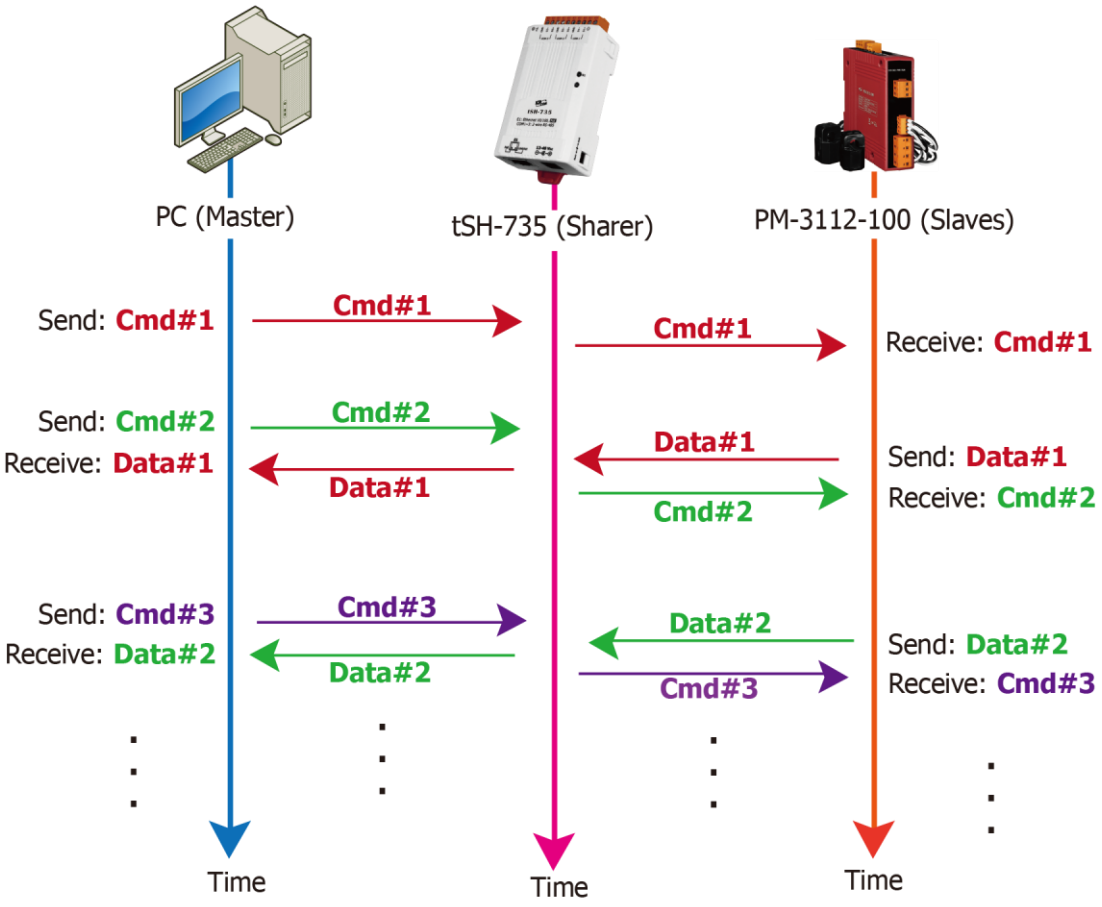
Classification	☑ tDS/tGW/tSH	☐ PETL/tET/tPET	☐ DS/PDS/PPDS	☐ tM-752N
	☐ I/O Card	☐ VXC Card	☐ VxComm	☐ 7188EN
Author	Jim	**Update Date**	2024-11-20	**NO.**	FAQ044

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**

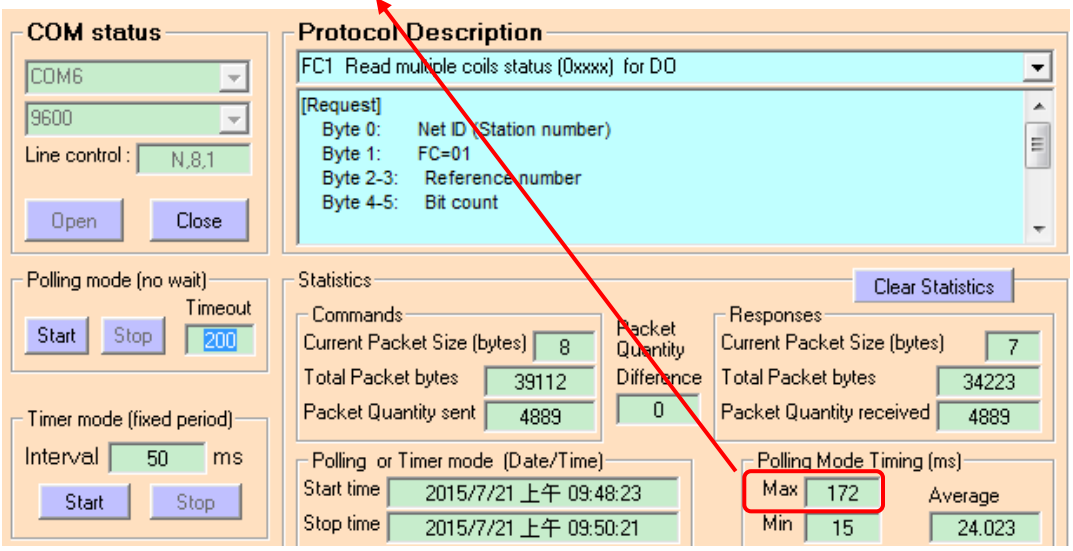
C1 = B + 100 = **Response Timeout value in Master program (Apply in 1 Master to 1 Slave)**

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

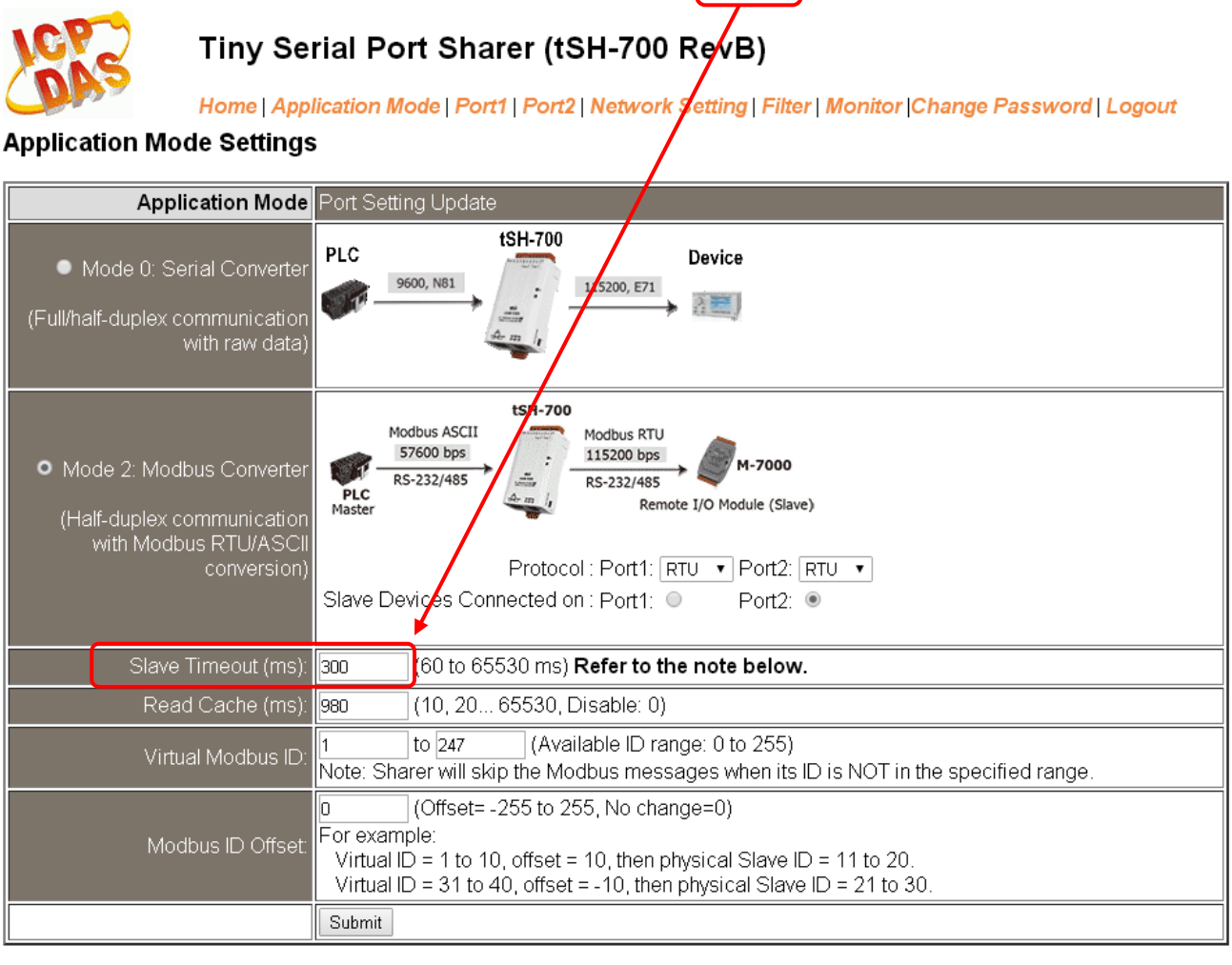
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1. Take the PM-3112-100 as example, Wiring PC COM to PM-3112-100 directly to measure value.
Use **MODBUS RTU program** to measure the response time of PM-3112-100.
The MAX value is 172 ms. **(A = 172)**



2. **Slave Timeout** value in **tSH-700** is **B = A+100** = 272 ≈ 300 ms



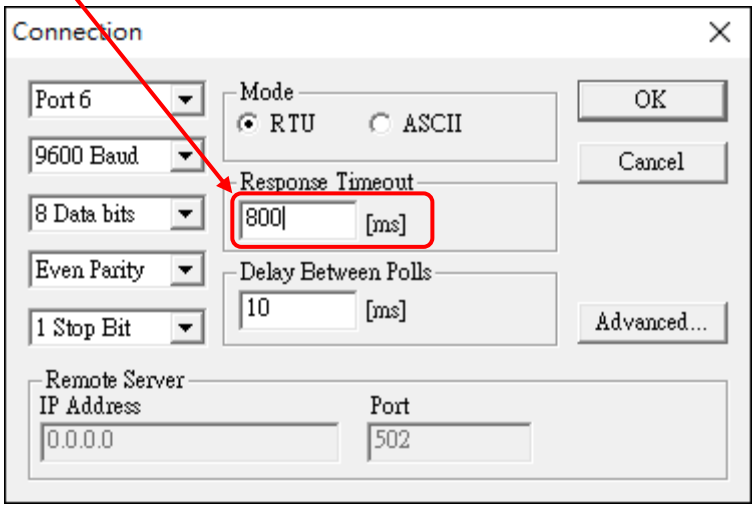
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3. The Response Timeout value in **Master Program** (Indusoft, Modbus Poll …)

C1 = **B + 100** = 400 ms (Apply in 1 Master to 1 Slave)

C2 = C1 + C1 = 800 ms (Apply in 2 Masters to 1 Slave)



- Apply in 1 Master to 1 Slave

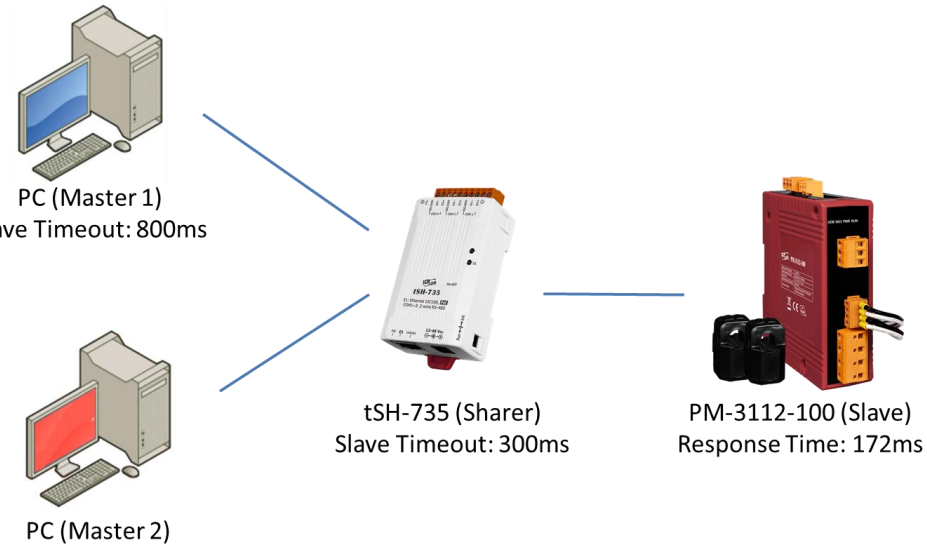


PC (Master)
Slave Timeout: 400ms

tSH-735 (Sharer)
Slave Timeout: 300ms

PM-3112-100 (Slave)
Response Time: 172ms

- Apply in 2 Master to 1 Slave



PC (Master 1)
Slave Timeout: 800ms

PC (Master 2)
Slave Timeout: 800ms

tSH-735 (Sharer)
Slave Timeout: 300ms

PM-3112-100 (Slave)
Response Time: 172ms

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