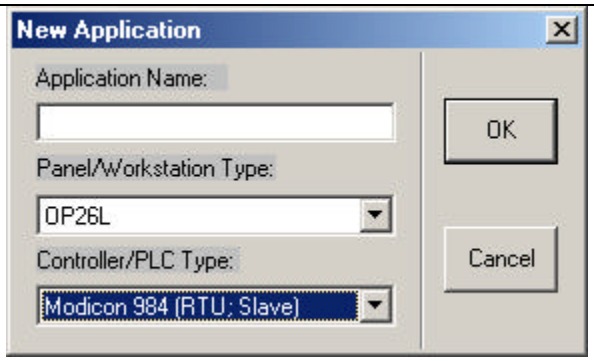
Interfacing M-series PLCs To TAIAN OP16/OP26L/OP36 HMI

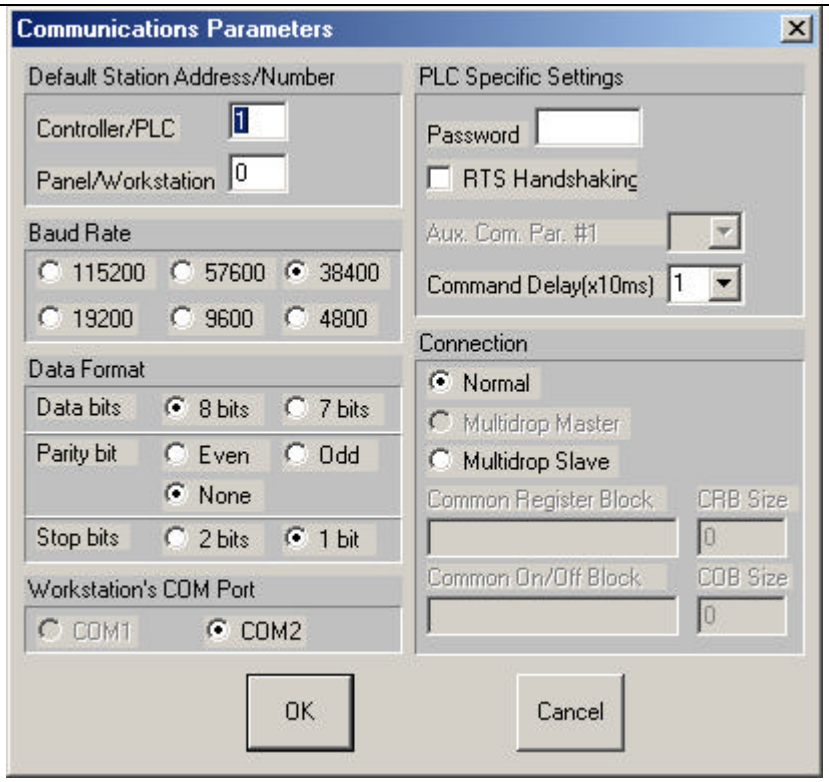
1. Controller/PLC Type

Choose Modicon 984 RTU as the PLC type.



2. Communication Parameters.

Set to PLC's default of 38400 bps, 8 data bits, no parity and 1 stop bit. It is assumed that the PLC is defined with ID = 01 (factory default).



3. I/O Bit Mappings

I/O Type	MODBUS PLC Bit Addr
Inputs 1–256	1 – 256
Outputs 1–256	257 – 512
Timers 1–64	513 – 576
Counters 1–64	769 – 833
Relays 1-512	1025-1536

4. I/O Channel Mappings

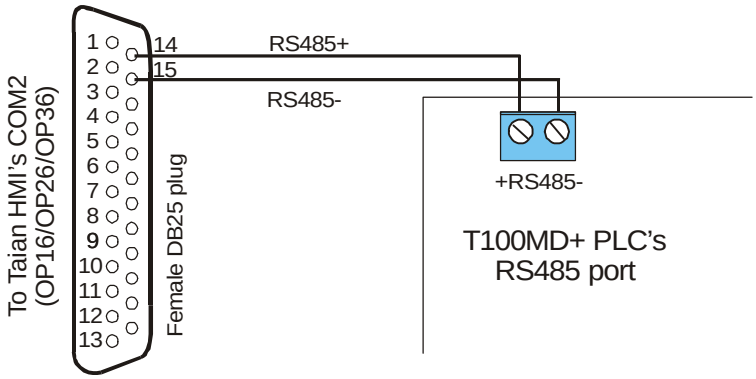
I/O Variable	MODBUS PLC Word Addr
Input[1] – [16]	40001 - 40016
Output[1] – [16]	40017 – 40032
Timer[1] –[4]	40033 – 40036
Counters [1]–[64]	40049 – 40052
Relay[1] – [32]	40065 - 40096

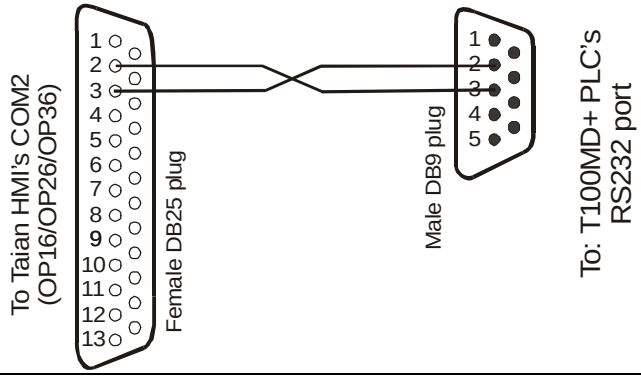
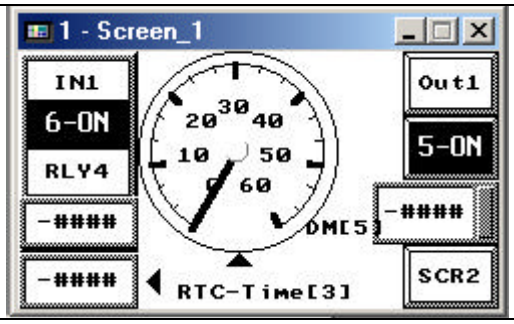
<table>
<tr><td>5. Other Variable Mappings</td><td>
<table>
<tr><th>I/O Variable</th><th>MODBUS PLC Word Addr</th></tr>
<tr><td>TimerPV[1]–[64]</td><td>40129 – 40192</td></tr>
<tr><td>CtrPV[1]–[64]</td><td>40257 – 40320</td></tr>
<tr><td>TIME[1] – [3]</td><td>40513 – 40515</td></tr>
<tr><td>DATE[1] –[4]</td><td>40517 – 40520</td></tr>
</table>
</td></tr>
<tr><td>6. Data Memory Mappings</td><td>DM[1]-DM[4000] 41001 – 45000

E.g. DM[3991] 3991+41000 = 44991</td></tr>
<tr><td>7. Communication Cable:

The Taian OP16/26/36 models of HMI may be connected to either the RS485 port or the RS232 port of the T100MD+ PLCs. We present here both methods of wiring the HMI to the PLCs.

However, we recommend using the RS485 port for connecting the HMI since it leaves the RS232 port free for programming and on-line monitoring.

Note: If using RS232 port for T100MX+ PLC, you need to connect an external +9V power to pin 4 of the DB9 plug to power the opto-isolated interface. T100MD+ PLC do not require connection to pin 4.</td><td>(a) RS485 (recommended)
 

(b) RS232
 
</td></tr>
<tr><td>8. HMI's DIP Switch Setting</td><td>ON: DIP Switch 1,2,3,4,7,8,9,10
OFF: DIP Switch 5,6</td></tr>
<tr><td>9. Example HMI Definition File: T100MD.P3F
Monitor: Input 1,6; Relay 4.
Push button: Output 1,5.
Numeric entry: DM[5]
Numeric display and panel meter: TIME[3]</td><td> 
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