



WT-CAN Setting Tool User's Manual

Beijing Promise-auto Technology Co., Ltd.

PROMISE AUTO

Introduction

Thank you for purchasing the WT-CAN Setting Tool of Beijing Promise-auto Technology Co., Ltd. (hereinafter simply referred to as PROMISE-AUTO).

The manual explains how to operate the iDAQAnyWhere for the WT-CAN Setting Tool. To ensure correct use the software, please read this manual thoroughly before beginning operation.

To view the user manual, you need Adobe Systems Incorporated's Adobe Reader 7.0 or later.

Caution

The performance and functionality of the software will continue to improve. The contents of this manual are subject to change without prior notice.

Every effort has been made by the author to ensure accuracy in the preparation of this manual. However, should any doubts arise or errors come to your attention, please contact PROMISE-AUTO.

Copying or reproducing all or any part of the contents of this manual without the permission of PROMISE-AUTO is strictly prohibited.

You may not transfer or rent this software to any third party.

After the User receiving the software and opening the package, PROMISE-AUTO give no guarantee except for the physical damage of the original disk and the dongle.

We assumes no liability to any party for any loss or damage, direct or indirect, caused by the software.

Trademarks

The company and product names used in this manual are trademarks or registered trademarks of PROMISE-AUTO.

WT is registered trademarks of Yokogawa Electric Corporation.

Microsoft and Windows are registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Adobe and Acrobat are registered trademarks or trademarks of Adobe Systems Incorporated.

The company and product names referred to in this document are either trademarks or registered trademarks of their respective holders.

In this manual, the ® and TM symbols do not accompany their respective registered trademark or trademark names.

Version

First Edition: June 2019

Second Edition: July 2021

Software License Agreement

PLEASE READ CAREFULLY BEFORE USING:

Thank you for purchasing the software of PROMISE-AUTO. By installing the software, you agree to be bound by the terms and conditions of this Software License Agreement. The copyright of the software lies with PROMISE-AUTO. Please install the software only after you have carefully read the following Software License Agreement and agreed to be bound by the terms and conditions of this Agreement. If you don't agree to be bound by the terms and conditions of this Agreement, please don't install or use the software, and please return the software to the software dealer or vendor immediately.

Software License Agreement

Subject to the condition that the User agrees to be bound by the terms and conditions of this Software License Agreement (hereinafter referred to as "Agreement"), PROMISE-AUTO (hereinafter referred to as "Company") hereby grants to the User the right to use the software products as set forth in Article 1 hereof (hereinafter referred to as "PROMISE-AUTO Software").

Article I Governing Law

This Agreement applies to the following PROMISE-AUTO Software (including the associated documentation) provided by the Company to the User.

In addition, this Agreement applies to the updates and upgrades of the PROMISE-AUTO Software which may be provided by the Company.

Name of Software: WT-CAN Setting Tool

Article II Grant of License

For the PROMISE-AUTO Software, the User shall pay the price of the separately agreed usage fee, and may only install it on the same number of computers as the number of licenses specified in the preceding clause. The Company hereby grants to the User a non-exclusive and non-transferable right to use the PROMISE-AUTO Software solely for internal operation purpose (hereinafter referred to as "Use Right").

The PROMISE-AUTO Software shall mean any software of which the intellectual property rights are owned by the Company, or any software for which the use right (including sublicense right) is obtained by the Company from third party (such third-party software is hereinafter referred to as "Third-party Software", including any software independently developed or sold by any affiliate of the Company). The User may not distribute, lease, transfer, pledge or make available the PROMISE-AUTO Software to any third party, and may not sublicense the Use Right to any third party.

The User may not reproduce the PROMISE-AUTO Software, except for one archival copy for backup purpose, and shall be maintained with due care subject to this Agreement.

In no event may the User cause, permit or attempt to dump, disassemble, decompile, reverse-engineer, or otherwise translate or reproduce the PROMISE-AUTO Software into source code or other human readable format, or revise or translate the PROMISE-AUTO

Software into other language and change it to other formats than that in which the Company provided. In addition, unless otherwise agreed by the Company, the Company will not provide the source code of the PROMISE-AUTO Software to the User.

The PROMISE-AUTO Software as well as all relevant technologies, algorithms, know-how and procedure are the properties of the Company or the licensors to the Company. The Company has not made any commitment for transferring or assigning any right in such properties to the User.

The Company may use or add any protective device (anti-duplication protection device) in the PROMISE-AUTO Software. The User may not release or attempt to release such device.

Under the circumstance that the PROMISE-AUTO Software contains any third-party software, if the Company accepts from third party the special terms and conditions for use of such third-party software which differ from this Agreement, the Company will notify in writing the User thereof, and the User shall comply with such terms and conditions.

Article III Restrictions on Application

The PROMISE-AUTO Software is not produced or licensed for use in relation to:

Operation or control of any aircraft, navigation or control of any ship, or planning, design, development, construction, maintenance, operation and use of any ground facility or device for support of the aforesaid operation or control.

Planning, design, development, construction, maintenance, operation and use of any nuclear related facility or radiation-related equipment.

Planning, design, development, construction, maintenance, operation and use of any nuclear weapon, chemical weapon, biological weapon or railway facility.

Planning, design, development, construction, maintenance, operation and use of any device relating to personal safety such as medical device.

If the PROMISE-AUTO Software is used by the User for the abovementioned purposes, the Company will assume no liability for any claim or damage arising from the said use, and all relevant liabilities shall be borne by the User.

Article IV Warranty

The User acknowledges that the PROMISE-AUTO Software is provided to the User on an "as is" basis at the time of manufacturing or delivery. If the User finds that the PROMISE-AUTO Software's recording media or dongle is damaged, the Company will only replace it free of charge within 12 months after shipment. (The User should send the memory media or dongle to the specified address at his own expense.) The Company hereby disclaims no warranties, whether express or implied, with respect to quality, functionality, appropriateness, accuracy, reliability and recency of the PROMISE-AUTO Software. In no event shall the Company warrant that there is no inconsistency or interference between the PROMISE-AUTO Software and other software.

Notwithstanding the foregoing, if the PROMISE-AUTO Software contains any third-party software, the warranty period and the warranty clauses shall be subject to the provisions of

the supplier of such third-party software.

At the sole discretion of the Company, the Company may upgrade the PROMISE-AUTO Software (hereinafter referred to as “Upgrading Service”).

Notwithstanding the foregoing, in no event shall the Company provide any Upgrading Service for the PROMISE-AUTO Software which has been modified or changed by the User or any third party.

Article V Liabilities for Damages Caused by Infringement upon Patent and Copyright

If the User is warned or receive a claim by a third party that the PROMISE-AUTO Software in its original form infringes any third party’s patent, trade mark, copyright or other intellectual property rights (“Claim”), the User shall promptly notify the Company thereof in writing.

If the infringement mentioned above is attributable to the Company, under the precondition that the User grants to the Company the full authority to control the defense and settlement of such Claim and gives every and all necessary information and assistance to the Company, the Company will, at its own expenses, defend the User from the Claim and indemnify the User from the damages finally granted by the court.

If the Company believes that a Claim under Article 5.1 hereof may be made or threatened, the Company will, at its option and its expense, take any of the following measures:

Procure from relevant third party the right for the User to continue using the PROMISE-AUTO Software.

Replace the PROMISE-AUTO Software with other software product to prevent the infringement upon third-party right.

Modify the PROMISE-AUTO Software, in whole or in part, so that it become non-infringing.

If the Company fails to take any of the measures mentioned above, the Company will, to the extent of the license fee already paid by the Company to the Company under Article 2.1 hereof, make compensation for the User.

Article VI Limitation of Liability

Should the User incur any damage when using the PROMISE-AUTO Software provided by the Company to the User in accordance with the terms and conditions hereof and such damage is attributable to the Company, the Company will take the corresponding measures in accordance with the terms and conditions hereof; provided that, the Company shall not be liable to any incidental, consequential or indirect damages incurred by the User (including loss of business profits, loss caused by business interruption, loss of business data and other losses). In no event the compensation payable by the Company shall exceed the license fee paid by the User to the Company in accordance with Article 2.1 hereof. In addition, if the PROMISE-AUTO Software altered, modified or combined with other software or is otherwise made different from the basic specifications or functional specifications of the PROMISE-AUTO Software without the prior written consent of the Company, the Company may be exempted from all or any of its obligations and liabilities under this Agreement or law.

Any claim against the Company based on any cause of action under or in relation to this

Agreement must be given in writing to the Company within three (3) months after the cause of action accrues.

Article VII Export Control

Without the prior written consent of the Company, the User may not export or provide to any other countries, whether directly or indirectly, the PROMISE-AUTO Software and associated documentations.

Article VIII Term

This Agreement shall come into effect as of the date on which the User receives the PROMISE-AUTO Software, and, if not being rescinded, shall remain in full force and effect till the time when the User or the Company terminates the use of the PROMISE-AUTO Software by giving a one-month written notice to the other party or till the time when the use of the PROMISE-AUTO Software by the User is terminated automatically. Upon termination or rescission of this Agreement, the User shall fully delete or destroy the PROMISE-AUTO Software and the associated documentation as well as the copies thereof; provided that, if being otherwise notified by the Company, the User shall return the above-mentioned items to the Company or any third party as designated by the Company.

Article IX Withholding

After the Company grants to the User the license for use of the PROMISE-AUTO Software, if the using environment is changed, or the User has concealed any inappropriate using environment when obtaining the license, or the Company believes that the User is obviously unsuitable for use of the PROMISE-AUTO Software, the Company shall have the right to terminate the use of the PROMISE-AUTO Software by the User.

Article X Rescission

Should the User breach any of the terms and conditions hereof, the Company may rescind this Agreement with immediate effect upon written notice to the User. The provisions of Article 5, Article 6, Article 11 and Article 12 shall survive the termination or rescission of this Agreement.

Article XI Governing Law

This agreement shall be governed by and construed in accordance with the laws of the People's Republic of China.

Article XII Settlement of Disputes

Any dispute which may arise between the parties hereto, out of, in relation to or in connection with this Agreement shall be resolved amicably through negotiation between the User and the Company. Should no settlement can be reached through negotiation, the dispute shall be submitted to Beijing Arbitration Commission for arbitration based on the latest arbitration rules. The decision made by the arbitrator is final, and the award of arbitration shall be final and be

binding upon both parties.

Contents

Chapter 1. Overview	9
1.1. WT-CAN Adapter Overview	9
1.2. WT-CAN Setting Tool Feature Overview.....	9
1.3. Supported Instruments	10
1.4. Operation Environment.....	10
Chapter 2. Software UI Description and Operation Flow.....	11
2.1. UI Layout.....	11
2.2. Tool Bar.....	11
2.2.1. Show/Hide Tool Bar	11
2.2.2. View Help.....	12
2.2.3. View Version Information.....	12
2.3. Status Bar.....	12
2.4. Software Operation Procedure	14
Chapter 3. Software Installation/Start/Set/Exit.....	15
3.1. Software Installation.....	15
3.2. Start/Exit Software.....	15
3.3. WT-CAN Adapter Authority.....	15
Chapter 4. Project Configuration.....	17
4.1. Project Setting	17
4.2. Channel Settings	18
4.2.1. Add to CAN Channel List.....	19
4.2.2. Delete CAN Channel List.....	20
Chapter 5. Export DBC File and Send Settings	21
5.1. Export DBC File	21
5.2. Send Settings to WT-CAN Adapter.....	21
5.2.1. Search WT-CAN Adapter	21
5.2.2. IP Reset	22
5.2.3. Writing settings to WT-CAN Adapter	22
Chapter 6. View Set WT Command	23
6.1. View Command.....	23
6.2. Command Code List	23
6.3. Send Setting Command and Read back Result.....	29
Chapter 7. Appendix	32
7.1. Dialog Box Summary.....	32
7.2. Toolbar Button Shortcut Corresponding List.....	34
7.3. FAQs.....	35

Chapter 1. Overview

1.1.WT-CAN Adapter Overview

The system configuration diagram of the Power Meter CAN Communication Module (hereinafter referred to as "CAN Adapter") is shown as follows. The CAN adapter can receive WT's data and convert them into CAN signals, then it sends these signals to CAN bus. The adapter can also send the WT setting request command to WT devices in the CAN bus.

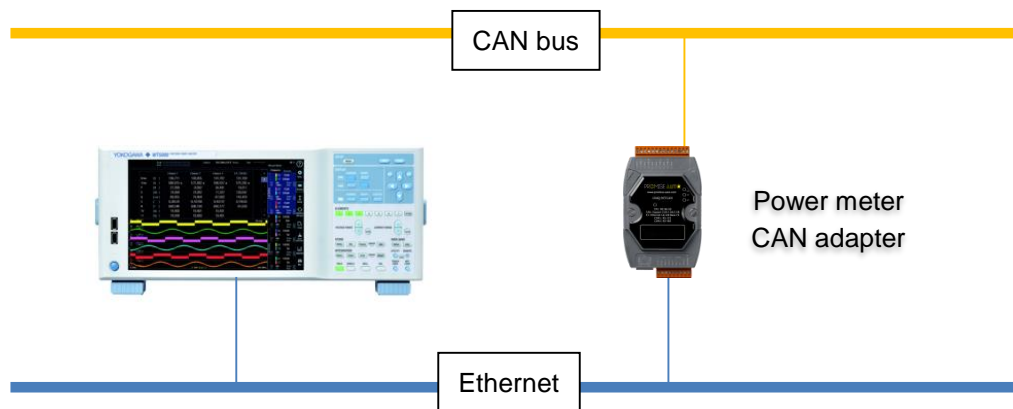


Figure 1 System Configuration Diagram of the CAN Adapter

When the CAN adapter is used for the first time, it is necessary to configure the signals, parameters, etc. by using the WT-CAN Setting Tool. Please connect the CAN adapter to PC via Ethernet.

1.2. WT-CAN Setting Tool Feature Overview

The WT-CAN Setting Tool (hereinafter referred to as "Software") is a coordinated software for WT-CAN Adapter. By using this software, the CAN adapter can be quickly configured to acquire and set the WT power data. The software includes the following main features:

- i. Select the function items of the WT channels offline, and automatically configure the CAN message list;
- ii. Communication parameter setting function: Configure the CAN adapter's communication parameters;
- iii. DBC file export function: Convert the configured CAN message list to DBC file format;
- iv. Send settings: Send the configured CAN message list to a CAN adapter.

1.3.Supported Instruments

The currently supported instruments are listed below.

Table 1 Supported Instruments

Instrument Name	Comment
WT5000	
WT1800E	
WT3000E	

1.4.Operation Environment

Table 2 Supported Operating System

Operating System	Version	32bit	64bit	Service Package
Windows 7	Professional	○	○	SP1
Windows 8	Pro	○	○	
Windows 10	-	○	○	

○ Indicates that the item is supported.

Table 3 PC Setup

Item	Description
CPU	Pentium IV 3.2GHz or higher
Internal Memory	2GB or more
Hard Disk	200MB or more free space
Mouse	OS supported mouse
Display	1280x1024 pixels or more, 65536 colors or more
Communication Port	OS supported ethernet card

Table 4 Other Environments

	Version
Adobe Reader	Adobe Reader X (the latest version recommend)

Chapter 2. Software UI Description and Operation Flow

2.1.UI Layout

The main interface consists of toolbar, work area and status bar as shown below.

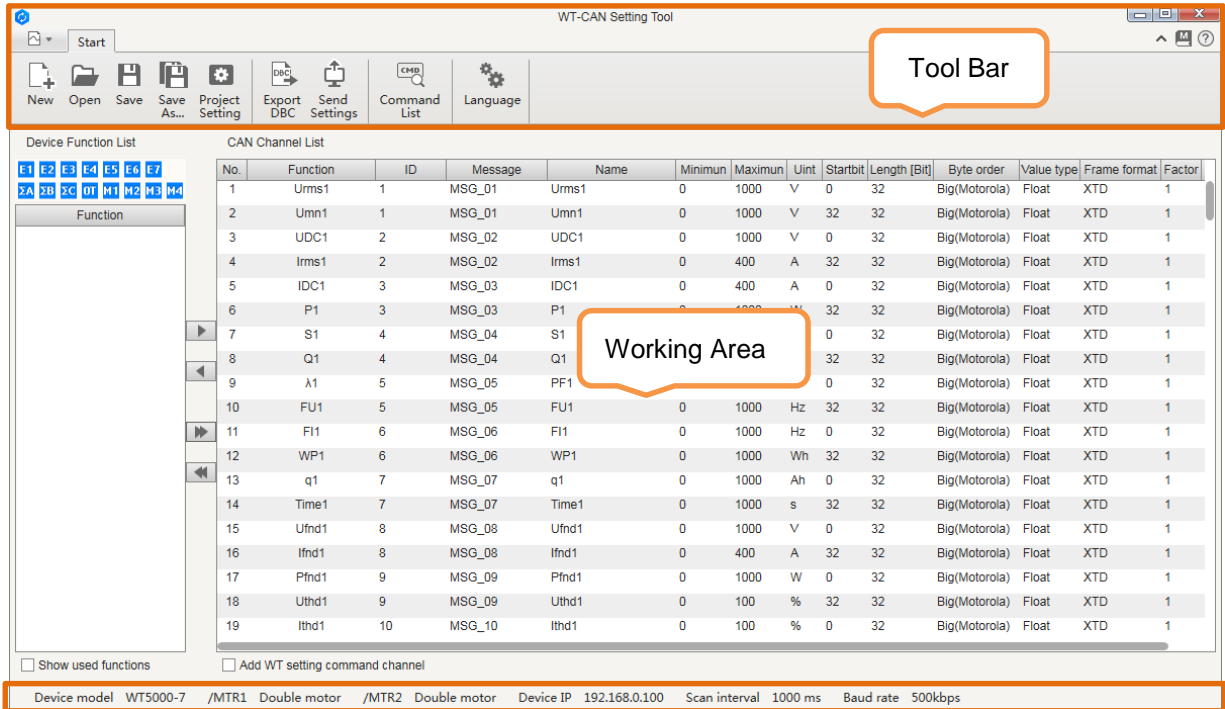


Figure 1 Interface Layout

2.2.Tool Bar

The tool bar is displayed as follows.

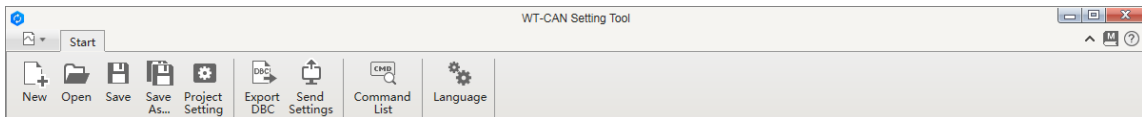


Figure 2 Tool Bar

2.2.1.Show/Hide Tool Bar

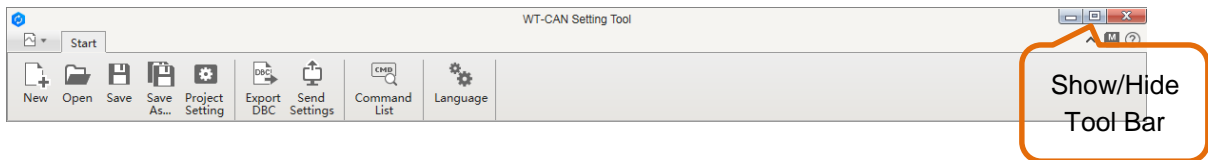




Figure 3 Tool Bar

You can show or hide the toolbar by clicking ^ or v in the upper right of the window.

2.2.2.View Help

Click [Manual] button  on the toolbar or select [Manual] in the file menu to display this Manual.

2.2.3.View Version Information

Click [About] button  on the toolbar to display a version information dialog box which includes the software copyright, version number etc.

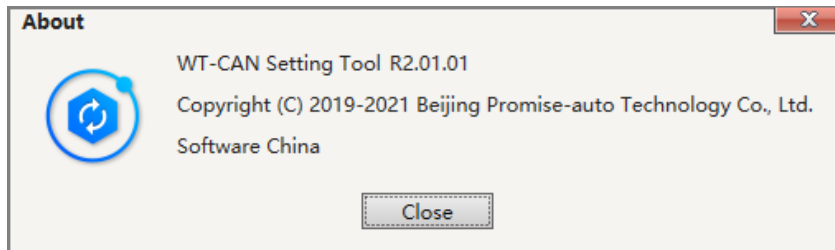


Figure 4 Version Information Dialog Box

2.3.Status Bar

The status bar at the bottom of the window shows the configuration information of the current project.

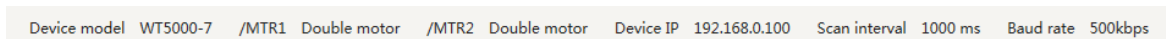


Figure 5 Status Bar

The status bar consists of the following items:

- Display the device model of the current project

The format of the displayed name varies depending on the device model naming rules.

- Display the WT option information of the current project

Information for unchecked options in the project settings will not be displayed.

- Display the device IP

The IP address of the WT device.

- Display the scan interval

Time interval that the CAN adapter reads data from WT device (50 ~ 5000ms).

WT5000 supports the fastest 10ms.

- Display the baud rate

The baud rate that the CAN adapter communicates with CAN bus system.

- Display the limitation of the CAN channels

When the function list cannot be completely added to the CAN channel list, a prompt that the maximum number of CAN channels can be added will display.

[Note] WT5000 and WT1800E can add up to 300 CAN channels, and WT3000E can add up to 255 CAN channels.

2.4. Software Operation Procedure

Complete software operation procedure is shown as follows.

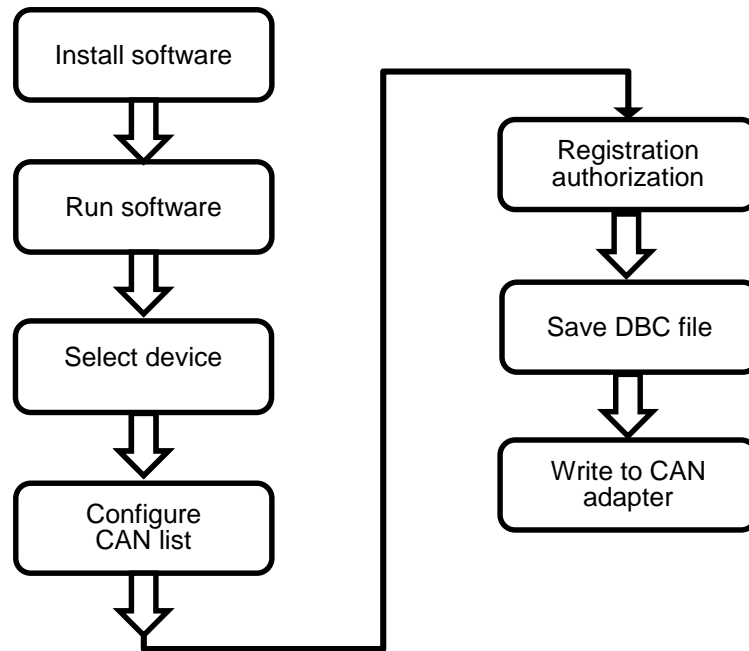


Figure 6 Software Operation Flow Chart

Chapter 3. Software Installation/Start/Set/Exit

3.1. Software Installation

Run "setup.exe" and the installation wizard appears, then install the software following the instructions.

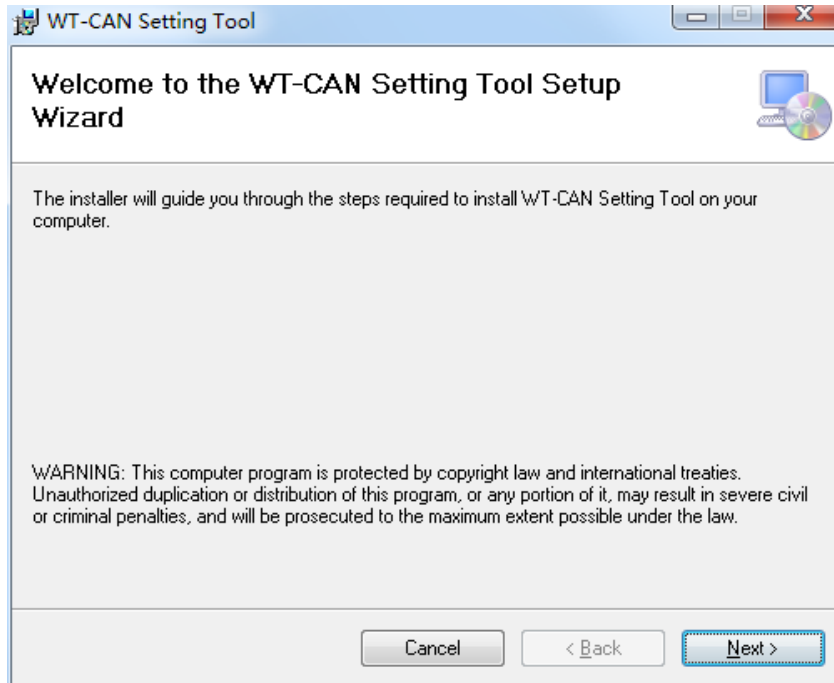


Figure 7 Installation Wizard

CAUTION:

If you are prompted to install DotNet Framework Library during installation, please install it according to the bootloader.

3.2. Start/Exit Software

- Start

Select [Start] - [All Programs] - [WT-CAN] - [WT-CAN Setting tool] to start the program. After startup, the software automatically loads the configuration of last time.

- Exit

Select [Exit] in the File menu, or click the close button in the upper right corner of the main window.

The current configuration of the software is automatically saved before exiting.

3.3. WT-CAN Adapter Authority

The settings can be sent to the CAN adapter only when the CAN adapter's authority is

registered. Select [Authority] in the File menu to pop up the authority management dialog box.

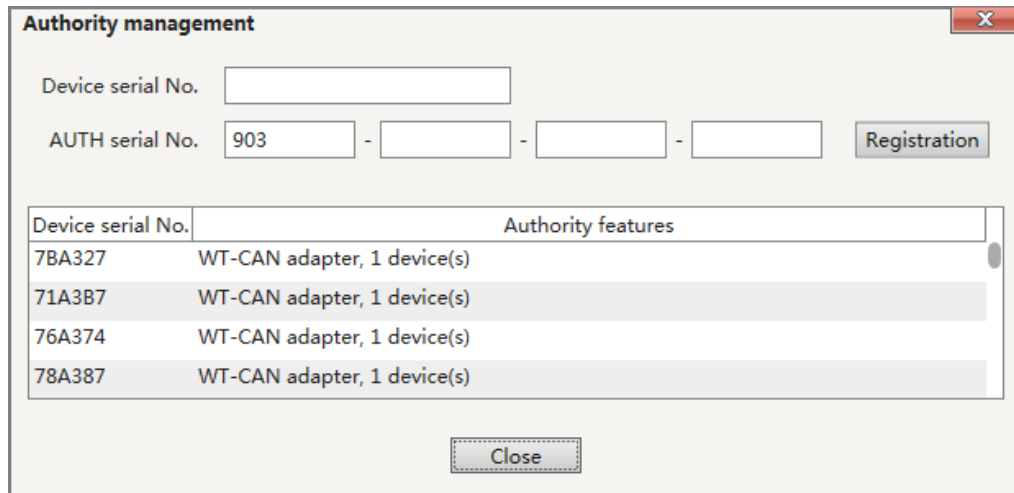


Figure 8 Authority Management Dialog Box

· Registration:

Enter the device serial number of the CAN adapter which needs to be authorized, then enter the authorization serial number, and click the [Registration] button to complete registration.

Chapter 4. Project Configuration

4.1. Project Setting

The Project Setting page is displayed as below.

The screenshot shows a dialog box titled "New Project Setting" with a close button (X) in the top right corner. The dialog is divided into two main sections: "WT" and "CAN".

WT Section:

- Device model: WT5000
- Element: 4
- Optional: /MTR1, Count: Double motor
- /MTR2, Count: Double motor
- Device IP: 192.168.0.100

CAN Section:

- Scan interval: 1000 ms
- Baud rate: 500kbps
- Frame format: XTD
- Start address: 1
- Byte order: Big(Motorola)

At the bottom of the dialog are "OK" and "Cancel" buttons.

Figure 9 Project Setting Dialog Box

i. New Project Setting

Click [New] button on the toolbar to pop up the New Project Setting dialog box.

ii. Edit Project Setting

Click [Project Setting] button on the toolbar to pop up the Edit Project Setting dialog box.

The users can change the setting parameters of the current project as necessary.

[Note] The setting parameters that are not configured by the users will not be displayed and used in the project.

4.2.Channel Settings

The Channel Settings page is displayed as below.

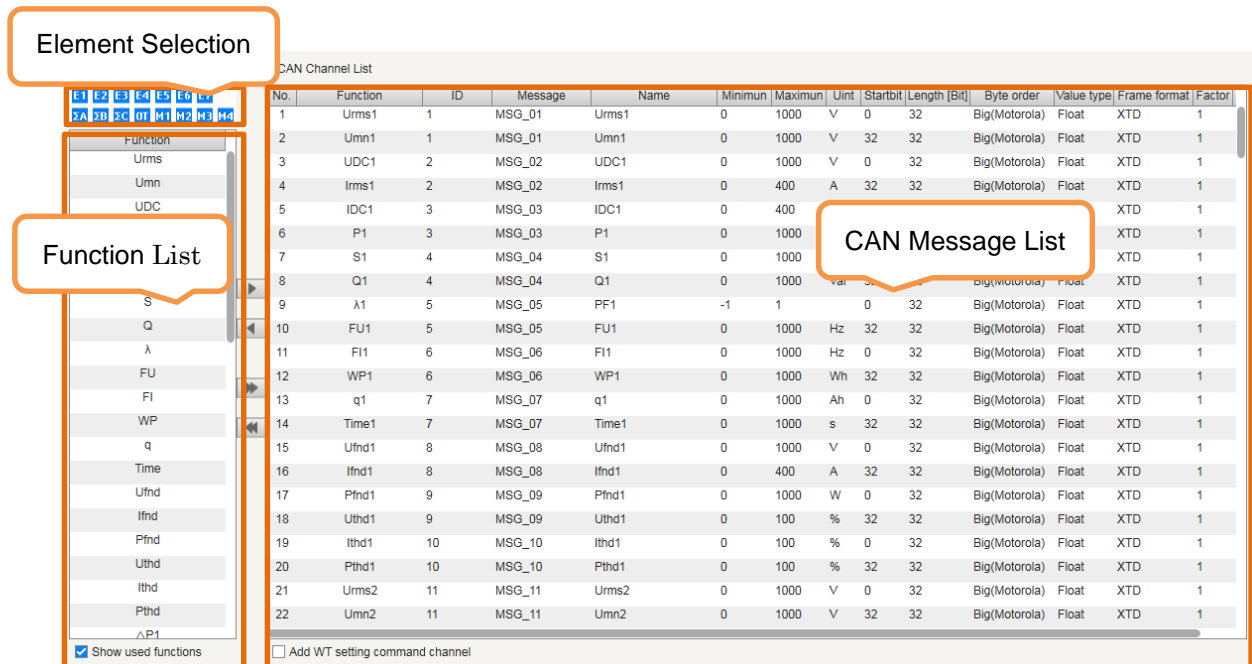


Figure 10 Channel Setting Page

i. Element Selection button

Each Element Selection button corresponds to multiple function items of the WT device, and the selected function items will be added to the function list.

ii. Function list

The function list displays the name of selected function item in a fixed order, and the items with the same function name are displayed only once.

The function items that are not selected by the Element Selection button or added to the CAN channel list are not displayed.

The function name is not displayed in the list if it's function items have selected by the Element Selection button and all added to the CAN channel list. Checking [Show used functions] allows the function name to be displayed in the list.

Move the cursor on the function name, a prompt displays the selected element items of the function name in the following way.

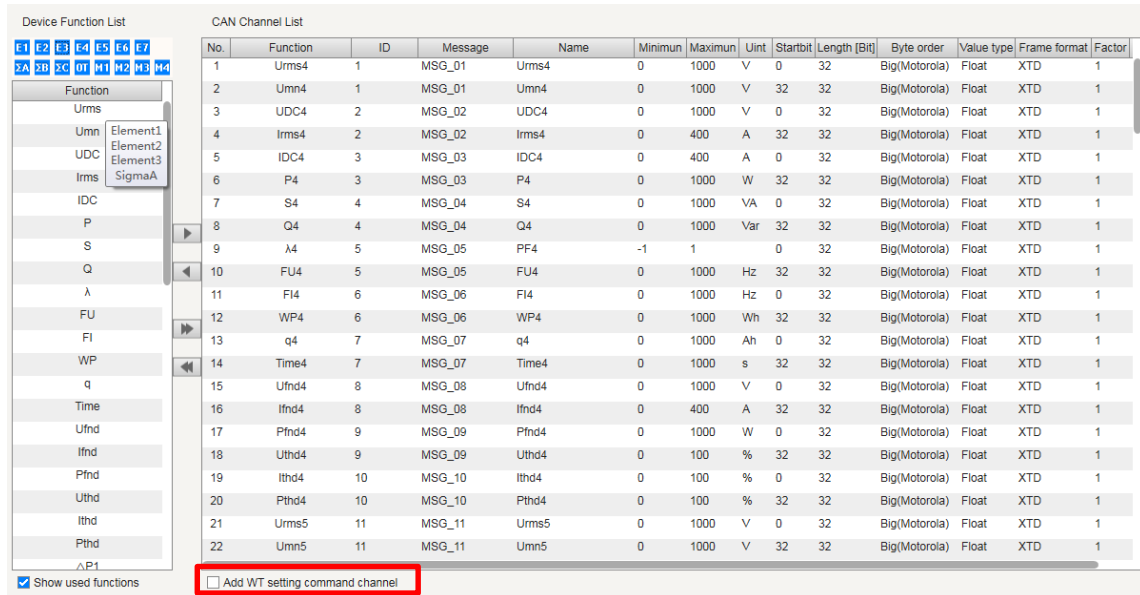


Figure 21 Function selection interface

iii. CAN Channel list

When the “Add WT setting command channel” is selected in the check list, the first 2 lines of the list automatically add the CAN signal channel for sending the WT command, and automatically delete when unchecked. These channels cannot be moved, inserted, or deleted if “Add WT setting command channel” is selected.

The list (except the WT command setting channels) displays the CAN channel information used for WT device.


Only [Name] [Minimum] [Maximum] [Unit] column can be edited in the list and other columns cannot be edited.


4.2.1. Add to CAN Channel List

i. Add by dragging and dropping

Select the function name to use in the function list, and drag it to the CAN channel list on the right. The selected function items corresponding to the function name will be inserted in the list.

ii. Add by button

Select the function name in the function list, and click  button. The selected function item will be added to the CAN channel list.

Click  button to add all items in the left function list to the CAN channel list.

[Note] The function items that have been added to the CAN channel list are not added repeatedly.


4.2.2.Delete CAN Channel List


i. Delete by dragging and dropping

Select the function name that you don't want to use in the CAN channel list, and drag it to the left function list to delete it.

ii. Delete by button

Select the function name that you don't want to use in the CAN channel list, and click


 button to delete it.

Click  button to delete all added function items in the CAN channel list.

The first two lines of the CAN channel list are used to set up the WT device, and cannot be moved, inserted and deleted by the user. Only [Name] [Minimum] [Maximum] [Unit] column can be edited in the list and other columns cannot be edited.

Select the added channels in the CAN channel list (multiple selections), and allow to adjust the order by drag and drop in the list.

Select the added channels in the CAN channel list (multiple selections), click  or drag

to the function list to delete. Click  button to delete all added function items in the CAN channel list.

Chapter 5. Export DBC File and Send Settings

After the CAN channel list is configured, you can export DBC file to be used by the CAN host and send the configuration information to the WT-CAN adapter.

5.1.Export DBC File

Click [Export DBC] button to convert the CAN channel list to DBC file and save it.

5.2.Send Settings to WT-CAN Adapter

Click the [Send Settings] button on the toolbar to pop up the WT-CAN Adapter Setting dialog box as shown below.

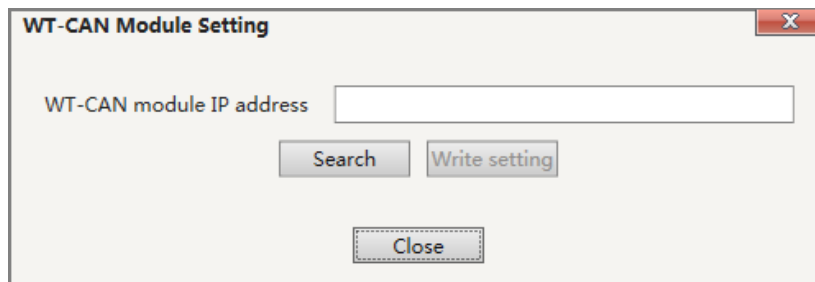


Figure 3 WT-CAN Adapter Setting Dialog Box

5.2.1.Search WT-CAN Adapter

After switching the DIP switch on the back of the CAN adapter to <Init> and powering it on, click the “Search” button to find the available CAN adapter in the LAN where the computer is running the software.

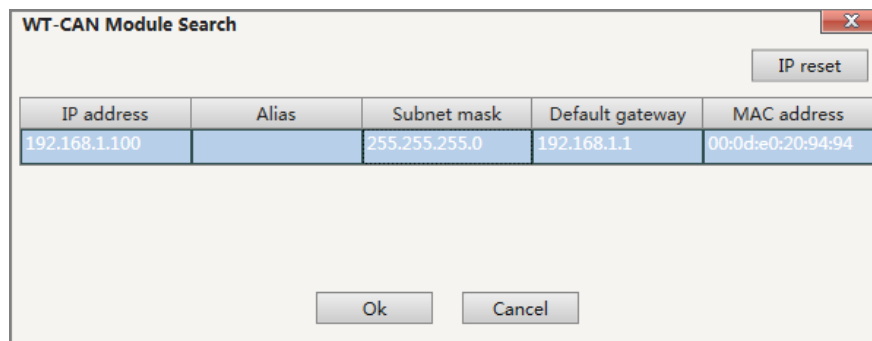


Figure 4 Search Result

Select the CAN adapter to use, then click “OK” button.

5.2.2.IP Reset

In the search result window, select the CAN adapter to modify the communication parameters, and click the [IP reset] button to pop up the communication parameter setting dialog box as follows.

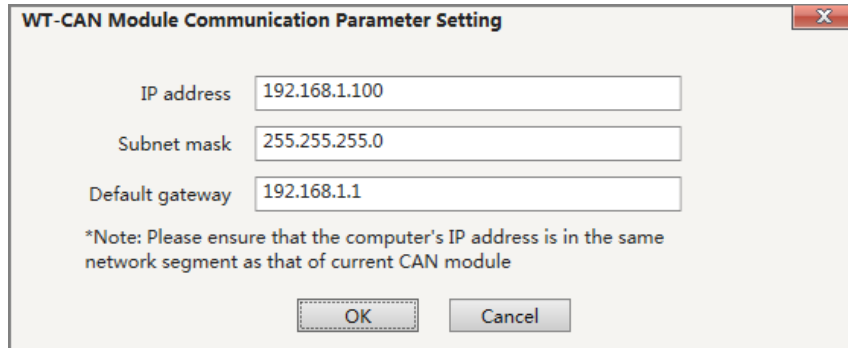


Figure 14 Communication parameter settings

Input the communication parameters in IP Address, Subnet Mask, and Default Gateway edit box. The CAN adapter communication parameters will be modified.

[Note] The communication parameters can be modified only when the computer's IP address is in the same network segment as the CAN adapter's IP address.

5.2.3.Writing settings to WT-CAN Adapter

Before sending settings to CAN adapter, please switch the DIP switch on the back of the CAN adapter to the <Init> position.

Click the [Write setting] button to write the information about the currently configured WT device to the CAN adapter.

After setting to write CAN adapter successfully, switch the DIP switch on the back of the CAN adapter to the <Normal> position, and restart the CAN adapter to use.

[Note] Writing settings can be performed only when the computer's IP address of the software is on the same network segment as the CAN adapter IP address.

Chapter 6. View Set WT Command

6.1.View Command

Click the [Message Command] button on the toolbar to pop up the View Set WT Command dialog box, as shown below.

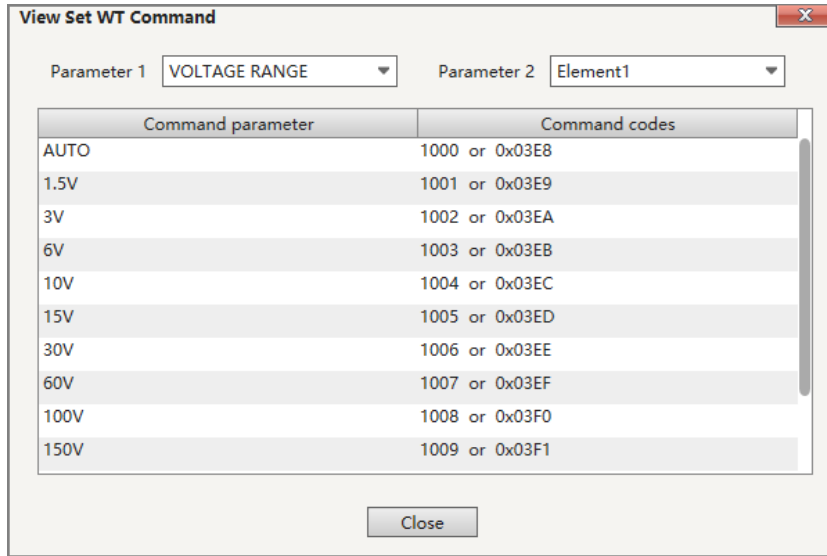


Figure 15 View Set WT Command Dialog Box

Select the desired parameter category to find the corresponding command codes. Select the list line and click the right mouse to copy the command codes.

6.2.Command Code List

The command code list is listed below.

Table 5 Set WT Parameter Command List

Category	Setting Item	Command Code in Decimal	Command Code in HEX	Comment
Voltage Range (WT5000: Element 1-7 WT1800E: Element 1-6)	U1 Range: Auto	1000	0x03E8	
	U1 Range: 1.5V(1500mV)	1001	0x03E9	WT3000E not supported
	U1 Range: 3V	1002	0x03EA	WT3000E not supported

Category	Setting Item	Command Code in Decimal	Command Code in HEX	Comment
WT3000E: Element 1-4)	U1 Range: 6V	1003	0x03EB	WT3000E not supported
	U1 Range: 10V	1004	0x03EC	WT3000E not supported
	U1 Range: 15V	1005	0x03ED	
	U1 Range: 30V	1006	0x03EE	
	U1 Range: 60V	1007	0x03EF	
	U1 Range: 100V	1008	0x03F0	
	U1 Range: 150V	1009	0x03F1	
	U1 Range: 300V	1010	0x03F2	
	U1 Range: 600V	1011	0x03F3	
	U1 Range: 1000V	1012	0x03F4	
	U2 Range: Auto	2000	0x07D0	
			
	U7 Range: Auto	7000	0x1B58	
Current Range (WT5000: Element 1-7 WT1800E: Element 1-6)	I1 Range: Auto	1020	0x03FC	
	I1 Range: 5mA	1021	0x03FD	WT1800E not supported
WT1800E: Element 1-6	I1 Range: 10mA	1022	0x03FE	
	I1 Range: 20mA	1023	0x03FF	

Category	Setting Item	Command Code in Decimal	Command Code in HEX	Comment
WT3000E: Element 1-4)	I1 Range: 50mA	1024	0x0400	
	I1 Range: 100mA	1025	0x0401	
	I1 Range: 200mA	1026	0x0402	
	I1 Range: 0.5A (500mA)	1027	0x0403	
	I1 Range: 1A	1028	0x0404	
	I1 Range: 2A	1029	0x0405	
	I1 Range: 5A	1030	0x0406	
	I1 Range: 10A	1031	0x0407	
	I1 Range: 20A	1032	0x0408	
	I1 Range: 30A	1033	0x0409	WT1800E not supported
	I1 Range: 50A	1034	0x040A	WT3000E not supported
	I2 Range: Auto	2020	0x07E4	
			
	I7 Range: Auto	7020	0x1B6C	
Ext Sensor Current Range (WT5000: Element	I1 EXT Range: Auto	1040	0x0410	
	I1 EXT Range:	1041	0x0411	

Category	Setting Item	Command Code in Decimal	Command Code in HEX	Comment
WT1800E: Element 1-6 WT3000E: Element 1-4)	50mV			
	I1 EXT Range: 100mV	1042	0x0412	
	I1 EXT Range: 200mV	1043	0x0413	
	I1 EXT Range: 0.5V (500mV)	1044	0x0414	
	I1 EXT Range: 1V	1045	0x0415	
	I1 EXT Range: 2V	1046	0x0416	
	I1 EXT Range: 5V	1047	0x0417	
	I1 EXT Range: 10V	1048	0x0418	
	I2 EXT Range: Auto	2040	0x07F8	
			
	I7 EXT Range: Auto	7040	0x1B80	
SPEED (WT5000: Motor 1 or 3	Speed1 Range: Auto	8100	0x1FA4	
	Speed1 Range:	8101	0x1FA5	

Category	Setting Item	Command Code in Decimal	Command Code in HEX	Comment
WT1800E: Only Motor 1 WT3000E: Only Motor 1)	1V			
	Speed1 Range: 2V	8102	0x1FA6	
	Speed1 Range: 5V	8103	0x1FA7	
	Speed1 Range: 10V	8104	0x1FA8	
	Speed1 Range: 20V	8105	0x1FA9	
	Speed3 Range: Auto	8300	0x206C	
			
	Torque (WT5000: Motor 1-4 WT1800E: Only Motor 1 WT3000E: Only Motor 1)	Torque1 Range: Auto	8110	0x1FAE
Torque1 Range: 1V		8111	0x1FAF	
Torque1 Range: 2V		8112	0x1FB0	
Torque1 Range: 5V		8113	0x1FB1	

Category	Setting Item	Command Code in Decimal	Command Code in HEX	Comment
	Torque1 Range: 10V	8114	0x1FB2	
	Torque1 Range: 20V	8115	0x1FB3	
	Torque2 Range: Auto	8210	0x2012	
			
	Torque4 Range: Auto	8410	0x20DA	
Other	Integration Start	9001	0x2329	
	Integration Stop	9002	0x232A	
	Integration Reset	9000	0x2328	
	NULL ON	9101	0x238D	
	NULL OFF	9100	0x238C	
	HOLD ON	9201	0x23F1	
	HOLD OFF	9200	0x23F0	
	TOUCH LOCK ON	9301	0x2455	WT1800E and WT3000E not supported
	TOUCH LOCK	9300	0x2454	WT1800E and

Category	Setting Item	Command Code in Decimal	Command Code in HEX	Comment
	OFF			WT3000E not supported
Update rate	10ms	9900	0x26AC	WT1800E and WT3000E not supported
	50ms	9901	0x26AD	
	100ms	9902	0x26AE	
	200ms	9903	0x26AF	
	500ms	9904	0x26B0	
	1s	9905	0x26B1	
	2s	9906	0x26B2	
	5s	9907	0x26B3	
	10s	9908	0x26B4	
	20s	9909	0x26B5	

6.3. Send Setting Command and Read back Result

If you need to use the WT setting commands, please check the <Add WT setting command channel> item on the bottom of main screen. The CAN channel list will assign the sending and readback channels for setting WT.

Send command code to assigned send_command channel, then the

corresponding setting will be executed on WT. check the data in the readback_result channel to confirm whether the setting is executed successfully.

The represented setting status by the readback_result channel data is as shown in the following table:

Table 6 Readback_result status list

Readback data	Setting status	Remarks
1	Success	Setting successfully
0	Failed	Wrong command code
Command code	Failed	If the command code does not match the current WT configuration, or the WT operation cannot be set in a certain mode, the command code corresponding to the original setting of WT will be returned.
2	Failed	Cannot change to auto range during integration mode.

[Note] There are two cases when the command code is correct but the setting fails:

1.The current WT setting doesn' t change.

For example, some settings of WT cannot be changed during integration function is executing.

2.The setting of WT is modified, but it' s not the result the user wants.

For example, send a command code of setting 50A current range to a 5A range element, WT will change the current range to 5A.

Chapter 7. Appendix**7.1.Dialog Box Summary**

Displayed information includes: NOTE, WARNING and ERROR. As shown in the following table.

Table 6 NOTE

Code	Message	Description and Solution
M1001	Serial No. registration is complete.	
M1002	Setting was successfully written to the CAN adapter. Please turn the DIP switch to Normal mode before you use the adapter.	
M1003	Authorization already exists.	
M1004	CAN adapter parameters were successfully configured.	

Table 7 WARNING

Code	Message	Description and Solution
W2001	Serial No. is invalid, please confirm the serial number and try again.	Check the serial No.
W2002	Because the Start address has exceeded the range limit, it will be updated. Is it OK to continue?	This message asks whether you want to update the Start address.
W2003	Since the scan interval and baud rate settings are too small, up to “n” CAN channels can be used for signal acquisition. Is it OK to continue?	Since the scan interval and baud rate settings are too small, up to “n” CAN channels can be used for signal acquisition. Confirm whether to continue.
W2004	Since the scan interval and baud rate settings are too small, up to “n” CAN channels can be used for signal acquisition. The excessive CAN channels will be deleted. Is it OK to continue?	Since the scan interval and baud rate settings are too small, up to “n” CAN channels can be used for signal acquisition. The excessive CAN channels will be deleted. Confirm whether to continue.
W2005	For the Frame format and Start address set currently, up to “n” CAN channels can be used for signal acquisition. Is it OK to continue?	For the Frame format and Start address set currently, up to “n” CAN channels can be used for signal acquisition. Confirm whether to continue.
W2006	For the Frame format and Start address set currently, up to “n” CAN channels can be used for signal acquisition. The excessive CAN channels will be deleted. Is it OK to	For the Frame format and Start address set currently, up to “n” CAN channels can be used for signal acquisition. The excessive

Code	Message	Description and Solution
	continue?	CAN channels will be deleted. Confirm whether to continue.










Table 8 ERROR

Code	Description	Description and Solution
E3001	Unknown error. Please restart this software.	Restart the program.
E3002	Failed to start Adobe Reader.	Confirm whether Adobe Reader and its version are installed.
E3003	Failed to open setting file.	Check whether the setting file is damaged.
E3004	Failed to save setting file.	Check whether the specified folder is writable.
E3005	The registration of option serial number failed. Please confirm the option serial number and try again.	Make sure that the serial number is correct.
E3006	Failed to write configurations to CAN adapter, please try again.	Make sure that CAN adapter parameters were successfully configured.
E3007	Timeout when writing configuration to CAN configuration file, please try again.	Try again.
E3008	The authorized CAN adapter is not found. Please configure the communication parameters.	Check whether the authorization is valid.
E3009	CAN adapter communication failed. Check the network connection to the CAN adapter, and make sure the CAN adapter's DIP switch is set to Init position, then try again.	Check whether the network connection to the CAN adapter is operating properly. Make sure the CAN adapter's DIP switch is set to Init position.
E3010	Failed to configure CAN adapter parameters, please try again.	Re-configure the communication parameters.
E3011	Exporting the DBC file failed.	Check whether the specified folder is writable.
E3012	Please add a CAN channel list first.	Add a CAN channel list.
E3013	This version of setting file is not supported.	Reselect a different setting file.
E3014	No CAN message ID is available. To continue adding CAN channels, enter the Project Setting page to change the Start address or the Frame format.	All CAN message IDs have been used, you need to change the Start address or the Frame format.
E3015	Data transfer rate has reached the upper limit. To continue adding CAN channels, enter the Project Setting page and increase the Scan interval or the Baud rate.	Increase the Scan interval or the Baud rate.

E3016	There are unhandled errors, please handle the error first.	Wrong input is detected, correct the error item and continue.
E3017	No more channels can be added with the limitation of the maximum number of channels.	The maximum number of channels that can be added has been reached.

7.2.Toolbar Button Shortcut Corresponding List





Table 9 Toolbar



Zone	Button	Icon	Shortcut key	Function
Start (H)	New		N	Display New Project Setting dialog box
	Open		O	Open a setting file
	Save		S	Save a setting file
	Save As...		A	Save a setting file as
	Project Setting		P	Display Edit Project Setting dialog box
	Export DBC		D	Convert the CAN channel list to DBC file format for saving.
	Send Settings		W	Display Send Settings dialog box
	Command List		V	Display WT setting command dialog box
	Language		T	Display Language dialog box

How to use the shortcut keys: When the cursor focuses on the toolbar, press the keyboard's ALT key to display the zone shortcut keys on the toolbar. Press a key to enter the corresponding zone, then the shortcut key of the zone's each button will be displayed on the toolbar, press a key to perform the appropriate operation.

The File menu function of the toolbar is shown as below table.

Table 10 File Menu

Menu	Icon	Shortcut key	Function
New		Ctrl+N	Create a new project
Open		Ctrl+O	Open a project
Save		Ctrl+S	Save a project
Save As...		-	Save current project as

Menu	Icon	Shortcut key	Function
Authority		-	Display Authority dialog box
Manual		-F1	Display the Manual in pdf version
Exit		-	Exit application

7.3.FAQS

Q1: In the WT-CAN Adapter Setting page, I cannot find the WT-CAN adapter after clicking "Search".

A1: Please set the DIP switch on the back of CAN adapter to <Init> position, restart and search again.

Check the settings of IP address, subnetwork mask and default gateway of your PC.

Disable the firewall and anti-virus software on your PC.

Disable the other network adapters on your PC, such as WLAN adapter.

For details, please refer to the WT-CAN Adapter Operation Manual.

Q2: I can't collect the CAN data, what should I do?

A2: Firstly, confirm that the current CAN Channel List has successfully been written to the CAN adapter.

Secondly, confirm that the DBC file is consistent with the CAN channel information written to the CAN adapter. If not, regenerate a DBC file to use (see Chapter 5.1).

Thirdly, confirm that the baud rate setting is consistent with the CAN bus. If not, update the baud rate and resend the settings to the CAN adapter (see Chapter 4.1).

After the setting is completed, set the CAN adapter's DIP switch to <Normal> position and restart.