Using the Universal Industrial Gateway with 7comm

When communicating with an S7 processor using S7comm over Ethernet, the Universal Gateway can access Process Memory using the operand identifier types of I, Q, and M variables.

Data that needs to be read outside of Process Memory, for instance data in a Global Data Block, Timer, or Counter accumulator, needs to have that value moved to Process Memory first, so the Universal Gateway can get access to that data.

Data that needs to be written to a register outside of Process Memory, for instance writing data into an element of a Global Data Block, needs to have that value delivered to Process Memory first by the Universal Gateway, and then the data needs to be moved to the correct element of the Data Block.

The list of data types the Universal Gateway can access in Process Memory is BOOL, INT, SINT, DINT, and REAL. There are many data types an S7 processor can be configured for in Process Memory.

Memory Type		Description	Read/Write	Data Type
I	I	Input Memory	R/W	Bit
	IB			Byte
	IW			Word
	ID			Double Word
Q	Q	Output Memory	R/W	Bit
	QB			Byte
	QW			Word
	QD			Double Word
M	M	Internal Memory	R/W	Bit
	MB			Byte
	MW			Word
	MD			Double Word

The STRING data type is not available in an S7 processor in Process Memory but CHAR is, so transferring a STRING using S7 Comms needs to be done by breaking it up and sending it on a character-by-character basis, then reassembling the STRING at the delivery end.

Spectrum Controls, Inc.
1705 132nd Ave NE
Bellevue, WA 98005 USA

Telephone: (425) 746-9481
Fax: (425) 641-9473
Web Site: www.spectrumcontrols.com