



New Modbus slave information

Outline

- **Purpose**

New Modbus slave information are added in 1.66 HMI version.

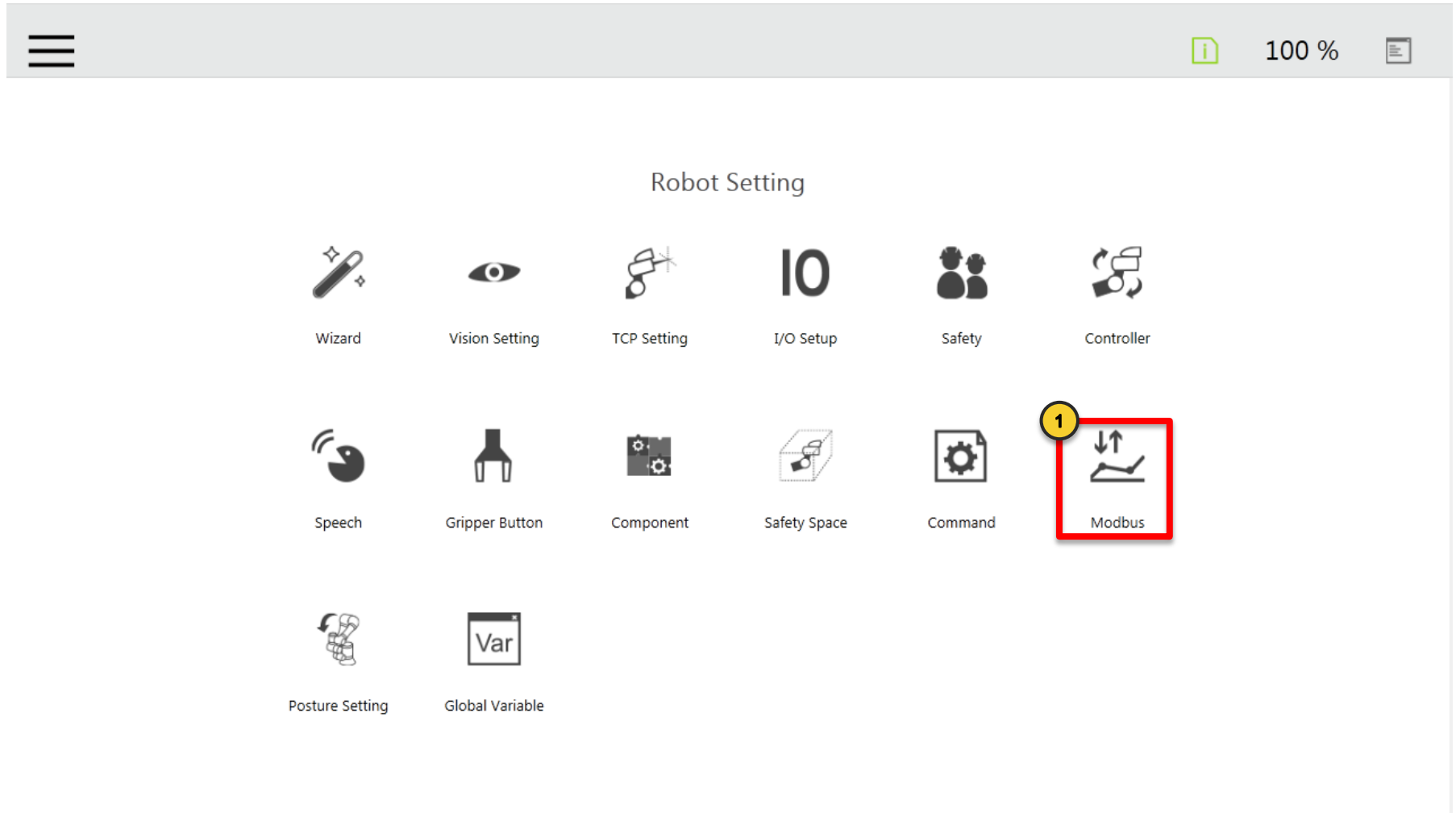
- **Equipment**

TM5

- **Function operation**

Function operation(1/7)

➤ Go to setting → Select Modbus



Function operation(2/7)

➤ Click Code Table

The screenshot displays the Modbus Slave configuration interface. At the top, there is a navigation bar with a menu icon, a back arrow, an information icon, and a 100% zoom level. Below the navigation bar, the title "Modbus Slave" is visible. On the left side, there are two buttons: "TCP" (highlighted in green) and "RTU". In the center, there is an "Enable" button (highlighted in blue), a "STATUS: Disable" label, and an "IP Filter:" field with a dotted box, a tilde, another dotted box, and a green plus sign. At the bottom left, a "Code Table" button is highlighted with a red box and a yellow circle containing the number "2".

Function operation(3/7)

➤ The new information is marked by red frame.

- X、Y、Z (Robot coordinates)
 - The XYZ axis of robot base.
- Rx、Ry、Rz (Robot coordinates)
 - The RxRyRz axis of robot base

Robot Coordinate	PC	Address ₁₀	Address ₁₆	Type	R/W	Note1	Note2
X (Cartesian coordinates)	04	7001~7002	1B59~1B5A	Float	R	Dword	mm
Y (Cartesian coordinates)	04	7003~7004	1B5B~1B5C	Float	R	Dword	mm
Z (Cartesian coordinates)	04	7005~7006	1B5D~1B5E	Float	R	Dword	mm
Rx (Cartesian coordinates)	04	7007~7008	1B5F~1B60	Float	R	Dword	degree
Ry (Cartesian coordinates)	04	7009~7010	1B61~1B62	Float	R	Dword	degree
Rz (Cartesian coordinates)	04	7011~7012	1B63~1B64	Float	R	Dword	degree
Joint 1	04	7013~7014	1B65~1B66	Float	R	Dword	degree
Joint 2	04	7015~7016	1B67~1B68	Float	R	Dword	degree
Joint 3	04	7017~7018	1B69~1B6A	Float	R	Dword	degree
Joint 4	04	7019~7020	1B6B~1B6C	Float	R	Dword	degree
Joint 5	04	7021~7022	1B6D~1B6E	Float	R	Dword	degree
Joint 6	04	7023~7024	1B6F~1B70	Float	R	Dword	degree
X (Tool coordinate)	04	7025~7026	1B71~1B72	Float	R	Dword	mm
Y (Tool coordinates)	04	7027~7028	1B73~1B74	Float	R	Dword	mm
Z (Tool coordinates)	04	7029~7030	1B75~1B76	Float	R	Dword	mm
Rx (Tool coordinates)	04	7031~7032	1B77~1B78	Float	R	Dword	degree
Ry (Tool coordinates)	04	7033~7034	1B79~1B7A	Float	R	Dword	degree
Rz (Tool coordinates)	04	7035~7036	1B7B~1B7C	Float	R	Dword	degree
X (Robot coordinates)	04	7037~7038	1B7D~1B7E	Float	R	Dword	mm
Y (Robot coordinates)	04	7039~7040	1B7F~1B80	Float	R	Dword	mm
Z (Robot coordinates)	04	7041~7042	1B81~1B82	Float	R	Dword	mm
Rx (Robot coordinates)	04	7043~7044	1B83~1B84	Float	R	Dword	degree
Ry (Robot coordinates)	04	7045~7046	1B85~1B86	Float	R	Dword	degree
Rz (Robot coordinates)	04	7047~7048	1B87~1B88	Float	R	Dword	degree

Function operation(4/9)

➤ The new information is marked by red frame.

When touchstop node be triggered

- X、Y、Z (Robot coordinates)
 - The XYZ axis of robot base.
- Rx、Ry、Rz (Robot coordinates)
 - The RxRyRz axis of robot base.

Robot Coordinate (When touchstop node be triggered)	PC	Address ₁₀	Address ₁₆	Type	R/W	Note1	Note2
X (Cartesian coordinates)	04	7401~7402	1CE9~1CEA	Float	R	Dword	mm
Y (Cartesian coordinates)	04	7403~7404	1CEB~1CEC	Float	R	Dword	mm
Z (Cartesian coordinates)	04	7405~7406	1CED~1CEE	Float	R	Dword	mm
Rx (Cartesian coordinates)	04	7407~7408	1CEP~1CF0	Float	R	Dword	degree
Ry (Cartesian coordinates)	04	7409~7410	1CF1~1CF2	Float	R	Dword	degree
Rz (Cartesian coordinates)	04	7411~7412	1CF3~1CF4	Float	R	Dword	degree
Joint 1	04	7413~7414	1CF5~1CF6	Float	R	Dword	degree
Joint 2	04	7415~7416	1CF7~1CF8	Float	R	Dword	degree
Joint 3	04	7417~7418	1CF9~1CFA	Float	R	Dword	degree
Joint 4	04	7419~7420	1CFB~1CFC	Float	R	Dword	degree
Joint 5	04	7421~7422	1CFD~1CFE	Float	R	Dword	degree
Joint 6	04	7423~7424	1CFP~1D00	Float	R	Dword	degree
X (Tool coordinate)	04	7425~7426	1D01~1D02	Float	R	Dword	mm
Y (Tool coordinates)	04	7427~7428	1D03~1D04	Float	R	Dword	mm
Z (Tool coordinates)	04	7429~7430	1D05~1D06	Float	R	Dword	mm
Rx (Tool coordinates)	04	7431~7432	1D07~1D08	Float	R	Dword	degree
Ry (Tool coordinates)	04	7433~7434	1D09~1D0A	Float	R	Dword	degree
Rz (Tool coordinates)	04	7435~7436	1D0B~1D0C	Float	R	Dword	degree
X (Robot coordinates)	04	7437~7438	1D0D~1D0E	Float	R	Dword	mm
Y (Robot coordinates)	04	7439~7440	1D0F~1D10	Float	R	Dword	mm
Z (Robot coordinates)	04	7441~7442	1D11~1D12	Float	R	Dword	mm
Rx (Robot coordinates)	04	7443~7444	1D13~1D14	Float	R	Dword	degree
Ry (Robot coordinates)	04	7445~7446	1D15~1D16	Float	R	Dword	degree
Rz (Robot coordinates)	04	7447~7448	1D17~1D18	Float	R	Dword	degree

Function operation(5/7)

➤ The new information is marked by red frame.

- HMI Version

➤ Show current HMI version

Others 1	FC	Address ₁₀	Address ₁₆	Type	R/W	Note
Current Time: Year	04	7301	1C85	Int16	R	
Current Time: Month	04	7302	1C86	Int16	R	
Current Time: Date	04	7303	1C87	Int16	R	
Current Time: Hour	04	7304	1C88	Int16	R	
Current Time: Minute	04	7305	1C89	Int16	R	
Current Time: Second	04	7306	1C8A	Int16	R	
IPC Connect Number	04	7307	1C8B	Int16	R	≦ User Connect Limit
HMI Version	04	7308~7312	1C8C~1C90	String	R	
User Connect Limit	04	7330	1CA2	Int16	R	0: No limit
Modbus Proxy Port	04	7319	1C97	Int16	R	5432
Last Error Code	04	7320~7321	1C98~1C99	Int32	R	Dword
Last Error Time: Year	04	7322	1C9A	Int16	R	
Last Error Time: Month	04	7323	1C9B	Int16	R	
Last Error Time: Date	04	7324	1C9C	Int16	R	
Last Error Time: Hour	04	7325	1C9D	Int16	R	
Last Error Time: Minute	04	7326	1C9E	Int16	R	
Last Error Time: Second	04	7327	1C9F	Int16	R	

Function operation(6/7)

➤ The new information is marked by a red frame.

- X、Y(TCP Value)

➤ The XY TCP value in Manual input parameters of TCP settings

Others 2	FC	Address ₁₀	Address ₁₆	Type	R/W	Note1	Note2
Controller Temperature	04	7340~7341	1CAC~1CAD	Float	R	Dword	Celsius
Manipulator Voltage	04	7342~7343	1CAE~1CAP	Float	R	Dword	Voltage
Manipulator Power Consumption	04	7344~7345	1CB0~1CB1	Float	R	Dword	Watt
Manipulator Current	04	7346~7347	1CB2~1CB3	Float	R	Dword	A
Control Box IO Current	04	7348~7349	1CB4~1CB5	Float	R	Dword	mA
End Module IO Current	04	7350~7351	1CB6~1CB7	Float	R	Dword	mA
X (TCP Value)	04	7354~7355	1CBA~1CBB	Float	R	Dword	mm
Y (TCP Value)	04	7356~7357	1CBC~1CBD	Float	R	Dword	mm

Function operation(7/7)

➤ New information of 1.66 is listed as below.

- **Z(TCP Value)**
 - The Z TCP value in Manual input parameters of TCP settings
- **RX、RY、RZ (TCP Value)**
 - The RXRYRZ TCP value in Manual input parameters of TCP settings
- **Mass(TCP Value)**
 - The mass value in Manual input parameters of TCP settings
- **Ixx、Iyy、Izz (Principal moments of inertia)**
 - The IxxIyyIzz Principal moments of inertia in Manual input parameters of TCP settings
- **X、Y、Z (Mass Center frames with principal axes w.r.t tool frames)**
 - The XYZ Mass Center frames with principal axes w.r.t tool frames in Manual input parameters of TCP settings
- **RX、RY、RZ (Mass Center frames with principal axes w.r.t tool frames)**
 - The XYZ Mass Center frames with principal axes w.r.t tool frames in Manual input parameters of TCP settings

Z (TCP Value)	04	7358~7359	1CBE~1CBF	Float	R	Dword	mm
RX (TCP Value)	04	7360~7361	1CC0~1CC1	Float	R	Dword	degree
RY (TCP Value)	04	7362~7363	1CC2~1CC3	Float	R	Dword	degree
RZ (TCP Value)	04	7364~7365	1CC4~1CC5	Float	R	Dword	degree
Mass (TCP Value)	04	7366~7367	1CC6~1CC7	Float	R	Dword	Kg
Ixx (Principal moments of inertia)	04	7368~7369	1CC8~1CC9	Float	R	Dword	
Iyy (Principal moments of inertia)	04	7370~7371	1CCA~1CCB	Float	R	Dword	
Izz (Principal moments of inertia)	04	7372~7373	1CCC~1CCD	Float	R	Dword	
X (Mass center frames with principal axes w.r.t. tool frame)	04	7374~7375	1CCE~1CCF	Float	R	Dword	mm
Y (Mass center frames with principal axes w.r.t. tool frame)	04	7376~7377	1CD0~1CD1	Float	R	Dword	mm
Z (Mass center frames with principal axes w.r.t. tool frame)	04	7378~7379	1CD2~1CD3	Float	R	Dword	mm
RX (Mass center frames with principal axes w.r.t. tool frame)	04	7380~7381	1CD4~1CD5	Float	R	Dword	degree
RY (Mass center frames with principal axes w.r.t. tool frame)	04	7382~7383	1CD6~1CD7	Float	R	Dword	degree
RZ (Mass center frames with principal axes w.r.t. tool frame)	04	7384~7385	1CD8~1CD9	Float	R	Dword	degree

END