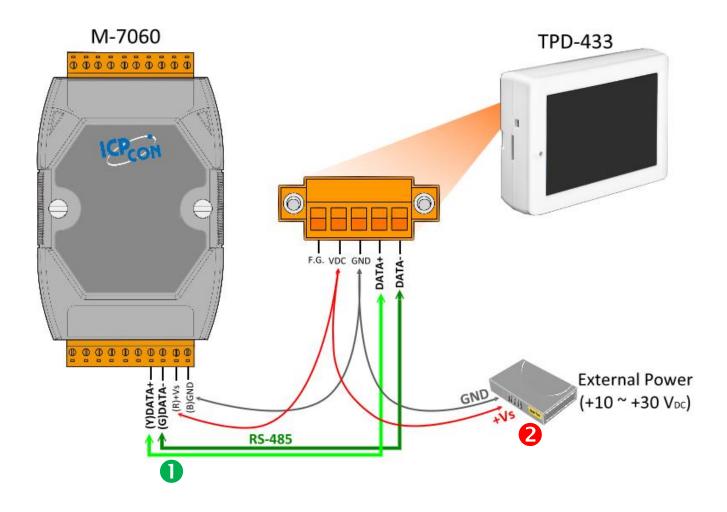


	□ tDS	□ tGW	□ PETL/tET/t	PET 🗖 DS/PDS/PF	PDS 🛛 tM-	-752N
⑦ 狽/Classification	分類/Classification		U VXC Card	□ VxComm	⊠ Otł	ner (TouchPAD)
作者/Author	Tammy		日期/Date	2015-06-26	編號/NO.	FAQ016

Q: How can the M-7060 be accessed using a TouchPAD?

A: Refer to the following for a detailed description of the configuration process:

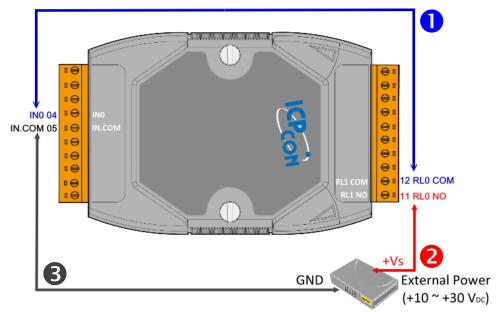
Step 1: Connect the M-7060 module to the TouchPAD model (e.g., TPD-433) on COM1 (RS-485 bus).
Step 2: Apply power to the M-7060 module and TouchPAD model (e.g., TPD-433). The valid power voltage range is from +10 to +30 V_{DC}.





Step 3: To perform a self-test, **connect the DO0 and DI0 pins** on the M-7060 module using the following method:

- 1. Connect the RL0 COM pin to the IN0 pin. (i.e., connect Pin12 to Pin04).
- Connect the +10 V External Power supply to the RLO NO pin.
 (i.e., connect the External + 10 V to Pin11)
- Connect the GND pin on the External Power supply to the IN.COM pin. (i.e., connect the External GND to Pin05)



Step 4: Install the **HMIWorks** driver, which can be obtained from either the companion CD-ROM or from the ICPDAS website, as indicated below:

CD:\NAPDOS\TouchPAD\Setup\

http://ftp.icpdas.com/pub/cd/touchpad/setup/

- Double-click the "HMIWorks_STD_vxxx_setup.exe" file icon to execute the driver installation program.
- Once the driver installation is complete, double-click the "HMIWorks_STD_vxxx_Update_xx.exe" file icon to execute the driver installation update program.

For more detailed information related to the driver installation, refer to Chapter 2 "Software Installation" in the <u>TouchPAD Getting Started</u> document.





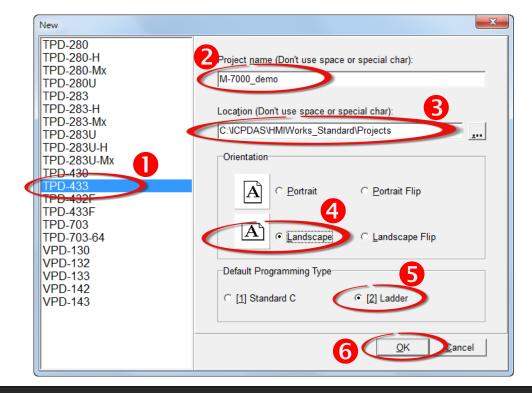


Step 5: Open the HMIWorks software, click the "New Project" icon to create a new project.

Welcome to HMIWorks STD v2.09.06 (Apr.28, 2015)	X
Select a project to start	✓ Show the welcome dialog on startup.
(Not in the list, select others.) New Project Open Project	
Remove Nonexistent Files	,

Step 6: In the "New" dialog box, configure the parameters for the new project as follows:

- 1. Click the name of the TouchPAD model to select it, TPD-433 in this case.
- 2. Enter a name for the project.
- 3. Select the location where the project should be saved.
- 4. Select the orientation for the display.
- 5. Select the Default Programming Type.
- 6. Click the **"OK"** button to save the configuration and close the dialog box.





Step 7: Click the "Register Devices (I/O)" option from the "HMI" menu to open the "Devices" dialog box, or press F3.

🛃 Frame1 - [demo.hw	d]
🛃 File Edit View	HMI Layout Arrange Run (Build & Download) Windo
Workspace Toolbox	New Virtual Tag F2
	Register Devices (I/O) F3
⊞ 🖅 Program	Ladder Designer F4
Connection	Bind Tags
⊡	Project Configuration
🥼 🔌 Virtual	

Step 8: Select **"Modbus RTU Master"** from the "TouchPAD is" drop down menu.

Devices				
Device information	Tag Name	IO Type Start Ad	ldress Default Value	Comment
TouchPAD is: Modbus TCP Master				
Device Series: Modbus TCP Master Modbus RTU Master				
Connection: Modbus TCP Slave Modbus RTU Slave				
Model Name: DCON Master Search				
Device Name: Assign				
Net ID: 1				
Timeout: 200				
	•			۶.
	<u>O</u> K <u>C</u> ancel]		Clear All <u>T</u> ags

Step 9: Select **"M-7000"** from the "Device Series" drop down menu.

Devices					l		X
Device information TouchPAD is: Modbus RTU Master Device Series: M-7000 Connection: DL_series_MRTUM tM_series Device Name: LC_series Net ID: IR_series Timeout: User_Define(MRTUM) Select Assign	Tag Name	IO Type	Start Address	Default Value		All <u>T</u> ags	
							//



Step 10: Select **"Create New..."** from the "Connection" drop down menu to open the "New/Edit

Connection..." dialog box.

Devices						
Device information		Tag Name	IO Type	Start Address	Default Value	Comment
TouchPAD is: Modbus RTU Master	┝	Þ				
Device Series: M-7000						
Connection:						
Model Name: Create New Select						
Device Name: Assign						
Net ID: 1						
Timeout: 200						
		٠ 🗌				
		<u>O</u> K <u>C</u> ancel				Clear All <u>T</u> ags

Step 11: In the "**New/Edit Connection...**" dialog box, configure the connection information of the M-7060 module in the following manner:

- 1. Enter a name for the connection (e.g., SER_1) in the "Connection Name" field.
- 2. Select "COM1" from the "Connection Interface" drop down menu.
- 3. Select the Baud Rate of the M-7060 module (e.g., 9600) in the "Baud Rate" drop down menu.
- 4. Select the **Data Format of the M-7060** module (e.g., 8, None, 1) in the "Data Bit", "Parity" and "Stop Bit" drop down menu.
- 5. Click the **"OK"** button to save the configuration and close the dialog box.

New/Edit Connection	x
Connection Name SER_1 Assign Name Connection Interface COM1 Set Note: The interface is for communication between TouchPAD and I/O	
devices, not for downloading firmware.	
Baud Rate	
Data Bit	
Parity 0(None)	
Stop Bit	
	_
<u> </u>	



Step 12: Click the **"Select"** button to open the "Select [M-7000] Series..." dialog box.

Step 13: In the "Select [M-7000] Series..." dialog box, select the M-7060 module and then click the "OK" button.

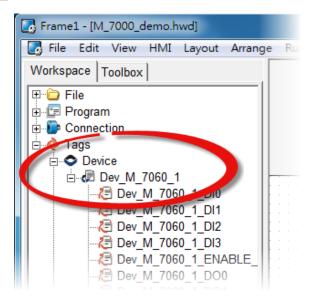
Devices				
Device information TouchPAD is: Modbus RTU Master Device Series: M-7000 Connection: SER_1 Model Name: Select Device Name: Assign Net ID: 1 Timeout: 200	Tag Name ▶ Select [M-7015 M-7017 M-7017 M-7017 M-7017 M-7019 M-7019 M-7015 M-7045 M-7055 M-7065 QK Image: Constraint of the second s	-7000] Series Z-CH10 Z-CH20 Z R Z	Default Value (Clear All <u>T</u> ags

Step 14: Verify that the **information for M-7060 module is correct** (e.g., the Device Name, Net ID, Tag Name, IO Type, Start Address and Default Value, etc.) and then click the **"OK"** button to save the configuration and close the "Devices" dialog box.

Devices								• X
Device information-			Tag Name	IO Type	Start Address	Default Value	Comment	^
			▶ DI0	DI	0	0		
TouchPAD is:	Modbus RTU Master		DI1	DI	1	0		=
Device Series:	M-7000 👻		DI2	DI	2	0		=
Connection:	SER 1		DI3	DI	3	0		
		elect	ENABLE_DI	Virtual	0	1		
Model Name:			DO0	DO	0	0		
Device Name:	Dev_M_7060_1 As	sign	DO1	DO	1	0		
Net ID:	1		DO2	DO	2	0		
Timeout:	200		DO3	DO	3	0		
	,		ENABLE_DO	Virtual	0	1		
								T
			· □					•
			OK <u>C</u> ancel				Clear All <u>1</u>	<u>F</u> ags

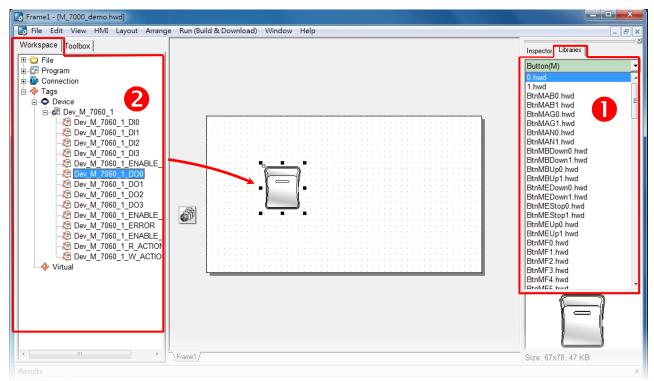


Step 15: The creation of the "Dev_M_7060_1" device is now complete.



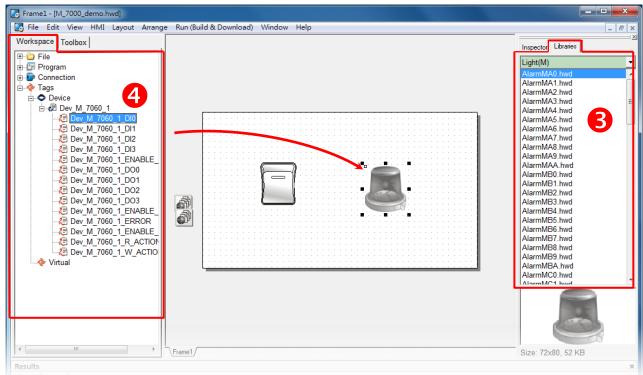
Step 16: Use the following procedure to create a DIO sample program:

- 1. Select a "Button" object from the "Libraries" pane to represent the DO0 tag.
- 2. Drag the "Dev_M_7060_1_DOO" tag (DO channel 0) from the "Workspace" pane to the desired position on the design frame.

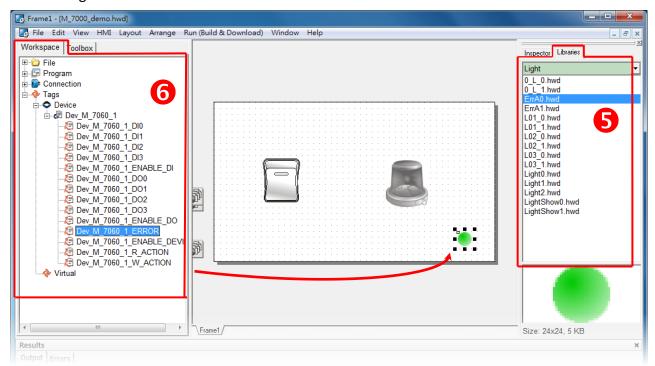




- 3. Select a "Light" object from the "Libraries" pane to represent the DIO tag.
- 4. Drag the **"Dev_M_7060_1_DIO"** (DI channel 0) tag from the "Workspace" pane to the desired position on the design frame.



- 5. Select a "Light" object from the "Libraries" pane to represent the ERROR tag.
- 6. Drag the **"Dev_M_7060_1_ERROR"** tag from the "Workspace" pane to the desired position on the design frame.



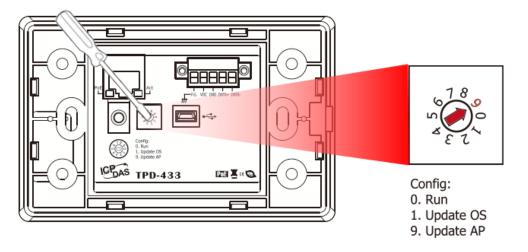
Copyright @ 2015 ICP DAS Co., LTD. All Rights Reserved.



The creation of the DIO sample program is now complete.

Step 17: Once the DIO sample program is complete, it can be uploaded to the TPD-433 module via USB. The detailed configuration and wiring information is as follows:

 Power off the TPD-433 module and use a flat-head screwdriver to set the Rotary Switch on the TPD-433 module to "Update AP" mode (position 9). Note that the default configuration is "Run" mode (position 0).



 Connect the TPD-433 module to the Host PC using a CA-USB10 cable, and then Power-on and reboot the TPD-433 module.





3. The message: **"MiniOS8 is running. Waiting for connection..."** will be displayed on the TPD-433 module.



Step 18: The DIO sample program can now be uploaded to the TPD-433 module. Follow the procedure described below:

- 1. In the HMIWorks application, click the "Run (Build & Download) F9" item from the "Run
 - (Build & Download)" menu, or press F9.

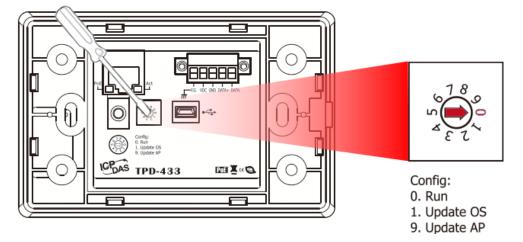
🛃 Frame1 - [M_7000_demo.hwd]	
🛃 File Edit View HMI Layout Arrange	Run (Build & Download) Window Help
Workspace Toolbox	Run (Build & Download) F9
	Ruild & Render
🖶 🖅 📴 Program	Render Only
E Connection	Download Only Ctrl+F9
i ⊡	Set up Device (TouchPAD)
🖻 🕼 Dev_M_7060_1	Download File (User Bin)
Dev_M_7060_1_DI0	Console (cmd.exe) F10
Dev_M_7060_1_DI1	

2. The **"Frame1 rendering..."** dialog will be displayed showing the progress of the update.

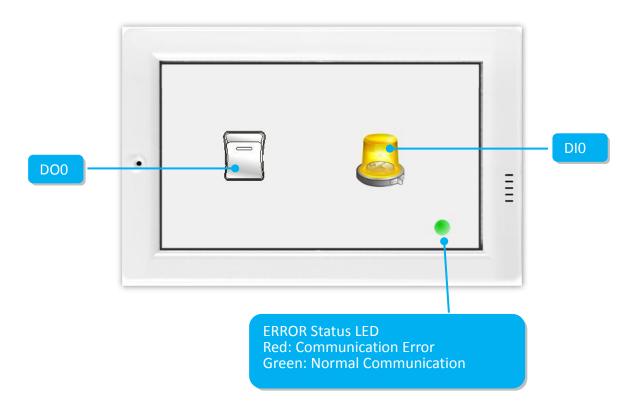
Frame1 - [M_7000_dem	no.hwd]	
💽 File Edit View HI	MI Layout Arrange Run (Build & Download) Window Help	_ 8 ×
Workspace Toolbox		Inspector Libraries
E-CE Program		Light(M)
E Connection		AlarmMA0.hwd
E- V Tags		AlarmMA1.hwd
	France 1 and device	armMA2.hwd armMA3.hwd ≡
	Frame1 rendering	armMA4.hwd
- E Dev N		armMA5.hwd
Z Dev_N		armMA6.hwd
E Dev_N		armMA7.hwd armMA8.hwd
- C Dev_N		armMA9.hwd
- 🤁 Dev_N	10/	armMAA.hwd
K≣ Dev_N K≣ Dev N	1%	armMB0.hwd
E Dev_N		armMB1.hwd
E Dev N		armMB2.hwd armMB3.hwd
Z Dev_N		armMB4.hwd
C Dev_N		armMB5.hwd
🤁 Dev_N		armMB6.hwd
Z Dev_N		armMB7.hwd armMB8.hwd
E Dev_N	Cancel	armMB9.hwd
Virtual		armMBA.hwd
		armMC0.hwd
-		(MarmMC1 bud
		a contra la
×	Frame1	Size: 72x80, 52 KB
Description (1)		



3. Once the upload is complete (i.e., when the progress indicator reaches 100%), **power off the TPD-433** module and set the **Rotary Switch to "Run" mode (position 0)**.



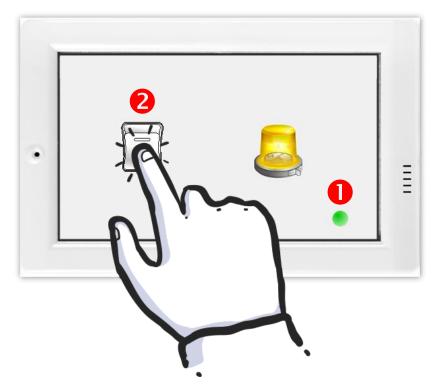
4. **Power-on and reboot** the TPD-433 module so that the module is operating in **"Run" mode**. The TPD-433 module will then execute the DIO sample program.





Step 19: Verify the results of the DIO functions test in the following manner.

- 1. Check that the ERROR LED on the M-7060 module is in the normal communication state (green).
- 2. Tap the DO0 icon on the TPD-433 module.



3. Check that the DIO icon has changed between states (e.g., yellow or grey).



-Complete-