Productivity Enhancements for the 1747 SLC 500 Processor

Allen-Bradley

Product Profile

SLC-5/03, 5/04, 5/05, Processor Instruction Set Enhancements

Remote I/O Block Transfers

The new Remote I/O block transfer read and write instructions (BTR/BTW) will simplify the use of specialty devices on the Remote I/O link. These instructions are similar to PLC-5 block transfer instructions except they use the SLC-500 remote I/O scanner module M-file locations.

Two Time Stamp Instructions

These two new time stamp instructions permit more accurate timing in ladder logic. The read high speed clock (RHC) moves the value of a SLC-500 internal 10usec clock counter (20 bit) to either an integer (low 16 bits) or floating point data location. The time difference Instruction (TDF) inputs two previously captured 10usec clock values (from RHC) and returns the elapsed time between the two values.

Encode Instruction

This new encode instruction (ENC) will ease bit pattern decoding and encoding. The encode instruction is the same as in the Micrologix processors. The instruction inputs a 16-bit integer, searches for the first "1" bit in the integer, and outputs a 4-bit BCD integer which shows where the first "1" bit occurred.

Ramp Instruction

A ramp instruction (RMP) will simplify applications that require special motor speed or valve position control. The ramp instruction allows the user to input time duration, beginning and ending output values, and a curve type (e.g., Linear, acceleration, de-acceleration, and S curve).

File Bit Comparison and Diagnostic Detect instructions

File bit comparison and diagnostic detect instructions have been added to simplify the comparison of large data blocks (e.g., diagnostic data). The file bit comparison (FBC) instruction compares values in a bit file with values in a known reference data file. The diagnostic detect (DDT) instruction is similar to the file bit comparison instruction except that it changes the reference file to match the inputted bit file.

AB Spares

Allen-Bradley · Reliance Electric · Dodge · Rockwell Software

Rockwell Automation

Bringing Together Leading Brands in Industrial Automation

Reach us now at www.rockwellautomation.com

Wherever you need us, Rockwell Automation brings together leading brands in industrial automation including Allen-Bradley controls, Reliance Electric power transmission products, Dodge mechanical power transmission components, and Rockwell Software. Rockwell Automation's unique, flexible approach to helping customers achieve a competitive advantage is supported by thousands of authorized partners, distributors and system integrators around the world.

Americas Headquarters, 1201 South Second Street, Milwaukee, WI 53204, USA, Tel: (1) 414 382-2000, Fax: (1) 414 382-4444
European Headquarters SA/NV, avenue Herrmann Debroux, 46, 1160 Brussels, Belgium, Tel: (32) 2 663 06 00, Fax: (32) 2 663 06 40
Asia Pacific Headquarters, 27/F Citicorp Centre, 18 Whitfield Road, Causeway Bay, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

Allen-Bradley · Reliance Electric · Dodge · Rockwell Software

Rockwell Automation

Publication 1747-PP003A-US-P — December 1999

© 1999 Rockwell International Corporation All Rights Reserved Printed in USA