

Panasonic (Aromat, NAI_S, Matsushita)

FP Series

Overview

Maple Systems' **Blue/BLU300 Series** Operator Interface Terminals (Maple OITs) communicate with Panasonic (Aromat, NAI_S, Matsushita) FP Series PLCs using the Aromat Communications protocol. When configured with BlueLeaf Software, the Maple OIT is the master in a point-to-point single master, single slave format.

Compatible PLCs	
Family	Model
FP Series	FP0: C10RS, C14RS, C16P, C16T, C32P, C32T
	FP1: C14, C16, C24, C40, C56, C72 series
	FP2: C1, C1A
	FP3: AFP3210C, AFP3211C, AFP3220C, AFP6211, AFP6221
	FP10SH: AFP3210C, AFP3211C, AFP3220C, AFP6211, AFP6221
FPM: C20R, C20T, C32T, C20RC, C32RC, C20TC, C32TC	

Communications Cable

The Maple OIT should be connected to the main programming port located on the programmable 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 OIT or loss of communications can result.



PLC Settings

Computer Link mode must be used.

Accessible PLC Memory

Register Memory

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

PLC Register Type	Address Range	Format	PLC Register Description
SV	0-9999	dddd (d=decimal)	Timer/Counter Set Value
EV	0-9999	dddd	Timer/Counter Elapsed Value
DT	0-32769; 90000-90259	dddddd	Counter Current Value
WX	0-9999	dddd	Input as 16-bit Word
WY	0-9999	dddd	Output as 16-bit Word
WR	0-9999	dddd	Internal Relays as 16-bit Word
WL	0-9999	dddd	Link Relays as 16-bit Word
LD	0-9999	dddd	Link Date Register
I	0-9999	dddd	Index Register

Discrete Memory

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

PLC Bit Type	Address Range	Format	PLC Bit Description
X	0.0 to 9999.F	dddd.h (d=decimal, h=hex)	External Input
Y	0.0 to 9999.F	dddd.h	External Output
R	0.0 to 9999.F	dddd.h	Internal Relay
L	0.0 to 9999	dddd	Link Relay
T	0 to 9999	dddd	Timers
C	0 to 9999	dddd	Counters

Important Memory Considerations

If your PLC's memory range is smaller than the range supported by the Maple OITs, it is possible to configure the OIT to monitor a PLC memory address which does not exist. Since this can cause unpredictable results, when you configure the OIT please ensure that all selected PLC memory addresses are valid for your PLC model.

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

The "function key" button object will function as a "momentary" button, independent of the attribute selected. This is overcome by latching the bit in the PLC logic.

BlueLeaf Settings

The following table lists the communications settings that must be configured in BlueLeaf. These settings can be found in the **Tools...HMI-PLC Communications Settings** menu.

- the **Recommended Settings** column provides the recommended setting based upon the default settings most commonly used in the Panasonic PLC
- the **Options** column lists BlueLeaf's options; your PLC may not support every option

Name	Recommended Settings	Options	Important Notes
PLC type:	Panasonic (Aromat) FP Series		
Serial port I/F:	RS232		Use RS232 only
Data Bits:	8	7 or 8	Must match the PLC's port setting.
Stop Bits:	1	1 or 2	Must match the PLC's port setting.
Baud Rate:	9600	9600,19200, 38400,57600, 115200	Must match the PLC's port setting. If possible, use the fastest baud rate supported by the PLC.
Parity:	Odd	Even, Odd, None	Must match the PLC's port setting.
Net Addr.:	1	1-31	Must match the PLC's node number. **Do not use address 0