

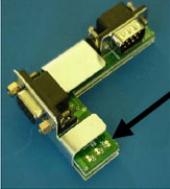
## Technical Note

### Vertex Replacement Profibus Card

1998-1037 Rev 2-2 6/22

The information contained within this Technical Note is intended for the personnel that has knowledge in setting up and maintaining a Profibus network.

With the replacement of the Vertex Profibus option per Bulletin number 2020091, the following instructions and files will be required for the replacement card to function properly.

| Impacted Part Numbers  | Replacement Part Numbers   | Description                              |
|--|--|--|
| 1295-0275  |  | Profibus PLC card with Adaptor           |
| 0185-0077<br>  | 0185-0140<br>  | Profibus PLC card only                   |
| 1295A0372<br> | 1295-0700<br> | Profibus Adaptor (right angle connector) |

#### Required

Keyboard

USB memory stick

**\*Vertex Prosoft MVI46-PDPS Profibus Support** folder for Vertex Systems with Vertex software release 1.25.13 and older

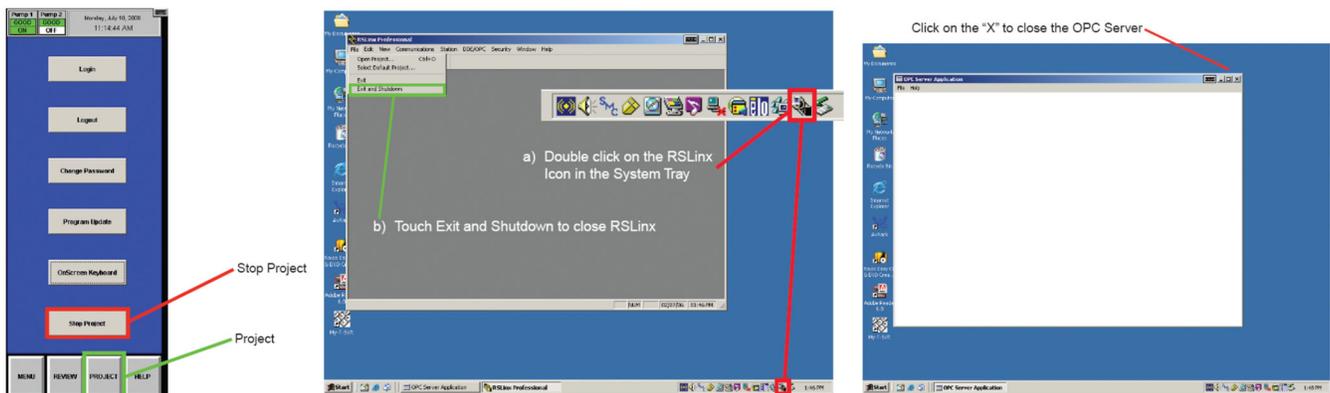
\*New RSS files

\*(Contact Technical Support for obtaining the RSS files, reference Article number: 000039134)

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1. Place zip file on to the USB memory stick and extract the files
2. Remove back panel from the Vertex rack
3. Close the project by Main Screen
4. Connect a keyboard to the Vertex computer – ports are located on back of the computer (models may vary on location)
5. Shutdown the Project (detailed instructions can be located in the manual)
  - a. Click “Project”
  - b. Click “Stop Project”
  - c. Close “RSLinx”
    - i. Double click icon in system tray
    - ii. Click “File”
    - iii. Select “Exit and Shutdown”
  - d. Click OPC Server and Click the “X”



6. Open File Explorer

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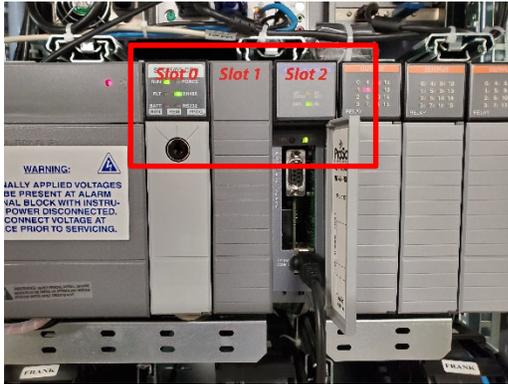
7. Navigate to USB memory stick “Vertex Prosoft MVI46-PDPS Profibus” folder, there should be folder three subfolders and one README.TXT file available:
  - a. PCB – Prosoft Configuration Builder, is used to configure the Prosoft fieldbus products, but should not be needed with the Vertex System
  - b. Prosoft Profibus – Prosoft Profibus card datasheet, manual, and General Station Description (GSD) file
  - c. Vertex – All files needed for the Vertex System to support the card
  - d. README.TXT – Information about the support folder
8. In the “Vertex” folder copy the folder “hmi” over the Vertex System’s application folder “C:\hmi”. This will update the with all necessary files to support the Prosoft Profibus card
9. In the “Vertex” folder copy the file “Prosoft Profi-Config” to the Windows desktop. This is a TeraTerm script for configuring the Prosoft Profibus card
10. Plug in provided diagnostic and configuraiton cable in Prosoft Profibus card and in COM port 2 on the Vertex System
11. Run the “Prosoft Profi-Config” script to configure the Prosoft Profibus card
12. The Prosoft Profibus card may also be configure manually, if unable to run the scrip
  - a. Open TeraTerm COM port to Prosoft Profibus card with 57600, 8-Bit, None, 1 Stop, No flow control
  - b. In the Profibus card diagnostic console, enter the commands “R”, then “Y”
  - c. Z-modem the file C:\ hmi\FieldbusFiles\Profibus\PDPS.CFG
13. The Prosoft Profibus Card is configured:
  - a. Slave Address – 3
  - b. Write Register Count – 122 words
  - c. Swap Input Bytes - Yes
14. Shut down the PC via the standard Windows Shut Down procedure
15. Turn off the Vertex Rack



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16. Remove old card (if applicable) and insert the new card into Vertex PLC Slot number 2



17. Attach the provided 90° profibus connector to the end of your profibus cable

18. Connect Profibus connector to the Profibus card and ensure switch is in the "On" position to terminate if at end of bus



19. Restore power to the Rack



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20. Determine the file to be used by reviewing the PLC hardware installed

ZAV\_(relay module type)\_(network module type)\_(number of PLC backplanes)\_22.rss

### Relay module type

- a. ZAV\_08R = 8 way relay (isolated)
- b. ZAV\_16R = 16 way relay (non-isolated)

Note: if no relays are installed, then choose either of the above and set the relay card count to "0" in the Configuration Utility.

### Network module type

- c. ZAV\_(relay module type)\_CNet = Control Net
- d. ZAV\_(relay module type)\_DNet = Device Net
- e. ZAV\_(relay module type)\_DF1 = DF1
- f. ZAV\_(relay module type)\_MBP1 = Modbus Plus
- g. ZAV\_(relay module type)\_Lon = LonWorks
- h. ZAV\_(relay module type)\_Prof = Profibus
- i. ZAV\_(relay module type)\_MVI46-PDPS\_Prof = Profibus (2nd gen card)
- j. ZAV\_(relay module type)\_0Net = no data output

### Number of PLC Backplanes

- k. ZAV\_(relay module type)\_(network module type)\_1Bp = 1 PLC backplane
- l. ZAV\_(relay module type)\_(network module type)\_2Bp = 2 PLC backplanes

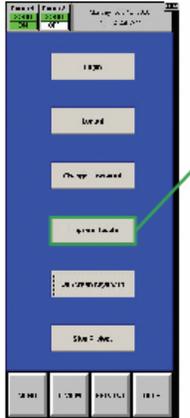
### Heartbeat

- m. ZAV\_(relay module type)\_(network module type)\_(number of PLC backplanes)\_20 = No heartbeat bit on data output
- n. ZAV\_(relay module type)\_(network module type)\_(number of PLC backplanes)\_22 = with heartbeat bit on data output

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21. Click "Program Update"



22. In the PLC section, Press "Select PLC File".

23. Select the appropriate file as defined in step 15

Example: "ZAV\_16R\_MVI46-PDPS\_Prof\_2Bp\_22.rss" is equal to having the 16 contact relay modules (16R), Profibus (new version), and 2 PLC backplanes (2).

24. On the PLC CPU module.

a. Locate the key just to the left of the top PLC on a pull string connected to the system cabinet.

b. Switch the PLC CPU from the "REM" position to "PRGM", then back to the "REM" position.

25. Press "Download PLC Program".

26. Are you sure..., Press "Yes".

27. Do you want to go online? Press "No"

Note: This process will take a few minutes

28. Reset all active faults

Procedure is now complete and the Vertex can be returned to normal operation

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## Profibus Master Support

From the “Vertex Prosoft MVI46-PDPS Prosoft support” folder, the folder “Prosoft Prosofibus” contains the GSD file needed for the Profibus Master to add the Prosoft MVI46-PDPS Profibus slave. The Profibus Master should add the slave with 122 words input.

The [Prosoft MVI46-PDPS](#) GSD file may also be download from the Prosoft web site.

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**Find out more:**

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