

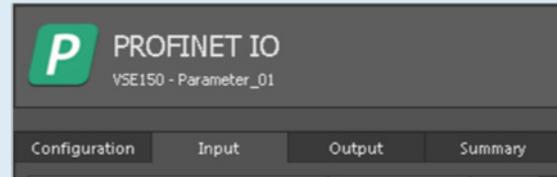


# VSE150 TIA Portal - Working with databases



Many PLC platforms use User Defined Tags (UDTs) for their data structure. Siemens PLCs use databases (DBs). This document provides an overview of the data after vibration parameters have been set in the VES004 software. Note data structure format depends on the data selected in the software, so there may be differences in what is shown here. This example shows input data.

1. In the VES004, select PROFINET IO menu > Input.

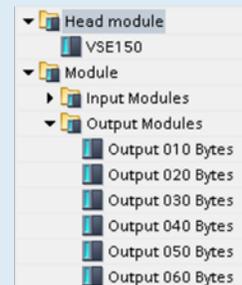


2. Select the parameters to monitor. Example shows 20 bytes of data. The Summary tab provides the overview including the module size.

Offset	Content
0	SE01_Unbalance_01 - Value (Unbalance)
4	SE01_Bearing_02 - Value (Bearing)
8	SE01_a_RMS_Freq_03 - Value (a-RMS (frequency domain))
12	SE01_v_RMS_Time_04 - Value (v-RMS (time domain))
16	Variant
17	System mode
18	OU01_Warning_01 (Alarm)
19	OU02_Damage_02 (Alarm)

Configuration	Input	Output	Summary
Offset (absolute)	Offset (relative)	Source type	
<b>Slot 1</b>			
Module name:	Input 020 Bytes		
Module ID:	0x00002E14		
Module size:	20 bytes		
Offset (absolute):	0		

3. Create the GSD, download it to the PLC and load the VSE150 module into the device configuration. Set up the module by dropping in the matching submodule. 20 bytes as mapped in the example land across I 14...33.

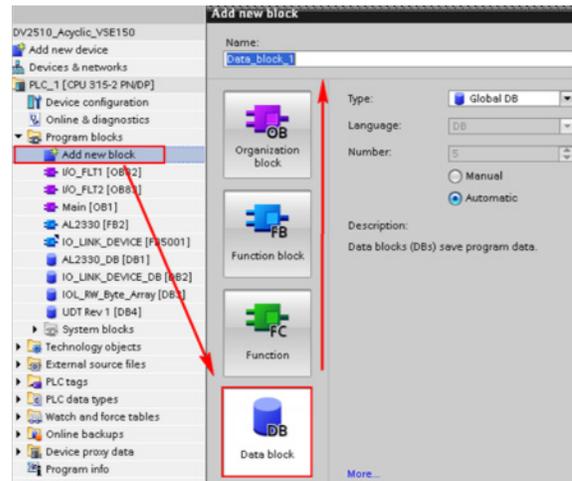


Device overview				
Module	...	Rack	Slot	I address
▼ VSE150		0	0	2019*
▶ PN-HO		0	0 X1	2018*
Input 020 Bytes_1		0	1	14...33
		0	2	



# VSE150 TIA Portal - Working with databases

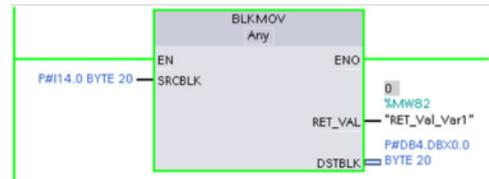
- 4. Click on "Add new block" to create a new DB.



- 5. In the DB, create the matching structure of the PROFINET map created in the VES004 software.

		UDT Rev 1				
		Name	Data type	Offset	Start value	Retain
1	Static					
2	Unbalance	Real	0.0	0.0	<input checked="" type="checkbox"/>	
3	Bearing	Real	4.0	0.0	<input checked="" type="checkbox"/>	
4	RMS	Real	8.0	0.0	<input checked="" type="checkbox"/>	
5	TimeDomain	Real	12.0	0.0	<input checked="" type="checkbox"/>	
6	Variant	Byte	16.0	16#0	<input checked="" type="checkbox"/>	
7	System_Mode	Byte	17.0	16#0	<input checked="" type="checkbox"/>	
8	Warning	Byte	18.0	16#0	<input checked="" type="checkbox"/>	
9	Alarm	Byte	19.0	16#0	<input checked="" type="checkbox"/>	

- 6. Next, move the data from I 14...33 into the new DB. Use BLKMOV and a pointer to move the 20 bytes of data into the DB.



The data is correctly mapped in the DB. Note some multiplication is required to match the data in the DB to that in the VES004.

		UDT Rev 1				
		Name	Data type	Offset	Start value	Monitor value
1	Static					
2	Unbalance	Real	0.0	0.0	1.110178e-005	
3	Bearing	Real	4.0	0.0	0.01112141	
4	RMS	Real	8.0	0.0	0.09743022	
5	TimeDomain	Real	12.0	0.0	0.0002958068	
6	Variant	Byte	16.0	16#0	16#00	
7	System_Mode	Byte	17.0	16#0	16#01	
8	Warning	Byte	18.0	16#0	16#01	
9	Alarm	Byte	19.0	16#0	16#01	

