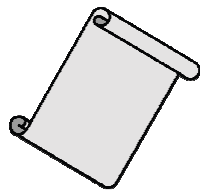# ZT-USB Series

Quick Start

1 What's in the shipping package?

The package includes the following items:

ZT-USB Series   Quick Start   CD

If any of these items are missing or damaged, please contact the local distributor for more information. Save the shipping materials and cartons in case you want to ship the module in the future.

2 Installing Driver and Utility

1. Install the ZT-Series_Driver_Installer.exe (v1.0.0 or later) at first,
   CD: \Napdos\ZigBee\ZT_Series\driver
   http://ftp.icpdas.com/pub/cd/usbcd/napdos/zigbee/zt_series/driver
2. Install the ZT Configuration Utility (v1.0.0 or later),
   CD: \Napdos\ZigBee\ZT_Series\utility
   http://ftp.icpdas.com/pub/cd/usbcd/napdos/zigbee/zt_series/utility
3. Insert the ZT-USB Series into your computer, and you can find out ZT-USB COM Port Number in the "Device Manager." Refer to the user manual for more details.
   CD: \Napdos\ZigBee\ZT_Series\document
   http://ftp.icpdas.com/pub/cd/usbcd/napdos/zigbee/zt_series/document

3 Introduction of configurations

Overview of the ZT-USB Series Configurations Options/Parameters

1. "Pan ID" is the group identity of a ZigBee network, and must be the same if they are in the same ZigBee network.
(Valid values range from 0x0000 to 0x3FFF)

2. "Node ID" is the identity of the ZigBee module.
The identity number must be unique if it is in the same ZigBee network as other ZigBee module. (Valid values range from 0x0001 to 0xFFF7 for a ZigBee Router, but is fixed to 0x0000 for a ZigBee Coordinator)

3. "RF Channel" indicates the radio frequency channel, and must be set to the same channel if the module is in the same ZigBee network as other ZigBee modules.

Channel	0x00	0x01	⋯⋯	0x0F
Frequency(MHz)	2405	2410	⋯⋯	2480

Note:

In addition, the RF channels 0x04, 0x09, 0x0E or 0x0F are recommended because they do not overlap with frequencies Wi-Fi.
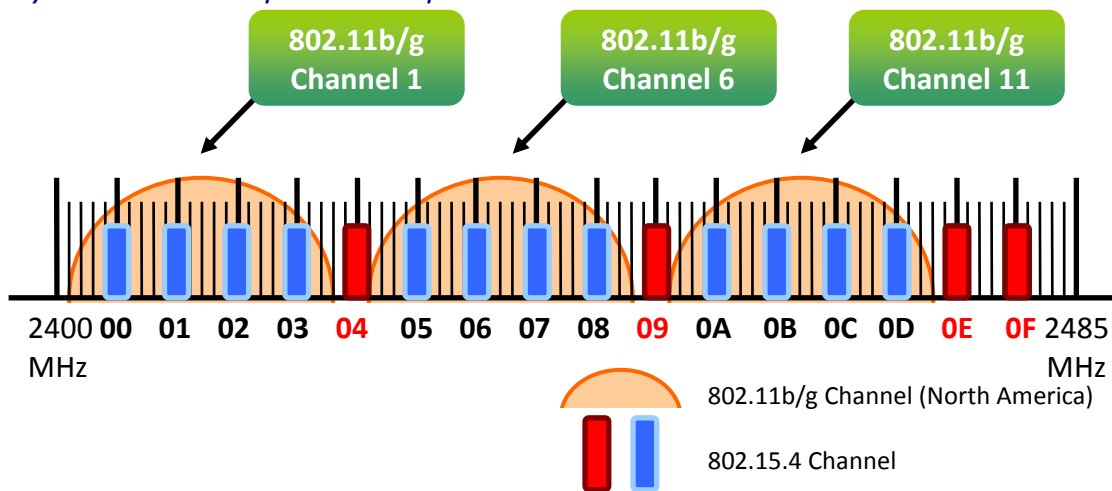
**4. "RF Power"** denotes the wireless transmit power value.

Code	Note
0x0F	Typical Maximum(Default)
0x00	Typical Minimum

**5. "Baud Rate and Data Format"** serial port settings are supported by ZT-USB Series.

Item	Specification
Parity	None(Default), Odd, Even
Data Bit	8
Stop Bit	1
Baud rate	2400, 4800, 9600, 19200, 38400, 57600, 76800 and 115200(Default) bps

6. Communication Speed (The Interval Time of Sending Broadcast Frame): The data payload of ZT-2000 and ZT-USB series modules is 79 bytes. Once the data is more than 79 bytes, it will be divided into several packets. This parameter is used to decide the interval time of sending broadcast frame in order to prevent the network crashes. Please fill in the number of ZT-2000 slaves nearby the ZigBee Coordinator. More information is in the user manual.

➢ Example:
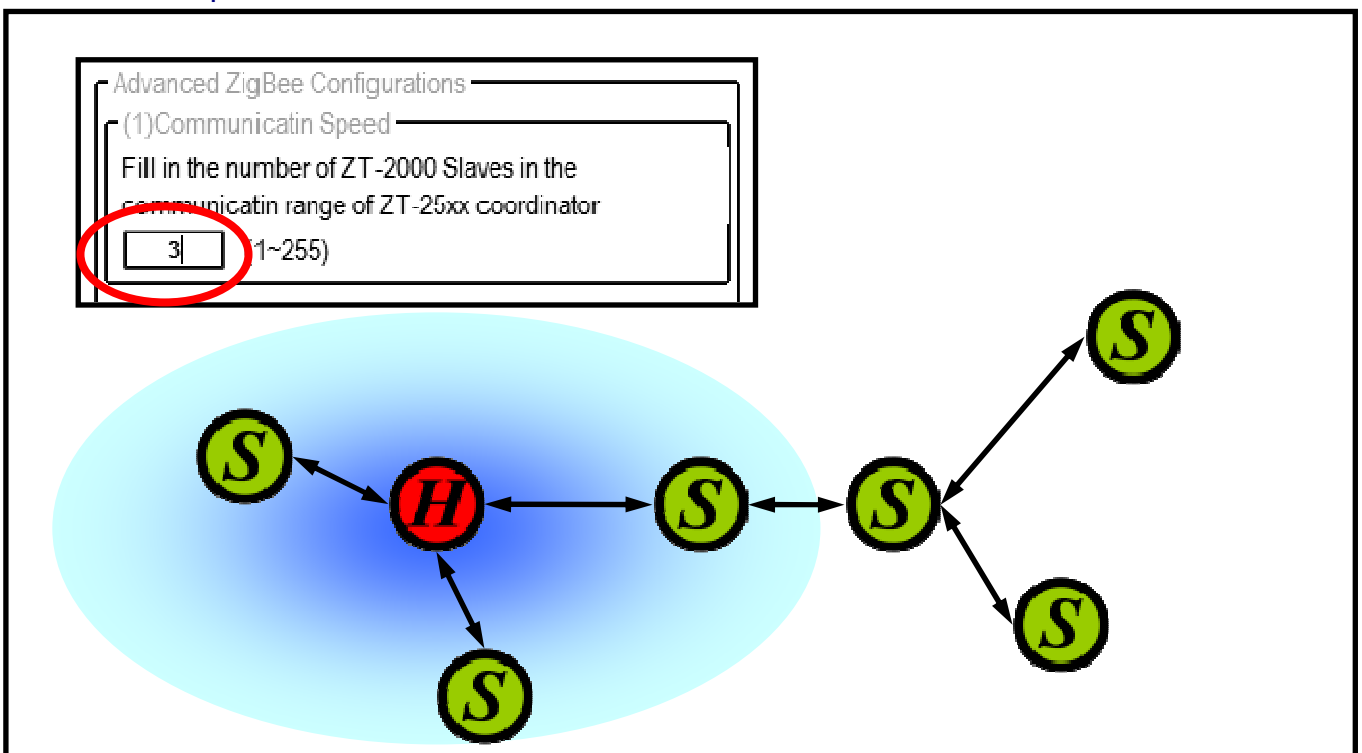
7. Data Transmission
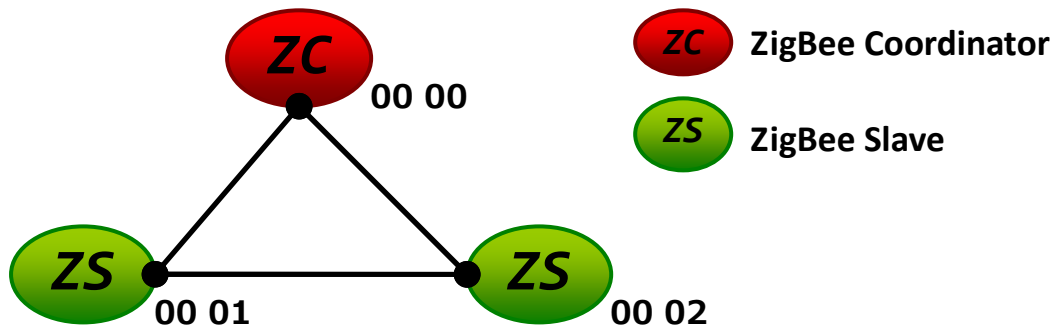
The above schematic diagram is showing ZT-USB series application mode, and it always transmits data to the remote device via broadcasting.

Module	Frame Type	Note
ZT-USBC	Broadcast	Data will be sent to all ZigBee slaves

[Eg1] When ZT-USBC (ZigBee Host) sends "DATA_01" via broadcasting frame,
→ Both of the ZigBee slave 0x0001 and 0x0002 will receive the "DATA_01".
※Broadcasting type frame, data will be sent to every ZigBee slaves in the same ZigBee network
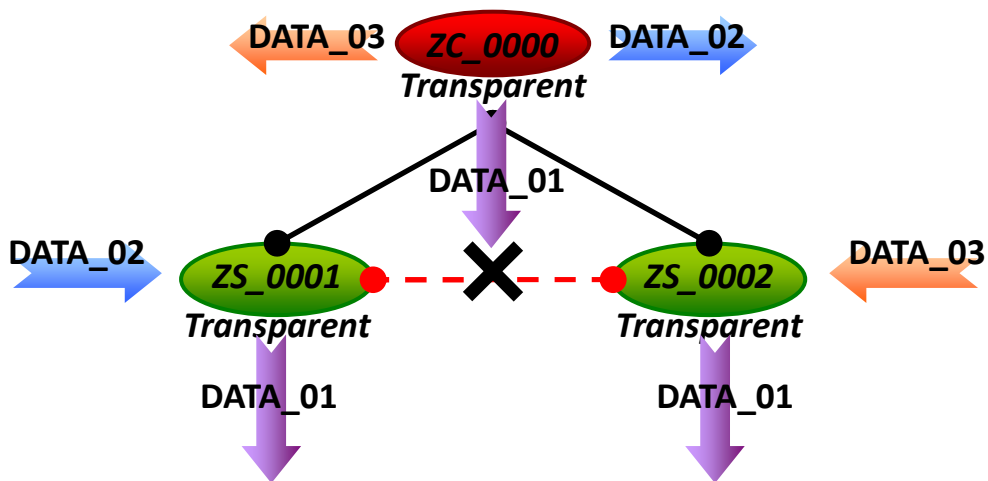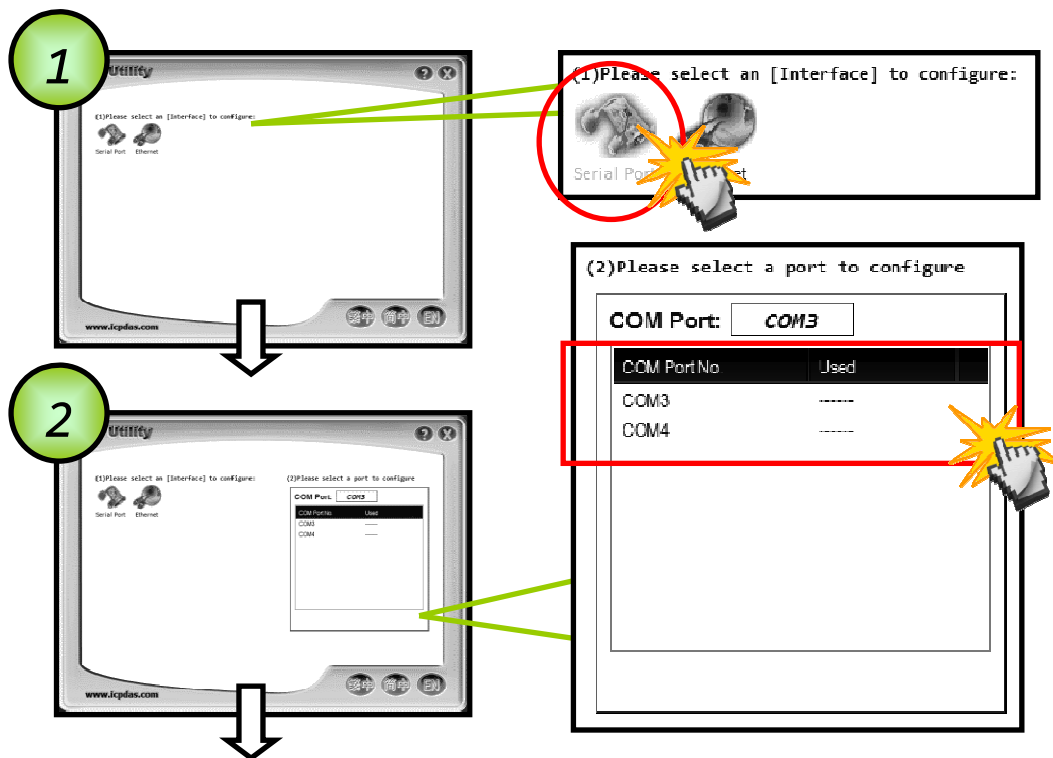
4 *Configuring ZigBee Setting*

1. Launch the "ZT Configuration Utility" and click the [ZT Series] button
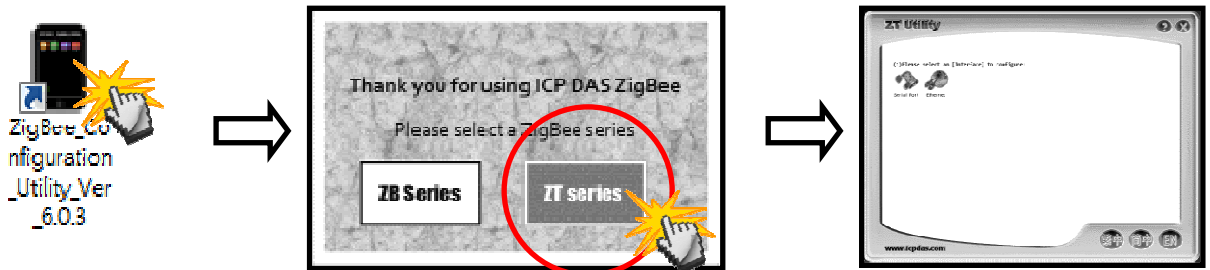
2. Click the [Serial Port] icon and then select the COM Port number.

3. After selecting the COM Port number, a list of model numbers will be displayed. Select the name of the module that you want to configure. After clicking the button, the utility will begin checking the connection.
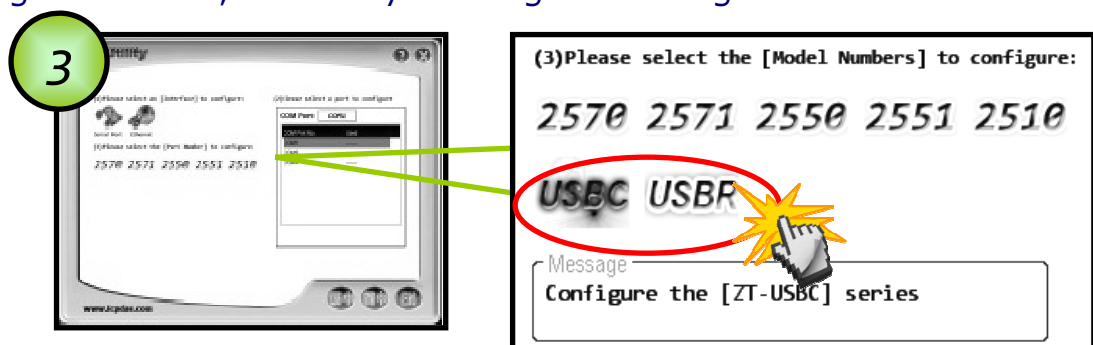
4. Once a connection is established, select either the [Default] or the [Wizard]

function from the settings mode page.
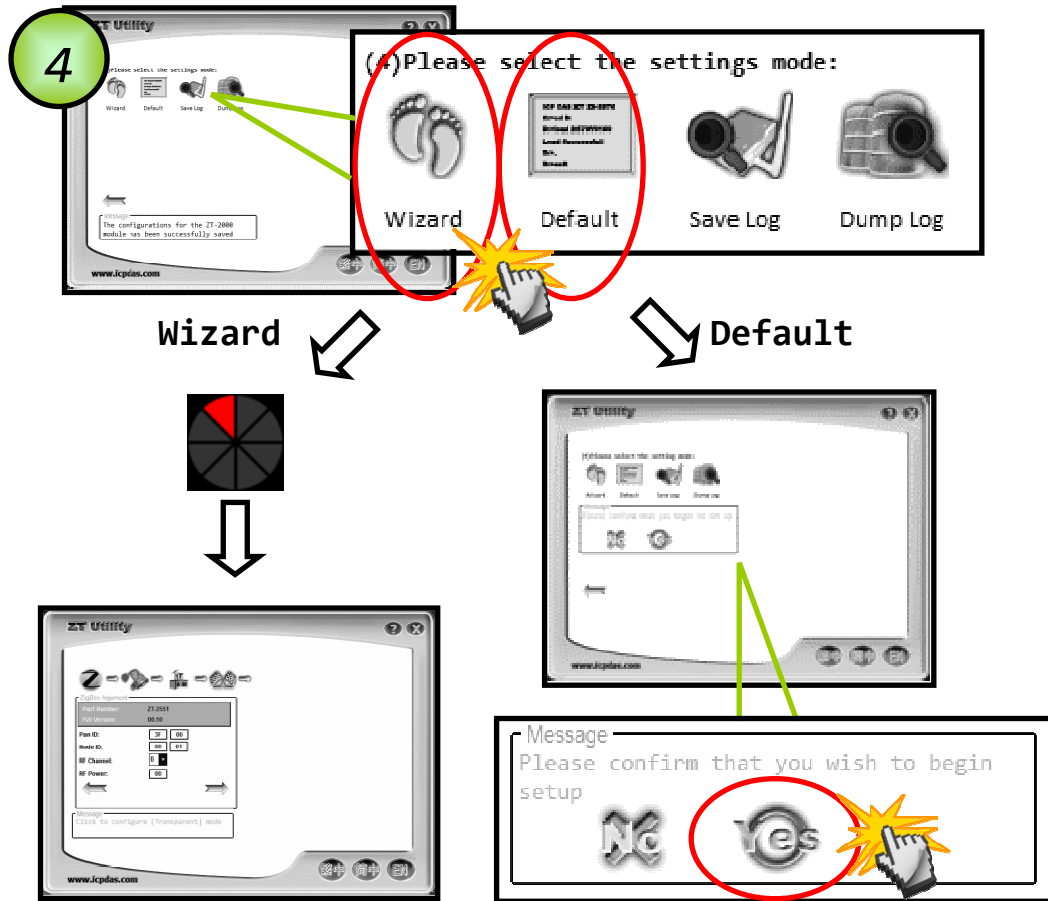
5. Whether you select either the [Default] or the [Wizard] option for performing configuration, both are used to configure the Pan ID, Node ID, RF Channel, RF Power, Baud rate, Data Format, Application Mode and so the relevant parameters.
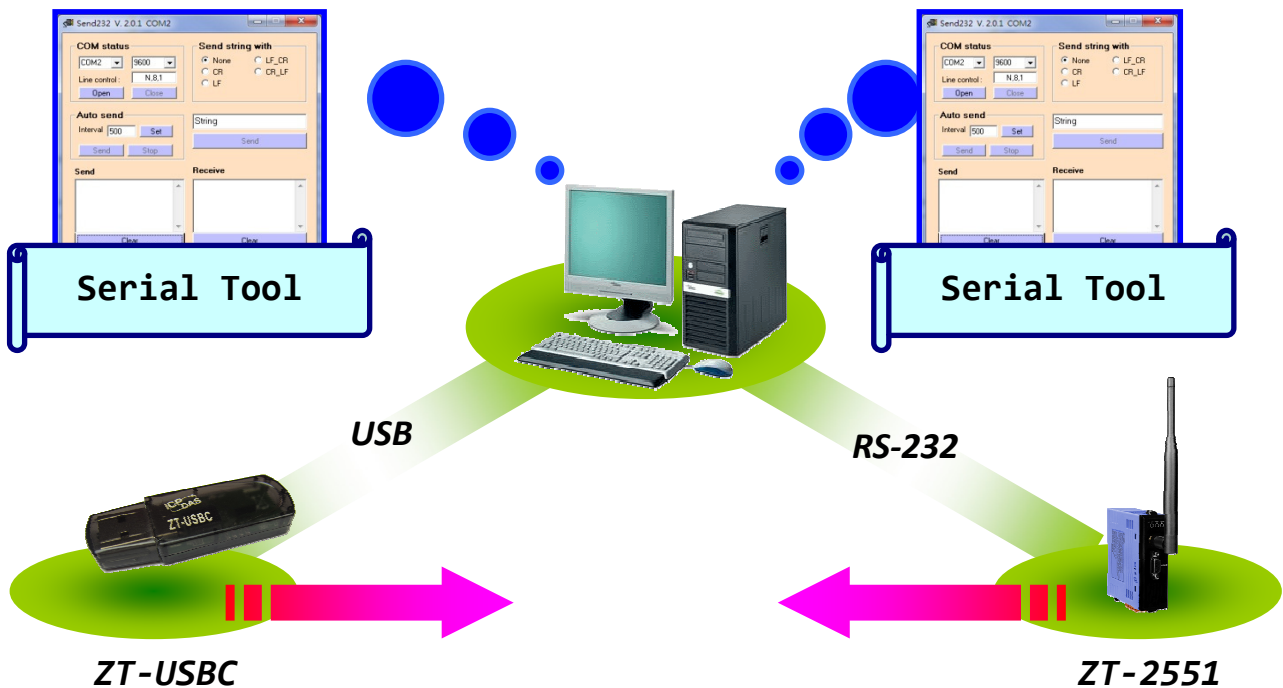

6. Once the module configuration has been completed, the message "The Configuration was successful" will be displayed.
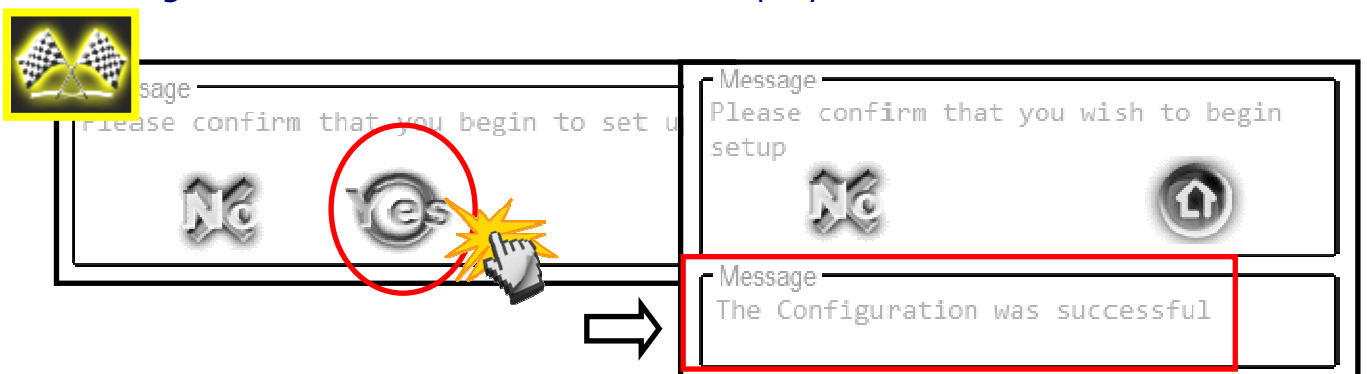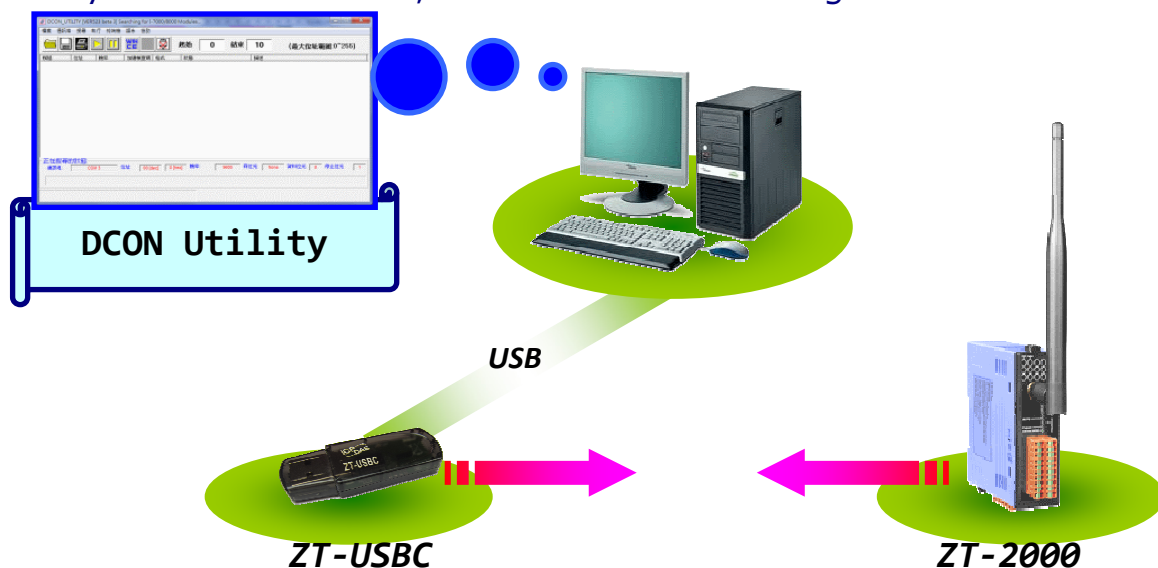
5 Testing Communications

Method (1)

Connect both the ZT-USBC and ZT-2551 to the Host PC via the USB and RS-232. You may need to use two serial port tools to simulate the data transmission.

Method (2) :

Use the DCON Utility on the Host PC to search for ZT-2000 series I/O modules. If there any devices are found, it means that the configuration is correct.

6 Troubleshooting

(1) Technical Support.

If you have any difficulties using your ZT-USB series module, please send a description of the problem to service@icpdas.com, Please the following items,

- *A description to the communication protocol for more information.*
- *A copy of the configuration file for the ZT module. This file can be obtained using the procedure outlined below and should be attached to your email.*

a. Launch the ZT Configuration Utility and select [Save Log] icon to save the configuration of the ZT-USB Series as a file.

b. After clicking the [Save Log] icon, enter the "File Name" and the "File Path" in the Windows "Save" dialog box. Once the configuration has been successfully saved, the following message will be displayed.
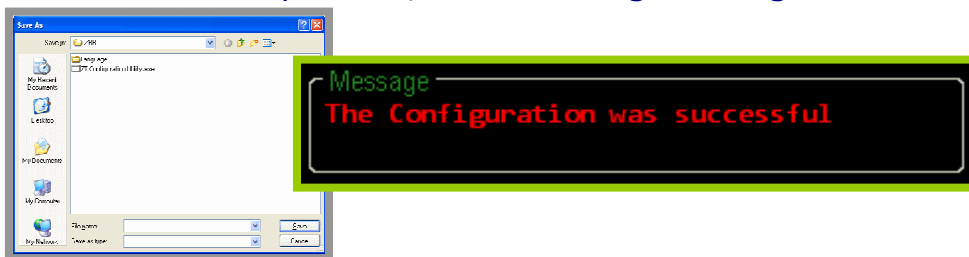
(2) LED Indicator Status :

LED Indicator	Status	Introduction
ZigBee Net (RedLED)	ZigBee Coordinator (Host)	
	Steady Lit	ZigBee network is Establish
	Blink to Steady Lit	Rejoin ZigBee Network or It has Occupied
	ZigBee Router (Slave)	
	Steady Lit	The Signal is Strong
	Blinking (500 ms)	The Signal is Available
	Blinking (1s)	The Signal is Weak
	Blinking (2s)	The Signal is Unstable or There is no Available