

Application Note:

Importing variable tags into a zenon HMI project from a 505 Workshop PLC program file



Application

The process of creating variables for your HMI project in the zenon Editor can be assisted by importing the tags from your 505 Workshop PLC program. Fastrak 505 Workshop is able to export a CSV tag file from the PLC program file. The zenon Editor can import a comma delimited TXT file containing variable tag information. This application note will provide instructions on how to import variable tags into the zenon HMI Editor from 505 Workshop.

Requirements

- zenon Editor for the 2500-VPxx series HMI panels is installed on the user's computer. The zenon Editor for 2500-VPxx panels is available from Control Technology Inc.
- 505 Workshop is installed on the user's computer. 505 Workshop is available from FasTrak SoftWorks Inc.
- Microsoft Excel is installed on the user's computer.
- The user has Workshop PLC program file created with tag addresses, tag names, and tag descriptions.
- The user has started an HMI project in the zenon Editor and has added the CTI panel driver to their project.

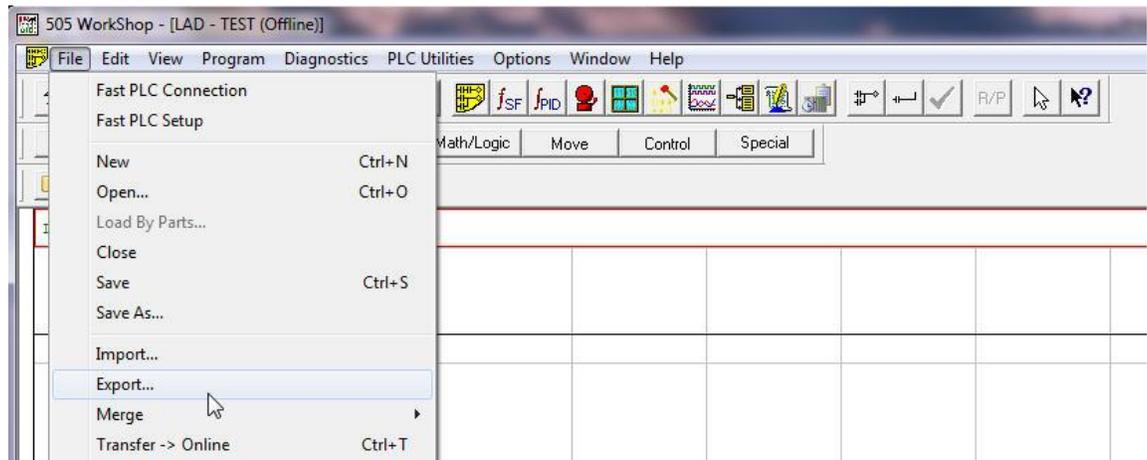
Description

The following tasks will need to be performed in order to import tags from a 505 Workshop program into a zenon HMI project:

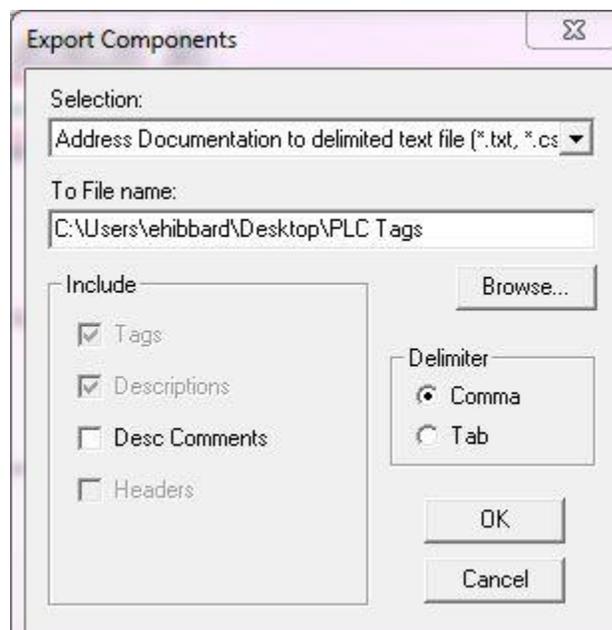
1. Export PLC variable tags from 505 Workshop to a CSV file.
2. Export HMI tag file from zenon editor.
3. Cut and paste PLC tags into HMI tag file.
4. Import HMI tag file into the zenon HMI Editor.

TASK 1: Exporting CSV File from Workshop

STEP 1: Open your Fastrak 505 workshop software on your computer and open your PLC program. You may open the PLC program offline.



STEP 2: Under the File menu, select the 'Export' menu item.



STEP 3: In the Export Components window, select 'Address Documentation to delimited file (*.txt,*.csv)'.

STEP 4: In the 'To File name' box, enter a file name and location.

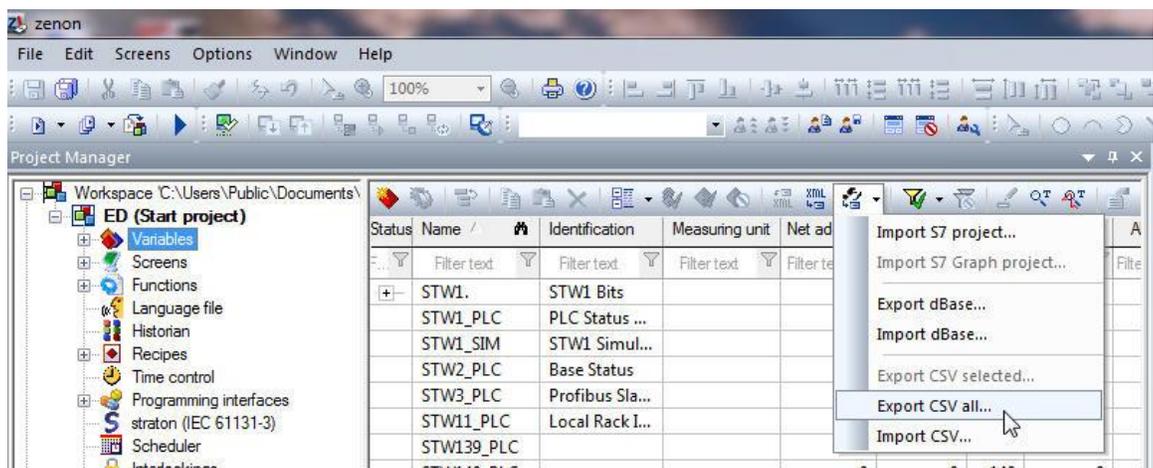
STEP 5: Make sure to select comma delimitation and then click on the 'OK' button.

TASK 2: Exporting TXT File from zenon Editor

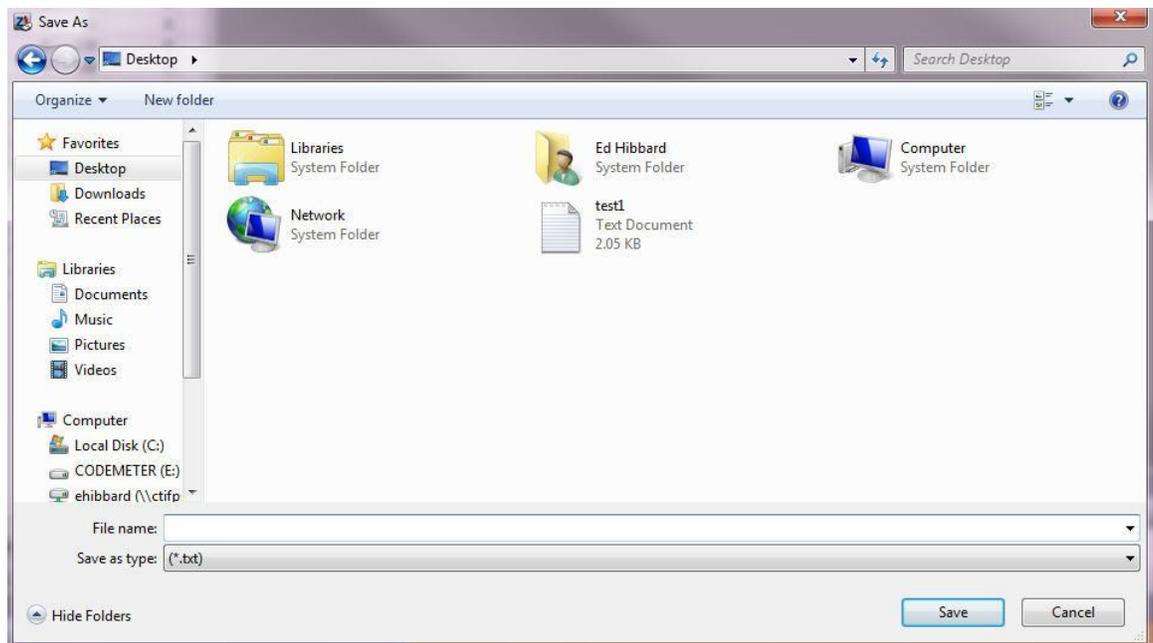
The reason to export a TXT tag file from zenon is to have a template with the necessary column format to import back into zenon. Before exporting the TXT file, make sure to define with as much information as possible, such as limits, reaction matrix, etc. If your naming convention in Workshop is clever and consistent, it is possible to go further, by creating a variable for each “process data type” (valve status, valve command, motor status, motor command).

STEP 1: Open your zenon Editor software on your computer and open your HMI project.

STEP 2: In your HMI project, create a single variable of each variable type that you will be importing from the PLC file. For example, if you will be importing X, WX, Y, WY, and C variable types from the PLC program, then create one of each of these variables in the zenon project.



STEP 3: Click beside the ‘Import S7 project’ icon to obtain a drop down menu and click on ‘Export CSV all’.

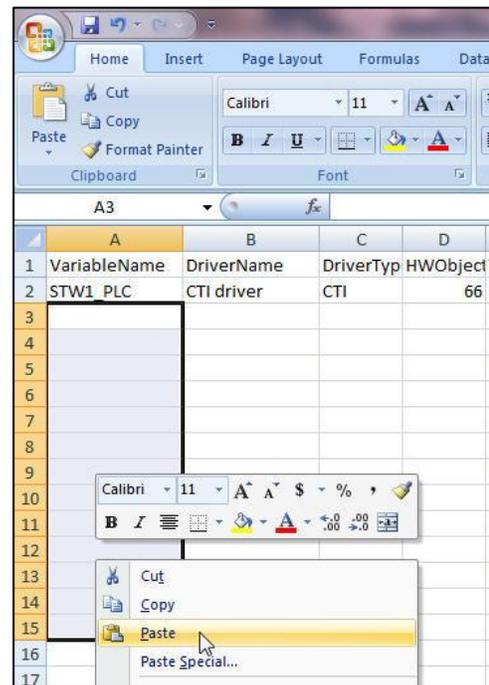
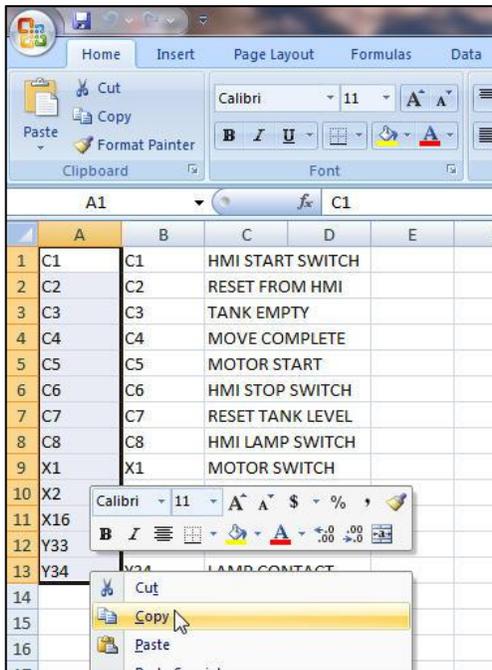


STEP 4: In the 'Save As' window, select a location and enter a file name. Click on the 'Save' button when you are finished.

TASK 3: Transferring Tags from PLC file to HMI file

In this task you will copy tag information from the PLC tag file to the HMI tag file and prepare the HMI tag file for importing back into the zenon HMI project.

STEP 1: Open with Microsoft Excel both the PLC tag file and HMI tag file that you created.



STEP 2: From the PLC tag file, copy columns of tag information and then paste them in the corresponding columns of the HMI tag file. Copy all needed columns of information from the PLC file to the HMI file.

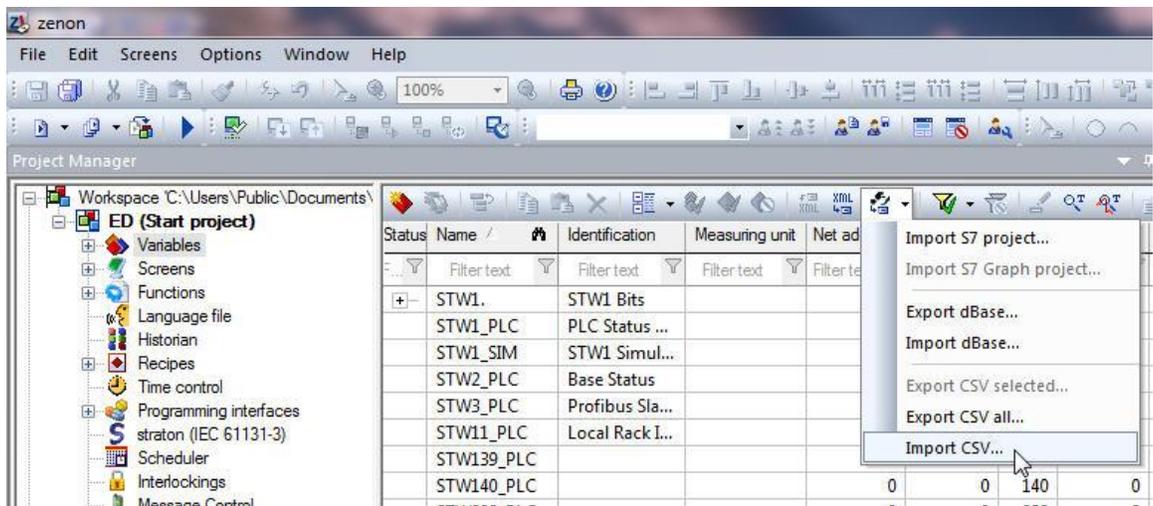
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
1	VariableName	DriverName	DriverT	HWObj	TypeNa	Matrix	Tagname	Unit	Syst	Alter	Alter	Recc	NetAddr	DataBlock	Offset	Bit
2	STW1_PLC	CTI driver	CTI	66	UINT		PLC Status Bits			0			0	0	0	1
3	C1	CTI driver	CTI	71	BOOL		HMI START SWITCH			0			0	0	1	
4	C2	CTI driver	CTI	71	BOOL		RESET FROM HMI			0			0	0	2	
5	C3	CTI driver	CTI	71	BOOL		TANK EMPTY			0			0	0	3	
6	C4	CTI driver	CTI	71	BOOL		MOVE COMPLETE			0			0	0	4	
7	C5	CTI driver	CTI	71	BOOL		MOTOR START			0			0	0	5	
8	C6	CTI driver	CTI	71	BOOL		HMI STOP SWITCH			0			0	0	6	
9	C7	CTI driver	CTI	71	BOOL		RESET TANK LEVEL			0			0	0	7	
10	C8	CTI driver	CTI	71	BOOL		HMI LAMP SWITCH			0			0	0	8	
11	X1	CTI driver	CTI	69	BOOL		MOTOR SWITCH			0			0	0	1	
12	X2	CTI driver	CTI	69	BOOL		LAMP SWITCH			0			0	0	2	
13	X16	CTI driver	CTI	69	BOOL		RESET BUTTON			0			0	0	16	
14	Y33	CTI driver	CTI	70	BOOL		MOTOR OUTPUT			0			0	0	33	
15	Y34	CTI driver	CTI	70	BOOL		LAMP CONTACT			0			0	0	34	

STEP 3: Use the features of Excel to auto fill the columns of information needed in the HMI tag file. Make sure to fill in the correct DriverName, HWObjectType, TypeName, NetAddress, and Offset for each variable. The other columns will correspond to the default configuration of your initial template tags (limits, reaction matrix...).

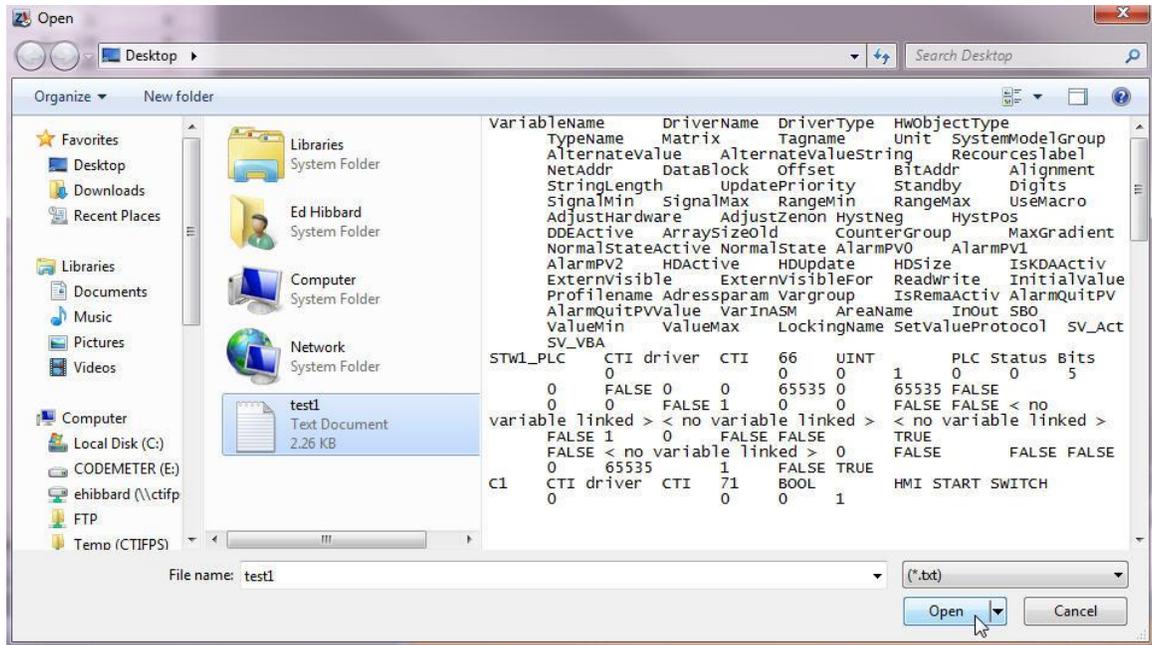
STEP 4: When you are finished, save the modified HMI tag file as a tab delimited TXT file.

TASK 4: Importing HMI Tag File into zenon Project

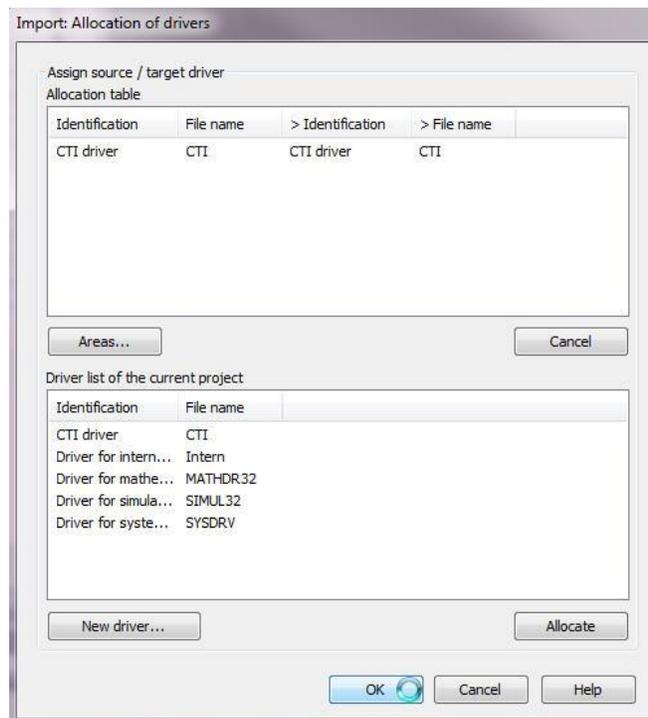
Now that your HMI tag file is completed. It is time to import the tags into the zenon project.



STEP 1: In the zenon Editor, click beside the 'Import S7 project' icon to obtain a drop down menu and click on 'Import CSV'.



STEP 2: Find the modified HMI tag file and click on the 'Open' button. The HMI tag file must have been saved as a tab delimited TXT file in order for zenon to open it.



STEP 3: Verify that the correct driver allocation is made during the import as shown above.

STEP 4: If everything was done correctly, the new variables should be displayed in the variables list within your zenon project.



Control Technology Inc.

5734 Middlebrook Pike, Knoxville, TN 37921-5962
Phone: 865/584-0440 Fax: 865/584-5720 www.controltechnology.com