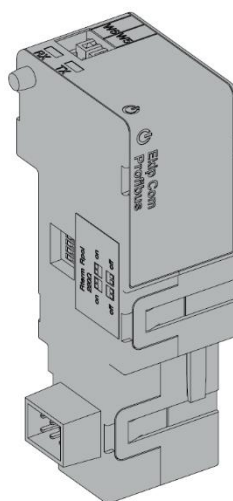


## Communication System Interface

Guide for configuration of GSD custom profile on ABB Low Voltage Circuit Breaker + Ekip Touch/Ekip LCD trip units + Ekip Com module Ekip Com Profibus s in all the available versions



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## 1. INTRODUCTION

This document applies to Ekip Touch or Ekip LCD equipped with the communication module Ekip Com Profibus in all the available versions.

This Guide shows how to create Custom data sets for Profibus module mounted on ABB Low Voltage Circuit Breakers Emax 2 and Tmax XT and others ABB devices (Ekip UP, ATS)

To complete the process you will need:

- Microsoft Excel
- A text editor, default windows notepad will do
- Excel file *Profibus - Custom modules.xlsx*
- GSD File

Back up all the files before starting the procedure, to avoid data loss due to errors.

## 2. CREATING THE NEW CUSTOM

To begin open the *Profibus - Custom modules.xlsx* file.

This file will generate for you a string of Hexadecimal Values that correspond the dataset you need.

B1										=IF([COUNTA(KS:K94)>50],"ERROR: too many modules selected";IF([COUNT(KS:K94)=0],"ERROR: No modules selected";J5&I6&L7&8&9&M10&N11&O12&L13&									
1   2																			
1		Configuration String:		B 0x41,0xC9		C 0x38,0x41,0xC0,0x5C,0x41,0xC1,0xE7E,		D		E		I		J		K			
2		INPUT Registers & Parameters Name		Number of registers		Aggregates		Range		Description		Profitbus slot		Cyclic data offset [bytes]		Enable			
3																			
4																			
5		Status		1		2B						0x0005		0					
6		Status Global 1 [dog]		1		2		BitField		Global status information (summary)		index = 1		0					
7		Status Global 2		1		2		BitField		Global status information (summary)		index = 2		2					
8		Status GRch 1		1		1		BitField		Information reset after read		index = 3		4					
9		Status Flags 1 [dog]		1		2		BitField		Trip Unit status		index = 5		6					
10		Status Flags 2		1		2		BitField		Trip unit status		index = 6		8					
11		Status Accessories 1		1		2		BitField		Connected accessories		index = 7		10					
12		Status Accessories 2		1		2		BitField		Accessories connected		index = 8		12					
13		Status Timers 1 (GSM)		1		2		BitField		Timers (Block Access) The accessories programmed		index = 9		14					

## 2.1 How to use the *Profibus - Custom modules* file

In the sheet are listed all of the data that can be send to the device and request from it.

The columns show:

1. Name of the Register
2. Length of the register/field
3. Usage and Description
4. Profibus Register Location
5. Enable

The **Enable** column is the most important one: here you can choose the registers you need for your program.

Every cell correspond to the register, and can be selected by writing "S" or "A" into it


6. **S** stand for single, the device will request the exact cell.
7. **A** stand for all, and it requests the entire group of informations, you can see the groups in the aggregate column. It is available only in cells that are first in the group (L1 is the first in the current Group between L1,L2,L3 and Ne) or in the Group cell (Current Measure is the group cell that contains all the currents: L1,L2,L3,Ne,Internal GND etc.).

**IMPORTANT!:** pay attention not to select the same cell multiple times ("A" on L1 and "S" on L2 will request L2 twice)

There are some limitations:

8. Max 200 Input Bytes
9. Max 4 Output Bytes
10. Max 50 Request per Custom (requests are every "S" or "A", not the registers requested)

Now you have to open the GSD file using notepad.

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## 2.2 How to open GSD Files

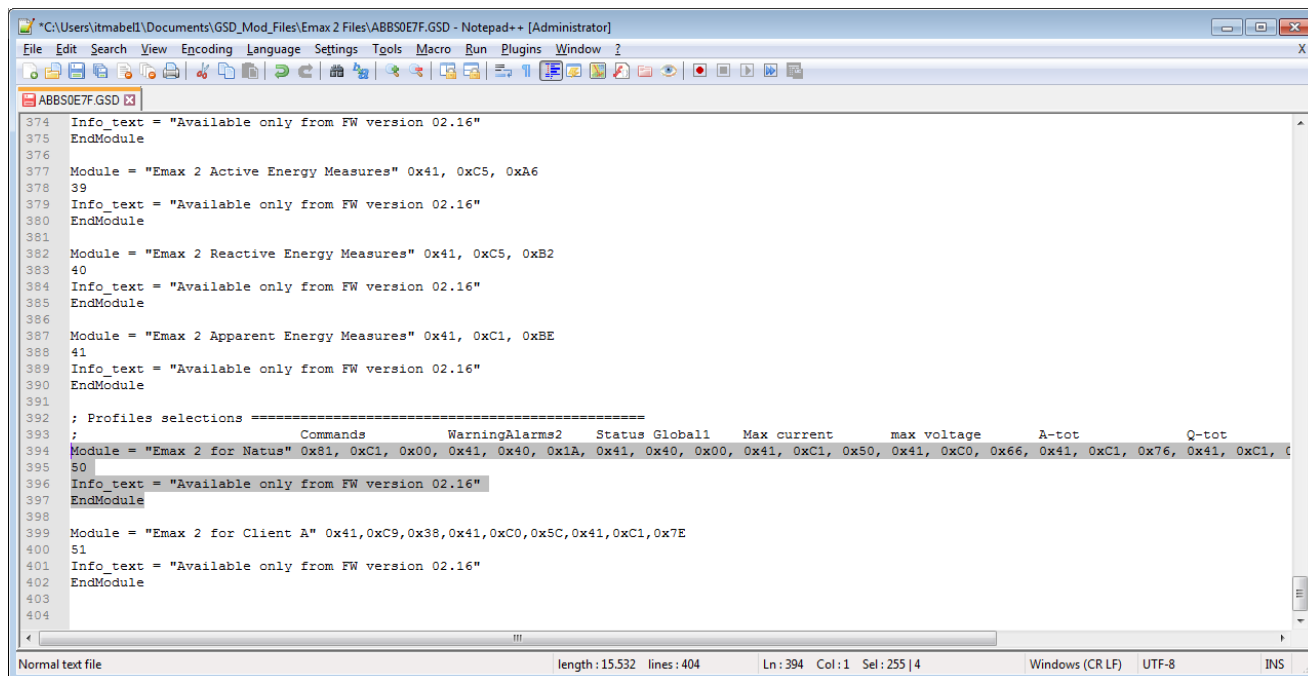
Start your text editor; go to “Files->Open”

**IMPORTANT!:** make sure you can see all files “\*.\*” and open the provided .GSD

## 2.3 Add or Modify to the File

After opening the GSD File, go to the bottom of it, there you should find the module list, and at the bottom of it you have to add your modded one:

1. Select the last module, From “Module =” to “EndModule”(Example “Emax 2 for Natus”)
2. Copy the whole Section and paste it right under it.
3. Modify Name or new pasted section, remember that it needs to be unique.(Example: “Emax 2 for client A”)
4. Remove the Hexadecimal String and place here the string from the *Profibus - Custom modules* file:
  - 4.1. Go back to the GSD excel sheet.
  - 4.2. After Selecting the Registers, you will find on top of the spreadsheet (Cell B1) a string of hexadecimal Values.
  - 4.3. Copy the string, paste it in the GSD after the name, replacing the old one
  - 4.4. Remove the last comma (In the Example: 0x41,0xC9,0x38,0x41,0xC0,0x5C,0x41,0xC1,0x7E remove the red highlighted comma).
5. Modify identification number
  - 5.1. You may add as many modules as you want to the GSD, provided that they are named correctly
  - 5.2. However, You can load max of 50 modules in your PLC configuration.
  - 5.3. In the GSD the modules’ numbers don’t have to be in order (example: you can use 51-52-53-57-60-61-ecc)
6. Add some Information to “Info text” if you want
7. Save The File



Now the GSD is ready to be import in your programming software.

## 3. REVISION HISTORY

Version	Date	Details
A	08/11/2018	new document
B	04/03/2021	Moved Custom sheet to independent xlsx file

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