YASKAWA
The Drive for Quality™

Application Note

Product: CM061, CM067, SI-P3	Doc#: AN.AFD.19
Title: Replacing a 7 Series Drive with a 1000 Series Drive for PROFIBUS Communication	

Application Note

Replacing a 7 Series Drive with a 1000 Series Drive for PROFIBUS Communication

Applicable Products:

CM067, CM061, SI-P3

PROFIBUS Communication Option Kits

Contents

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INTRODUCTION

This application note discusses how to replace a 7 series drive with a CM061 or CM067 PROFIBUS option with a 1000 series drive and the SI-P3 option.

INTENDED AUDIENCE

This document assumes that the reader is familiar with Yaskawa AC drives, PROFIBUS technical terminology and operation, and with Siemens S7 programming.

REFERENCES

Other Yaskawa application notes that pertain to interfacing Yaskawa drives to Rockwell PLCs.

- IG.AFD.12   PROFIBUS Installation Guide for E7, F7, G7 and P7 series drives
- TM.AFD.12   PROFIBUS Technical Manual for E7, F7, G7 and P7 series drives
- IG.V7.12   PROFIBUS Installation Guide for V7 series drives
- TM.V7.12   PROFIBUS Technical Manual for V7 series drives
- SIEPC73060023   SI-P3 Installation Guide
- TOBPC73060023   SI-P3 technical Manual

OVERVIEW

Due to a difference in product codes, the 1000 series drives with the SI-P3 option is not plug-in replaceable for any 7 series drive with either the CM067 or the CM061 options. The PLC network configuration needs to be updated with the new module. However, most replacements can be made without any other changes to the PLC program.

REPLACE A CM061 OR CM067 WITH A SI-P3

Replacing an existing CM061 or CM067 in a configured network consists of a series of steps that need to be followed in the order shown.

1. Open the network configuration in your configuration software. Siemens Step 7 software will be used in the demonstration.
2. Select the PROFIBUS device to be replaced.
3. Record the configuration type (Basic, Extended 1 or Extended 2) and memory blocks allocated.
4. Load the GSD file for the SI-P3 (YASK0ACF.GSD). The file can be downloaded from the link below. https://www.yaskawa.com/links?type=documents&docnum=YASK0ACF&name=
5. Delete the device
6. Select the SI-P3 from the catalog. Make sure that the node address is the same as the node address of the replaced device.
7. Select the configuration for the SI-P3. Make sure that the configuration matches exactly the configuration of the replaced device.
8. Examine the memory blocks allocated for the SI-P3. They should match exactly the memory block that had been allocated for the replaced device. If there is a discrepancy in memory allocation, allocate the memory manually.
9. Compile, save and download the new network configuration to the PLC.

Note: The standard I/O of each configuration will remain the same. For the Extended 1 and Extended 2 configurations, however, the address contained in the dynamic data section may need to be changed to match the 1000 series drive parameter mapping.

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1. Open the network configuration in your configuration software. Siemens Step 7 software will be used in the demonstration.
2. Select the PROFIBUS device to be replaced.
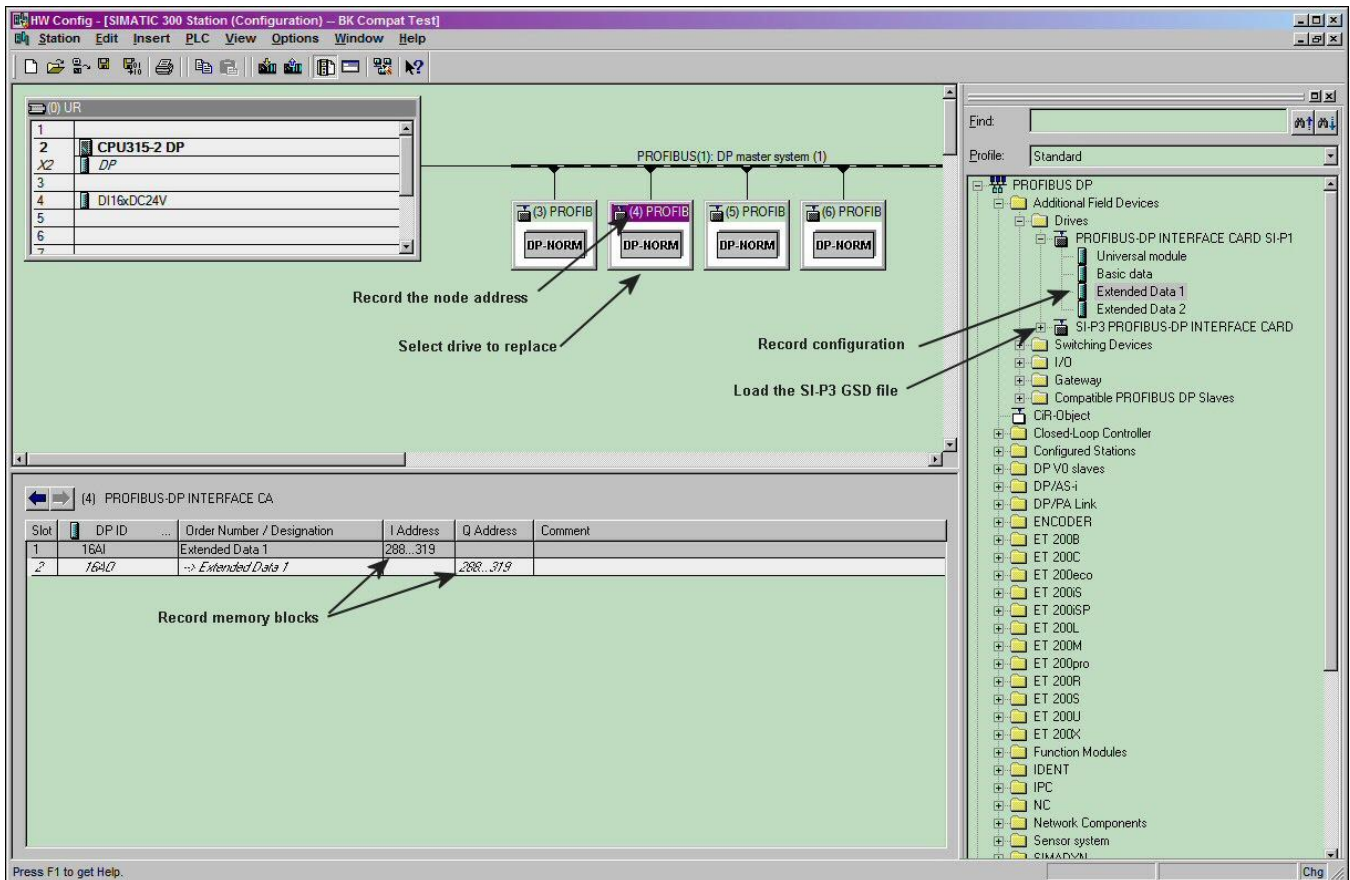3. Record the configuration type (Basic, Extended 1 or Extended 2) and memory blocks allocated.

Figure 1: Record device properties

4. Load the GSD file for the SI-P3 (YASK0ACF.GSD). The file can be downloaded from the link below.
https://www.yaskawa.com/links?type=documents&docnum=YASK0ACF&name=.
5. Delete the device

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6. Select the SI-P3 from the catalog. Make sure that the node address is the same as the node address of the replaced device.
7. Select the configuration for the SI-P3. Make sure that the configuration matches exactly the configuration of the replaced device.
8. Examine the memory blocks allocated for the SI-P3. They should match exactly the memory block that had been allocated for the replaced device. If there is a discrepancy in memory allocation, allocate the memory manually.
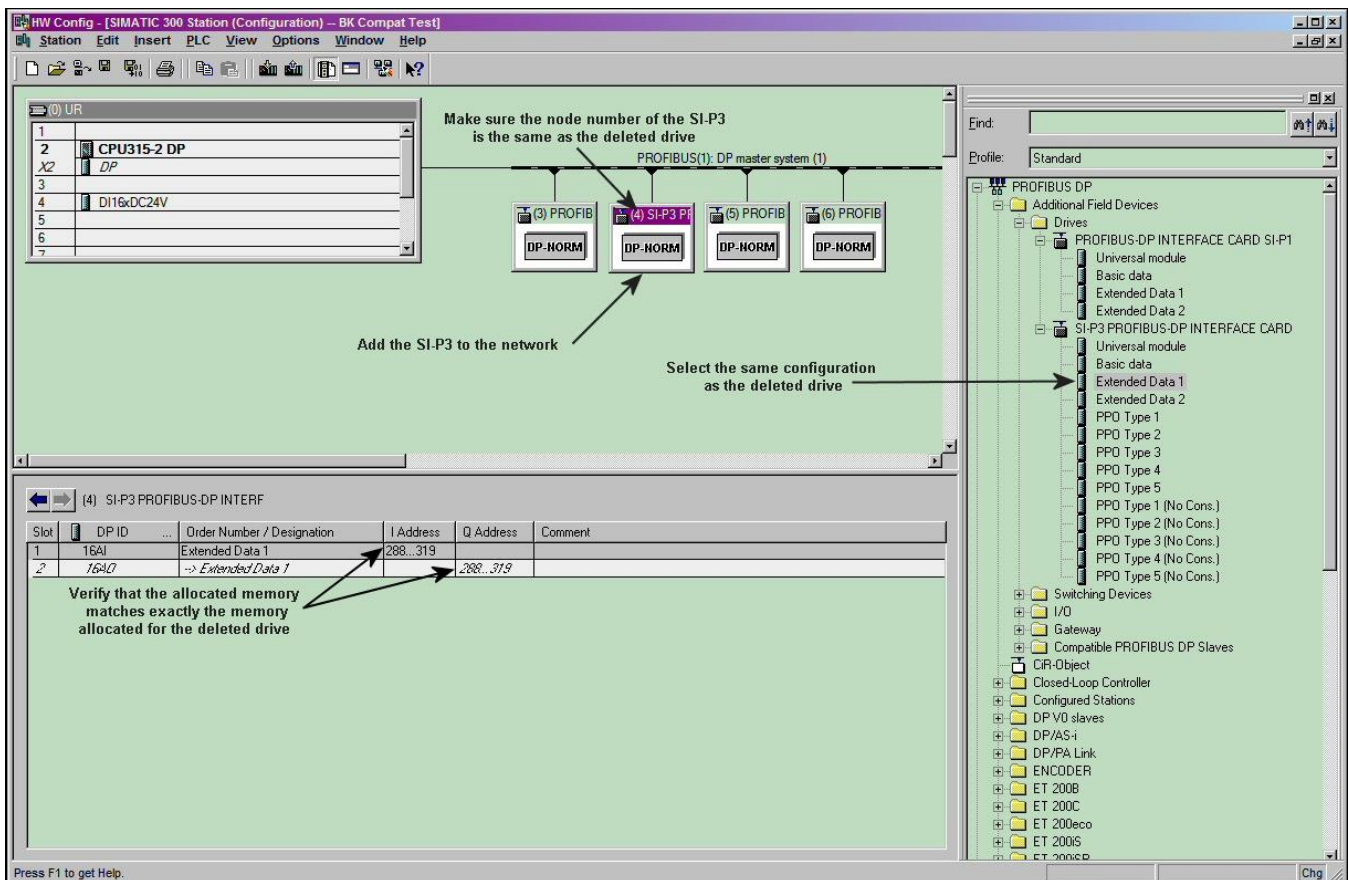

Figure 2: Add the SI-P3 to the network

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SAVE AND COMPILE THE CONFIGURATION

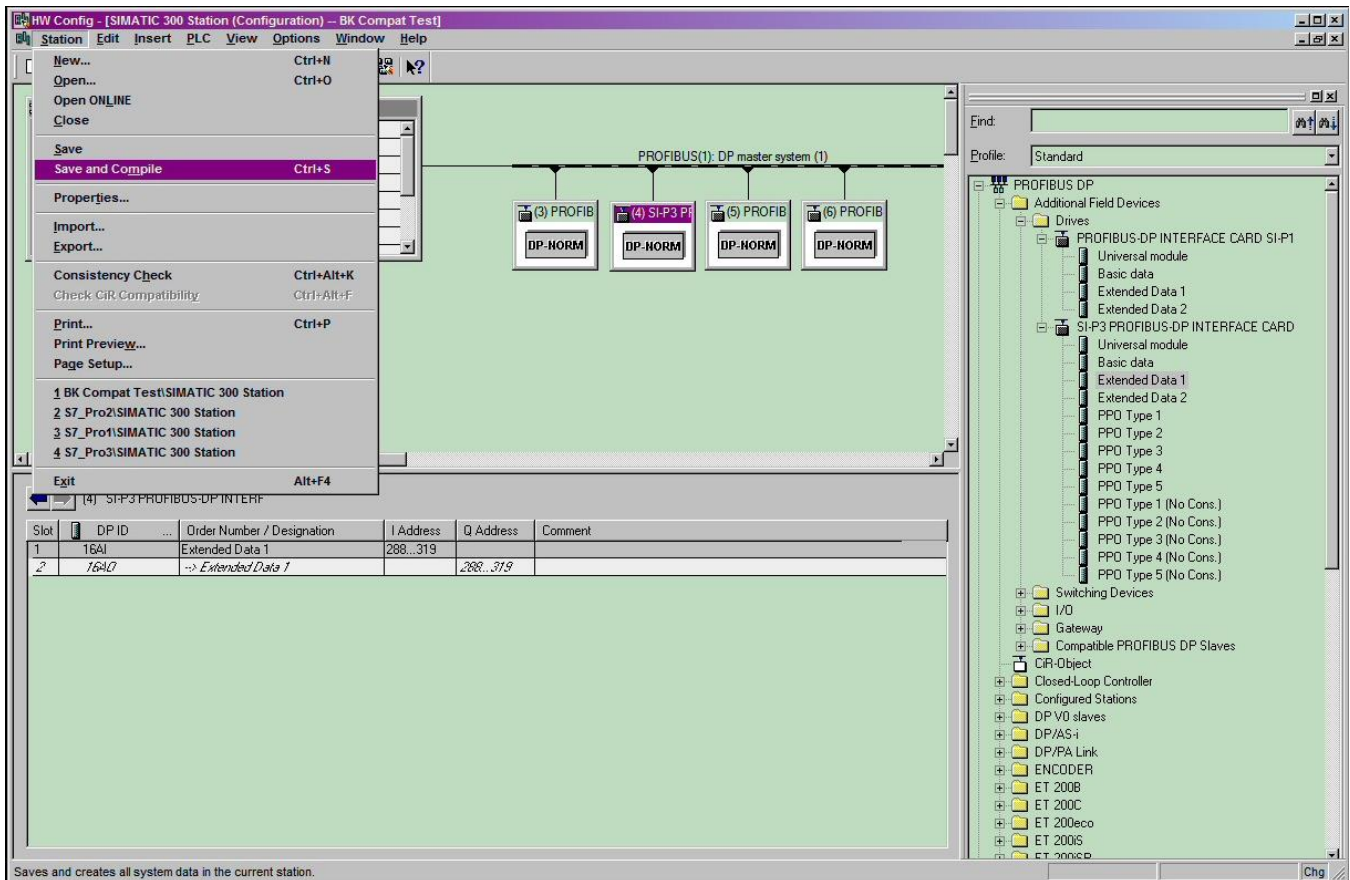9.   Compile, save and download the new network configuration to the PLC.

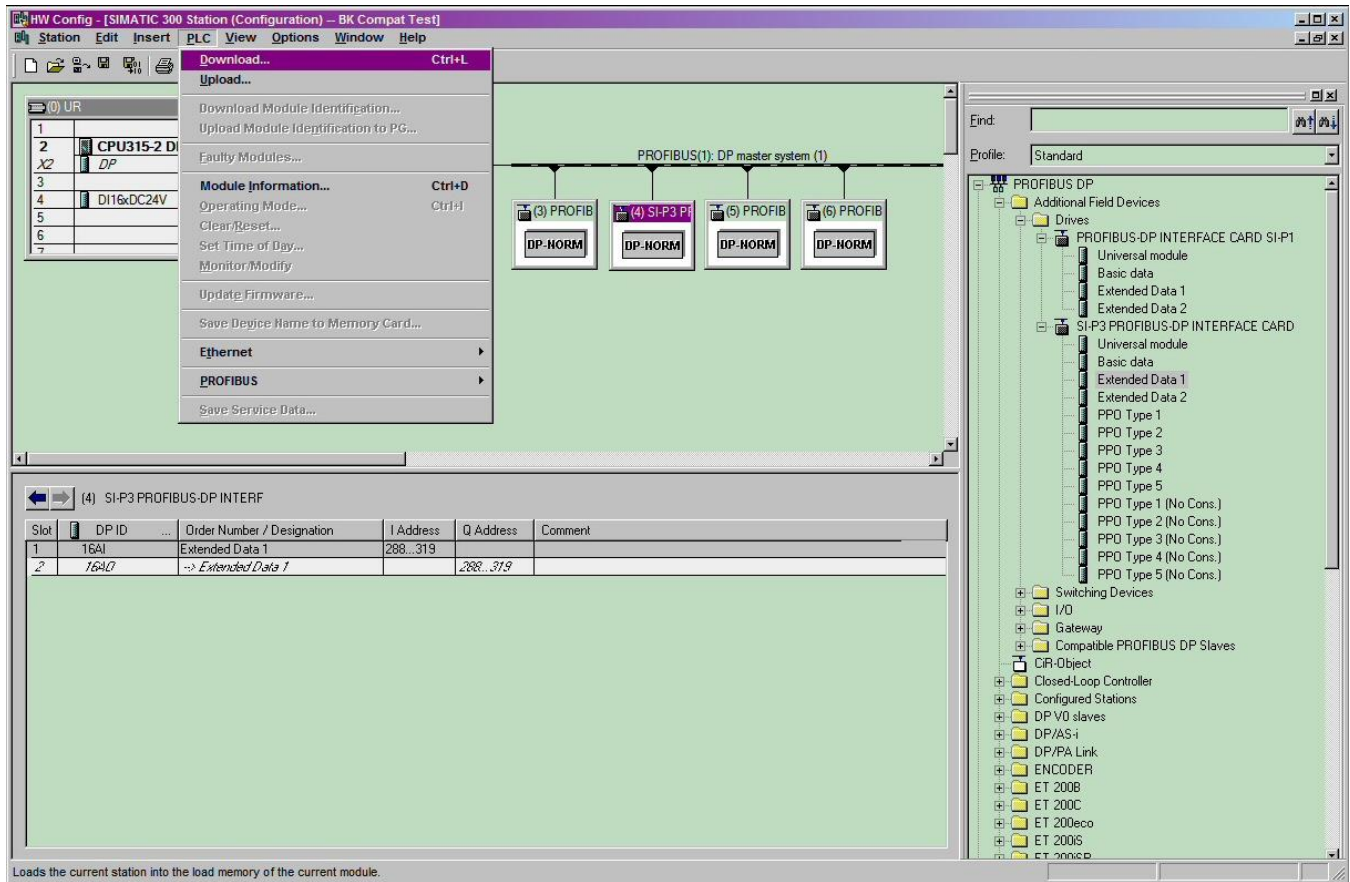Figure 3: Save and compile the network

DOWNLOAD CONFIGURATION TO PLC

Figure 4: Download the network configuration to the PLC