



Omron C-Series and CQM-1 Series

Overview

Maple Systems' MAP Family & OIT Family Operator Interface Terminals (Maple OITs) communicate with Omron C-Series and CQM1 Programmable Logic Controllers (PLCs) using the Host Link protocol in a point-to-point single master, single slave format.

Compatible PLCs	
PLC Family	PLC Model
Omron SYSMAC C-Series	C200H Plus, C200H, C60K, C40K/H, C28K/H, C20K/H
Omron CQM1 Series	CQM1, CPM1, SRM1

Communications Cable

The Maple OIT should be connected to the host link port of the programmable logic controller. The host link port may be built in to the PLC or connected as an additional plug-in module. Refer to Technical Note 1061 for information on communication cable part numbers and cable assembly instructions. If you will be assembling your own communications cable, cable assembly instructions are also available on our web site at www.maple-systems.com.

WARNING: If your communications cable is not wired exactly as shown in our cable assembly instructions, damage to the Maple OIT or loss of communications can result.

PLC Settings

The host link port may be built into the PLC or connected as an additional plug-in module.

The Omron PLC must be placed in Monitor mode.

Accessible PLC Memory

PLC Register Memory

The following table lists the PLC register memory ranges that Maple's OITs are able to access. Please note that your PLC's memory range may be *smaller* or *larger* than that supported by Maple's OITs. The following PLC register memory is displayable in 16-bit or 32-bit formats on the Maple OIT.

PLC Register Address	PLC Register Description
IR channels 0 to 511	I/O and Internal Relay area
SR (<i>included in IR</i>)	Special Relay area
HR channels 0 to 99	Holding Relay area
AR channels 0 to 27	Auxiliary Relay area
LR channels - to 63	Link Relay area
TC channels 0 to 511	Timer/Counter area
DM channels 0 to 6655	Data Memory area

Important PLC Memory Considerations

If your PLC's memory range is smaller than the range supported by Maple's OITs, it is possible to configure the Maple OIT to monitor a PLC memory address which does not exist. Since this can cause unpredictable results, when you configure the Maple OIT please ensure that all selected PLC memory addresses are valid for your PLC model. Note: The C20K Series has limited memory space compared to other Omron PLCs.

Do not configure the Maple OIT to write to any PLC memory address which should only be written to by the PLC.

Single coil access using the 1/0 Coil, On/Off Coil, and ASCII String formats is not allowed for the data (DM) memory registers.

On using Bank 8 or Bank 16 formats

When using these formats, each PLC coil (bit) is individually displayed in terms of 1 and 0, with the lowest addressed coil displayed in the right-most position in the field. Therefore, if using coils IR12600-IR12615, then IR12600 (channel 126, bit 0) is the least significant bit displayed in the right-most position and IR12615 is the most significant bit displayed in the left-most position. The coils displayed in the bank format must be contained in a single channel, since the bank format will always display coils 00 through 15 of the channel specified. It is not possible to display a bank that starts in the middle of one channel and ends in the middle of the next channel.

OITware-200 Settings

The following table lists the communications settings that must be configured in OITware-200.

Please note:

- the Default column lists OITware-200's default setting; your PLC's default may be different
- the Options column lists OITware-200's options; your PLC may not support every option

Name	Default	Options	Important Notes
Baud Rate	9600	19200, 9600, 4800, 2400, 1200, 600, 300	Must match the PLC Host Link port settings. Use the fastest baud rate supported by both.
Parity	Even	Even, Odd, None, Mark, Space	Must match the PLC Host Link port settings.
Data Bits	7	7, 8	Must match the PLC Host Link port settings.
Stop Bits	1	1, 2	Must match the PLC Host Link port settings.
Status Coils	IR200	IR000 to IR511	Only the channel number is required. Bit numbers cannot be specified..
Address	0	0 to 31	Must match the PLC Host Link port settings.
Source Address, Destination Address	N/A		
Password	N/A		
Message Request Register	DM950	DM0 to DM6655	Must be within the PLC's supported memory range.
Current Message Register (optional)	DM952	DM0 to DM6655	Must be within the PLC's supported memory range.
Function Key Coils (optional)	R201	IR000 to IR511	Only the channel number is required. Bit numbers cannot be specified..
Screen Dependent Function Key Coils (optional)	IR203	IR000 to IR511	Must be within the PLC's supported memory range. Applies to OITs with Screen Dependent Function Keys.
Control Key Coils (optional)	IR204	IR000 to IR511	Must be within the PLC's supported memory range.
Status LED Coils (optional)	IR0	IR000 to IR511	Must be within the PLC's supported memory range. Applies to OITs with Status LED Coils.
Function Key LED Coils (optional)	IR202	IR000 to IR511	Must be within the PLC's supported memory range. Applies to OITs with Function Key LEDs.

MAPware-100 Settings

The following table lists the communications settings that must be configured in MAPware-100. Please note:

- the Default column lists MAPware-100's default setting; your PLC's default may be different
- the Options column lists MAPware-100's options; your PLC may not support every option

Name	Default	Options	Important Notes
Baud Rate	9600	19200, 9600, 4800, 2400, 1200, 600, 300	Must match the PLC Host Link port settings. Use the fastest baud rate supported by both.
Parity	Even	Even, Odd, None, Mark, Space	Must match the PLC Host Link port settings.
Data Bits	7	7, 8	Must match the PLC Host Link port settings.
Stop Bits	1	1, 2	Must match the PLC Host Link port settings.
Status Coils	IR200	IR000 to IR255	Only the channel number is required. Bit numbers cannot be specified.
Address	0	0 through 31	Must match the PLC Host Link port settings.
Source Address, Destination Address	N/A		
Password	N/A		
Message Request Register	DM950	DM0 to DM1999	Must be within the PLC's supported memory range.
Function Key Coils (optional)	R201	IR000 to IR255	Only the channel number is required. Bit numbers cannot be specified.