Addressing Idec FA Series PLCs with Designer for Windows

This technical note shows the correlation between the Idec FA series PLC address references and the address references used in Designer for Windows. Our addressing is based upon allocation numbers, rather than operand numbers, so that our driver will work with all PLC models in Idec's FA series.

Item	*Idec Address Ranges*	*UniOP Address Ranges*
Input	I000 - I157	I0.00 - I15.07
Expansion Input	I160 - I317	I200.00 - I215.07
Output	Q000 - Q157	Q20.00 - Q35.07
Expansion Output	Q160 - Q317	Q220.00 - Q235.07
Internal Relay	M000 - M297	M40.00 - M69.07
Expansion Internal Relay	M320 - M617	M240.00 - M269.07
Special Relay	M300 - M317	M70.00 - M71.07
Expansion Special Relay	M620 - M637	M270.00 - M271.07
Timer Count	T000 - T255	T0 - T255
Timer Preset	TP000 - TP255	TP0 - TP255
10 ms Timer Count	H000 - H079	H1100 - H1179
Counter Count	C000 - C044	C0 - C44
Counter Preset	CP000 - CP044	CP0 - CP44
Counter Count High	C048 - C102	C48 - C102
Counter Preset High	CP048 - CP102	CP48 - CP102
Reverse Counter Count	C045 - C046	C45 - C46
Reverse Counter Preset	CP045 - CP046	CP45 - CP46
Shift Register	R000 - R223	R0 - R223
Data Register	D000 - D099	D800 - D899
Expansion Data Register	D100 - D255	D1500 - D1655
Expansion Data Register 2	D256 - D399	D1656 - D1799

Example: If an internal relay with Idec address M156 needs to be referenced in the Designer for Windows software, the following procedure must be carried out.

1. Create a variable field such as numeric.
2. Set the *Data Type* to 'Intern. Relay -M'.
3. Set the *Allocation Numbers* to 55 (this number can be thought of as the offset value).
4. Set the value of the *Bit Index* to 06.

These numbers were arrived at in the following manner. M156-M000 = 156. The first two digits of this result represent the offset, while the last digit represents the bit number. Similarly, the number to the left of the decimal point in the UniOP addressing scheme represents the offset, while the number to the right of the decimal point represents the bit number. Since the Designer for Windows software begins addressing internal relays at M40.00, the offset address would be M55.00 (40+15). Adding the bit number yields M55.06. Therefore, address M55.06 in the Designer for Windows software corresponds to address M156 in Idec's FA series PLCs.

Technical assistance may be obtained :
In North America EXOR at 1-513-874-4665.
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