



Control Microsystems

SCADAPack Series

Overview

Maple Systems' OIT Family Operator Interface Terminals (Maple OITs) communicate with Control Microsystems Controllers using the Control Microsystems MODBUS protocol. The Maple OIT is the master in a point-to-point single master, single slave format.

Compatible Controllers	
Family	Model
SCADAPack Series	SCADAPack Light, SCADAPack, SCADAPack Plus

Communications Cable

The Maple OIT should be connected to the RS-232 serial port configured for Modbus RTU protocol. 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.

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
30001 to 39999	Input Register, 16 Bit Format	Read Only
40001 to 49999	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
00001 to 09999	Coils, Bit Format	Read/Write
10001 to 19999	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	9600	19200, 9600, 4800, 2400, 1200, 600, 300	Must match the Controller's port settings. Use the fastest baud rate supported by both.
Parity	Even	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	1	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	40001	00001 to 09999 40001 to 49999	Must be within the Controller's supported memory range.
Current Message Register (optional)	40003	00001 to 09999 40001 to 49999	Must be within the Controller's supported memory range.
Function Key Coils (optional)	401	00001 to 09999 40001 to 49999	Must be within the Controller's supported memory range.
Screen Dependent Function Key Coils (optional)	369	00001 to 09999 40001 to 09999	Must be within the Controller's supported memory range. Applies to OITs with Screen Dependent Function Keys.
Control Key Coils (optional)	433	00001 to 09999 40001 to 49999	Must be within the Controller's supported memory range.
Status LED Coils (optional)	1	00001 to 09999 40001 to 49999	Must be within the Controller's supported memory range. Applies to OITs with Status LEDs.
Function Key LED Coils (optional)	417	00001 to 09999 40001 to 49999	Must be within the Controller's supported memory range. Applies to OITs with Function Key LEDs.

