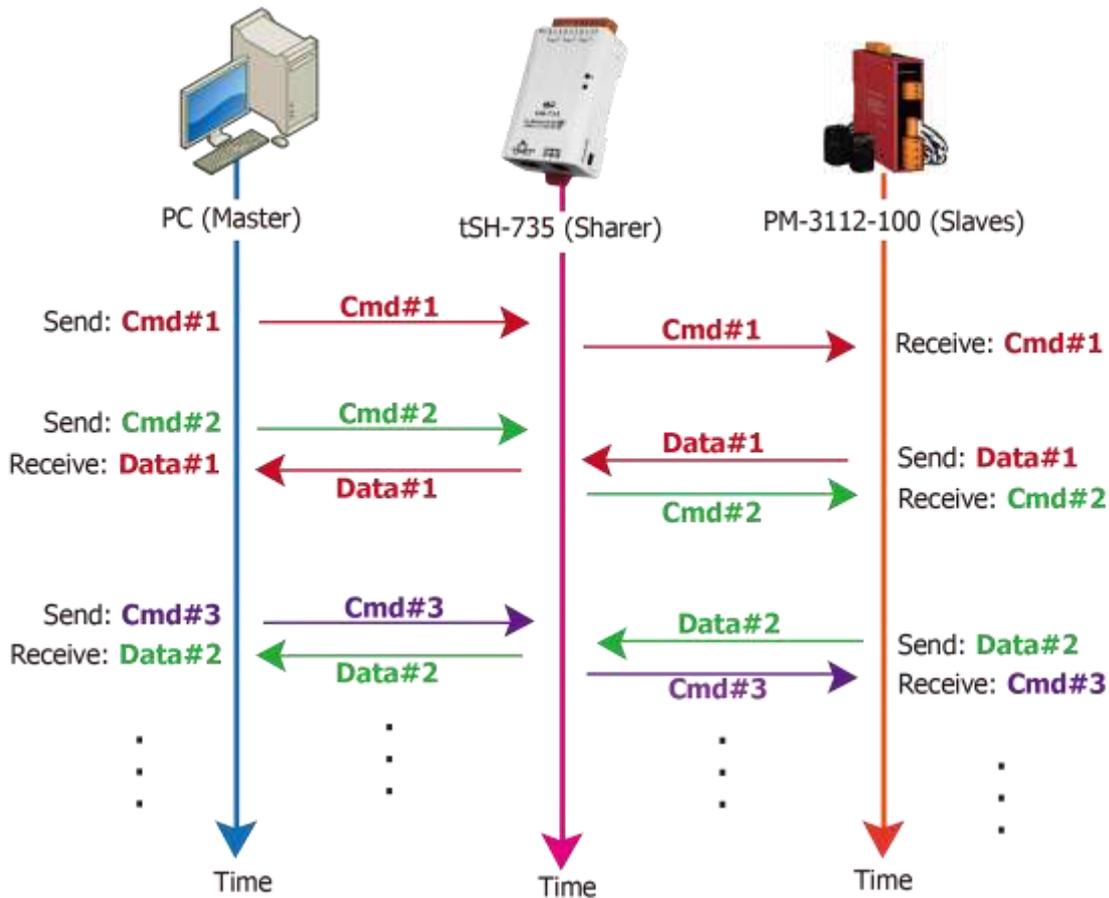


Classification	<input checked="" type="checkbox"/> tDS/tGW/tSH	<input type="checkbox"/> PETL/tET/tPET	<input type="checkbox"/> DS/PDS/PPDS	<input type="checkbox"/> tM-752N	
	<input type="checkbox"/> I/O Card	<input type="checkbox"/> VXC Card	<input type="checkbox"/> VxComm	<input type="checkbox"/> 7188EN	
Author	Tammy	Update Date	2018-11-26	NO.	FAQ044

Q: How to set the Timeout Value in tSH-700?

A: When the master timeout setting is too short, it can cause data shift issues, as shown below. Therefore, have a larger timeout setting in master can prevent this issue.



In order to avoid the above issues, please follow the procedure described below to set the correct timeout value on the tSH-700 and Master:

➤ Brief formula:

A = Max. Response time of all Slave devices

B = A + 100 = Slave Timeout value in tSH-700

C1 = B + 100 = Response Timeout value in Master program (Apply in 1 Master to 1 Slave)

C2 = C1 + C1 = Response Timeout value in Master program (Apply in 2 Masters to 1 Slave)

1. Take the PM-3112-100 as example, Wiring PC COM to PM-3112-100 directly to measure value. Use **MODBUS RTU program** to measure the response time of PM-3112-100.

The MAX value is 172 ms. **(A = 172)**

2. Slave Timeout value in tSH-700 is $B = A + 100 = 272 \approx 300$ ms



Tiny Serial Port Sharer (tSH-700 RevB)

[Home](#) | [Application Mode](#) | [Port1](#) | [Port2](#) | [Network Setting](#) | [Filter](#) | [Monitor](#) | [Change Password](#) | [Logout](#)

Application Mode Settings

Application Mode	Port Setting Update
<input type="radio"/> Mode 0: Serial Converter (Full/half-duplex communication with raw data)	
<input checked="" type="radio"/> Mode 2: Modbus Converter (Half-duplex communication with Modbus RTU/ASCII conversion)	<p>Protocol: Port1: RTU Port2: RTU</p> <p>Slave Devices Connected on: Port1: <input type="radio"/> Port2: <input checked="" type="radio"/></p>
Slave Timeout (ms):	<input type="text" value="300"/> (60 to 65530 ms) Refer to the note below.
Read Cache (ms):	<input type="text" value="980"/> (10, 20... 65530, Disable: 0)
Virtual Modbus ID:	<input type="text" value="1"/> to <input type="text" value="247"/> (Available ID range: 0 to 255) Note: Sharer will skip the Modbus messages when its ID is NOT in the specified range.
Modbus ID Offset:	<input type="text" value="0"/> (Offset= -255 to 255, No change=0) For example: Virtual ID = 1 to 10, offset = 10, then physical Slave ID = 11 to 20. Virtual ID = 31 to 40, offset = -10, then physical Slave ID = 21 to 30.
<input type="button" value="Submit"/>	

3. The Response Timeout value in **Master Program** (Indussoft, Modbus Poll ...)

$C1 = B + 100 = 400 \text{ ms}$ (Apply in 1 Master to 1 Slave)

$C2 = C1 + C1 = 800 \text{ ms}$ (Apply in 2 Masters to 1 Slave)

Connection

Port 6

9600 Baud

8 Data bits

Even Parity

1 Stop Bit

Mode

RTU ASCII

Response Timeout

800 [ms]

Delay Between Polls

10 [ms]

Remote Server

IP Address: 0.0.0.0

Port: 502

OK

Cancel

Advanced...