



## Bulletin 1203-SM1 and a PLC-5 using RIO

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### **Purpose**

The purpose of this document is to provide guidelines for wiring and control schemes for SCANport devices including Bulletin 1305 and 1336 PLUS AC Drives. This document is a suggestion only. Users must ensure that installations meet applicable codes and are suitable for the existing conditions.

### **Intended Audience**

This application note should be used by personnel familiar with the hardware components and programming procedures necessary to operate SCANport devices. It is also assumed that the user has some familiarity with PLC programming and block transfer.

### **Where It Is Used**

The diagrams, parameter settings and auxiliary hardware used in this application note are designed to address specific issues in many different applications. Some changes by the user may be necessary to apply the concepts of this document to a specific application.

### **What This Note Contains**

This document contains information and an example ladder program that demonstrate how to use a 1203-SM1 with a PLC-5 and a 1747-ASB RIO rack adapter.

### **Application Considerations**

The examples were written to be simple and clear and do not fulfill all the functions needed for a real application. Consult the specific product manuals for more information.

SCANport devices may assign different meanings to bits in the Logic Command and Status words. The usage of the Reference and Feedback words may also vary. Consult the manual for your SCANport device for more information.



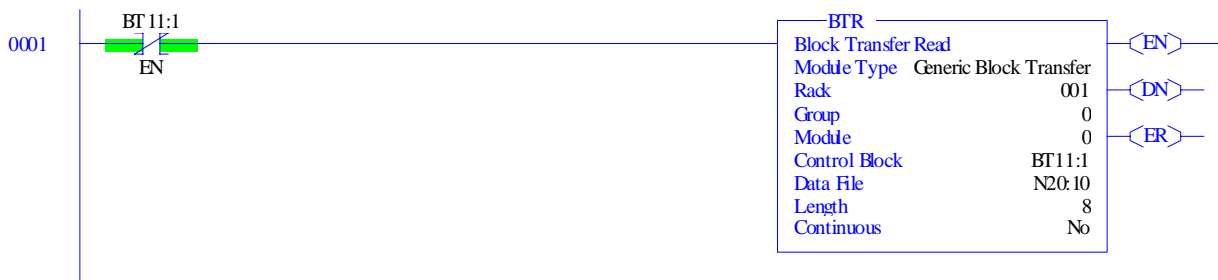
## Rack Configuration

In this example, the 1203-SM1 is installed in the first module slot of a 1746-A4 rack while a 1747-ASB RIO adapter is installed in the leftmost slot. The 1747-ASB is configured as a quarter rack starting at module group 0 of rack 0. The RIO address of the 1203-SM1 is Rack 1, Module Group 0, Slot 0.

## Data Transfer To The 1203-SM1 Via Block Transfer Write



The first rung of the program shown below writes 8 words of output data to the 1203-SM1. The second rung reads 8 words of input data from the 1203-SM1.



## Data Table Structure

The data table shown below (in hexadecimal) is used by the ladder program shown in the previous section to communicate with a 1203-SM1 located at rack address 1, group 0, slot 0.

Offset	0	1	2	3	4	5	6	7	8	9
N20:0	101	1	0	0	0	0	0	0	0	0
N20:10	909	9	2F	0	2F	0	2F	0		

The data in N20:0 through N20:7 is the output data to be transferred to the 1203-SM1 by BTW. The data in N20:10 through N20:17 is the input data to be transferred from the 1203-SM1 by BTR.

The definition of each word of the I/O data is shown below.

Address	Definition	Address	Definition
N20:0	Channel 1 and 2 Enables	N20:10	Channel 1 and 2 Status
N20:1	Channel 3 Enable	N20:11	Channel 3 Status
N20:2	Channel 1 Logic Command	N20:12	Channel 1 Logic Status
N20:3	Channel 1 Reference	N20:13	Channel 1 Feedback
N20:4	Channel 2 Logic Command	N20:14	Channel 2 Logic Status
N20:5	Channel 2 Reference	N20:15	Channel 2 Feedback
N20:6	Channel 3 Logic Command	N20:16	Channel 3 Logic Status
N20:7	Channel 3 Reference	N20:17	Channel 3 Feedback