# vNode Siemens Client
# Importing TIA Portal Symbolic Addressing

**Reference Manual**




v-1.1.0

# Contents

## Introduction

This document explains the basic steps to migrate a Data Block (DB) from a Siemens TIA Portal project to vNode WebUI.

Each Siemens DB will be converted separately into a vNode Group Template.

A Microsoft Excel Template will be used to generate a csv that can be imported into a vNode template

## Basic Steps to migrate a DB

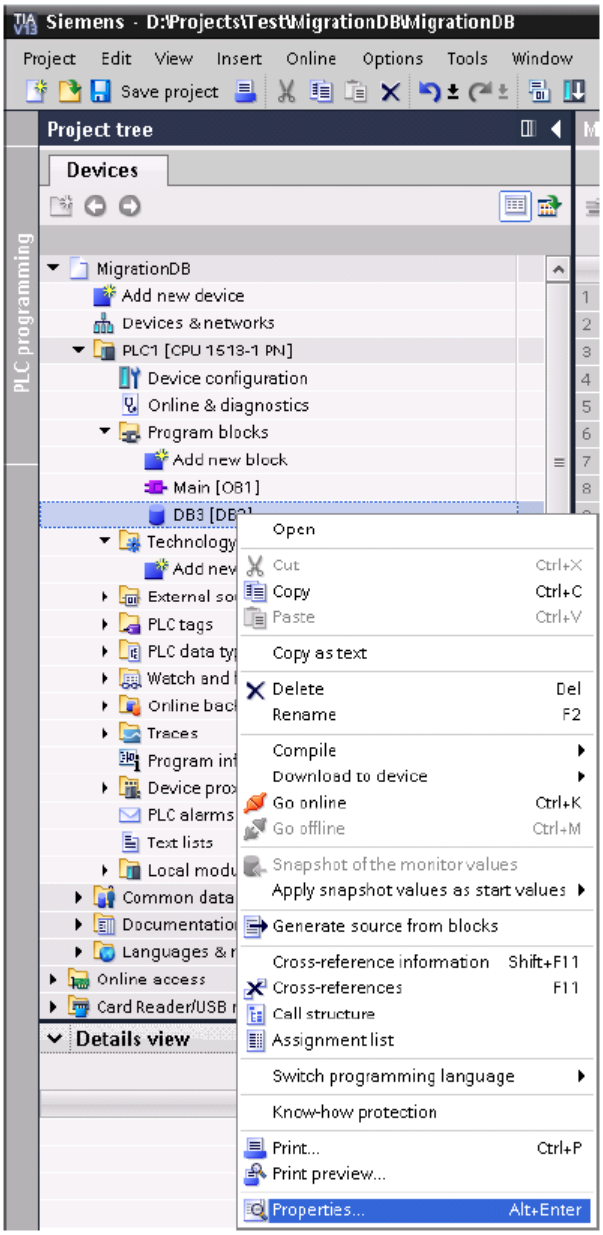
These are the common steps to migrate a Siemens TIA Portal DB to vNode Template:

### Step 1: Open TIA Portal project

Open the TIA Portal project and select Project View.

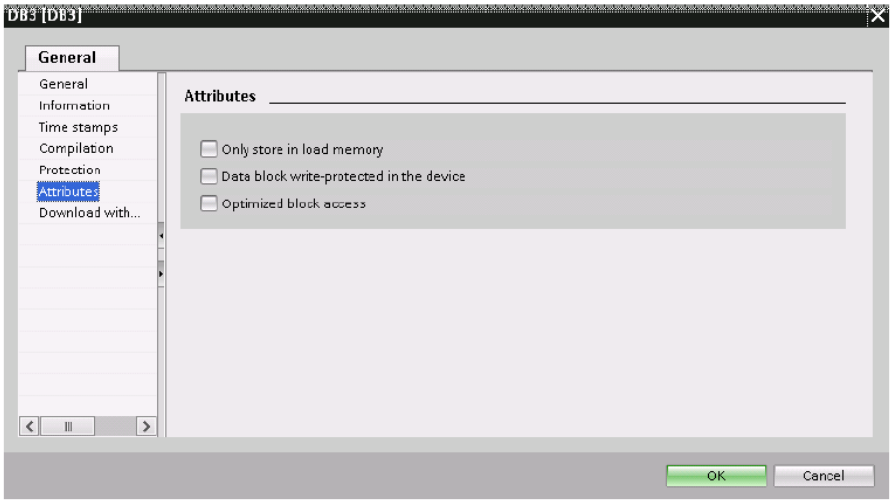
### Step 2: Select the Data Block to migrate

Select *<Project name>* → *<PLC name>* → *<Program blocks folder>* → *<Data Block name>*
Push right button of the mouse and select *Properties*



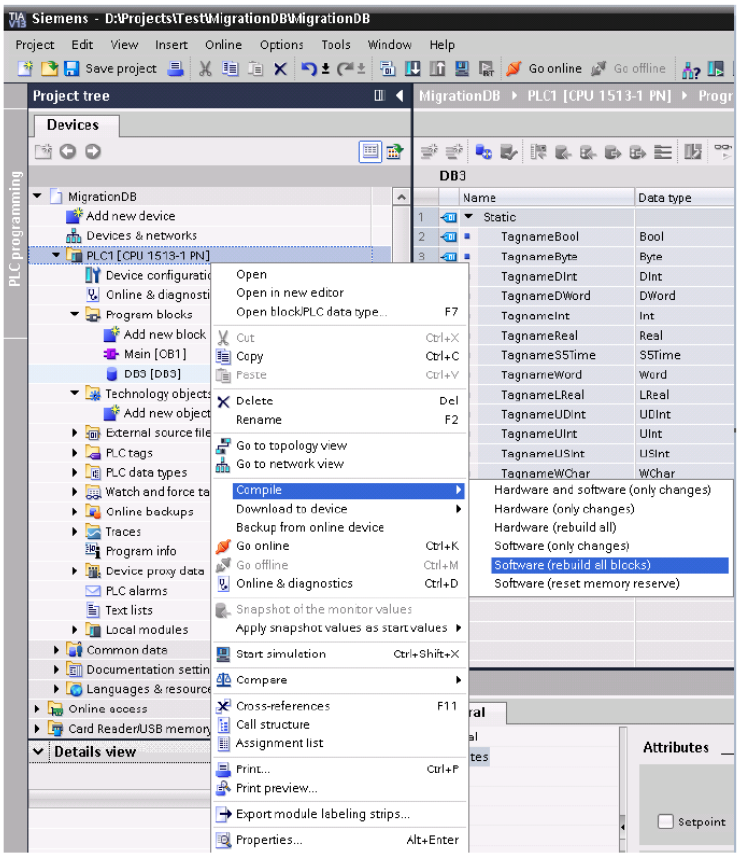
## Step 3: Uncheck the *Optimized block access* option

Select Attributes menu and uncheck the *Optimized block access* option.



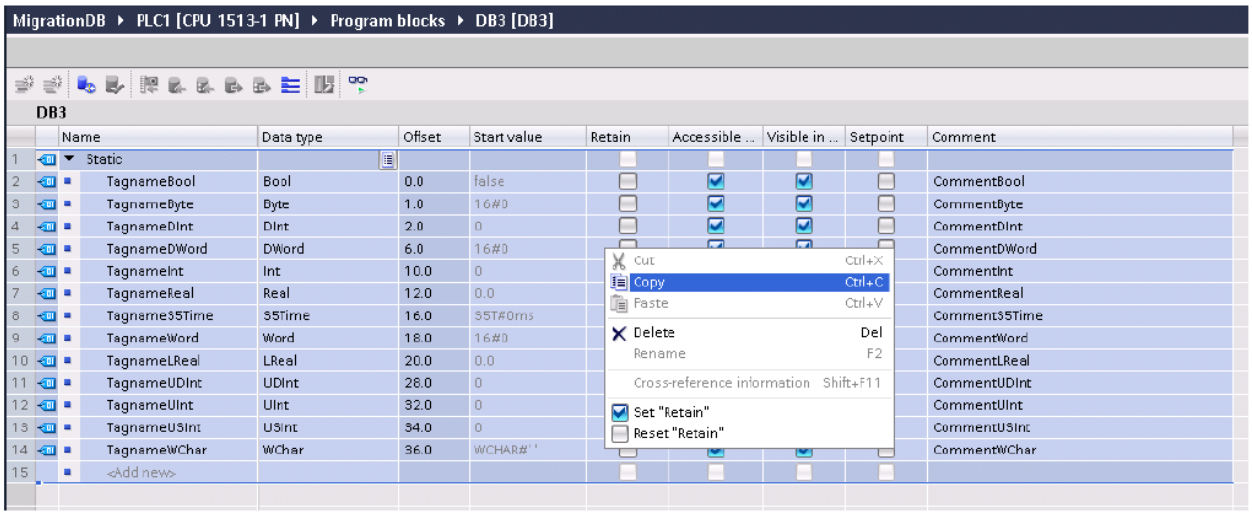

## Step 4: Compile Software (rebuild all blocks)

Select *<PLC name>* and push right button of the mouse.
Select *Compile* menu and click on *Software (rebuild all blocks)* submenu.



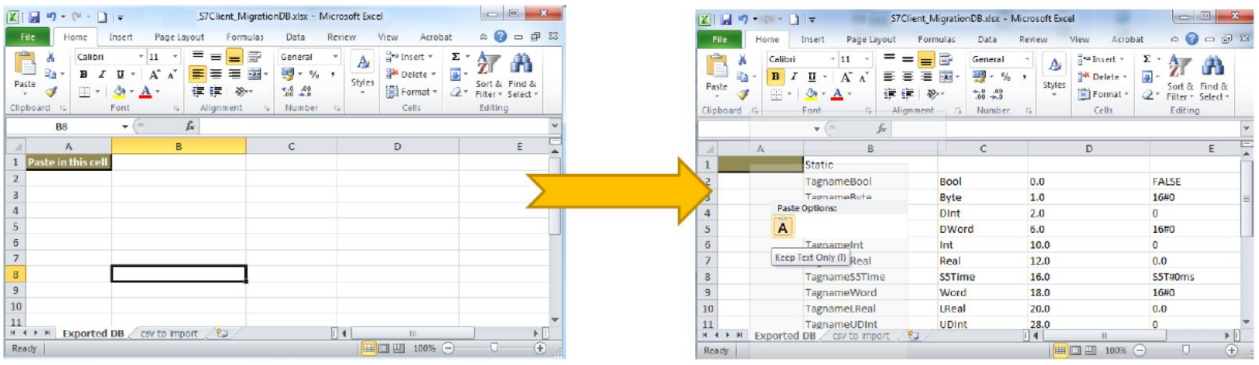
## Step 5: Open DB

Select *<Data block name>* and open it. Select all cells and copy them.



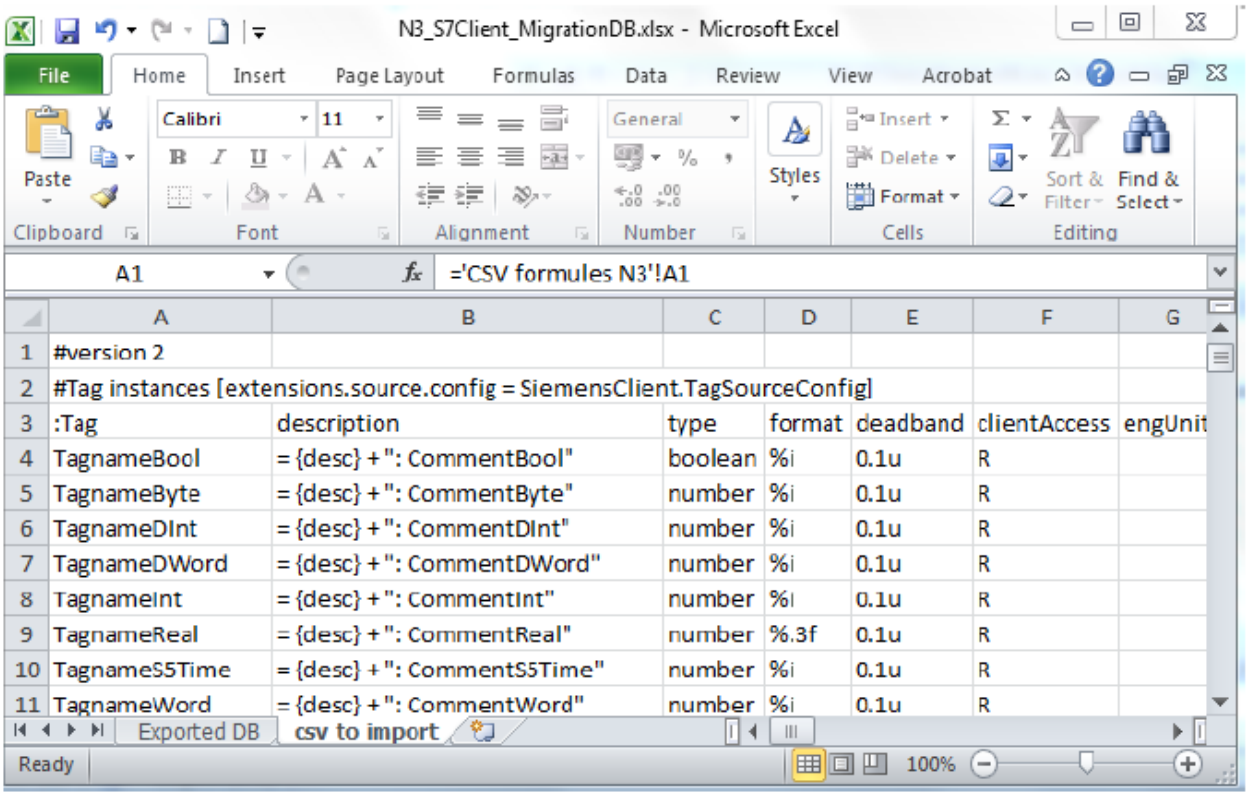

## Step 6: Open Microsoft Excel template and paste the copied cells

Open Microsoft Excel template called *S7Client_MigrationDB.xlsx*.
Paste the copied cells (step 5) on *A1* cell of the *Exported DB* sheet.
**Note:** use *Keep text only* as *Paste* option



## Step 7: Select *csv to import* sheet and copy the valid rows

Select *csv to import* sheet. Configure the tags for your specific needs (scaling, history, etc).



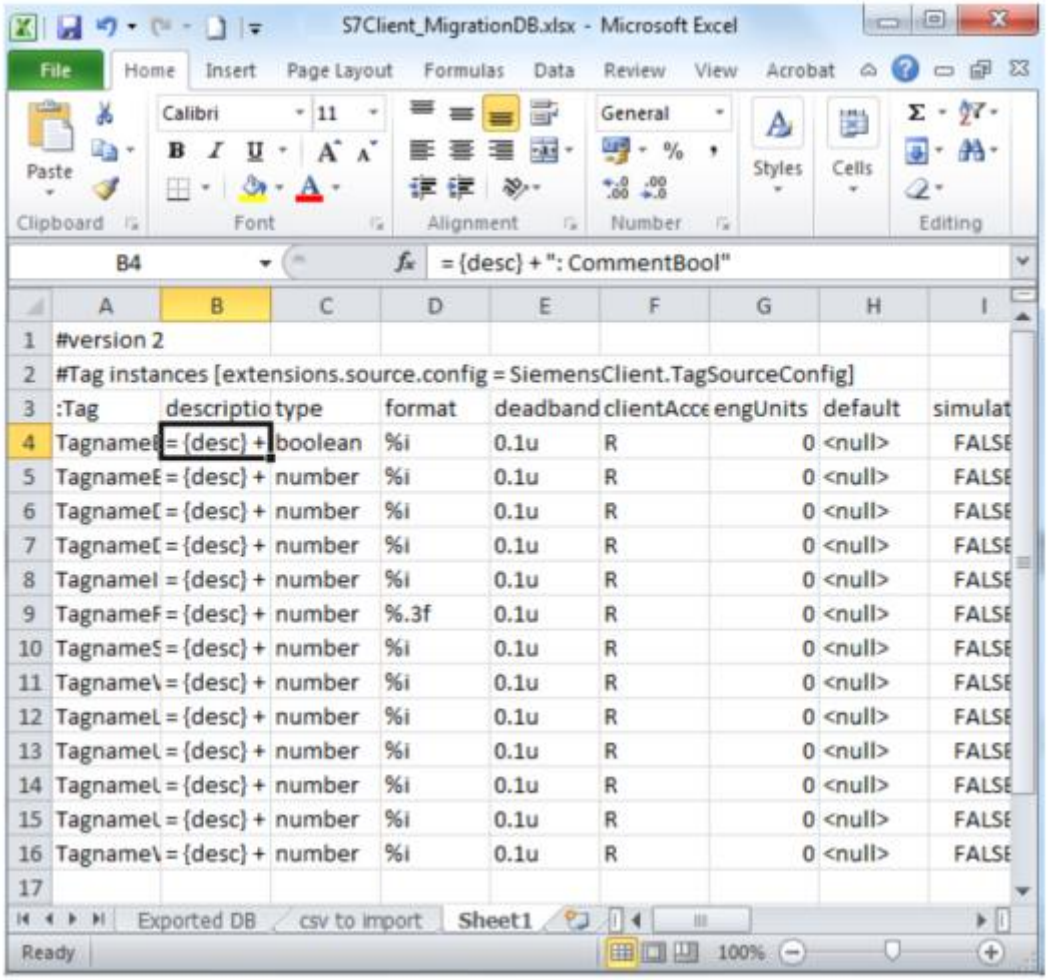

| | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| 1 | #version 2 | | | | | | |
| 2 | #Tag instances [extensions.source.config = SiemensClient.TagSourceConfig] | | | | | | |
| 3 | :Tag | description | type | format | deadband | clientAccess | engUnit |
| 4 | TagnameBool | = {desc} + ": CommentBool" | boolean | %i | 0.1u | R | |
| 5 | TagnameByte | = {desc} + ": CommentByte" | number | %i | 0.1u | R | |
| 6 | TagnameDInt | = {desc} + ": CommentDInt" | number | %i | 0.1u | R | |
| 7 | TagnameDWord | = {desc} + ": CommentDWord" | number | %i | 0.1u | R | |
| 8 | TagnameInt | = {desc} + ": CommentInt" | number | %i | 0.1u | R | |
| 9 | TagnameReal | = {desc} + ": CommentReal" | number | %.3f | 0.1u | R | |
| 10 | TagnameS5Time | = {desc} + ": CommentS5Time" | number | %i | 0.1u | R | |
| 11 | TagnameWord | = {desc} + ": CommentWord" | number | %i | 0.1u | R | |

Copy only the valid cells. For this example, it would be A1:Y16 matrix.

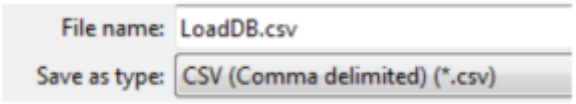
| | U | V | W | X | Y | Z |
|---|---|---|---|---|---|---|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | extensions.source.config.address | extensions.source.config.type | extensions.source.config.rate | extensions.history.enabled | extensions.history.module | |
| 4 | = "db"+{db}+":0.0" | boolean | 5000 | FALSE | 0 | |
| 5 | = "db"+{db}+":1" | int8 | 5000 | FALSE | 0 | |
| 6 | = "db"+{db}+":2" | int32 | 5000 | FALSE | 0 | |
| 7 | = "db"+{db}+":6" | uint32 | 5000 | FALSE | 0 | |
| 8 | = "db"+{db}+":10" | int16 | 5000 | FALSE | 0 | |
| 9 | = "db"+{db}+":12" | float32 | 5000 | FALSE | 0 | |
| 10 | = "db"+{db}+":16" | uint32 | 5000 | FALSE | 0 | |
| 11 | = "db"+{db}+":18" | uint16 | 5000 | FALSE | 0 | |
| 12 | = "db"+{db}+":20" | double64 | 5000 | FALSE | 0 | |
| 13 | = "db"+{db}+":28" | uint32 | 5000 | FALSE | 0 | |
| 14 | = "db"+{db}+":32" | uint16 | 5000 | FALSE | 0 | |
| 15 | = "db"+{db}+":34" | uint8 | 5000 | FALSE | 0 | |
| 16 | = "db"+{db}+":36" | uint16 | 5000 | FALSE | 0 | |
| 17 | #N/A | #N/A | 5000 | FALSE | 0 | |

### Step 8: Create a new sheet, paste only values and save as a csv file

Paste the copied cells (step 7) in a new sheet (paste only values).

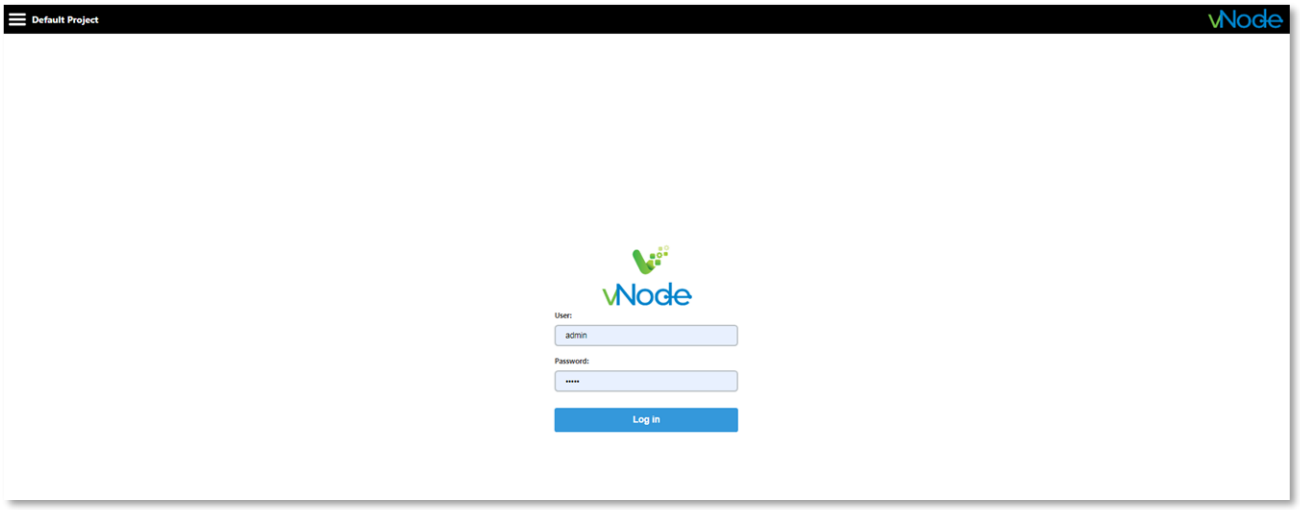



Save as a csv file. For example: *LoadDB.csv*



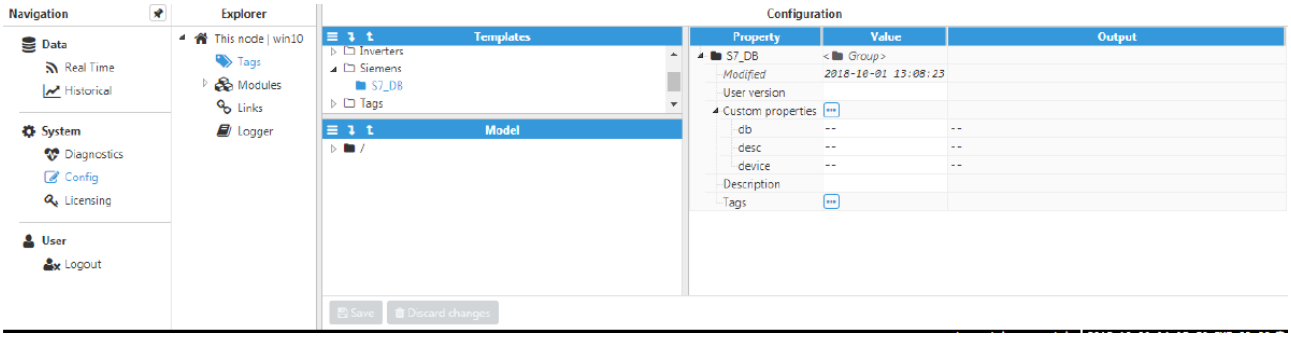
## Step 9: Open *vNode WebUI*

Connect to *vNode* node and open *WebUI* where it is required the DB migration

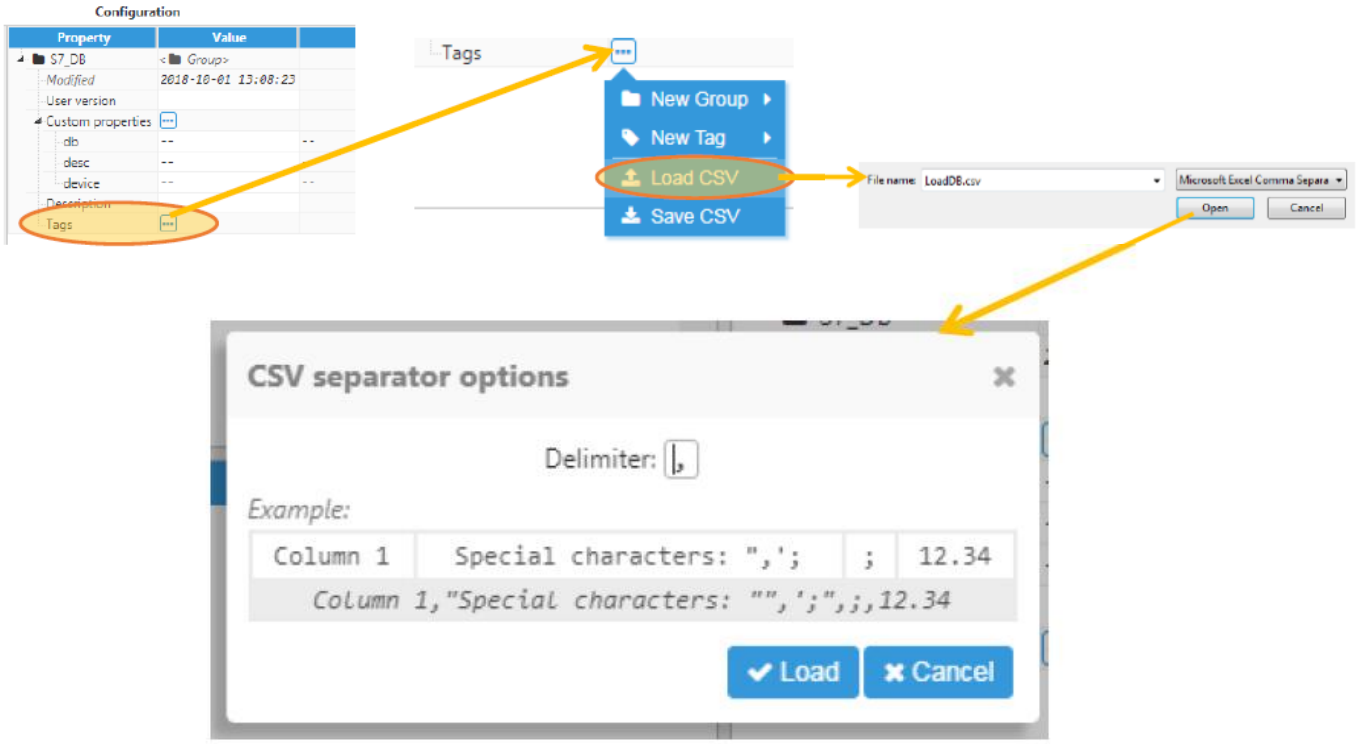


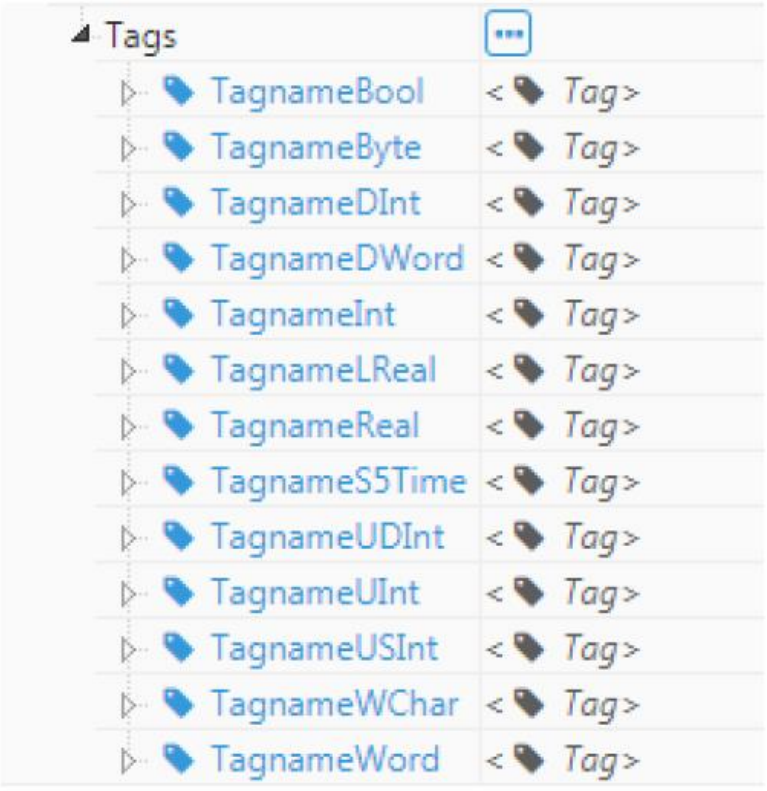

## Step 10: Edit S7_DB configuration

In *Config*→ *Tags* → *Templates* import the template S7_DB_template.zip:



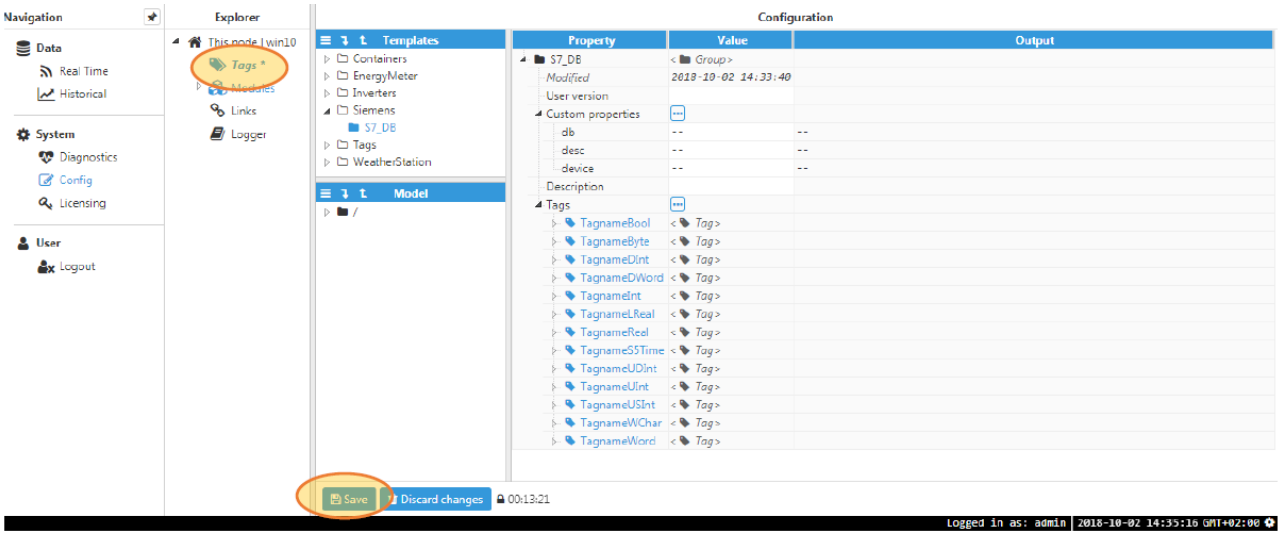
Click on the button with three points next to *Tags* and select the option to *Load CSV*. Find the saved csv file (step 8) and after open this. Finally, select the appropriate delimiter and click on *Load* button.



## Step 11: Save the new configuration

Remember to click on the *Save* button to avoid losing the new configuration of the S7_DB template.




## Step 12: Instantiate the new template

Now it is possible to create the instances of the template providing the following Custom properties for each instance:

- • db: Data Block corresponding to the instance.
- • desc: (optional) prefix added to the Description of the tag.
- • device: the name of the device configured in the SiemensClient driver.