

**PRODUCT SERVICE ADVISORY**

**RSLogix 5000, version 16.00.00**

**When used with SoftLogix5800 or RSLogix Emulate 5000, Versions 16**

Ref: ACIG 2007-07-001

Date: July, 2007

Dear Rockwell Automation Customer,

The purpose of this Product Service Advisory is to inform you of a functional issue that exists with:

- RSLogix 5000, version 16.00.00 when used with SoftLogix5800 or RSLogix Emulate 5000, versions 16

This Advisory explains the functional issue and the steps being taken to rectify the situation.

**-Issue Description-**

When RSLogix 5000, version 16.00.00 is used in conjunction with SoftLogix5800, version 16 or RSLogix Emulate 5000 version 16, the following functional issue exists:

**Functional Issue – The use of indirectly-addressed member arrays as destination parameters within certain instructions may cause unexpected behavior.**

The use of indirectly-addressed member arrays as destination parameters for certain instructions may result in unexpected behavior. This behavior may affect either the instruction itself or others which are dependent on its data. In addition, if a memory overwrite occurs, then any instruction that references that memory can also be affected. If this condition exists in your program, address it immediately using the temporary workaround provided.

Member arrays are arrays that are defined as part of either a system- or user-defined type (UDT).

A destination parameter is any parameter written by the instruction (for example, the “Dest” parameter of the CPS instruction, or the “Result” parameter of the DDT instruction).

When indirectly addressed member array destination parameters are used, the anomalous behavior that results depends upon the type of instruction the member array is used in. The following table lists affected instructions and corresponding behaviors that are likely to result if indirectly-addressed member arrays are used with the instruction.

<b>If this instruction is used with an indirectly-addressed, destination member array parameter</b>	<b>Then this behavior may result</b>
BSL, BSR, DDT, FBC, FFL, FFU, LFL, or LFU	A major fault occurs.
DEDT, FGEN, GSV, MAVe, MCT, MCTP, MSTd, RMPS, or SSV	A minor fault occurs or the error bit is set.
AWT, AWA, COP, CPS, FLL, or SQL	The instruction is aborted without notification to the user, or, only part of the data is written to the destination.
Add-On Instructions, ARD, ARL, MAOC, MAPC, MATC, MCCM, MCCP, MCLM, or MCSV	Any combination of unpredictable behavior such as overwriting memory with zeros (0), setting an error bit, or generating other incorrect output.

Note that the resulting behaviors listed in this table are based upon preliminary evaluations and estimations. It is possible that other, unexpected behavior may result when member arrays are used with these instructions.

**-Temporary Workarounds –**

In order to avoid errors that may result from the functional issue described above, create and use staging arrays instead of member arrays. To create the staging array, complete these steps:

1. Create top-level array tags that are of the same Data Type and Size as the member arrays within the data structures. These are your staging arrays.
2. Copy all of the data from the member arrays to the staging arrays.
3. Use the staging arrays as the parameters in the affected instructions.
4. Copy the entire staging array back into the entire member array.

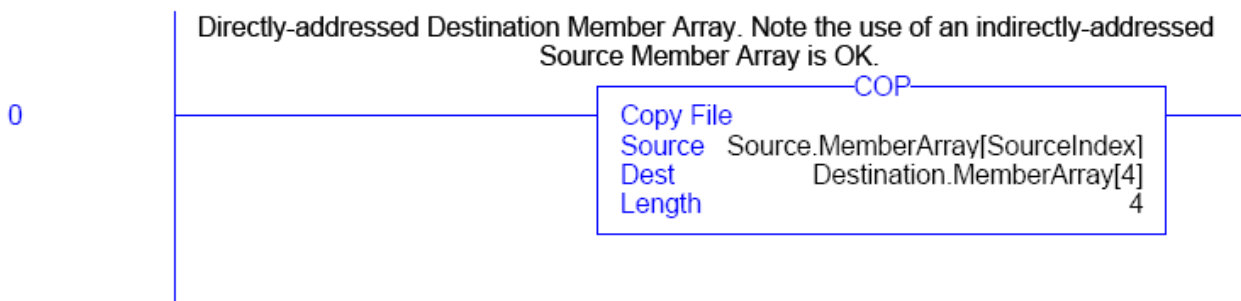
See the following section, Examples of Code, for further information about the coding needed to complete the temporary workaround described above.

Note that this workaround is temporary. Please see the section Issue Correction for further information about the permanent correction of this issue.

**- Examples of Code -**

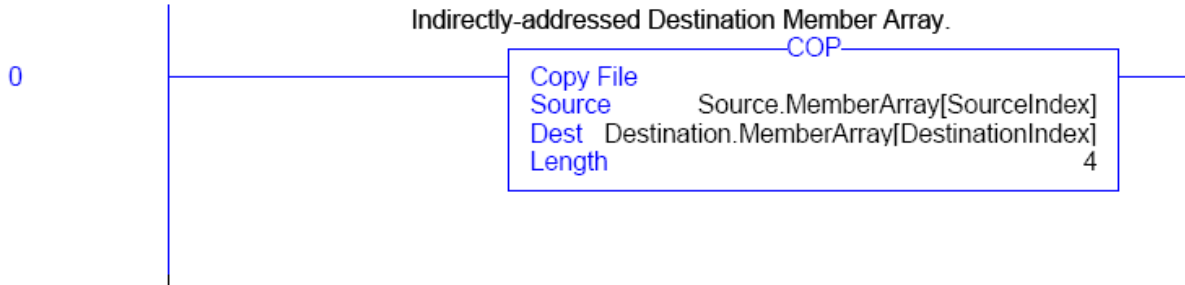
Example 1: Directly-addressed Member Array Use

This sample code would work properly because the destination member array used in the instruction is directly-addressed.



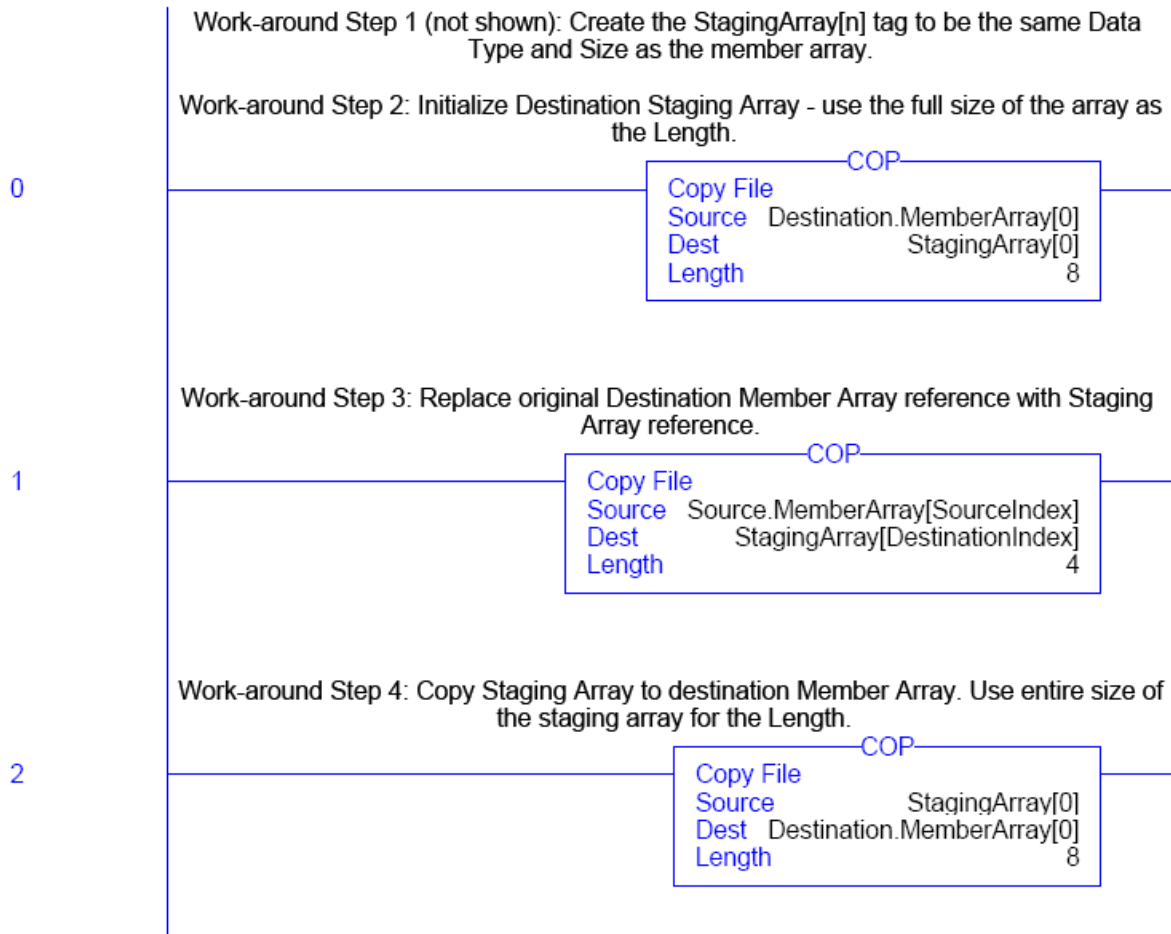
Example 2: Indirectly-addressed Member Array Use

The use of this sample code would result in anomalous behavior because the member array is indirectly-addressed.



Example 3: Temporary Workaround to Correct Example 2

In order to work around the use of an indirectly-addressed, destination member array used in example 2, use a staging array as shown.



**- Product Identification -**

Product **affected** by this Mandatory Product Service Advisory is RSLogix 5000 when used with the SoftLogix 5800 and RSLogix Emulate 5000 ControlLogix Processor Emulation Software (RSLogix Emulate 5000), each is at the following versions:

- RSLogix 5000, version 16.00.00, catalog numbers as listed in the table below
- SoftLogix 5800, version 16
- RSLogix Emulate 5000, version 16

Rockwell Automation made RSLogix 5000, version 16, available in February of 2007 to present. The following table contains a list of catalog numbers affected by this functional issue.

RSLogix 5000, Version 16 Catalog No.*
9324-RL000xxE
9324-RLD200xxE
9324-RLD250xxE
9324-RLD300xxE
9324-RLD300NXxxE
9324-RLD600xxE
9324-RLD600xxF
9324-RLD700NXxxE

\* The xx in each catalog number indicates a variable language code where: DE = German, EN = English, ES = Spanish, FR = French, IT = Italian, PT = Portuguese, JP = Japanese, KO = Korean, and ZH = Chinese.

In order to identify if your version of RSLogix 5000 is affected open your RSLogix software and select: Help > About. You may need to use the pull-down to view the latest version installed. If the latest version matches that identified above, your software is affected by this functional issue.

**- Issue Correction -**

The functional issue described above will be **corrected** in version 16.03 of RSLogix 5000.

To determine if this anomaly or any other anomaly is corrected in a version of RSLogix 5000, see the release notes that accompany the software at the time of release. This functional issue can be located in the release note by using the anomaly id, Lgx00075190. All product release notes are available at [www.literature.rockwellautomation.com](http://www.literature.rockwellautomation.com).

**-Requested Customer Action-**

Each notified customer should take the following actions:

- Confirm that you have the affected products.
- Immediately contact your local Rockwell Automation Sales and Support office to determine the appropriate course of action. Together, the local office and you will determine the correction for your situation.
- If you have transferred ownership of the affected product to another company or individual, you should immediately contact your local Rockwell Automation Sales and Support office with contact information for the new owner of the affected product and forward the notification to the new owner of the affected equipment.

If you require any further technical assistance, contact Rockwell Automation Technical Support (440-646-3223 or [RACleAskTheExpert@ra.rockwell.com](mailto:RACleAskTheExpert@ra.rockwell.com)) or your local Rockwell Automation Sales and Support office.

We require and appreciate your immediate cooperation in this matter.