RUNMODE

S7 DB TAGS v1.x

for Siemens S7-300 / S7-400 PLCs

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Requirements

- Runmode S7DBTAGS is a 32 bit application for Microsoft Windows 95/98/ME/NT/2000/XP/VISTA.
- The application supports Siemens Simatic S7-300 and S7-400 projects only. S7-200, S7-1200 and Logo! projects are not supported.

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Installing S7DBTAGS

The software does not need any installation, just copy it to a folder of choice and run it. Each copy of S7 DB TAGS comes with a personalized license file USER.LIC that must be located in the same folder containing the S7 DB TAGS executable file.

S7DBTAGS concepts

The software elaborates the source code of any S7 project in order to extract all variables allocated in data blocks, either in simple form or contained in complex structures.

It is advisable to provide also the S7 projects symbol file in order to properly decode their full address in case the data blocks have been given a symbolic name.



Generating the AWL source file

Open your S7 project with the Simatic Manager, then open one block in the STL/LAD/FBD editor

In the menu "File | Generate source" of the STL/LAD/FBD editor, generate the complete source file of your PLC project (all blocks).

Generate source all			
Note: Automatic generation of single si Menu 'Options' > 'Customize' in t	burces per block: he 'Sources' tab		
Path: 0412omg\SIMATIC 300(1)\CPU 315-2 DP\ Blocks Not Selected: Blocks Selected:			
FB8 611 driver FB9 FM354driver FB10 unit_LEFT_control FB20 unit_CENTRAL_control FB30 unit_RIGHT_control FB40 PIPEREF_control FB59 InstructionsInterprete FC0 FM354_POS_INIT FC1 FM354_POS_DIAG FC3 FM354_POS_MSRM FC10 MainFunctions	> \ \ > <		
Name/Family:			
☐ Include reference blocks ✓ Sort according to program structure	Addresses C Absolute C Symbolic		
ОК	Cancel Help		

Close the STL/LAD/FBDF editor

From the in the Simatic Manager, select the "sources" folder, right-click with the mouse on the file just created and export it as AWL file (e.g. lathe.awl) to a folder of choice.

Generating the ASC symbols file

Open the Symbol Editor and use the menu "File | Symbol Table" to export the symbol table as ASC file (e.g. lathe.asc).

Export	? 🔀
Save in: 🗀 z	▼ ← 🗈 💣 Ⅲ-
Odi 120mg Odi 1	
File name: lathe.asc	Save
Save as type: ASCII Format (*.ASC)	Cancel

Running S7DBTAGS as GUI application GUI stands for Graphical User Interface, in other words the common way people interact with Windows' applications.

Run the S7 DB TAGS			
application and open the	💛 RUNMODE - S7 DB 🛛	Tags Generator v1.0.0	
AWL and ASC files	File About		
	S7 AWL Source file:		
	C:\z\lathe.awl		
	S7 Symbols table:		
	C:\z\lathe.asc		
	>		
	Generate tags 🛛 🗛	activity log	
	start		

Start the generation. The process may take a while, according to the data quantity and structure complexity.

🖌 RUNMODE - S7 D	B Tags Generator v1.0.0	
File About		
S7 AWL Source file C:\z\lathe.awl S7 Symbols table: C:\z\lathe.asc	8:	
Generate tags	Activity log	
start	Searching UDTs [1]: "611_STW1 cmd word 1" [2]: "611_STW2 cmd word 2" [3]: "611_PosSTW pos cmd word" [4]: "611_ZSW1 status word 1" [5]: "611_ZSW2 status word 2" [6]: "611_MeldW message word" [7]: "611_PosZSW PosStatusWord" [8]: "FM354_UDT" [9]: "FM354_UDT" [10]: "Unit_ProgramLine" [DONE] Searching FBs [1]: "611driver" [2]: "FM354diagnostics" [0DNE] Searching FBs [1]: "611driver" [2]: "FM354driver" [3]: "InstructionsInterpreter" [4]: "unit_LEFT_control" [5]: "unit_CENTRAL_control" [6]: "unit_BIGHT_control" [7]: "PIPEREF_control" [8]: "MainControl"	
24143 Tags generated		

The program ends the process with the indication of the tags count. A log file is optionally generated.

💙 RUNMODE - S7 DE	Tags Generator v1.0.0	
File About		
S7 AWL Source file C:\z\lathe.awl S7 Symbols table: C:\z\lathe.asc	:	
Generate tags	Activity log	
start	<pre>[19]: "unit_LENTRAL_axis2208" [20]: "unit_RIGHT_axis31DB" [21]: "unit_LEFT_axis32DB" [23]: "unit_CENTRAL_axis0B23" [24]: "Unit_CENTRAL_Interpreter" [25]: "Unit_CENTRAL_Interpreter not found! [26]: "Unit_RIGHT_Interpreter" [27]: "unit_RIGHT_Interpreter" [27]: "unit_LEFT_controlDI" [28]: "unit_CENTRAL_controlDI" [28]: "unit_CENTRAL_controlDI" [29]: "unit_RIGHT_controlDI" [30]: "PIPEREF_controlDI" [31]: "MainControl_DI"</pre>	
	1 ags generated: 24143 6/1/2009 11:37:01 AM : End of tags generation	
24143 Tags generated		

Running S7DBTAGS as command line application

The S7DBTAGS can be run as command line application, thus allowing integration in user automated procedures. Once parameters are provided when calling the executable file, the program runs automatically as command line application.

Usage: S7DBTAGS.EXE AWLsourcefile [ASCsymbolfile]

Example: S7DBTAGS.EXE c:\z\lathe.awl c:\z\lathe.asc

The program generates both CSV and XLS files, then ends automatically.

The CSV separator character is defined in the options menu in the GUI version of the program: just run S7DBTAGS.EXE and set proper options.

Version history

Version 1.0.0

• First release

Author's notes

Please report any bug or suggestion to the author:

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