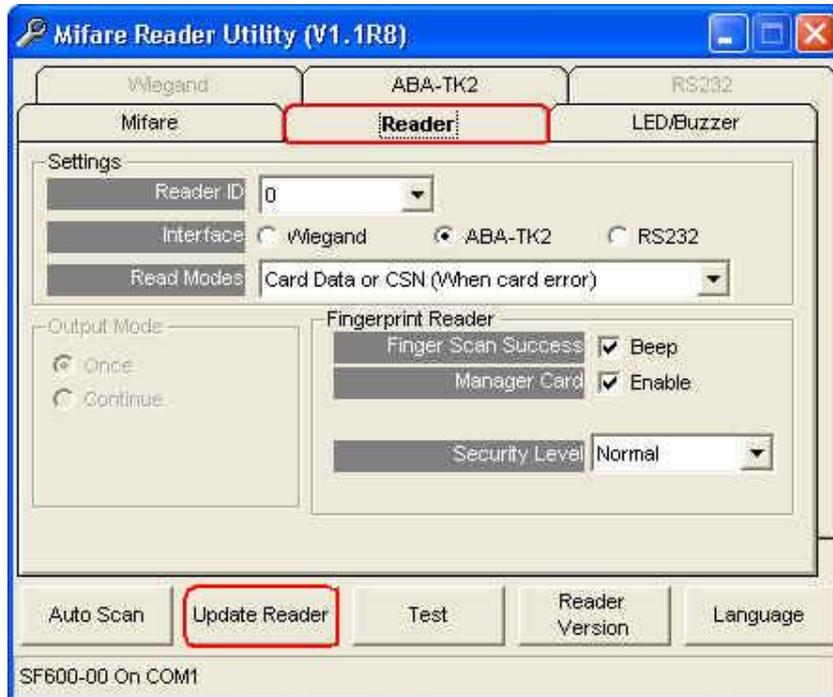
(8) Under [ABA-TK2] tab, set the same settings as below. Then click [Update Reader] to save the settings to TR4050-10.
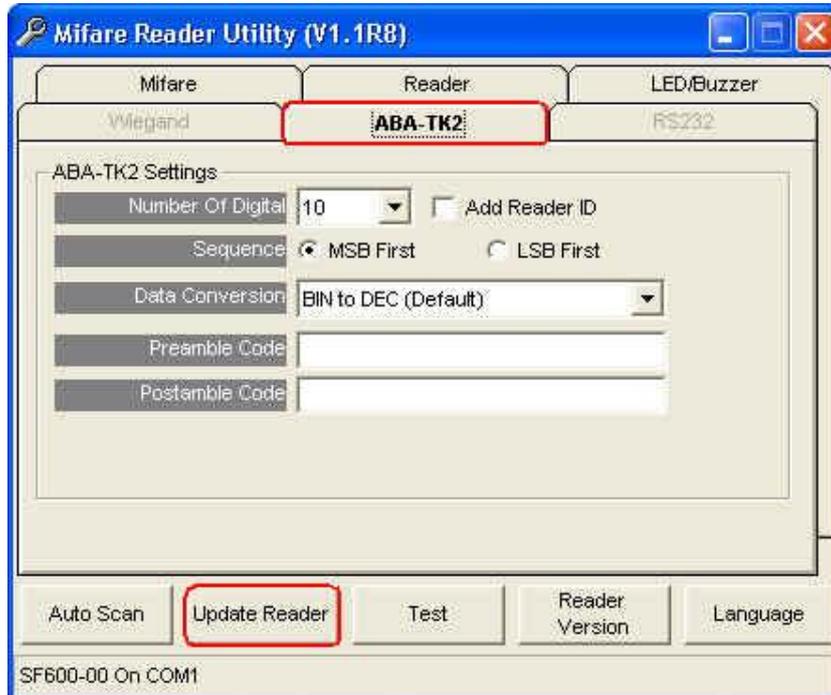
(9) Under [LED/Buzzer] tab, set the same settings as below. Then click [Update Reader] to save the settings to TR4050-10.
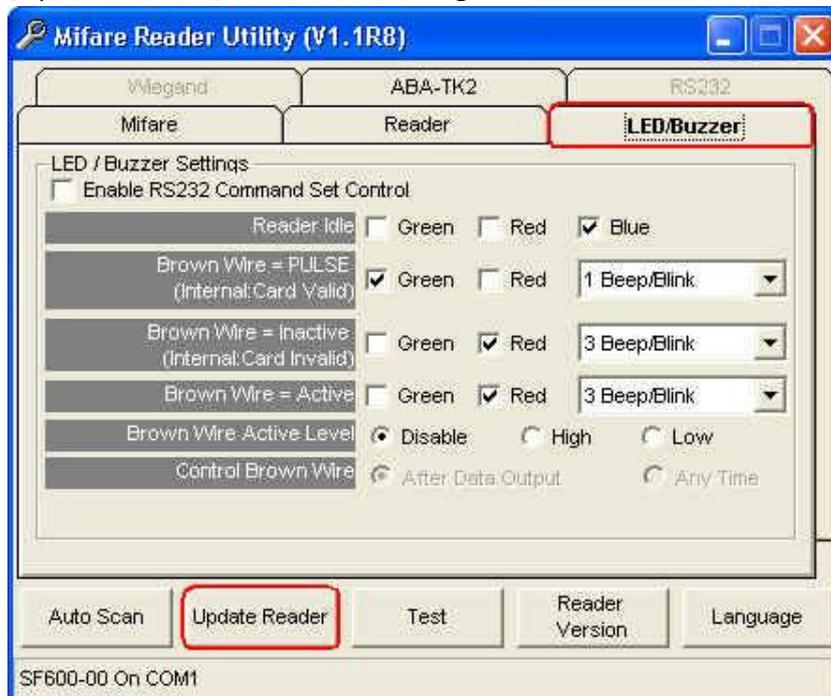
(10) Close the software.

15. If the right LED of TR4050-10 blinks red with three beeps instead of that the middle LED blinks green when you present Manager Enroll Card to TR4050-10

- "Manager Card" function may not be enabled. Enable [Manager Card] function under [Reader] tab in the software *Mifare Reader Utility*.
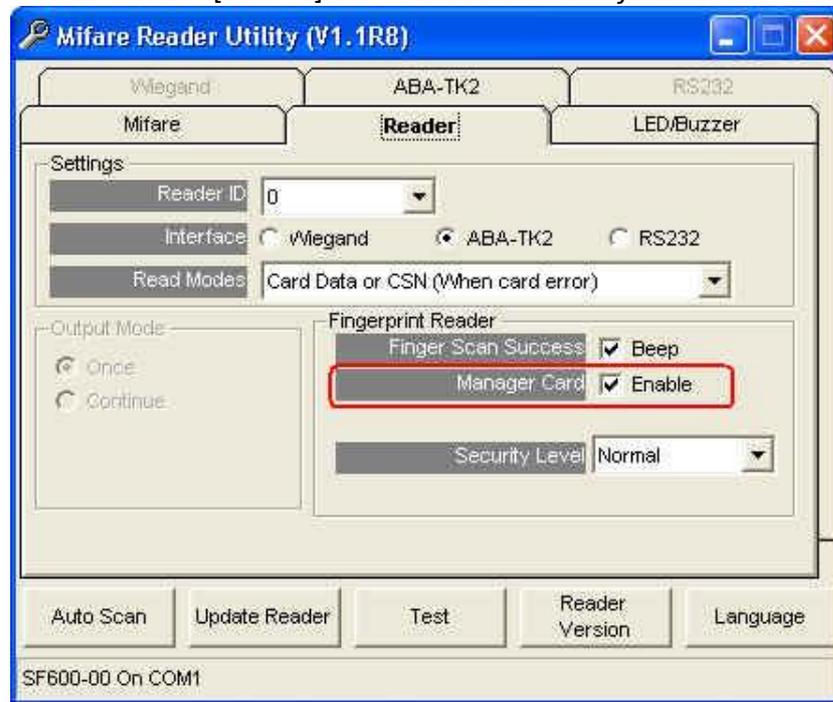
  Keep other settings as default. For more details on the default settings, see "14. If you want to set the fingerprint reader of TR4050-10 to default settings".

16. If the middle LED of TR4050-10 blinks green when you present Manager Enroll Card to TR4050-10, but after that, the middle LED still blinks green when you present User Card A (or User Card B)

- See "14. If you want to set the fingerprint reader of TR4050-10 to default settings" to set the fingerprint reader of TR4050-10 to default settings.

17. If TR4050-10 seems to accept your card/fingerprint, but the middle LED doesn't light green

- See "14. If you want to set the fingerprint reader of TR4050-10 to default settings" to set the fingerprint reader of TR4050-10 to default settings.

18. Is it possible to change the length of output ID-code from 10 digits to 15

- Set [Number of Digital] under [ABA-TK2] tab in the software *Mifare Reader Utility* to the length you like.
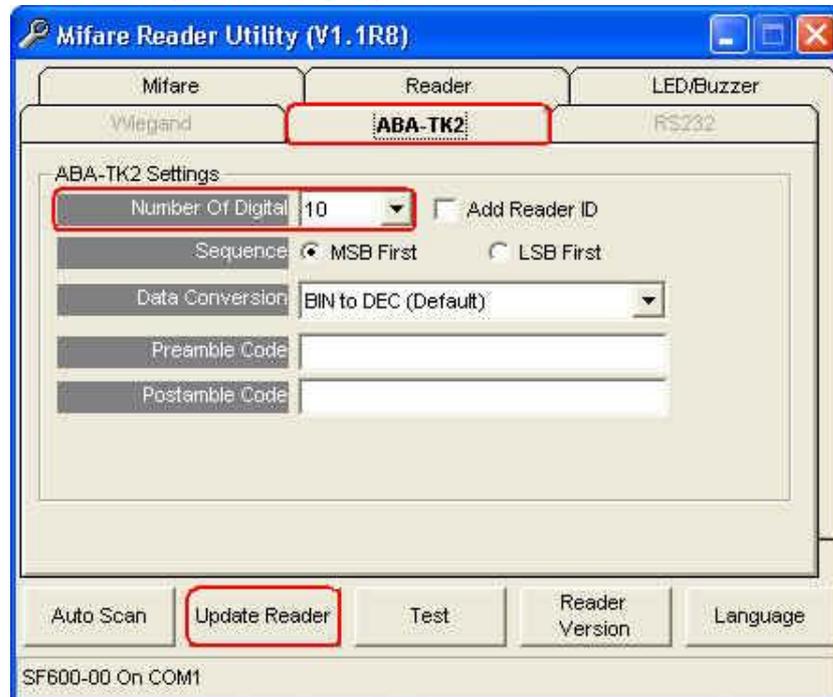
Keep other settings as default. For more details on the default settings, see "14. If you want to set the fingerprint reader of TR4050-10 to default settings".

About General Tips

**1. If you want to set/change IP address for TR4050-10**

- Follow the steps as below.
    (1) Connect TR4050-10 with Hub via WAS-1499 cable.
    (2) Power on TR4050-10.
    (3) **Disable the firewall and antivirus program in your computer!**
    (4) Open the software *DS Manager* (Start\Programs\Tibbo Terminal Server Toolkit\Tibbo DS Manager). Find your TR4050-10 on the

"Auto-Discovery" list. (Default IP address of TR4050-10 is "1.0.0.1".)

(5) Click your TR4050-10 on the list and click [Change IP].
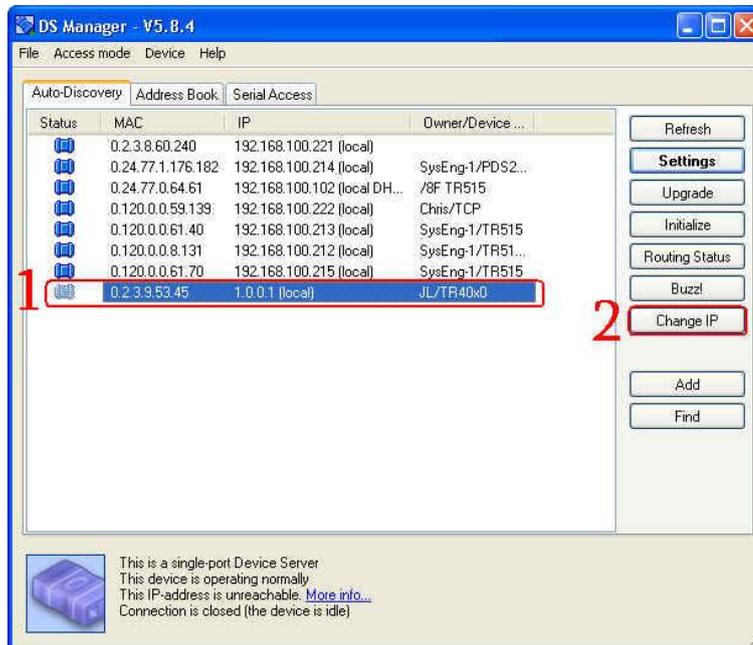
(6) Enter an available IP address and then click [OK]. Once IP address is changed successfully, the status icon of your TR4050-10 on *DS Manager*'s list will become blue.
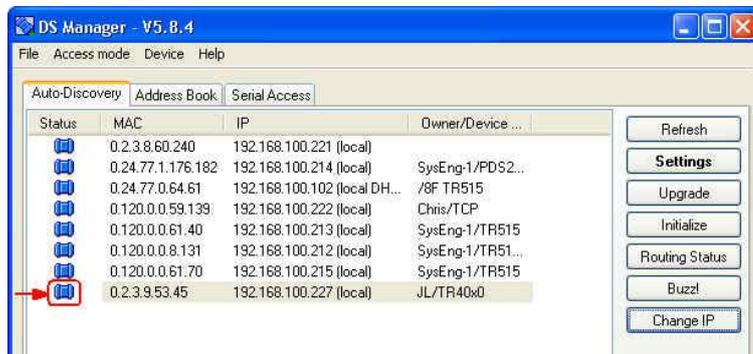
2. **If you want to know the total records saved in TR4050-10**

- Present Master Card to TR4050-10 to enter the menu of programming mode. Then select [Database tools]->[Status report]. It will show the "Total record(s)" information.

3. **Is there a limitation of punches and what will happen when the record memory gets full**

- The database capacity is about 12,160 records (depending on different firmware versions). If the record memory gets full, "Database is full. New data cannot be added" message will appear on the display of TR4050-10 when you present the registered card/fingerprint to it.

4. **If the record memory of TR4050-10 is full**
- Delete all the data in TR4050-10 by the following steps. Present Master Card to TR4050-10 to enter the menu of programming mode. Then select [Database tools]->[Delete all data]. Press F4 key to confirm and then press F1 key (Yes) to confirm again. Then press F1 key to exit. Note: Before deleting all the data, use the software *Time Recorder Utility* to download the data first if it is important.
- If you like that the data can be erased automatically whenever it is downloaded successfully by the software *Time Recorder Utility*, see "7. If you want the data in TR4050-10 to be deleted automatically whenever it is downloaded successfully" in the section "About Software (Time Recorder Utility)" of this document.

5. **If the important data has been deleted and you want to get it back**
- Recover the data by the following steps. Present Master Card to TR4050-10 to enter the menu of programming mode. Then select [Database tools]->[Recover data]. Press F4 key to confirm and then press F1 key (Yes) to confirm again. Then press F1 key to exit. All the data will be recovered.

6. **If you want to reset TR4050-10**
- Refer to "D.4. Performing a System Reset" instruction in the TR4050 users manual.

7. **Will you lose anything or have to redefine anything after resetting TR4050-10**
- After resetting, all the settings in the programming mode of TR4050-10 will be changed to default. However, IP-address will not be changed. The records in TR4050-10 will not be lost. The fingerprint templates will not be cleared.

8. **If you want to the run an external siren or audible device with TR4050-10 to advise the time of start/break/finish**
- TR4050-10 has two internal relays at the bottom of it (see the picture as below). One is for the bell, the other is for the lock. Connect your external siren or audible device with "the relay for bell". Then see "10. If you want to set 'Bell Table'" in the section "About TR4050-10 Settings" of this document to set the bell time.
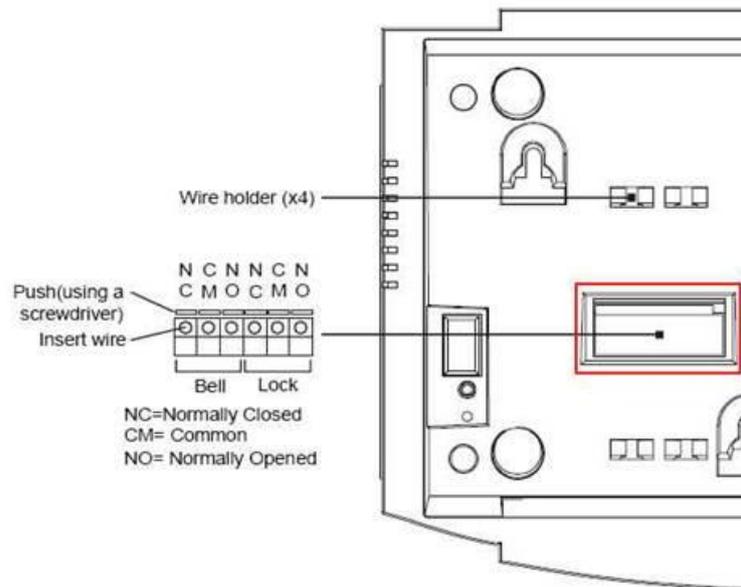
9. **If you want to run an external reader with TR4050-10 for time attendance purpose; for example, TR4050-10 is installed outside the door (for In) and the external reader is installed inside the door (for Out)**

•   TR4050-10 allows you to connect the external reader via RS232 connection. Note that the external reader must support RS232 interface and its baud rate must support 1200, 2400, 4800, 9600 or 19200. Connect the external reader to the "Scanner" port of TR4050-10 (see the picture as below).
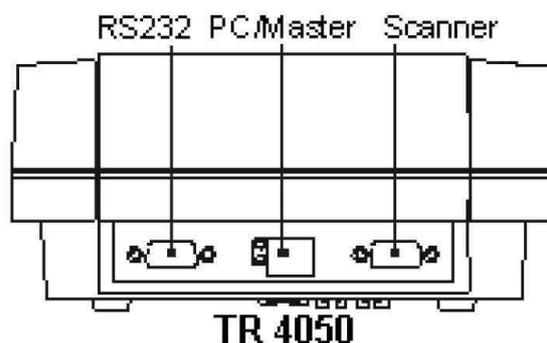

| Scanner	
9 • • • • 6 5 • • • • • 1	
#1	*No connection*
#2	RX (Input)
#3	TX (Output)
#4	*No connection*
#5	Ground
#6	*No connection*
#7	*No connection*
#8	*No connection*
#9	+5V (100mA)

10. **If TR4050-10 cannot communicate through TCP/IP**

•   Follow the steps as below to set [Transport protocol] to "TCP" for the Ethernet module of TR4050-10.

    (1) Connect TR4050-10 with Hub via WAS-1499 cable.

    (2) Power on TR4050-10.

(3) **Disable the firewall and antivirus program in your computer!**

(4) Open the software DS Manager (Start\Programs\Tibbo Terminal Server Toolkit\Tibbo DS Manager). Find your TR4050-10 on the "Auto-Discovery" list.

(5) Click your TR4050-10 on the list and click [Settings].
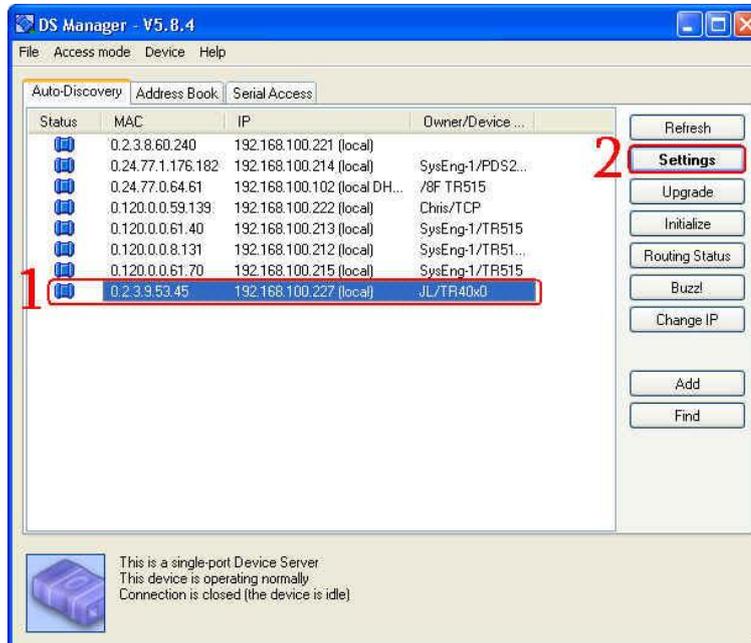
(6) Under [Connection] tab, set [Transport protocol] to "TCP" and then click [OK].
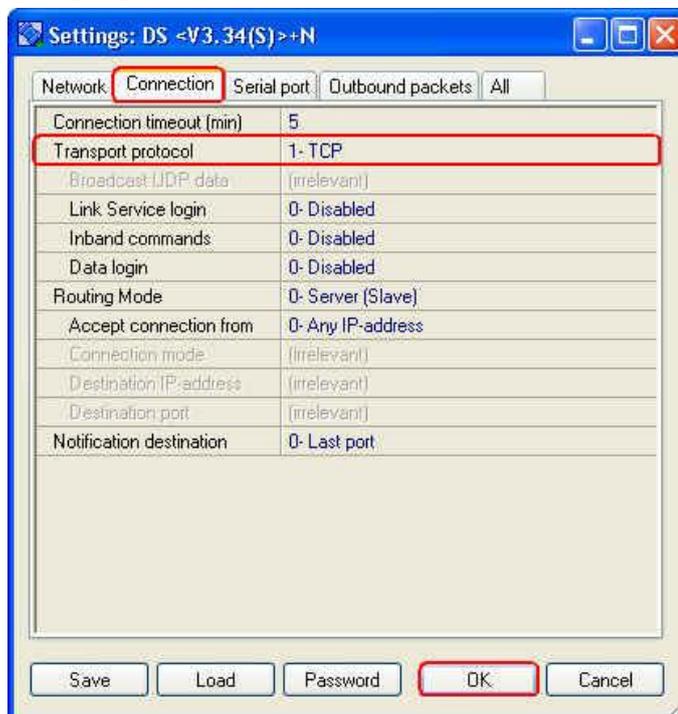
11. If you want to set TR4050-10 to provide the hexadecimal string instead of the decimal one

- The output format of TR4050-10's internal reader is fixed to decimal. There is no way to change it to hexadecimal.

12. Does TR4050-10 support VPN

- No, TR4050-10 doesn't support VPN.

About TR4050-10 Settings

1. **What is "Master Card" used for**

- If your TR4050-10 is never used, it will show a message that asks you to set a Master Card after powering it on. At the moment, the first "registered" card read by your TR4050-10 will become Master Card. The function of Master Card is to enter the programming mode of TR4050-10 for the setting purpose.

2. **If "Master Card" is lost**

- Follow the steps as below to remake a Master Card.
    (1) Reset your TR4050-10 (see "D.4. Performing a System Reset" instruction in the TR4050 users manual to reset TR4050-10).
    (2) Present Manager Enroll Card to TR4050-10 to enter the enrollment mode.
    (3) In the enrollment mode, the middle LED will start blinking green. Present a User Card A to TR4050-10 till TR4050-10 sounds a beep and the left LED blinks blue.
    (4) Present Manager Enroll Card to TR4050-10 to exit the enrollment mode. Now this User Card A is registered.
    (5) Present this registered User Card A to TR4050-10 and it will become Master Card.

3. **If you want to set "Date" for TR4050-10**
- Present Master Card to TR4050-10 to enter the menu of programming mode. Then select [Setup]->[Date]. Press F4 key to enter and then set the date with the keypad. (Default format is "dd-mm-yyyy".) If you want to erase the date you just entered, press F3 key. After the date is entered, press F4 key to confirm and then press F1 key to exit.

4. **If you want to set "Time" for TR4050-10**
- Present Master Card to TR4050-10 to enter the menu of programming mode. Then select [Setup]->[Time]. Press F4 key to enter and set the time with the keypad. (The format is "hh:mm:ss".) If you want to erase the time you just entered, press F3 key. After the time is entered, press F4 key to confirm and then press F1 key to exit.

5. **If you have set "Date" for TR4050-10, but you can't find where to set "Date Format" in the menu of programming mode**
- Present Master Card to TR4050-10 to enter the menu of programming mode. Then select [Setup]->[Advanced...]->[Date format]. Press F4 key to enter and select the format to "dd-mm-yyyy" or "mm-dd-yyyy". After it is selected, press F4 key to confirm and then press F1 key to exit.

6. **If you want to set "Machine Number"**
- Present Master Card to TR4050-10 to enter the menu of programming mode. Then select [Setup]->[Machine No]. It allows you to set the machine number for 1~4 digits. Set the number you like with the keypad. If you want to erase the number you just entered, press F3 key. After the number is entered, press F4 key to confirm and then press F1 key to exit.

7. **The length of "Shift" is 2 digits, but you want to set it more than 2 digits**
- Present Master Card to TR4050-10 to enter the menu of programming mode. Then select [Setup]->[Advanced...]->[Shift length]. It allows you to set the length of shift for 2~8 digits. Set the value you like with the keypad. If you want to erase the value you just entered, press F3 key. After the value is entered, press F4 key to confirm and then press F1 key to exit.

8. **If you want to enter "Shift" number with the keypad to tell TR4050-10 which shift is being worked, but the keypad is not workable**
- Present Master Card to TR4050-10 to enter the menu of programming mode. Then select [Setup]->[Advanced...]->[Keypad function]->[Shift entry]. Press F4 key to confirm and then press F1 key to exit.

9. **If you want to enter ID-code of the registered card/fingerprint with the keypad, but the keypad is not workable**
- Present Master Card to TR4050-10 to enter the menu of programming mode. Then select [Setup]->[Advanced…]->[Keypad function]->[ID-code entry]. Press F4 key to confirm and then press F1 key to exit.

10. **If you want to set "Bell Table"**
- Present Master Card to TR4050-10 to enter the menu of programming mode. Then select [Setup]->[Edit bell table]. Press F4 key to enter and then set the time you want with the keypad. (The time format is "hh:mm:ss".) If you want to erase the bell time you just entered, press F3 key. After the bell time is entered, press F4 key to confirm and then press F1 key to exit.

11. **If you want to set the time of "Event" (In/Out/Break In/Break Out); for example, it will be "In" event at 8:00 and change to "Out" event at 17:00 automatically**
- Present Master Card to TR4050-10 to enter the menu of programming mode. Then select [Setup]->[Edit def. event tab]. Press F4 key to enter and then set the time and the event you want with the keypad. (The format is "hh:mm:ss # event number". Event number: "1" indicates **In**, "2" indicates **Out**, "3" indicates **Break In** and "4" indicates **Break Out**.) If you want to erase the time and the event number you just entered, press F3 key. After the time and the event number are entered, press F4 key to confirm and then press F1 key to exit.

12. **If you want that the specific registered cards/fingerprints can be accepted by TR4050-10 and other registered cards/fingerprints can be rejected by TR4050-10 under the normal mode**
- The "Prefix to match" setting allows you to restrict the registered cards/fingerprints whose leading ID-code matches the prefix string accepted by TR4050-10. It allows you to set the prefix string for 0~16 digits. If "Prefix to match" is set to "123", TR4050-10 will accept the registered cards/fingerprints whose leading ID-code is "123", such as "1234584210", "1235678093" and will reject the registered cards/fingerprints whose leading ID-code is not "123", such as "2468913570", "1521014024". Set "Prefix to match" by the following steps. Present Master Card to TR4050-10 to enter the menu of programming mode. Then select [Setup]->[Advanced…]->[Internal reader]->[Prefix to match]. Press F4 key to enter and then set the prefix string with the keypad. If you want to erase the prefix string you just entered, press F3 key. After the prefix string is entered, press F4 key to confirm and then press F1 key to exit.

About USB Disk

1. **What is the USB port attached with TR4050-10 for**

- The USB disk port allows you to download the data from TR4050-10 to USB flash drive by inserting a USB flash drive into it when TR4050-10 doesn't connect with the computer. The USB disk port of TR4050-10 is for USB flash drive only, not for other usages, such as USB cable.

2. **What kind of USB flash drive does TR4050-10 support**

- The USB disk port of TR4050-10 supports "FAT" (FAT12/16/32) format, not "NTFS" format. Follow the steps as below to check the format of your USB flash drive if you don't know its format.
    (1) Insert your USB flash drive into the USB port of your computer.
    (2) Right-click "USB DISK" (or it may show "Removable Disk") and click [Properties].
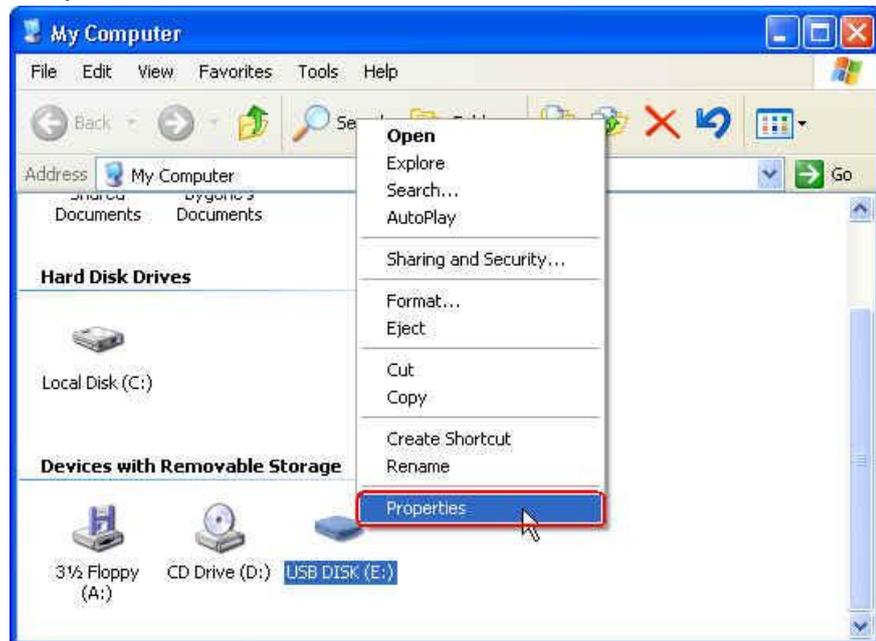
(3) Under [General] tab, check "File system".
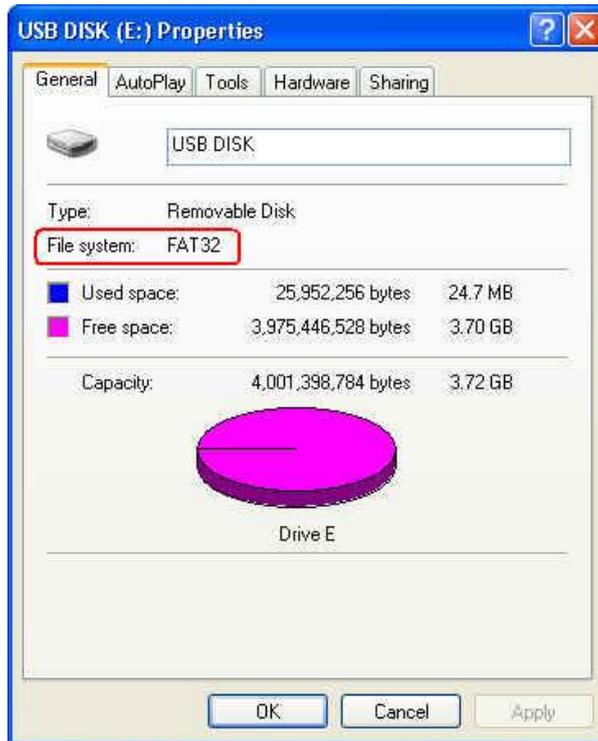
- The USB disk port of TR4050-10 supports "USB Mass Storage Device" type, not "USB Root Hub" type. Go to [Control Panel]\ [System]\ [Hardware]\ [Device Manager]\ [Universal Serial Bus controllers] to check the type of your USB flash drive if you don't know its type.
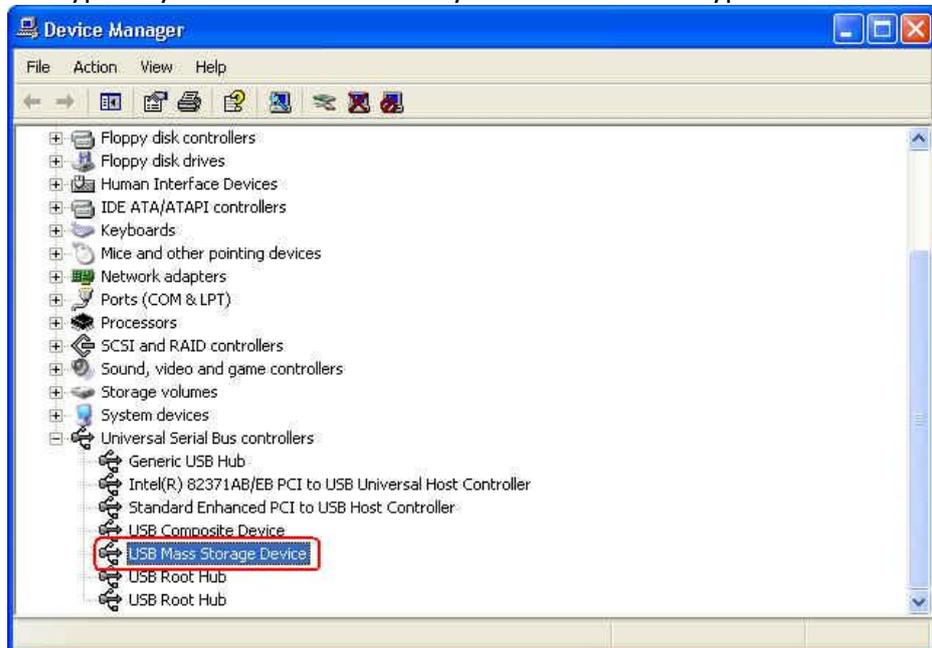
3. **If you want to use your USB flash drive to get the data from TR4050-10 directly**
- Follow the steps as below.
  (1) Power on TR4050-10.
  (2) Present the registered card/fingerprint to TR4050-10. (This step is in order to make sure there is one record in TR4050-10 at least.)
  (3) Insert your USB flash drive into the USB port of TR4050-10. The green LED near the USB port will blink while TR4050-10 is downloading the data. If there are not many records, the green LED will blink for a very short time.
  (4) Unplug your USB flash drive from the USB port of TR4050-10.
  (5) Insert your USB flash drive into the USB port of your computer.
  (6) The data will be saved as a "ddmmyyyy.txt" file automatically in the folder "TR4000" of your USB flash drive.

About Software (DS Manager)

If you can't find your TR4050-10 on the "Auto-Discovery" list of the software
DS Manager
- Make sure TR4050-10 is powered on.
- Make sure TR4050-10 is connected with Hub via "WAS-1499" cable.
- Disable the firewall and antivirus program in your computer.
- Change the other computer to try.
- Try the other port of your Hub to connect with TR4050-10.
- Try the other WAS-1499 cable if you have more than one cable.

# About Software (Time Recorder Utility)

1. **If the communication is failed when clicking [Test Connection] in the software** *Time Recorder Utility*

*   Make sure TR4050-10 is powered on.

*   Make sure TR4050-10 and your Hub are connected via the "WAS-1499" cable.

*   Make sure the firewall and antivirus program in your computer are disabled before using the software.

*   Use the software *DS Manager* to detect TR4050-10 first. (Before using the software *DS Manager*, disable the firewall and antivirus program in your computer as well.) Then go back to the software *Time Recorder Utility* to test the connection again.

*   Try the other port of your Hub to connect with TR4050-10.

*   Try the other WAS-1499 cable if you have more than one cable.

2. **If you want to set TR4050-10 in the software** *Time Recorder Utility*

*   In addition to Master Card, you can use the software *Time Recorder Utility* to access the settings of TR4050-10 as well. Follow the steps as below.

    (1) Once TR4050-10 is connected successfully with the software *Time Recorder Utility*, click [Download] inspection and then double-click your TR4050-10 on the terminal list to launch [TR40xx Properties] window.
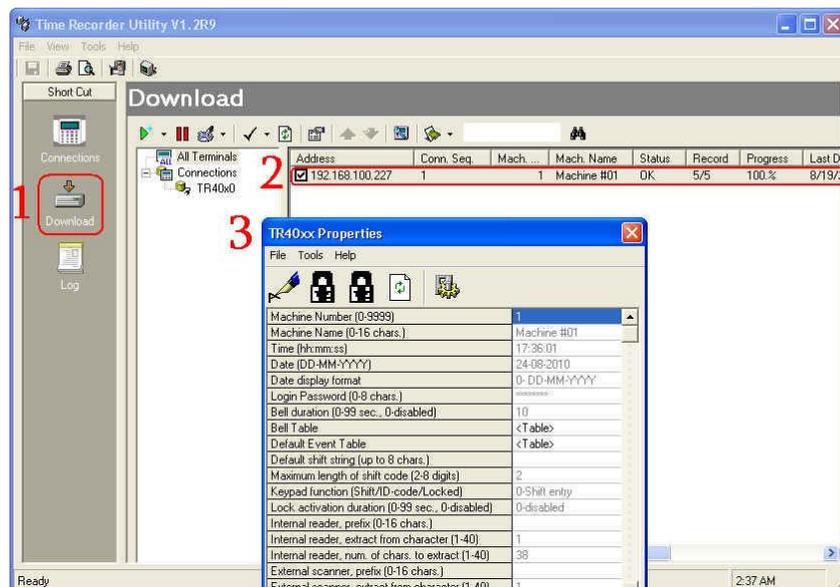
(2) Click [Login] to access the settings of property. (The default login password is no password.) Set the setting(s). Then click [Logout] to exit.


3. If "TR_ERR_TIMOUT" message appears after [TR40xx Properties] window is launched

- While TR4050-10 is being under the programming mode, the software *Time Recorder Utility* doesn't allow it to access [TR40xx Properties]. Make sure the display of TR4050-10 stays at the main screen, not at the screen of programming mode.

4. Where can you find the data file after downloading it under the normal mode

- Once the date is downloaded successfully, the data will be saved as a "yyyymmdd.txt" file at the following default path, C:\GIGA-TMS\Time Recorder Utility. If you want to change the path, go to [Tools]\ [Options...]\ [Download]\ [Saving File]\ [Location] and then click [...] to assign a specified path that you want. Then click [OK].
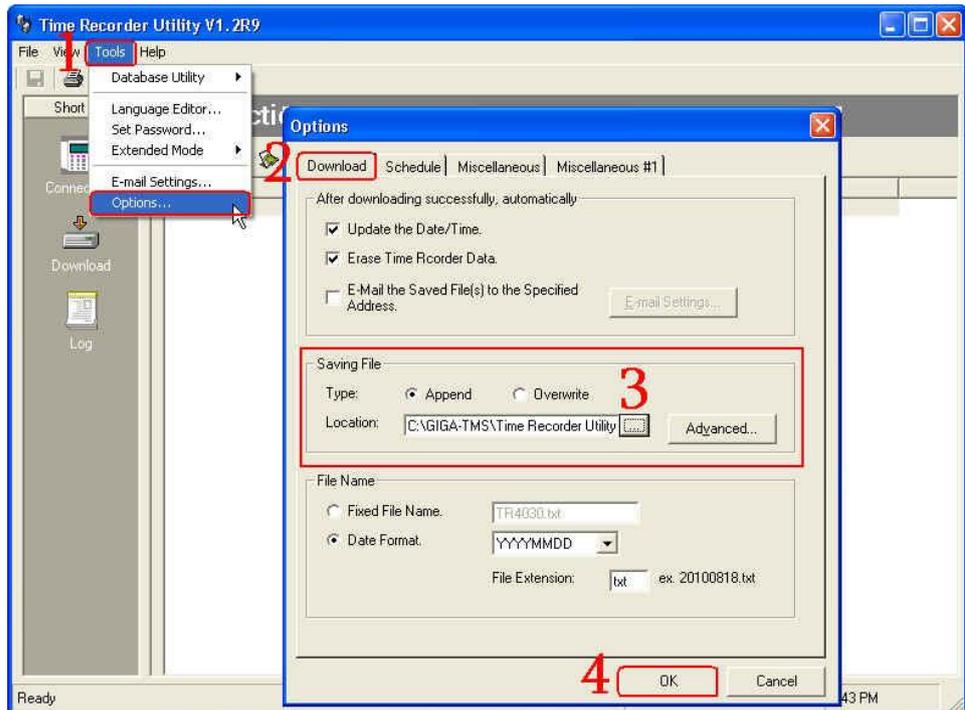
5. **If you want the data to be downloaded automatically without clicking "Download" icon ( ) under the normal mode**

- Under the normal mode, go to [Tools]\ [Options...]\ [Schedule] to set [Circulating] or [Schedule] you like. Then click [OK]. The data will be downloaded automatically according to your setting.
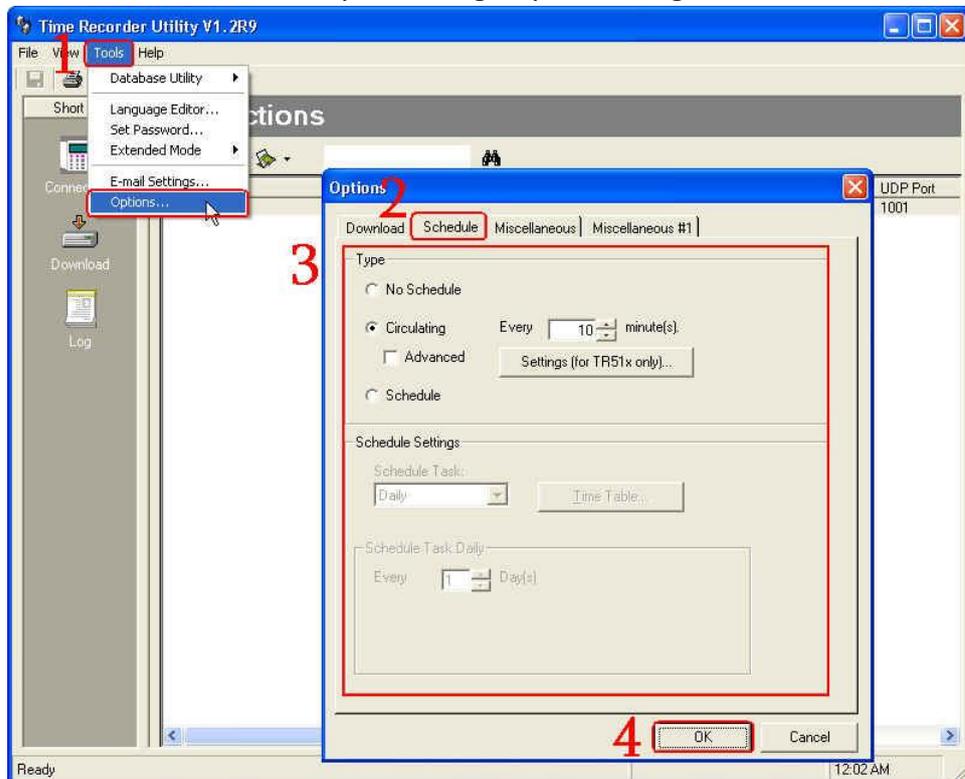
6. **If you want the data to be downloaded automatically without clicking "Download" icon (🖨) under the extended mode**

- Go to the extended mode first. Under the extended mode, go to [Tools]\ [Options…]\ [Auto-Download Time Data]. Enable [Enable Auto-Download Time Data Function] checkbox and set the auto-download time in the table. Then click [OK]. The data will be downloaded automatically according to your setting.
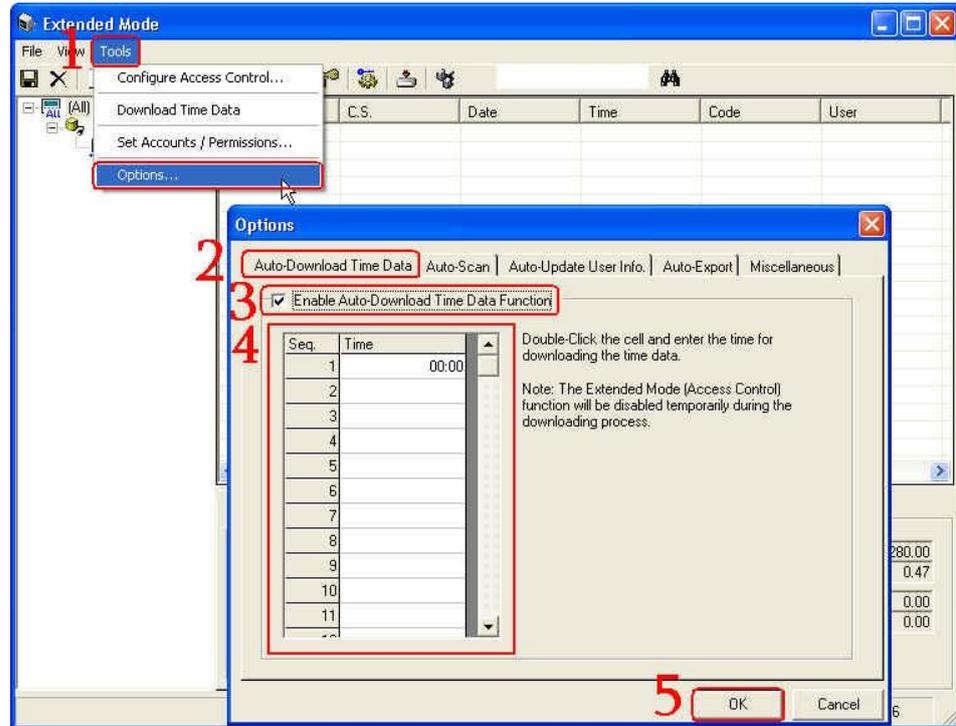
7. **If you want the data in TR4050-10 to be deleted automatically whenever it is downloaded successfully**

- Under the normal mode, go to [Tools]\ [Options…]\ [Download]. Enable [Erase Time Recorder Data] checkbox in the [After downloading successfully, automatically] section. Then click [OK]. The data will be deleted automatically after it is downloaded successfully.
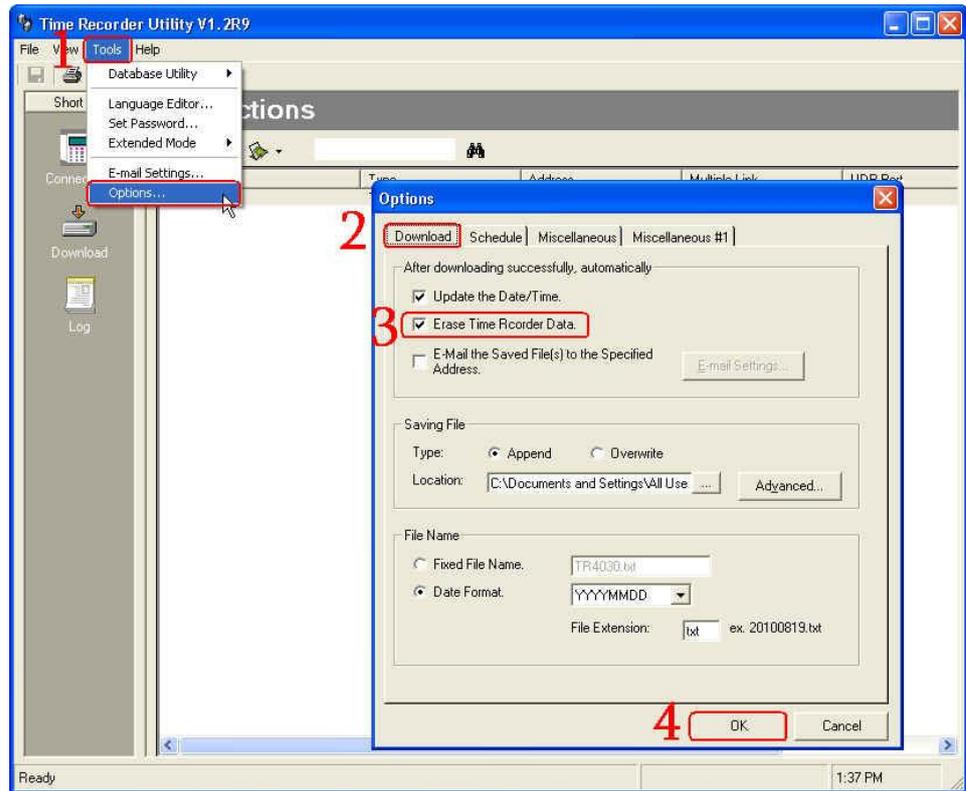
8. **If you want that the specific registered cards/fingerprints can be accepted by TR4050-10 and other registered cards/fingerprints can be rejected by TR4050-10 under the extended mode**

- Follow the steps as below.
  (1) Click icon to go to the extended mode.
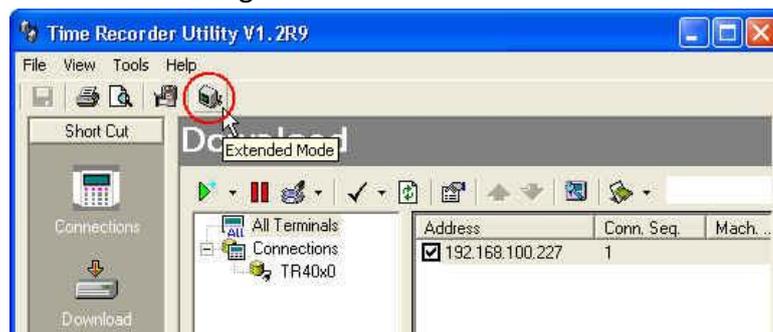
  (2) Go to [Tools]\ [Configure Access Control...].
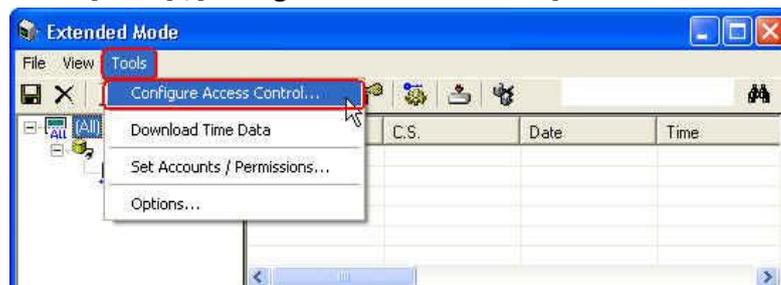
(3) Click ✚ icon in [User] inspection to add a user.
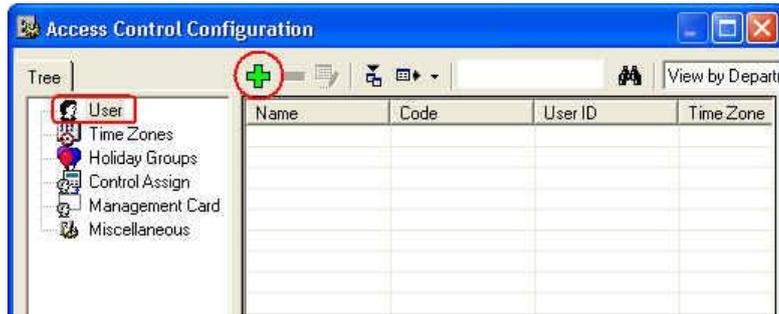
(4) Enter the name in [Name] box.

(5) Enable [Get tag code from terminal directly] checkbox. Put the cursor in [Code] box. Then present the registered card/fingerprint to TR4050-10, the ID-code of the card/fingerprint will show in [Code] box automatically.

(6) Select the time recorder (the machine number of TR4050-10) on [Mach. No] list in [Control Assign] section to assign which time recorder allows this user to enter.
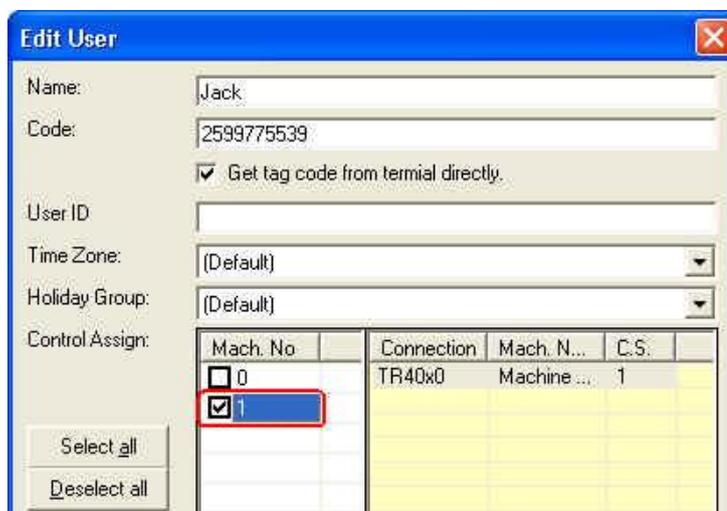
(7) Set the other settings you want. Then click [OK]. In our example, the registered card/fingerprint with ID-code 2599775539 will become the allowed card/fingerprint.

9. **If you have added a user in [Access Control Configuration] window of the extended mode, but "User name, not allowed to punch this control!" message appears on the display of TR4050-10 when this registered card/fingerprint is read**

- Make sure the time recorder (the machine number of TR4050-10) on [Mach. No] list in [Control Assign] section is already assigned when you edit the user.
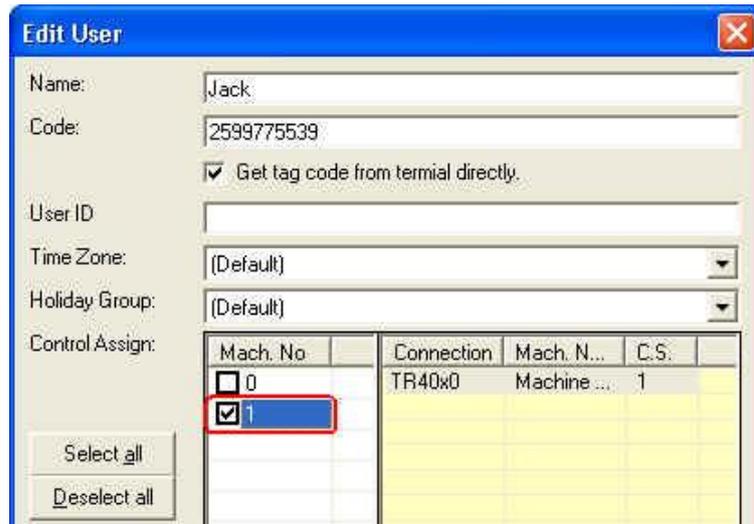
10. What is "Message Displayed" of the extended mode for

- "Message Displayed" is for the test of TR4050-10 display only. About [Content] area, if you enter the message and then click [Show Text on Display], the message you just entered will be sent to TR4050-10 and shown on the display of it. As for [Duration] setting, it allows you to set how long the message will be shown on the display of TR4050-10. Both of them are for the test purpose.
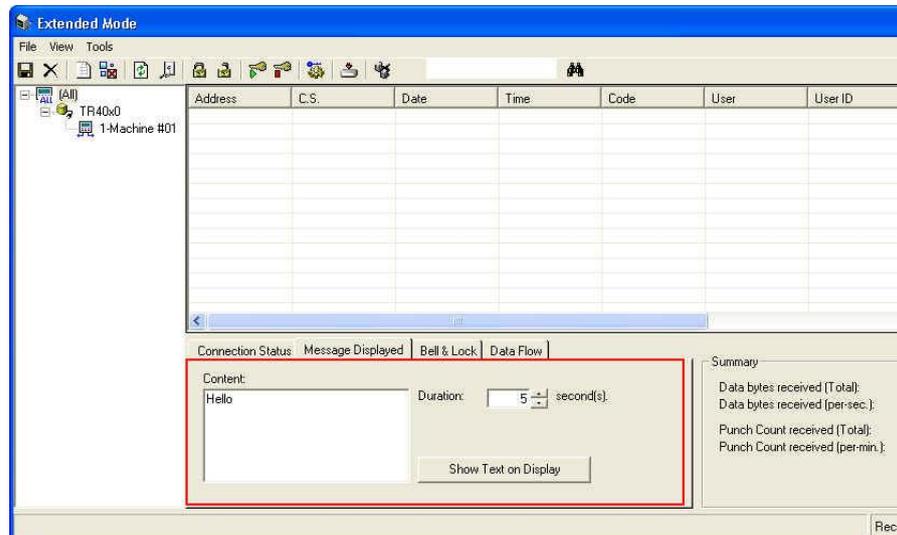
11. If "Time Manager Express database file not found" error message appears in [Access Control Configuration] window of the extended mode

- Go to [Tools]\ [Options...]\ [Auto-Export] of the extended mode. Disable [While getting the punched time data, save to the database of Time Manager Express program] checkbox. Then click [OK]. This function is designed for our other old software *Time Manager Express*.
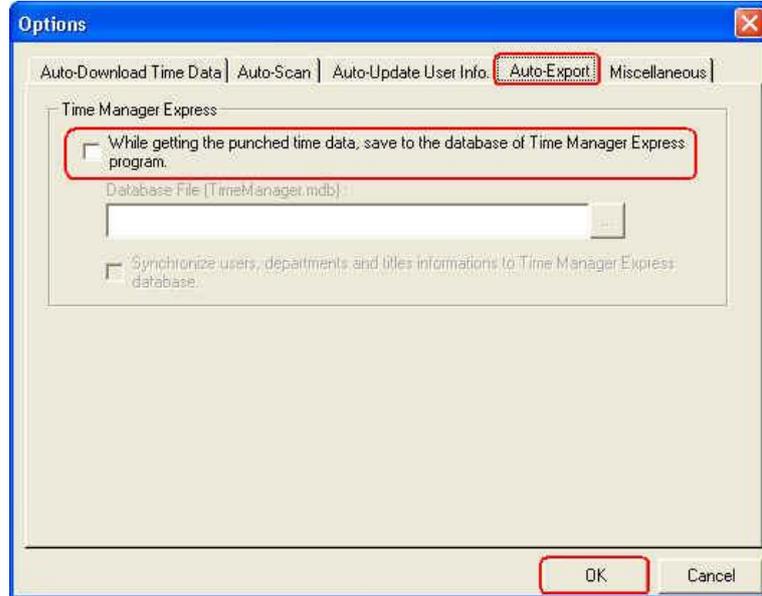

12. If you want to create a desktop shortcut to download the data file without launching the software *Time Recorder Utility*

- Follow the steps as below.
  - (1) Right-click "TimRecorderUtility.exe" and then click [Create Shortcut] to create a shortcut at the path that the software *Time Recorder Utility* is installed.
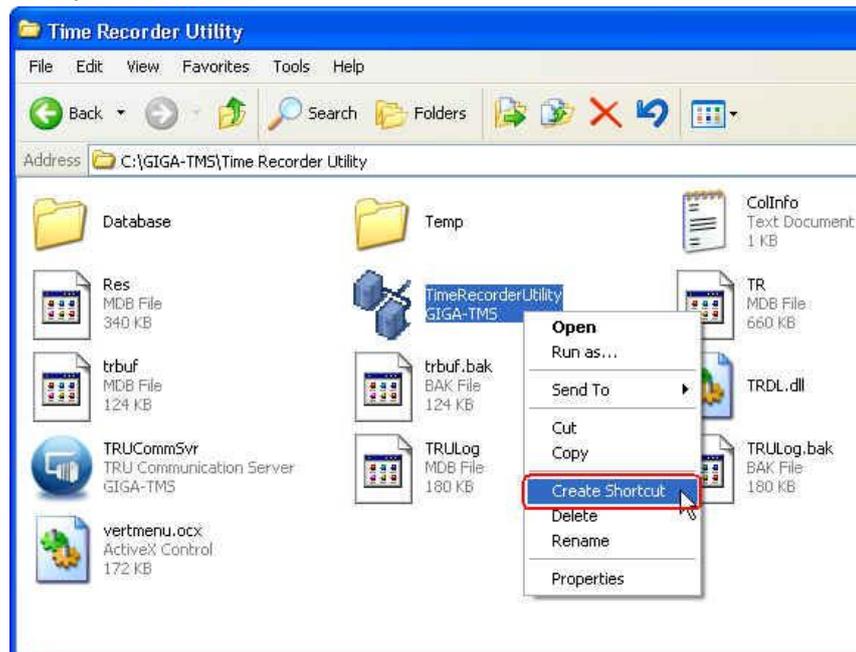
(2) Right-click "Shortcut to TimeRecorderUtility.exe" and then click [Properties].
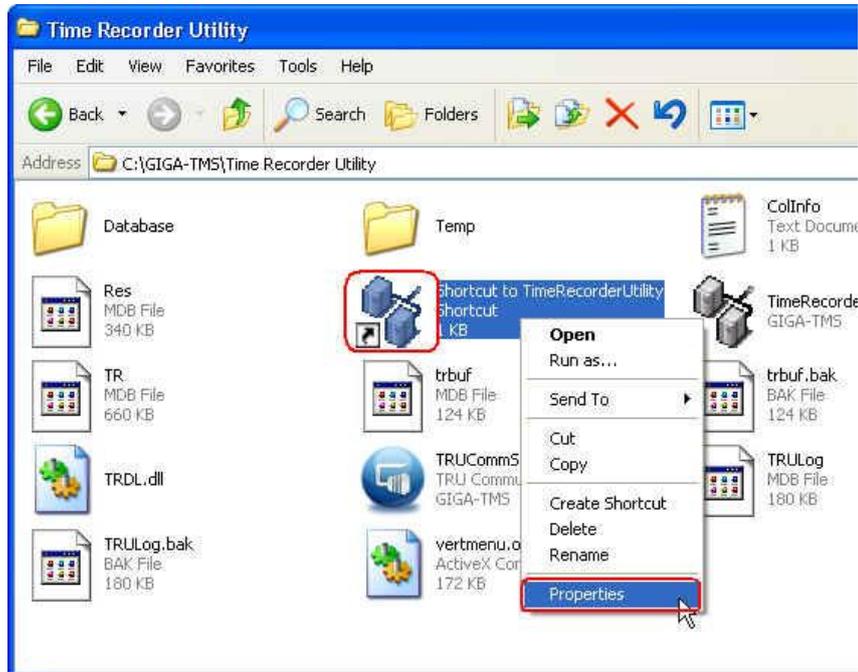
(3) Under [Shortcut] tab, add the command **/TS:ONCE** in [Target] box. Example, "C:\GIGA-TMS\Time Recorder Utility\TimeRecorderUtility.exe" /TS:ONCE   Then click [Apply] and click [OK].
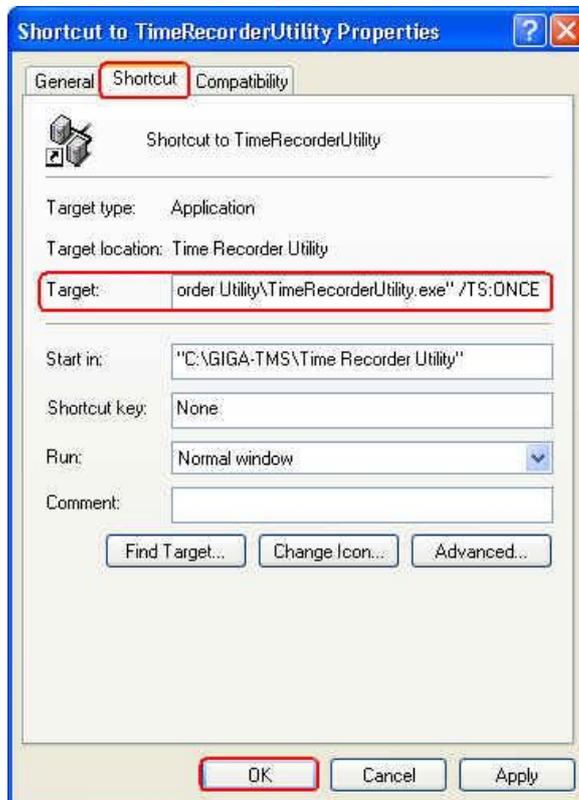
(4) Cut the shortcut to the desktop.

13. What is the maximum number that TR4050-10 can be served by the software *Time Recorder Utility*

- The number of time recorders connected with the software *Time Recorder Utility* is determined by the Windows OS version. For Windows XP, 10 time recorders are acceptable. For Windows Server version, we suggest not over 20 time recorders. If the number exceeds, it still can work (if the Windows OS allows), but will run slowly.

14. What is the maximum number of users that can be served by the database of software *Time Recorder Utility* under the extended mode

- The number of users depends on the TR.mdb file. This file is up to 2 GB. If leaving 200 MB for user usage, 10,000 users can be defined.

15. If you want TR4050-10 to send the real time data to MS-SQL server

- The data can't be sent to MS-SQL server directly. Our software *Time Recorder Utility* generates the text file (*.txt) with records. To access MS-SQL server, you need to develop your program to import the text file into MS-SQL server.

If you need further technical support, please contact GIGA-TMS Support.
Email address: support@gigatms.com.tw