DIAP Partner

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GUIDE

Configuration of Siemens S7 PLC for DIAP

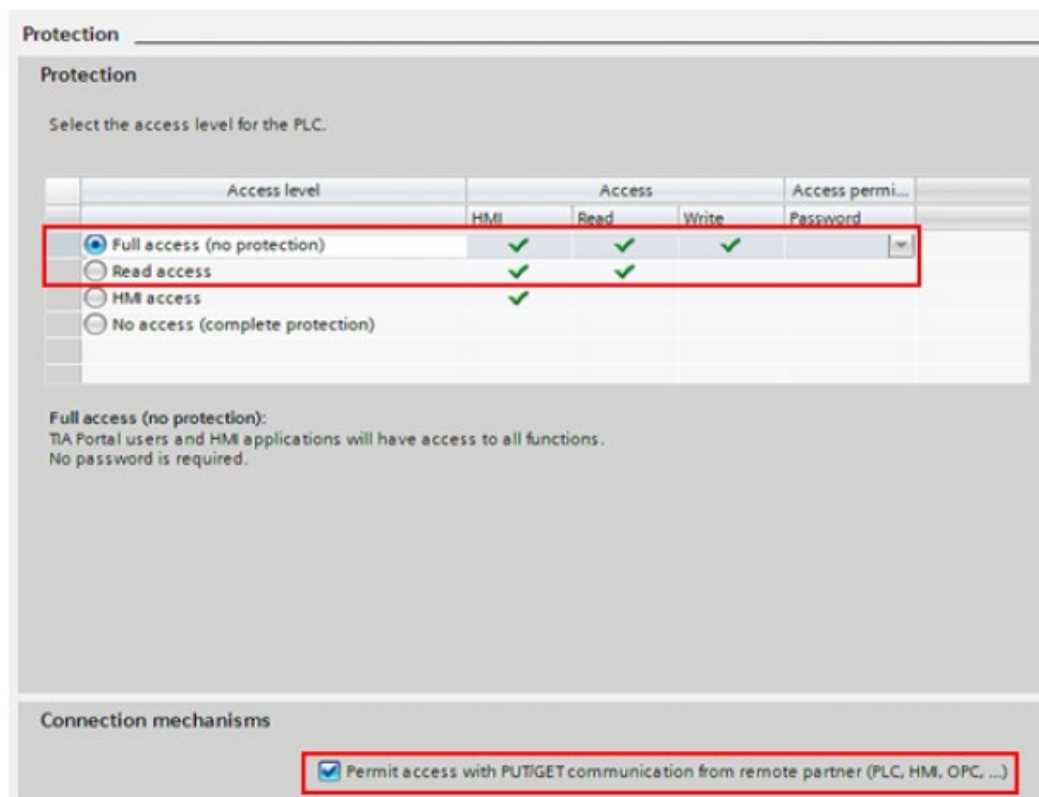Version 1.0

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1   Introduction

This guide describes how to configure a Siemens S7 PLC so that DIAP will be able to retrieve data correctly.

2   Siemens S7 Configuration

The DIAP can access various regions in the S7 PLC (In/Out/DB/Merkers/Timers/Counters).

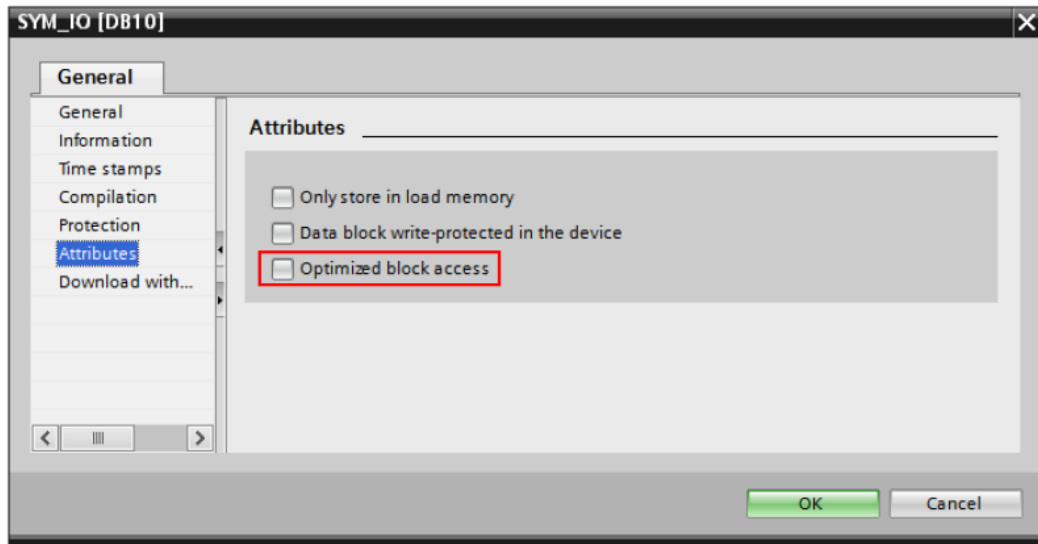For Siemens S7-1200 and S7-1500, however, some configuration is needed to be able to retrieve data.

In the TIA portal, set the PLC protection to allow Read access (Full access will also work). The "connection mechanism" must allow GET/PUT.

The DIAP can only read DB's without optimized block access.

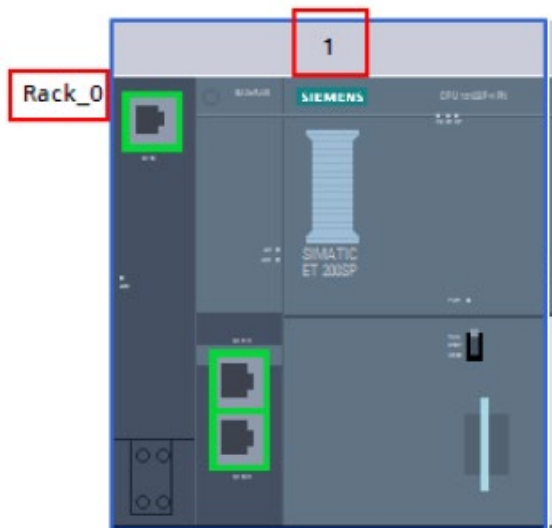You therefore need to make sure that this is turned off on the DB(s) that the DIAP needs access to.

Please note that it may also be an option to create a new DB if the source DB is heavily used by the CPU.
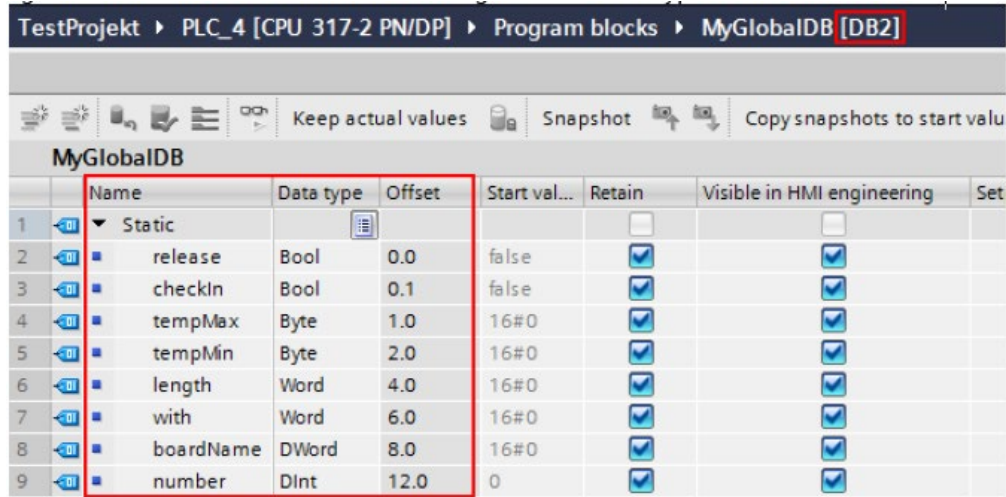
2.1 Required information

The following information is needed to configure the DIAP. Please send the information in a text format (eg. txt, csv, xls, etc.). Image files are not acceptable.

The rack and slot numbers are as follows:

As an example, for a DB, the following information is required:

- DB number
- Tag name
- Data type
- Address / offset

2.2 Compatible reading types

The following specification data types are currently supported.

reading_type_id	reading_type_name	visible	bits	signed
18	Binary tag	1	1	0
19	Signed 8-bit value	1	8	1
20	Unsigned 8-bit value	1	8	0
21	Signed 16-bit value	1	16	1
22	Unsigned 16-bit value	1	16	0
23	Signed 32-bit value	1	32	1
24	Unsigned 32-bit value	1	32	0
25	FP number 32-bit IEEE 754	1	32	1
26	FP number 64-bit IEEE 754	1	64	1
27	Text tag 8-bit character set	1	0	0
28	Text tag 16-bit character set	1	0	0
29	Date/Time	1	?	0

2.3 S7 compatibility list

	CPU	CPU	CPU	CPU	CPU	CPU	CP	DRIVE
	300	400	WinAC	Snap7S	1200	1500	343/443/IE	SINAMICS
DB Read/Write	O	O	O	O	O	O(3)	-	O
EB Read/Write	O	O	O	O	O	O	-	O
AB Read/Write	O	O	O	O	O	O	-	O
MK Read/Write	O	O	O	O	O	O	-	-
TM Read/Write	O	O	O	O	-	-	-	-
CT Read/Write	O	O	O	O	-	-	-	-
Read SZL	O	O	O	O	O	O	O	O
Multi Read/Write	O	O	O	O	O	O	-	O
Directory	O	O	O	O	-	-	O	(2)
Date and Time	O	O	O	O	-	-	-	O
Control Run/Stop	O	O	O	O	-	-	(1)	O
Security	O	O	O	O	-	-	-	-
Block Upload/Down/Delete	O	O	O	-	-	-	O	O