

## SLC-500 INDEXED INDIRECT ADDRESSING BUG REPORT AND WORK-AROUND

APPLICATION NOTE

APRIL 9, 1997

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### PURPOSE

The purpose of this document is to provide information about a bug with the Indexed Indirect Addressing mode of SLC-500 processors. This bug is known to affect the following processors:

Processor	Series	Rev	OS	Series	FRN
1747-L532	D	4	302	A	9

When the bug described in this report occurs the fault code contained in the processor is **002D**. The fault text displayed by APS is **"INVALID REFERENCED INDIRECT ADDRESS SUBELEMENT"**. This bug may also be present in other SLC processors.

### WHAT THIS NOTE CONTAINS

This document contains information about an SLC-500 firmware bug and an example ladder program that demonstrates the bug using an SLC-5/03 and a 1203-SM1. This bug may also affect other I/O modules and SLC processors.

### 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 the SLC-500 and ladder programming.

### EXPECTED BUG FIX DATE

The next release of firmware for the SLC-500 is scheduled for June of 1997. This bug was found shortly before the cut-off date for new changes to the firmware. As a result, it is unlikely that this bug will be fixed in the upcoming release. No schedule is available for when this bug will be fixed -- contact the SLC-500 product group for more information.

### SLC CONFIGURATION

Figures 1 and 2 show the configuration of the SLC system for the example program. No additional configuration data is required in the G-file.

```

+----- SLC-500 ADVANCED PROGRAMMING SOFTWARE -----[ OFFLINE ]--+
|+- PROGRAM DIRECTORY FOR PROCESSOR: BUG      ---- SINGLE STEP TEST: ENABLED  -+
|+- I/O CONFIGURATION FOR:BUG                -----+
|  RACK 1 =      1746-A4   4-slot Backplane
|  RACK 2 =      NOT INSTALLED
|  RACK 3 =      NOT INSTALLED
|
|      SLOT      CATALOG #      CARD DESCRIPTION
|  *  0          1747-L532   5/03 CPU -12K USER MEMORY
|  *  1          OTHER      I/O Module - ID code = 13616
|  *  2
|  *  3
|  4
|  5
|  6
|  7
|  8
|
+---+ ESC exits -----+

Press a function key

offline          SLC 5/03                               File BUG
READ ONLINE          MODIFY  MODIFY  DELETE  UNDEL  EXIT  SPIO
CONFIG CONFIG          RACKS   SLOT   SLOT   SLOT   F8    CONFIG
F1   F2                F4     F5    F6    F7

```

**Figure 1 -- SLC Configuration**

```

+----- SLC-500 ADVANCED PROGRAMMING SOFTWARE -----[ OFFLINE ]--+
|+- PROGRAM DIRECTORY FOR PROCESSOR: BUG      ---- SINGLE STEP TEST: ENABLED  -+
|+- I/O CONFIGURATION FOR:BUG                -----+
|  RACK 1 =      1746-A4   4-slot Backplane
|  RACK 2 =      +- SPECIAL CONFIG FOR SLOT:      1  ---+
|  RACK 3 =      |
|                  Module's ID Code:           13616
|      SLOT      C| Maximum Input Words:       32
|  *  0          1| Maximum Output Words:      32
|  *  1          0| Scanned Input Words:          32
|  *  2          | Scanned Output Words:       32
|  *  3          | M0 Length:                800
|  4            | M1 Length:                400
|  5            | 'G' File Size:           32
|  6            | ISR Number:              0
|  7
|  8            +- ESC exits -----+
|
+---+ ESC exits -----+

Press a function key

offline          SLC 5/03                               File BUG
ISR              MODIFY  ADVNCD          G FILE
NUMBER          G FILE   SETUP          SIZE
F1             F3        F5             F7

```

**Figure 2 -- 1203-SM1 Configuration**

