



# JetBox Modbus2SNMP

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## User Manual

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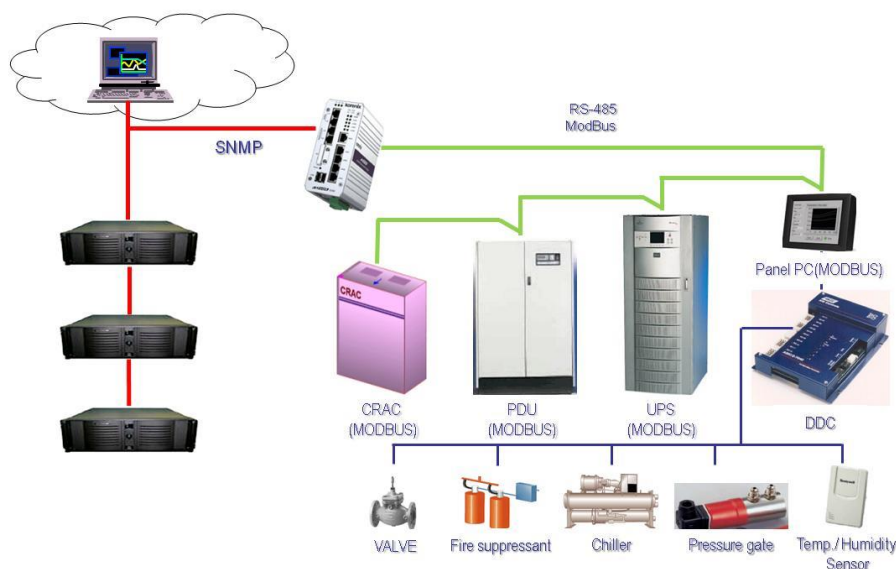
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# Chapter 1 Introduction

The data center monitoring includes UPS, PDU, cooling system, security and environmental monitoring and most of these devices go for Modbus RTU control, an automation control protocol. But with the popularity of Ethernet, the management of control center goes for SNMP, a network management protocol. SNMP is generally used by IT management and the advantage to adapt SNMP in automation is the read/write privilege and easy management.

JetBox works as a gateway between Modbus RTU and SNMP and bring customers benefit from an integrated solution composed of data center monitoring and IT management tools. This combination provides single view of each customer's data center monitoring and IT management.

## Cloud Data Center Monitoring



## 1-1 Applied Models

JetBox 9300(-w)

JetBox 9310(-w)

JetBox 3300-w

JetBox 3350i-w

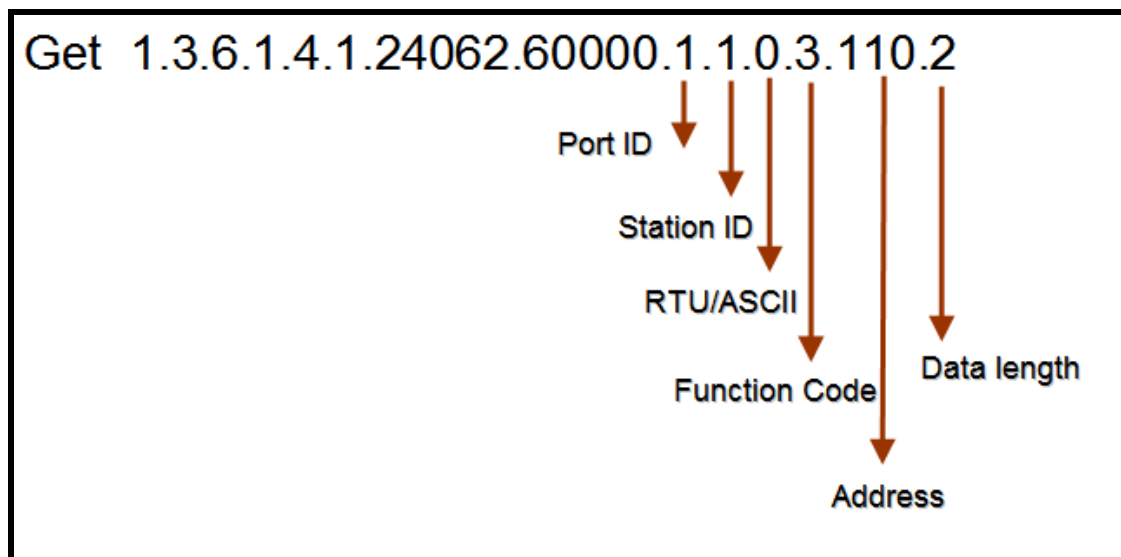
JetBox 5630Gf-w/5633Gf-w

## Chapter 2 Modbus2SNMP

### 2-1 How to Map Modbus ID to SNMP OID

There is a Modbus program inside JetBox to map the Modbus ID and data to SNMP OID. The program identifies the data and alarm points that can be read from the device by a master through SNMP and connects each point to the Modbus address needed to access it. Users can read and write the Modbus message through the mapping mechanism for different applications.

Following is the mapping rule for Modbus2SNMP program.

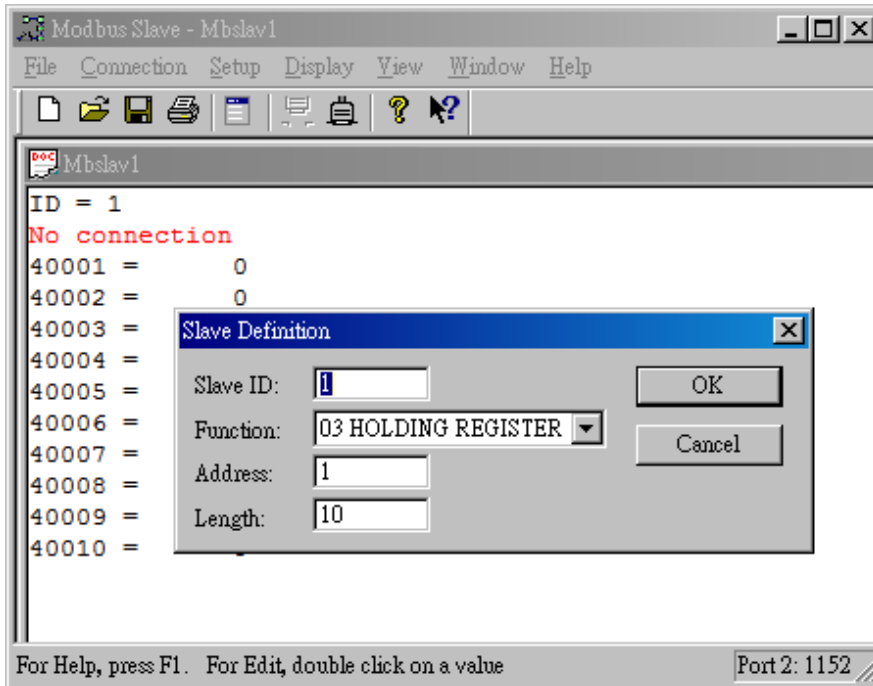


## 2-2 How to Use Modbus2SNMP

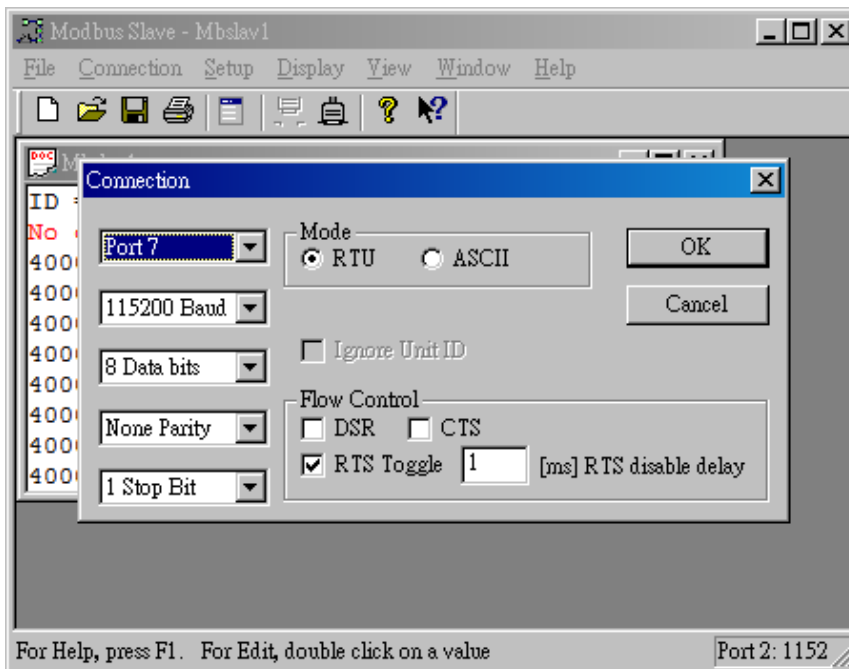
Following is an example to show how to use Modbus2SNMP by an emulator.

### 2-2-1. JetBox 9300(-w)/9310(-w)

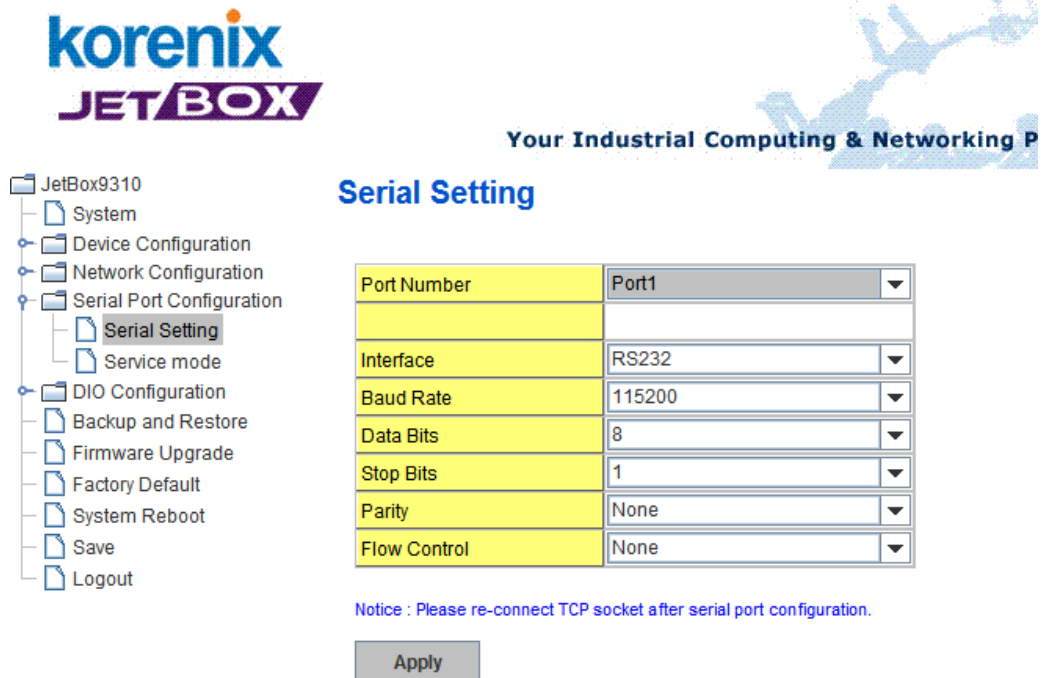
1. Execute “Modbus slave”



2. Open a com port and set the baud rate as 115200



- Use the same serial setting (i.e. baud rate) on the JetBox  
Login to JetBox 9300's web -> Serial Port Configuration -> Serial Setting, set the baud rate, data bits, stop bits, and parity the same as Modbus Slave.



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**JETBOX**

Your Industrial Computing & Networking P

JetBox9310

- System
- Device Configuration
- Network Configuration
- Serial Port Configuration
  - Serial Setting**
  - Service mode
- DIO Configuration
- Backup and Restore
- Firmware Upgrade
- Factory Default
- System Reboot
- Save
- Logout

### Serial Setting

Port Number	Port1
Interface	RS232
Baud Rate	115200
Data Bits	8
Stop Bits	1
Parity	None
Flow Control	None

Notice : Please re-connect TCP socket after serial port configuration.

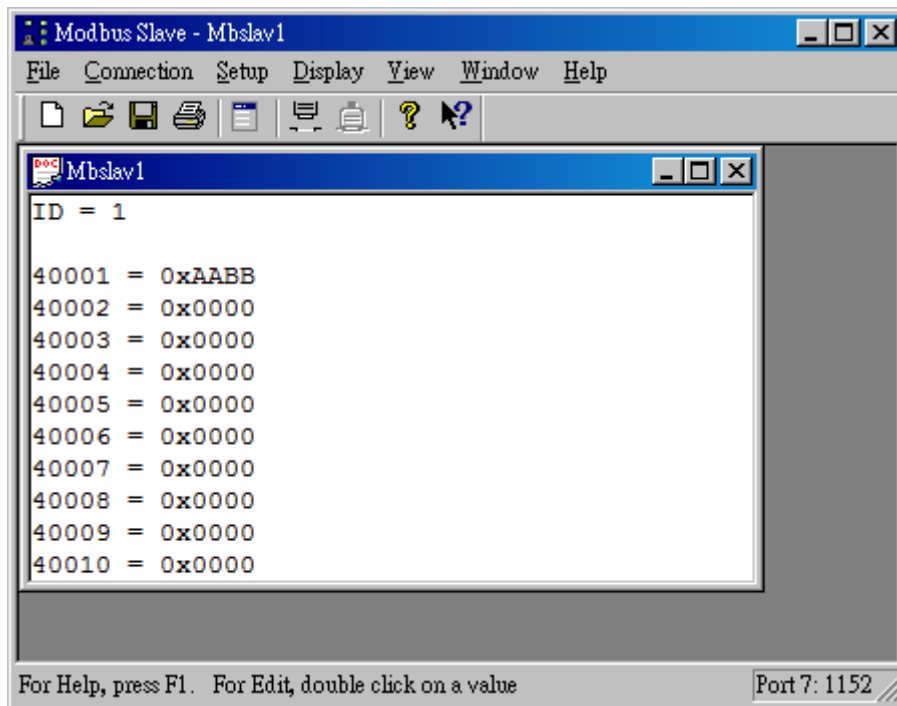
Apply

- Write the value 0xAABB modbus register 40001 through SNMP  
Use following command to update the value of modbus slave 40001 through SNMP

```
snmpset -v 1 -c private 192.168.10.1 1.3.6.1.4.1.24062.60000.1.1.0.6.1.1
s "0xaa 0xbb"

SNMPv2-SMI::enterprises.24062.60000.1.1.0.6.1.1 = STRING: "0xaa 0xbb"
```

1.1.0.6.1.1 means (jetbox port1, station 1, rtu, write, address 1,data length 1)



##### 5. Read the updated value of modbus slave through SNMP

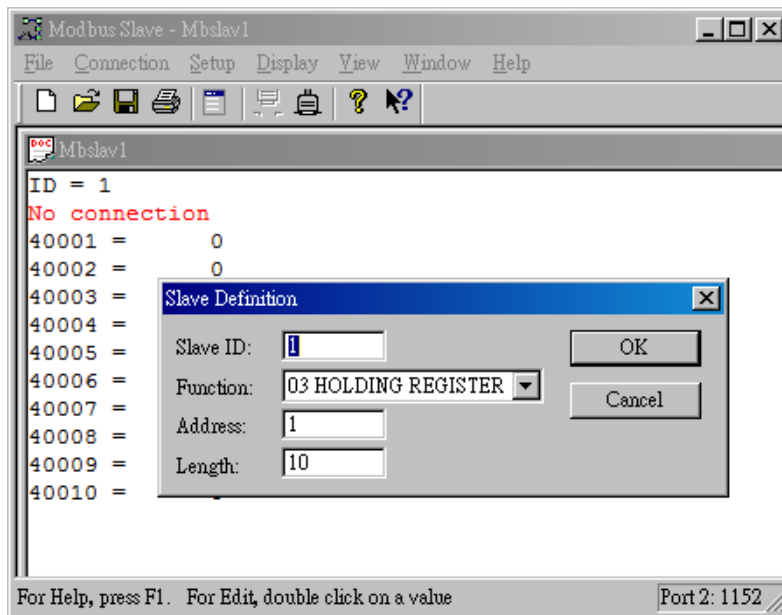
```
snmpget -v 1 -c private 192.168.10.1 1.3.6.1.4.1.24062.60000.1.1.0.3.1.1
```

```
SNMPv2-SMI::enterprises.24062.60000.1.1.0.3.1.1 = STRING: "01 03 02 aa  
bb 86 97 "
```

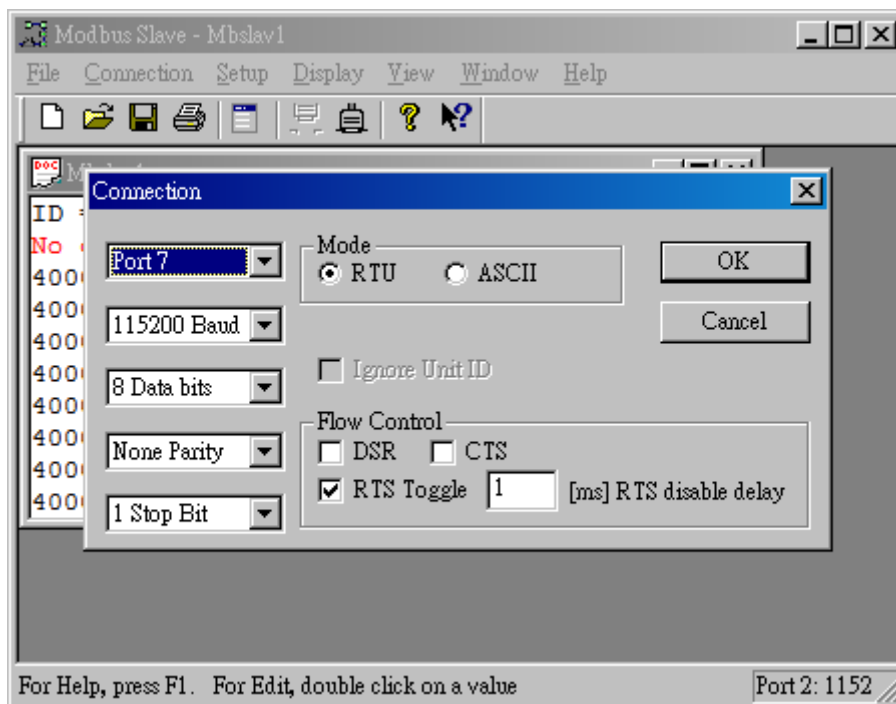


## 2-2-2. JetBox 3300-w/3350i-w

### 1. Execute “Modbus slave”



### 2. Open a com port and set the baud rate as 115200



### 3. Use the same serial setting (i.e. baud rate) on the JetBox

Edit the `mbs2snmp.cfg` in the embedded micro SD card. Set the baud rate, data bits, stop bits, and parity the same as Modbus Slave.

```
mbs2snmp.cfg
1 [port 1]
2 baud=115200
3 parity=none
4 bits=8
5 stop=1
6 [port 2]
7 baud=115200
8 parity=none
9 bits=8
10 stop=1
11
```

Note. The default value of serial port is 115200, 8, N, 1

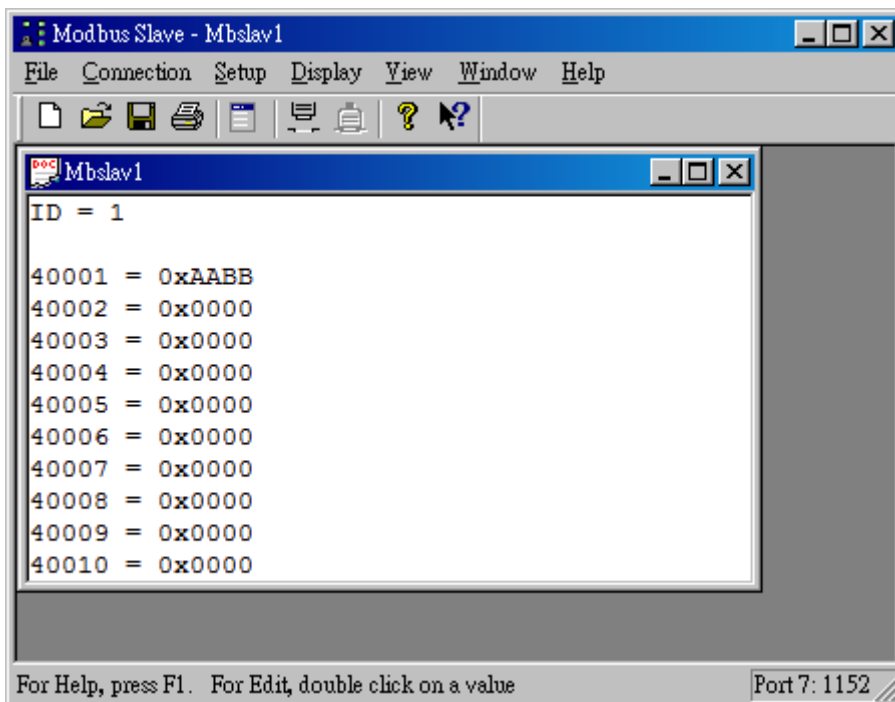
4. Write the value 0xAABB modbus register 40001 through SNMP

Use following command to update the value of modbus slave 40001 through SNMP

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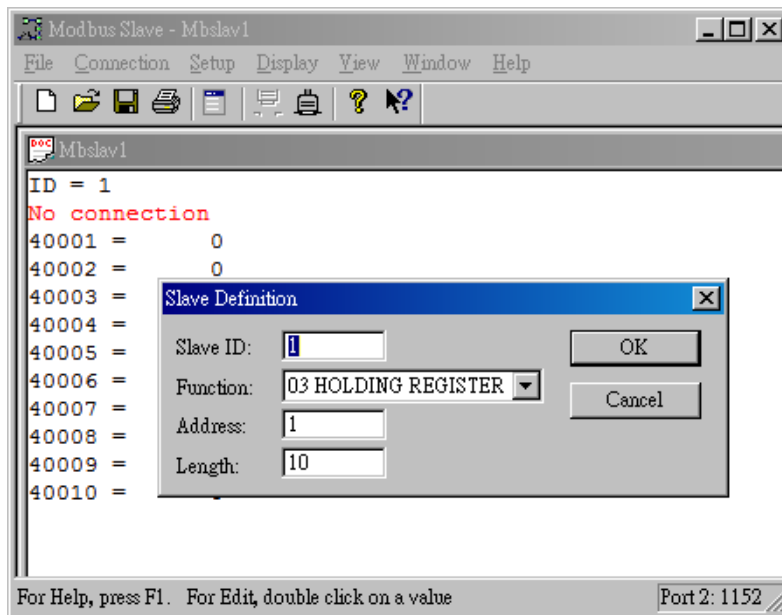
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snmpget -v 1 -c private 192.168.10.1 1.3.6.1.4.1.24062.60000.1.1.0.3.1.1
```

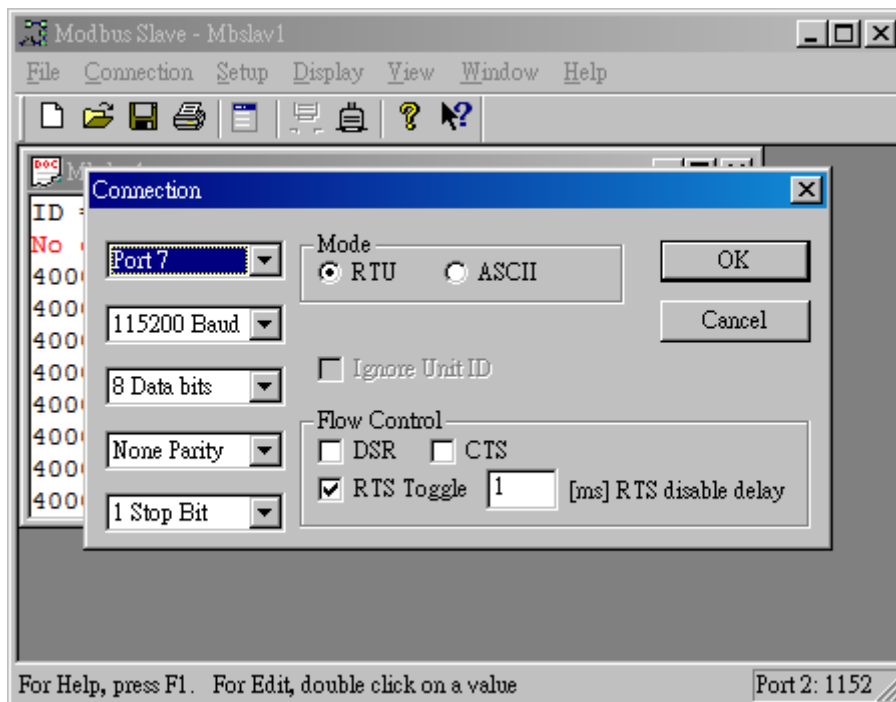
```
SNMPv2-SMI::enterprises.24062.60000.1.1.0.3.1.1 = STRING: "01 03 02 aa  
bb 86 97 "
```

### 2-2-3. JetBox 5630Gf-w/5633Gf-w

#### 1. Execute "Modbus slave"



#### 2. Open a com port and set the baud rate as 115200



3. Use the same serial setting (i.e. baud rate) on the JetBox.

Login to JetBox 5630's web -> Serial -> Port Settings, set the baud rate, data bits, stop bits, and parity the same as Modbus Slave.

The screenshot shows the 'Port Settings' page in the JetBox web interface. The 'Serial Port Configuration' section is expanded, showing the following settings:

AutoStart	<input type="checkbox"/> Automatically apply after reboot.
Port	1
Mode	RS232
Baud Rate	115200
Data Bits	8
Stop Bits	1
Parity	None
Flow Control	None

At the bottom right of the configuration area, there are two buttons: 'Reset' and 'Save & Apply'.

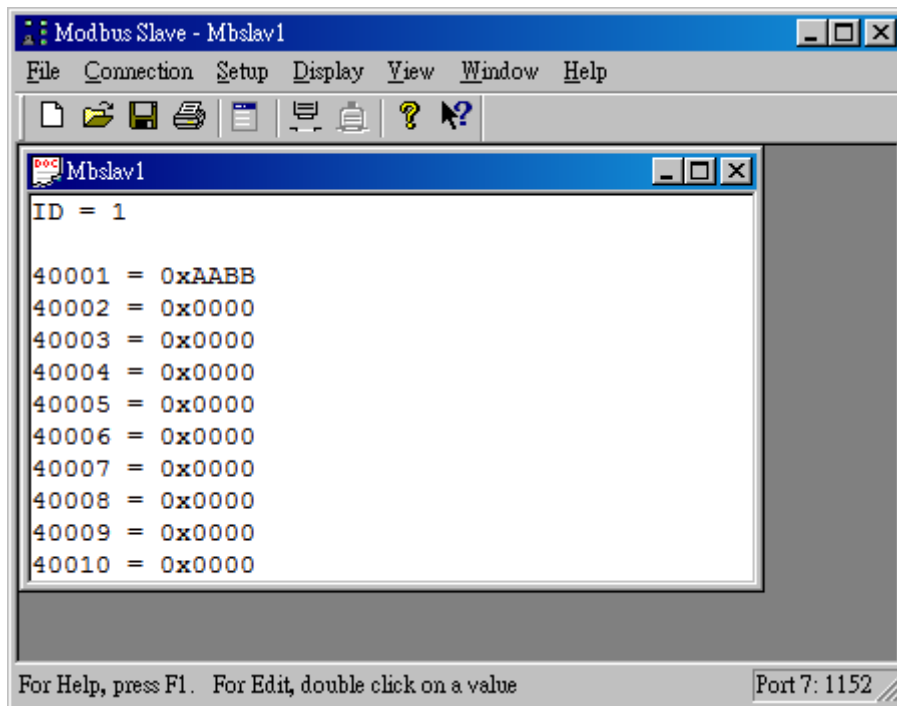
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```

1.1.0.6.1.1 means (jetbox port1, station 1, rtu, write, address 1,data length 1)



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snmpget -v 1 -c private 192.168.10.1 1.3.6.1.4.1.24062.60000.1.1.0.3.1.1
```

```
SNMPv2-SMI::enterprises.24062.60000.1.1.0.3.1.1 = STRING: "01 03 02 aa  
bb 86 97 "
```

# Appendix

## Revision history

- 0.0.2 by 2011/ 4/ 12
  - First release
- 0.0.3 by 2015/ 1/ 8
  - Update JetBox 3300 serial setting
- 0.0.4 by 2015/ 2/ 11
  - Update JetBox 5630 serial setting

## Customer Service

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