CONTROLLER INFORMATION SHEET

Industrial Control Links

ICL-4100, ICL-4200, ICL-4300

Overview

Maple Systems' OIT Family Operator Interface Terminals (Maple OITs), when programmed using **OITware-200**, communicate with Industrial Control Links controllers using ICL's Modbus communications protocol in a point-to-point single master, single slave format with the Maple OIT as the master.

If you prefer to use the OIT as a simple ASCII terminal, we offer the **STEPware-100** configuration software that programs the Maple OIT for ASCII communications.

Compatible Controllers	
Family	**Model**
ICL-4100	ICL-4120 RTU, ICL-4130 RTU
ICL-4200	ICL-4215, ICL-4216, ICL-4225, ICL-4226
ICL-4300	ICL-4300

Communications Cable

The Maple OIT should be connected to the ICL serial port on the controller. A list of communications cables offered by Maple Systems as well as cable assembly instructions to assist you in assembling your own communications cable are available on our website at www.maple-systems.com/cables.htm.

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.

Controller Settings

Use the Modbus Protocol Software.

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Accessible Controller Memory

Register Memory

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

Controller Register Address	Controller Register Description	Access
300001 to 365536	Input Register, 16 Bit Format	Read Only
400001 to 465536	Holding Register, 16 Bit Format	Read/Write

Discrete Memory

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

Controller Bit Address	Controller Bit Description	Access
000001 to 065536	Coils, Bit Format	Read/Write
100001 to 165536	Inputs, Bit Format	Read Only

Important Memory Considerations

If your controller's memory range is smaller than the range supported by Maple's OITs, it is possible to configure the Maple OIT to monitor a memory address which does not exist. Since this can cause unpredictable results, when you configure the Maple OIT please ensure that all selected memory addresses are valid for the controller model.
Do not configure the Maple OIT to write to any memory address which should only be written to by the controller.
Accessing the 1XXXX Coils or 3XXXX Registers Although the OITware-200 configuration software allows the programmer to select read/write access for 1XXXX and 3XXXX memory, these controller memory areas are designed to be read only.
On using Bank 8 or Bank 16 formats When using these formats, each controller coil (bit) is individually displayed in terms of 1 and 0, with the lowest addressed coil displayed in the left-most position in the field. Therefore, if using coils 00001-00016, then 00016 is the least significant bit displayed in the right-most position and 00001 is the most significant bit displayed in the left-most position. The address used must start on a byte boundary when using these formats, which can be determined if the first coil's address, minus 1 and then divided by 16, leaves no remainder.

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

Name	Default	Options	Important Notes
Baud Rate	19200	19200, 9600, 4800, 2400, 1200, 600, 300	Must match the Controller's port settings. Use the fastest baud rate supported by both.
Parity	None	Even, Odd, None, Mark, Space	Must match the Controller's port settings.
Data Bits	8	7, 8	Must match the Controller's port settings.
Stop Bits	2	1, 2	Must match the Controller's port settings.
Status Coils	385	000001 to 065536 400001 to 465536	Must be within the Controller's supported memory range.
Address, Source Address	N/A		
Destination Address	1	1 to 247	Must match the Controller's address.
Password	N/A		
Message Request Register	400001	000001 to 065536 400001 to 465536	Must be within the Controller's supported memory range.
Current Message Register (optional)	400003	000001 to 065536 400001 to 465536	Must be within the Controller's supported memory range.
Function Key Coils (optional)	401	000001 to 065536 400001 to 465536	Must be within the Controller's supported memory range.
Screen Dependent Function Key Coils (optional)	369	000001 to 065536 400001 to 465536	Must be within the Controller's supported memory range. Applies to OITs with Screen Dependent Function Keys.
Control Key Coils (optional)	433	000001 to 065536 400001 to 465536	Must be within the Controller's supported memory range.
Status LED Coils (optional)	1	000001 to 065536 400001 to 465536	Must be within the Controller's supported memory range. Applies to OITs with Status LEDs.
Function Key LED Coils (optional)	417	000001 to 065536 400001 to 465536	Must be within the Controller's supported memory range. Applies to OITs with Function Key LEDs.