



SYNTEC
TECHNOLOGY CO.,LTD.

Syntec IDE Operation Manual.

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1 SI Instructions

1.1 Software introduction

Currently there are many types of application tools required for customization development and complicated to install.

SyntecIDE (shortened as SI) provides friendly interface, the tools needed to open/edit different types of files are automatically downloaded and easy to manage for users.

In addition, developers can quickly manage different versions of the simulator, and can directly find the files they want to edit or view without keeping the path of file in mind.

1.2 How to download SI?

From the Syntec website to download

Path : Support > Software Download > 04.Application Tool > SyntecIDE > 1.Official Version.

SYNTEC About News Products Support Application OldSite

Software Download
Documents Download
Old Website Download

04.Application Tool SyntecIDE 1.Official Version
Last 5 versions

VersionNo : 1.10.0

File Name	Description	Download	Release note
SyntecIDE_1.10.0.zip	SyntecIDE		

1.3 Install and uninstall program

SI doesn't need to install, after decompressing, it can be executed directly. Also there is no need to uninstall it, just delete the folder.

1.4 Precautions

- If the computer has not installed the "simulator before the version 10.116.12", it may cause the simulator / application tool to be disabled or abnormal, Please refers to the description of "basic environment setting steps" below for the occurrence.
- The length of the storage path for the decompressed folder cannot exceed 45 characters, and the path must be all English, numbers, and symbols. Therefore, it is recommended to place it in the root directory of any system drive.

1.5 Basic environment setting steps

Step 1: Download and install the following linked files.

- LadEdit_v2.26.3.msi

Step 2: Confirm the login account, with administrator permission.

- 1.Control Panel → Add or remove users accounts
- 2.Confirm the current login account is "Administrator"
- 3.If the current account is not "Administrator", please log in to the administrator account.
- **How to activate an administrator account in Windows 8**
 - 1.Press "win + f" and enter [cmd].
 - 2.Right click and select [Run as administrator].
 - 3.After entering command prompt, please type [net user administrator /active:yes] and then press enter.
 - 4.If you want to deactivate administrator account, please type [net user administrator /active:no].
 - 5.**After activating the account, an administrator account without password will appear in the account management. Log in with this account.**

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2 SI Function Introduction

2.1 Glossary

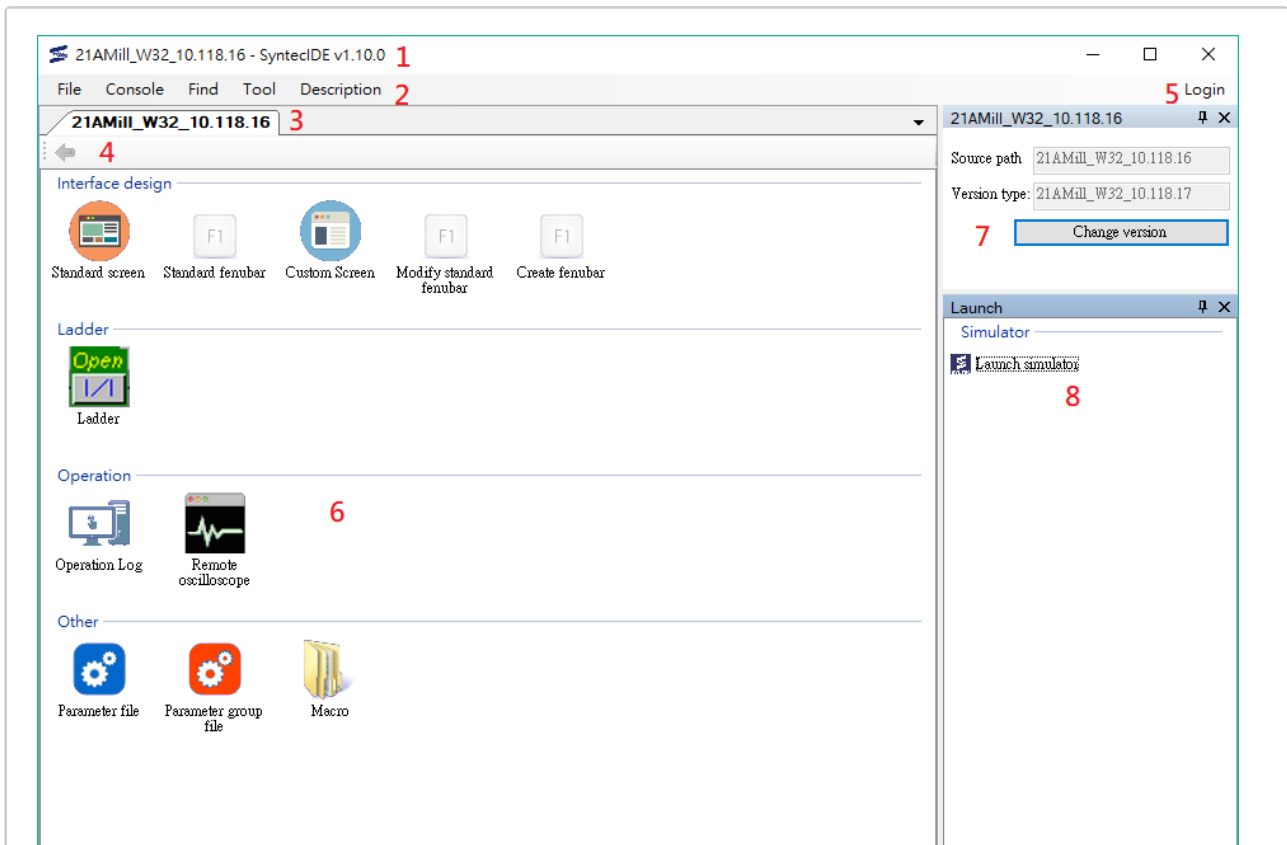
Title	Introduction
SI	Syntec IDE, IDE means Integrated Development Environment.
Project	SI takes a project (simulator) as a unit. There is a DiskC folder in every project. Project must created by SI, when you create a project, SI will download a simulator automatically from Syntec website, and write some necessary data into the project.
Application tool	Tool for viewing or editing files in the simulator, such as ladder editor, eHMI, parameter editor, OKLog Reader, etc.



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2.2 SI Screen Introduction

2.2.1 Main screen



1. Project title

Project name, tool name, and version

2. Function bar

The basic functions of SI

3. Project TAB

Currently we can only open one project at one time, so you can see only one TAB. Right click on it can select "open the directory of the project" or "close the project".

4. Back

Back to main screen, this button can be clicked in the sub-screen only.

5. Account

If you already log in, the user's account will be displayed here. Besides, you also can log out here.

6. File information

Display all kinds of files

7. Project information

Display the project name, current version and machine type. You can also change the simulator version here.

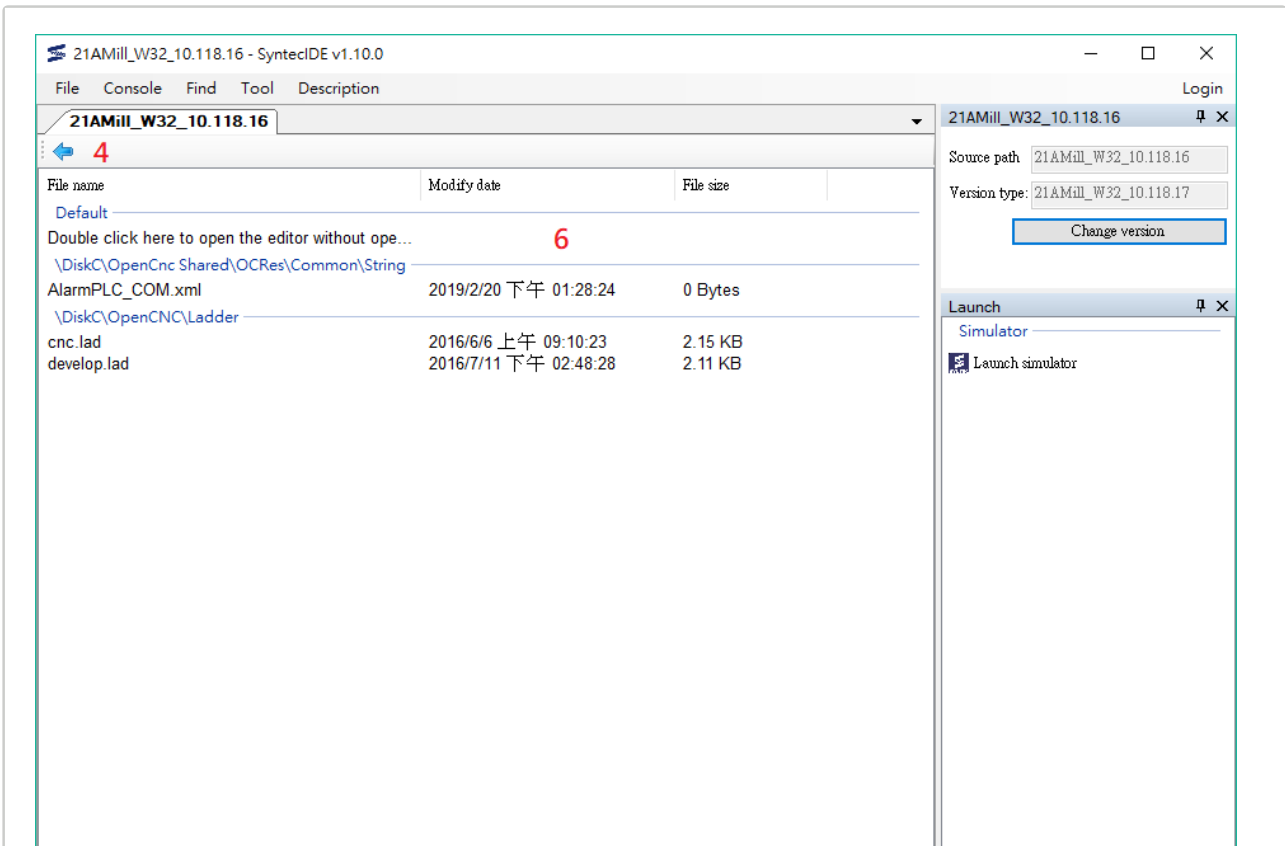
8. Launch

You can launch the simulator of this project here.



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2.2.2 Sub screen



4.Back

Back to main screen.

6. File information

Display the file list of some kind you select. You can also open the corresponding tool or create a new file here.



2.3 Functions

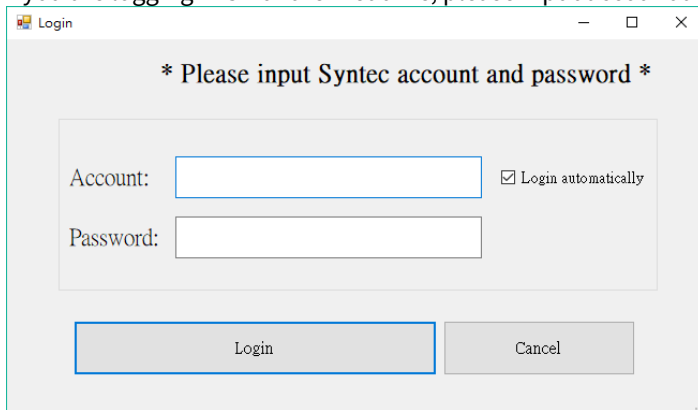
2.3.1 Create a project

There are two ways to create a project:

1. Execute SI and click "Create project".
2. After entering the main screen, you can click "File > Project > Create Project" in the function bar, and then the current project will be closed.

Step :

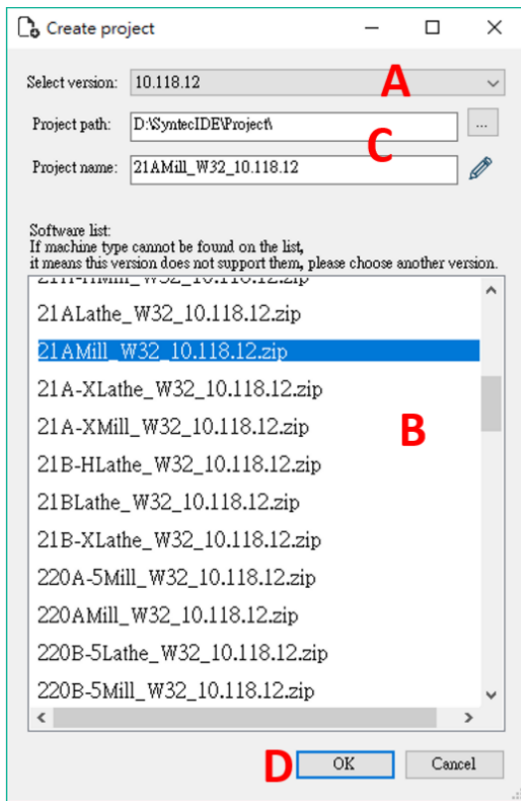
1. If you are logging in SI for the first time, please input account and password. (Internet is required.)



The screenshot shows a standard Windows-style dialog box titled "Login". The main text inside the dialog reads "* Please input Syntec account and password *". Below this text, there are two input fields: "Account:" and "Password:". To the right of the "Account:" field, there is a checked checkbox labeled "Login automatically". At the bottom of the dialog, there are two buttons: "Login" and "Cancel".

2. Select the project version/Enter the project information
 - Select the simulator version from the pull-down menu A.
 - Select the machine types in software list B.
 - Enter the project name and file path in the C box. (You can use default path directly.)
 - Click D (OK button) to create a new project.

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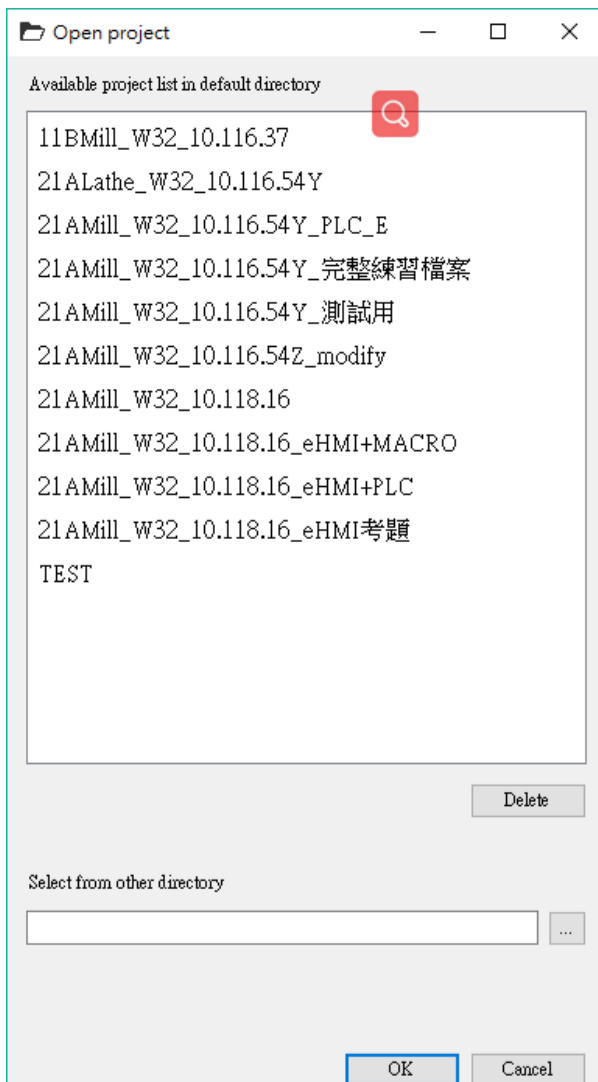
2.3.2 Open a project

There are two ways to open a project:

1. Execute SI and select "Open project" to open existing projects.
2. After entering the main screen, you can click "File > Project > Open project" in the function bar, and then the current project will be closed.

Step :

1. Select the project name, and then press OK. (Or just double-click the project name)
2. Also can use "Select from other directory" to open projects stored in other path. Note that only projects created by SI can be opened.



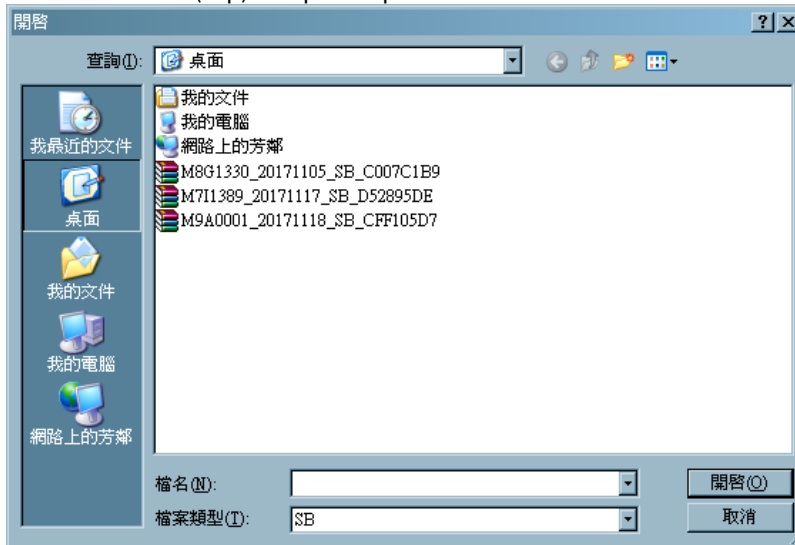
2.3.3 Load SB file

There are two ways to load SB file:

1. Execute SI and select "Load SB".
2. After entering the main screen, you can click "File > Project > Load SB" in the function bar, and then the current project will be closed.

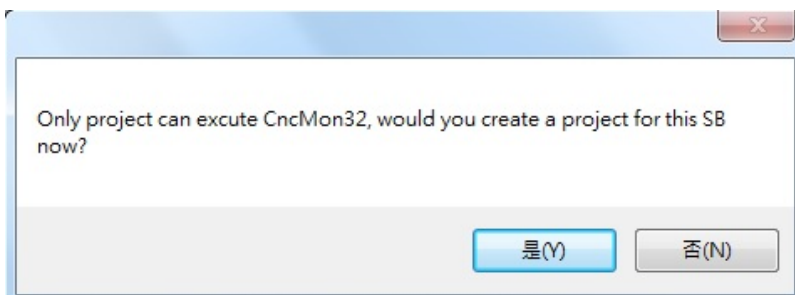
Step :

1. Select the SB file (.zip) and press open to load it in SI.



You can edit or view the files from SB. If you want to check the results after editing in the simulator, click "Launch" at right side of the screen.

When asking if you want to create a project for SB, select "Yes".



IF SI can detect the version of SB, it will select the version and machine type of the simulator automatically.

Then press "OK" and the project will be created immediately, SI will also load the project and launch simulator automatically.

Next time you want to edit the files of SB, you can find that project in the list.

After SB converted into a project, the following information will be copied to the project:

- \DiskC\PrdMMIRes
- \DiskC\OCRes
- \DiskC\OpenCnc\Macro
- \DiskC\OpenCnc\Ladder
- \DiskC\OpenCnc\Res
- \DiskC\OpenCnc\Data (CncBase.ini & MMIBase.ini not included)
- \DiskC\OpenCnc\User, \DiskC2\OpenCnc\User, \DiskA\OpenCnc\User
- \DiskC\SysData, \DiskC2\SysData, \DiskA\SysData
- For some special files, such as plugin and dllaction.dll, won't be executed.

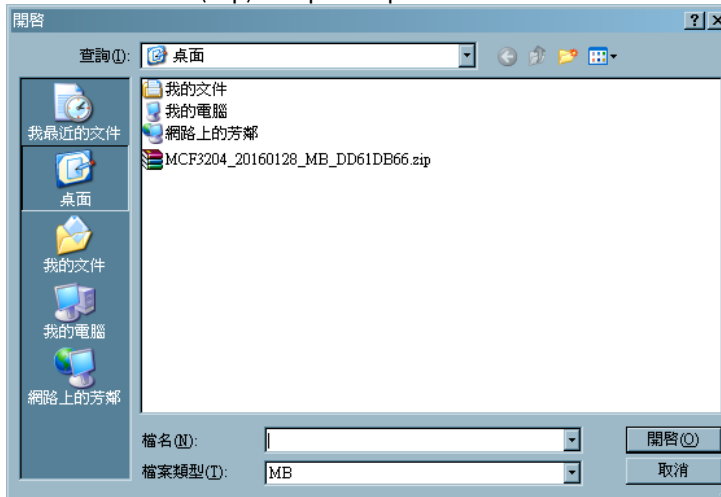
2.3.4 Load MB file

There are two ways to load MB file:

1. Execute SI and select "Load MB".
2. After entering the main screen, you can click "File > Project > Load MB" in the function bar, and then the current project will be closed.

Step :

1. Select the MB file (.zip) and press open to load it in SI.



If the MB file was made before 10.116.16F, SI may not be able to determine the version. Although the MB file can still be loaded, the main screen will not show the version and machine type.

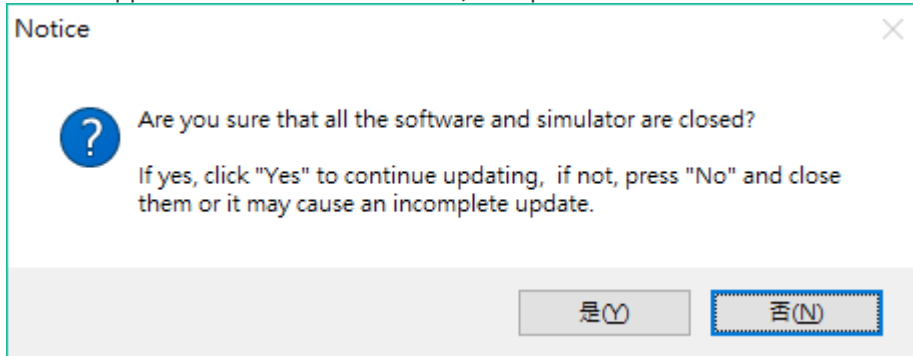
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2.3.5 Change project version

This function is used to change the machine type and version of the simulator. The customized files will still be retained.

Step :

1. Click "Change version" in the upper right corner of the main screen
2. Close all application tools and simulators, then press "Yes".



3. Select new version and machine type.

Notification :

1. Ladder files (.lad) in the install package will not be copied to the project.
2. Data files (.dat) in the install package will not be copied to the project.
3. If the version before 10.116.34 is upgraded to a newer version than 10.116.35, the storage path of some customized screen files will be automatically changed and the files will be renamed.

2.3.6 Account login/logout

After logging in, you can download the simulator and application tools

Step :

1. Login : Click "Login" in the upper right corner of the main screen, and enter the account and password applied from the Syntec website.
2. Logout : Click "Logout" in the upper right corner of the main screen after login.

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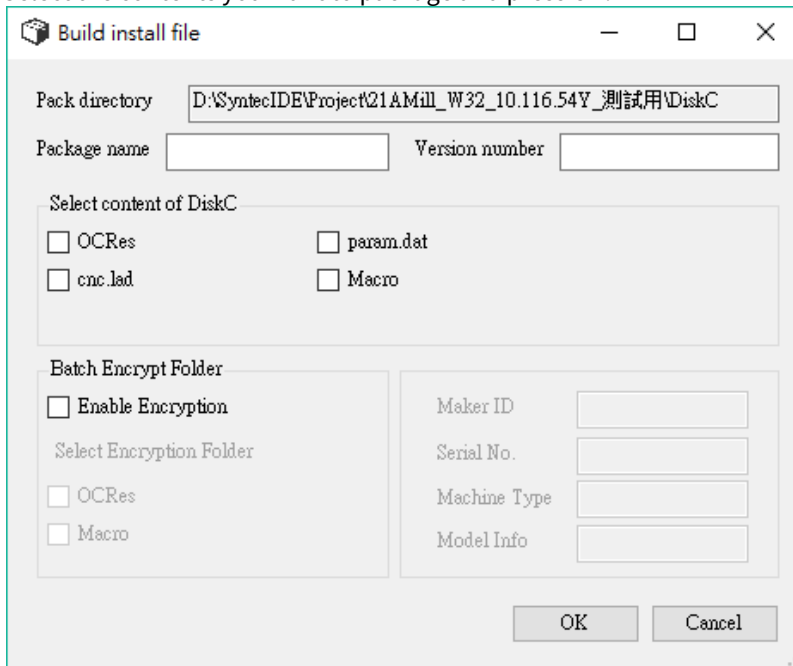
2.3.7 Build installation package

After programming and testing, users can build the installation package through SI and install the package into the controller.

In addition, you can encrypt the files before the installation package is built. (Valid version: v1.10.0)

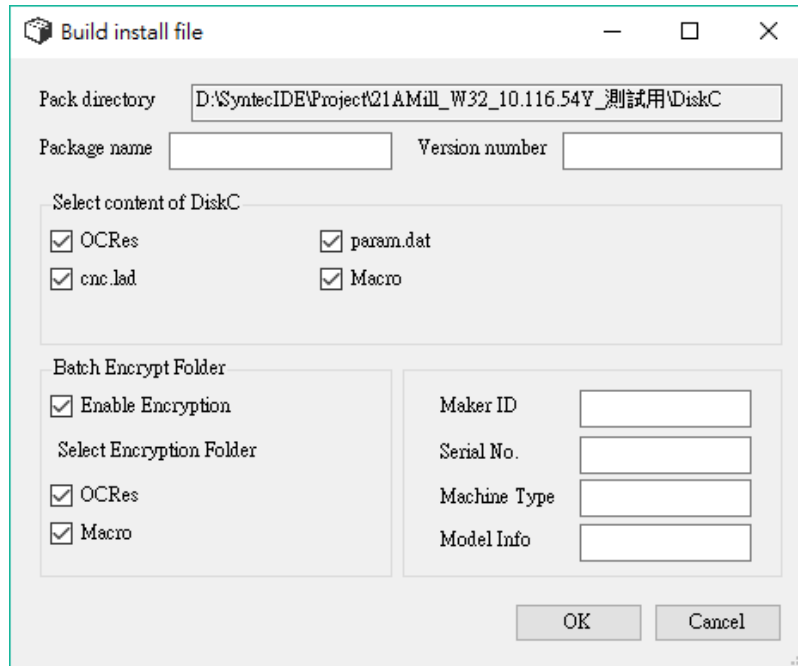
Step :

1. Click "Build install file" in the function bar.
2. The package name and version number are not necessary. If they are filled, they will be displayed when you select the installation package on the controller.
3. Select the contents you want to package and press OK.

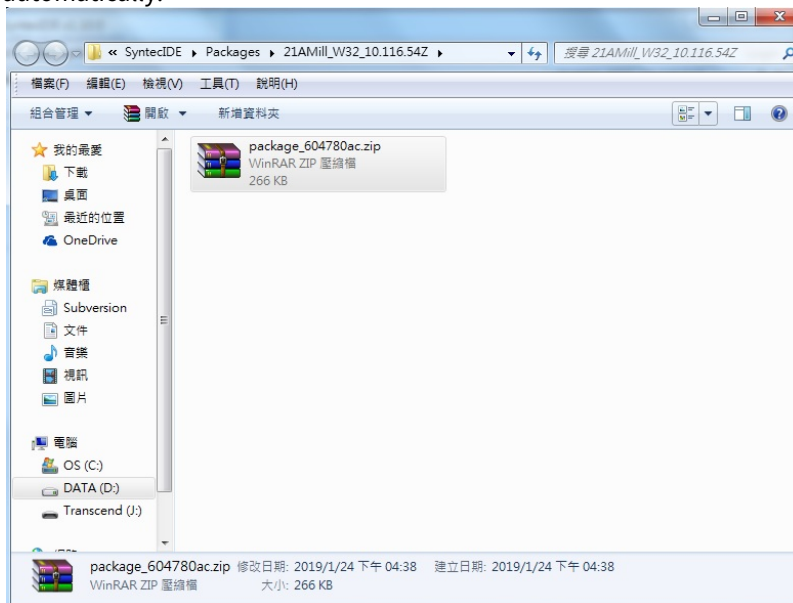


- a. If you want to encrypt the customization screen files and Macro files , check "Enable Encryption" and select the item you want to encrypt.
- b. When encrypting, you can choose whether to insert the check function into all customization screen files. You can browse the screen on the controller when the check function conforms to the controller information.
- c. There are four check functions:
 - i. Maker ID
 - ii. Serial ID
 - iii. Machine Type

iv. Model Info



- d. Press OK to start encrypting and packaging.
4. When the installation package is built, the folder where the installation package is located will pop up automatically.



5. If you use encryption and enter the serial ID, this package file will store in the path: "SyntecIDE/Packages/project name/serial ID".

Notification :

1. The check function only handles **customization screen files (OCRes)**.

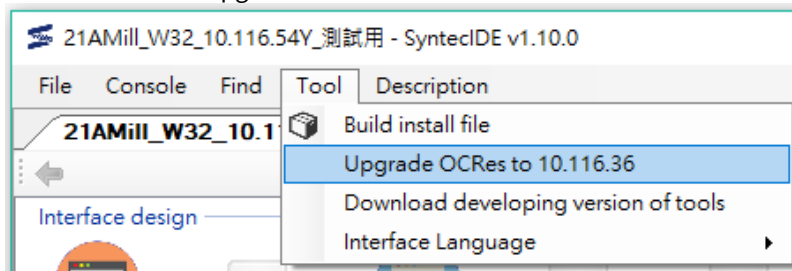
2.3.8 Upgrade for customization files across 10.116.36

The customization folder (OCRes) after 10.116.36 has an structural compatibility change.

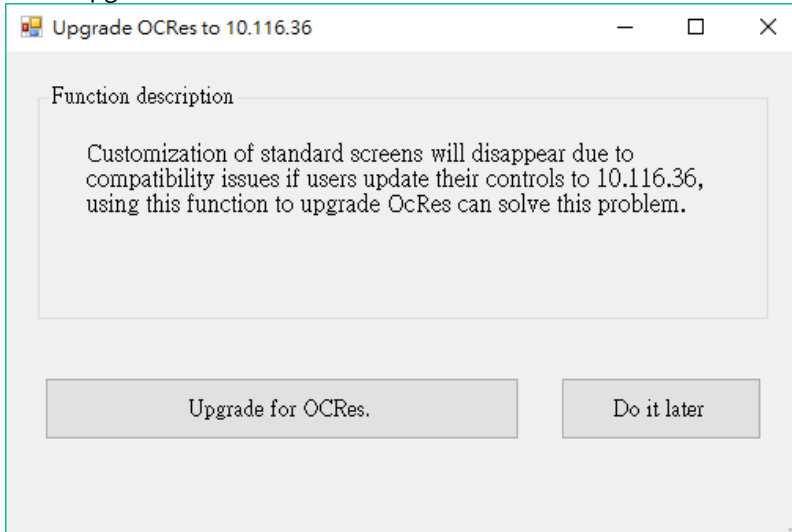
If you upgrade the controller to 10.116.36 or newer, the customization of the "standard screen" will disappear, and this function is required to upgrade the OCRes folder.

Steps :

1. Backup a MB or SB file on the controller.
2. Load MB or SB in SI.
3. Click on "Tool" > "Upgrade OCRes to 10.116.36".

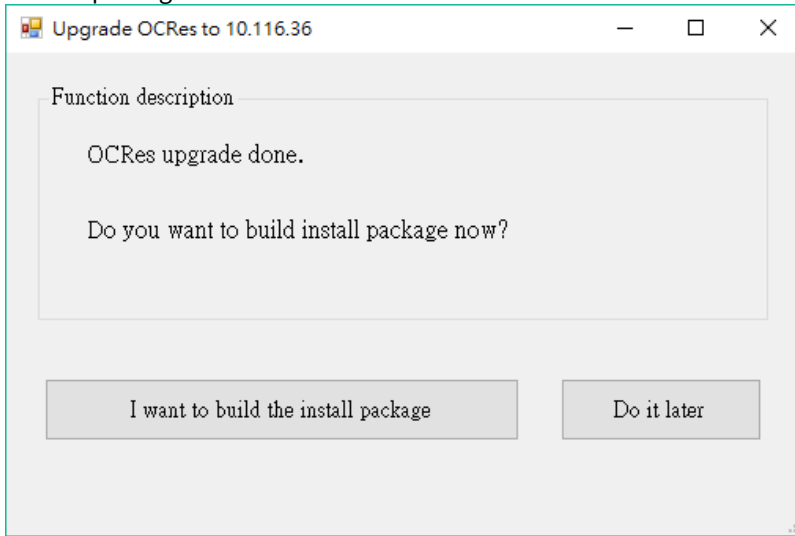


4. Click "Upgrade for OCRes" in this window.

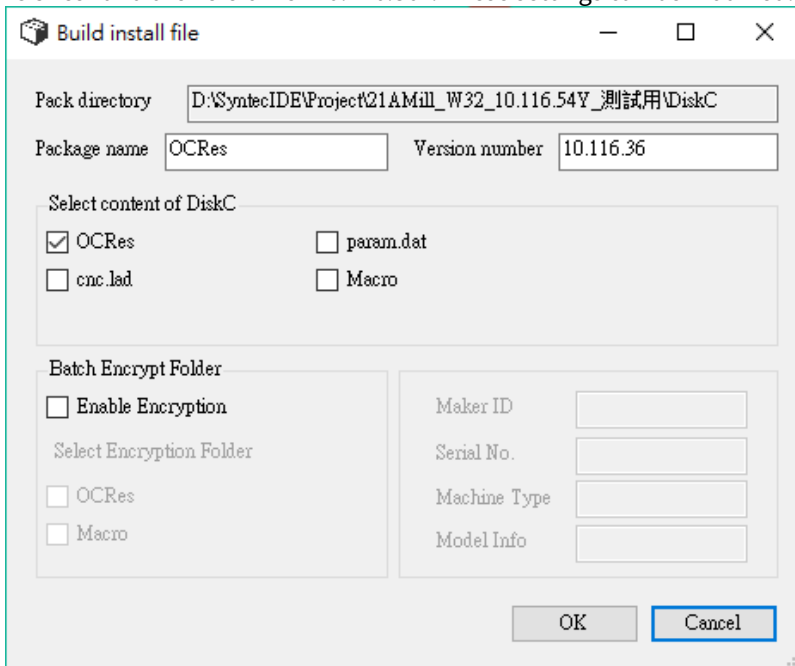


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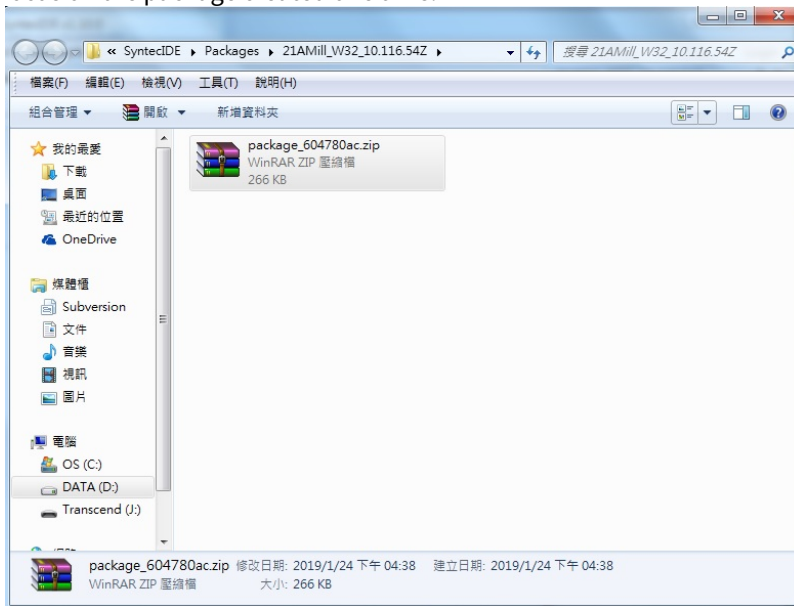
5. A pop-up window indicates that the upgrade is completed. At this point, SI will continue to ask if you want to package it.



6. If it is, the package window will pop up, and OCRes will be checked by default. The package name is "OCRes" and the version is "10.116.36". These settings can be modified.



- After the package is built, the folder where the package is located will be automatically opened, and focus on the package created this time.



2.3.9 SB upgrade(for compatibility)

Due to the variation of hardware, specific versions of software may not function on some controllers. (versions vary with hardware and time)

If a SB package of an old version can not be restored to a new device, please upgrade the SB package with this tool.

Steps :

	description	picture
1	Choose Non-Project Tools when opening SI	
2	Click on the tool menu, select "SB upgrade"	
3	Select target SB package in the dialog	
4	Choose a target version to upgrade. * version options will be the latest compatibility versions.	
5	The upgraded SB package will be named as SI_SB_CRC.zip and showed in the Windows Explorer.	
6	Use the package produced in step5 to restore to the new device.	無

2.3.10 Multilingual String Import/Export

Supported version: 1.16.0 or later

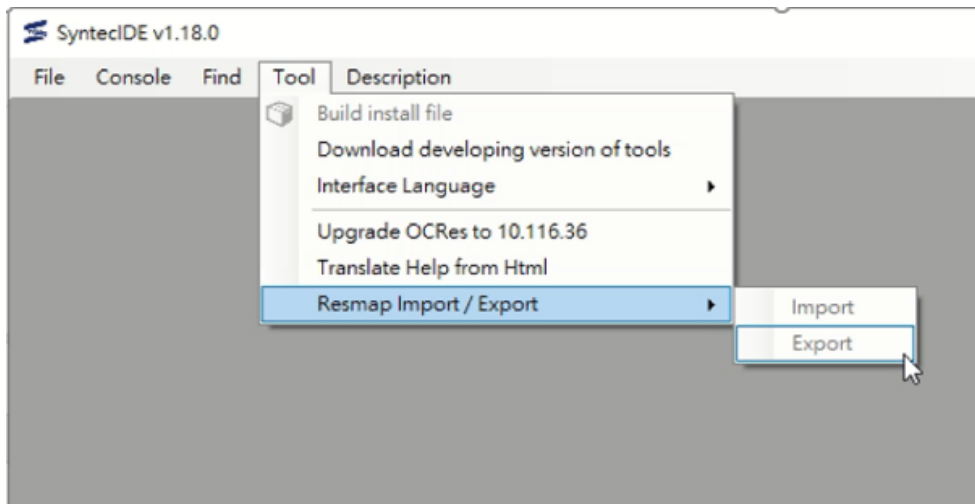
This function is used to import and export standard multiple languages into other languages.

This function will generate a specific csv file for translation agencies that are incapable of using SI or eHMI program.

Steps :

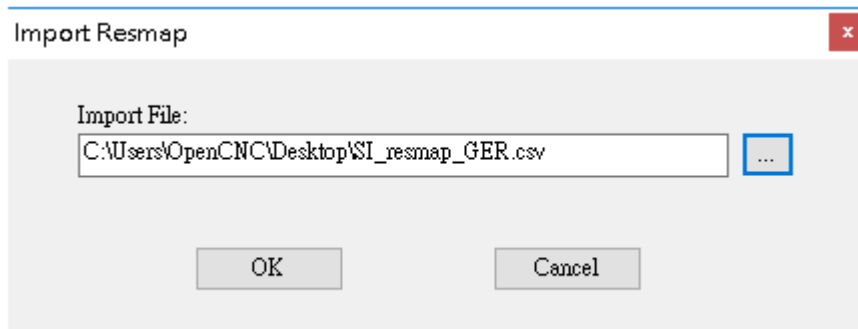
[Import](#) [Export](#)

0 : Load project



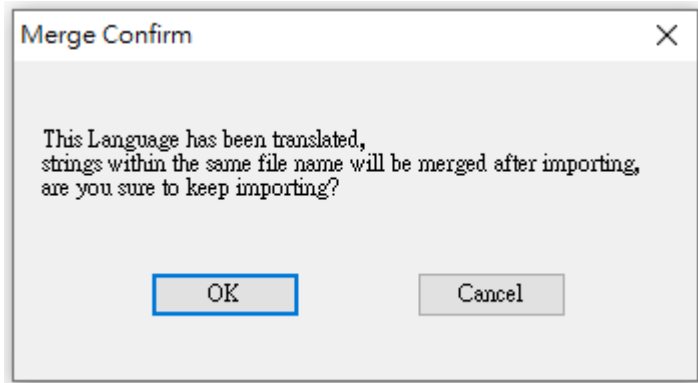
Import function is available only when the project is loaded.

1 : Select a language and file to import

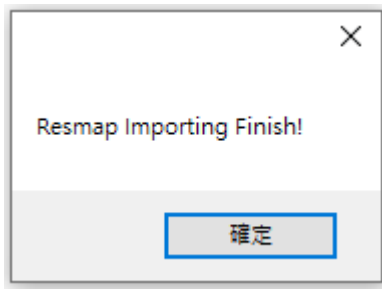


- There is ONLY the file name of "SI_resmap_*Language*.csv" could be selected for importing. "*Language*" could be all supported languages.
- The "Import File" field shows the absolute path.

- If the selected language already exists, files with the same name as listed in *SI_resmap_Language.csv* will be merged. If you do not want to merge the contents of the files, please click "Cancel" and back up the files in advance.



2 : Importing finish

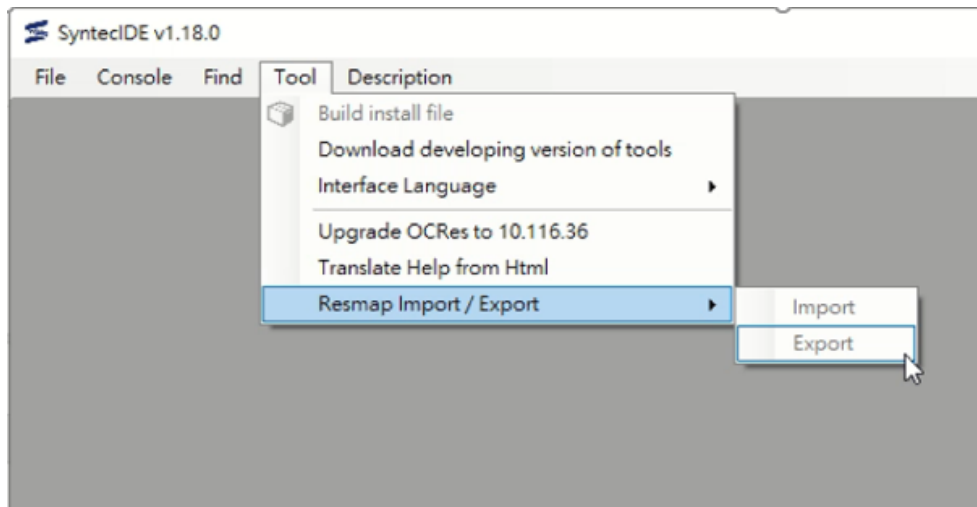


- The data in *SI_resmap_Language.csv* will be merged with the corresponding xml file according to the file names.
- The file location is under *OCRes / Language / String*.

Import [Export](#)

0 : Load project

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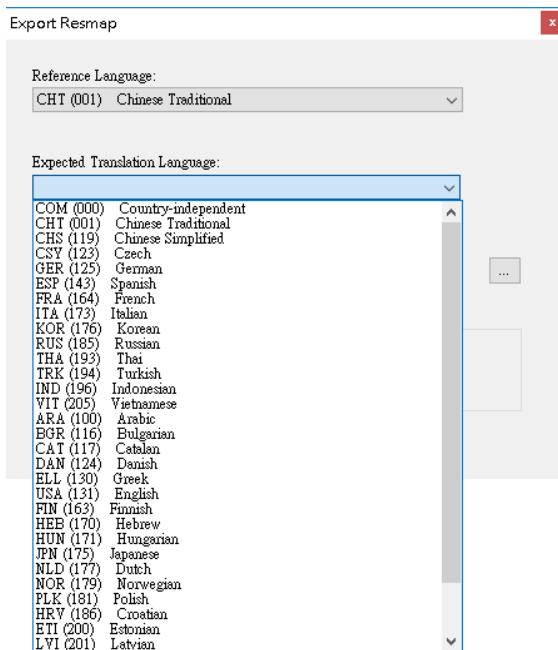
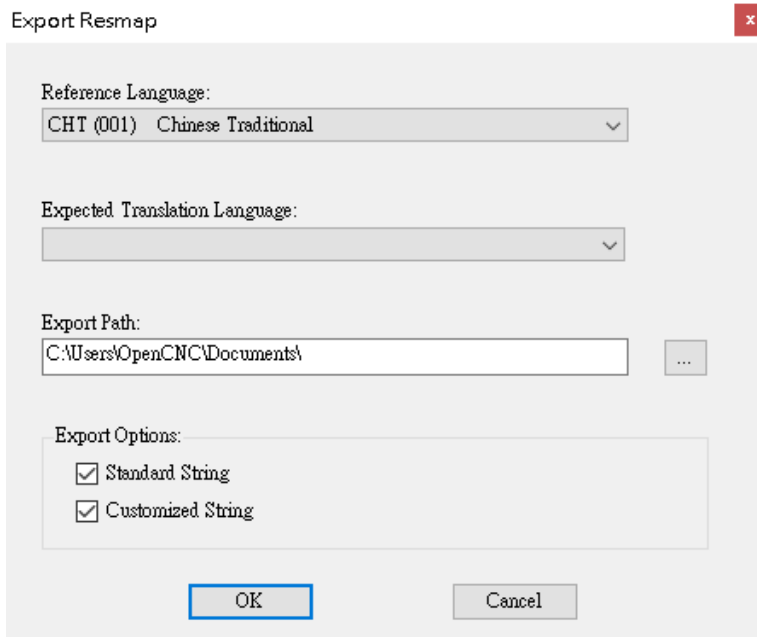


Export function is available only when the project is loaded.

1 : Select Reference Language / Export path and check the Export Options



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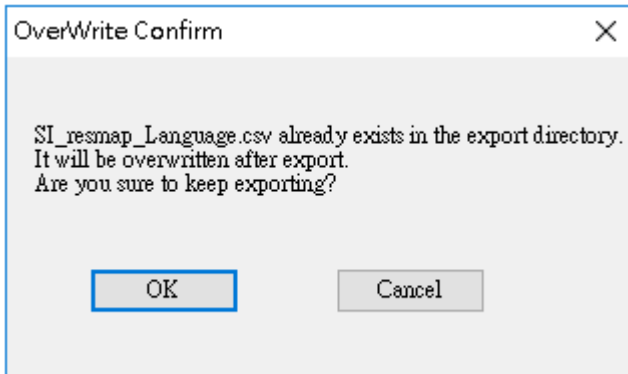
- There is only standard languages in Export function currently.
 - "Expected Translation Language" field lists all supported languages.
- After "OK" is clicked, the strings in the files listed below will be merged into *SI_resmap_Language.csv* on the basis of the settings of Export function.

1. Standard String: In *StdMMIRes/Reference Language/String* folder, "String_CncOps_L.xml" and "String_CncEngs_L.xml" files
2. Customized string: All xml files in *OCRes/Reference Language/String* folder

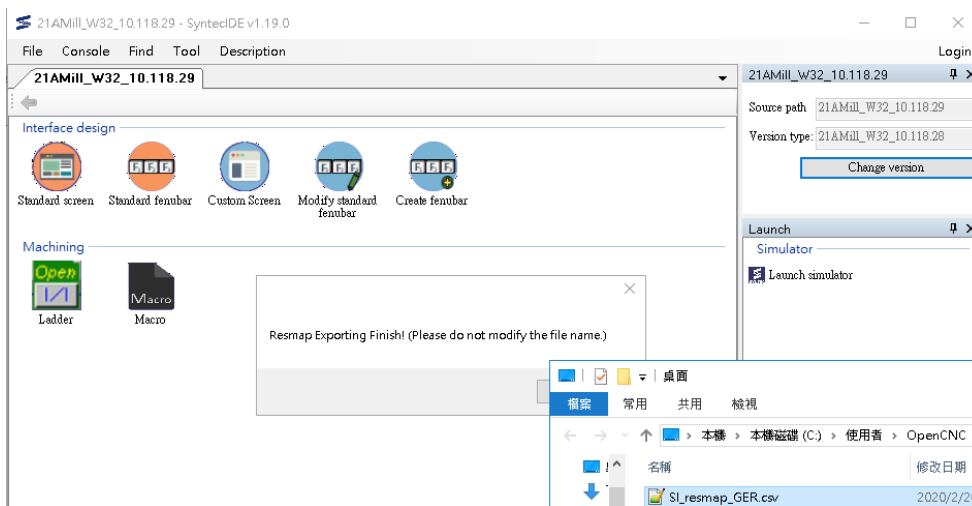
The "*Language*" in the exported file name stands for "Expected Translation Language".

- Do NOT modify the exported file name "*SI_resmap_Language.csv*".

- If *SI_resmap_Language.csv* already exists under the export path, *SI_resmap_Language.csv* will be overwritten. If you do not want the files to be overwritten, please click "Cancel" and back up the files in advance.



2 : Exporting finish



The export folder will be opened through the file manager.

Suggestions for translation tasks:

- Please use Excel for translation first, fill the translated string into the field "Translate Here", and make sure that the file extension is csv(Contents needs to be separated by commas) while saving the file.
- After export, the first row of the *SI_resmap_Language.csv* can be edited by users.
- Do NOT add rows or columns, or adjust the order of rows and columns.

Notification :

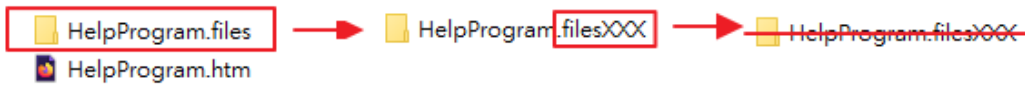
- Standard parameters and alarm strings would not be exported, and multilingual translation is not supported.

2.3.11 Translate Help from Html

In the controller version after 10.116.36N, 10.116.44, and 10.117.44, the format and file name of the HELP file has changed. Therefore, Syntec IDE provides an automatic translation function.

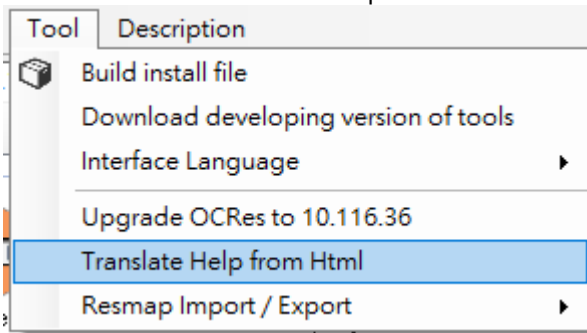
Precautions:

1. To avoid file translate failure, in the HELP folder, do not put any files other than the HTML file you want to convert and the HELP file you have already converted.
2. When making an HTML file, the corresponding folder is generated with the same file name and extension is ".files". It cannot be stored in the HEPL folder, so it needs to be deleted. **Please change the filename extension before deleting the folder.** Because the files are connected, when you delete the folder, the HTML file is also deleted.

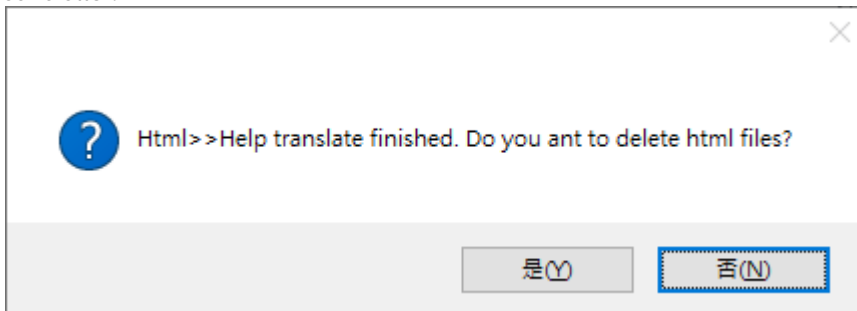


Operation steps:

1. Make MB or SB backup files on the controller and load backup files on Syntec IDE. Or create/open a project and copy the custom file folder (OCRes) into the project
2. Please click "Tool > Translate Help from Html"



3. The controller no longer needs this HTML file
After the file has been translated, a window will pop up asking if the original HTML files should be deleted. It is recommended to select "Yes", avoid having too many unnecessary files stored in the controller.



Note: Translated files on the screen, there will be the following differences

* The background color is fixed to blue

* Align text to the left

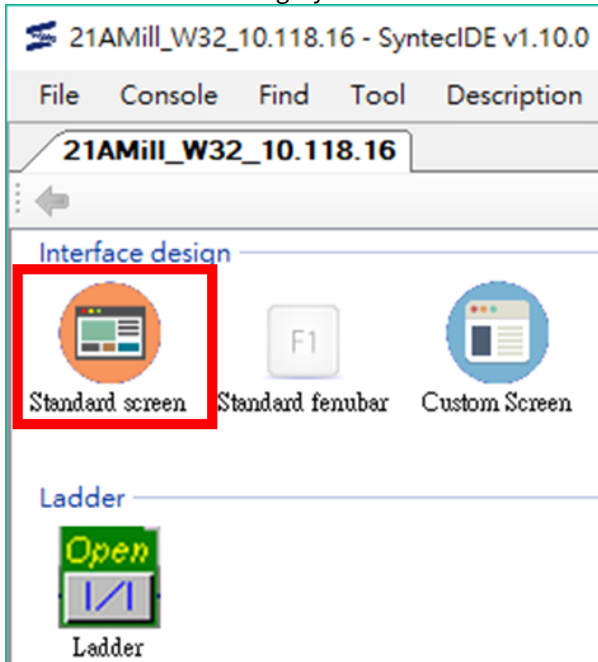
* Merge or split cells are not supported

2.3.12 Search file

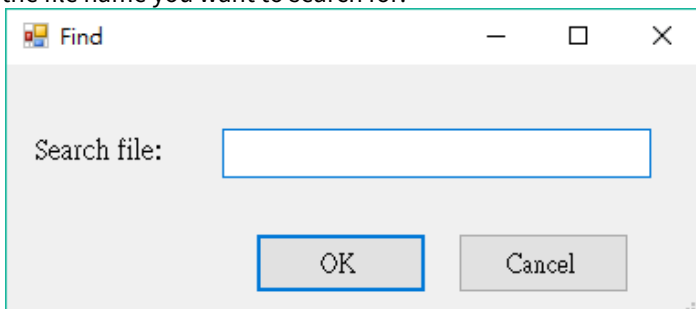
If the file name is known, you can find the file by searching.

Steps :

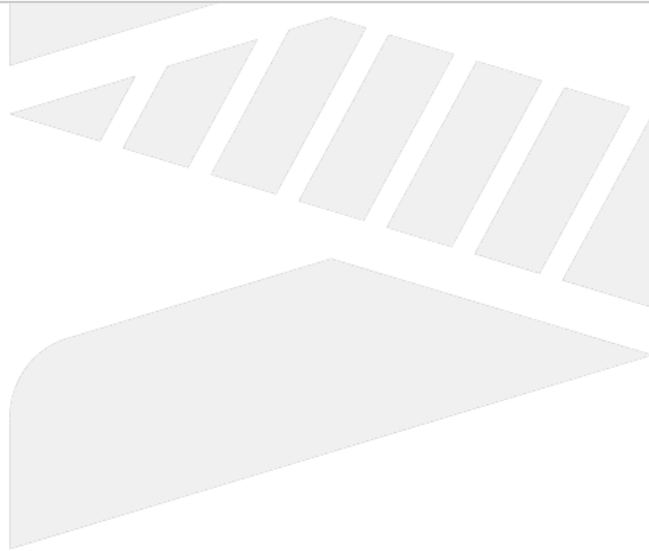
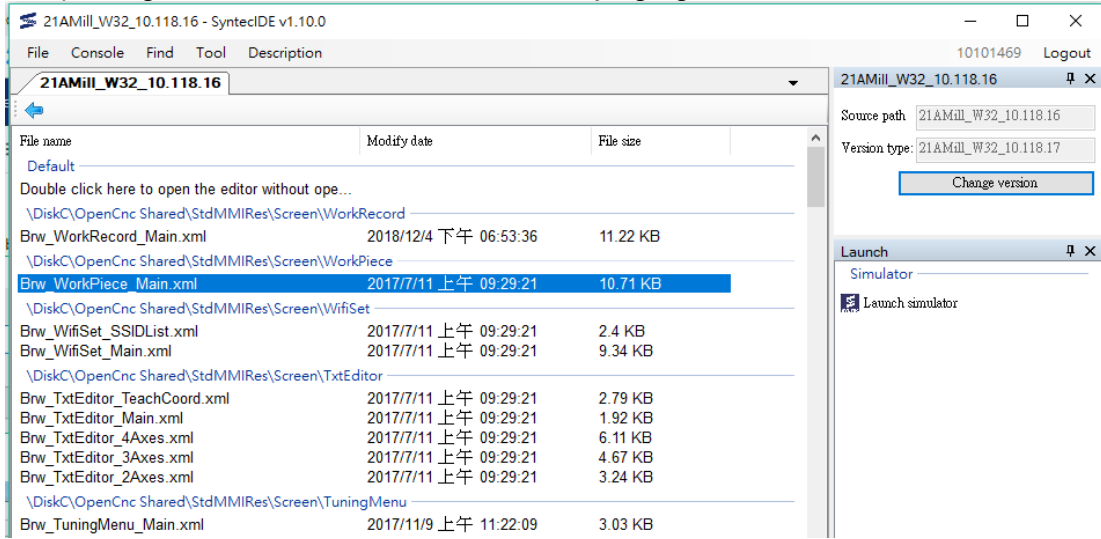
1. Double-click the file category icon on the main screen.



2. Click "Find" > "Search" in the function bar, or press "Ctrl + F". When the inquiry window appears, enter the file name you want to search for.



3. After pressing OK, the found item will be automatically highlighted.

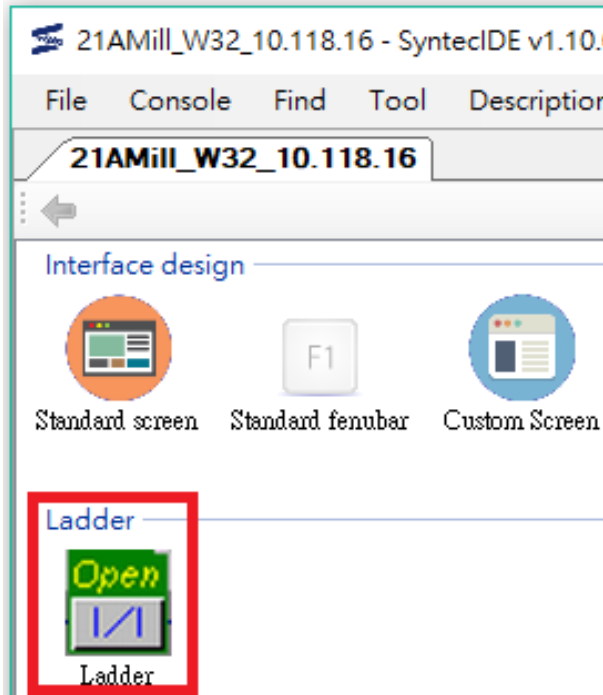


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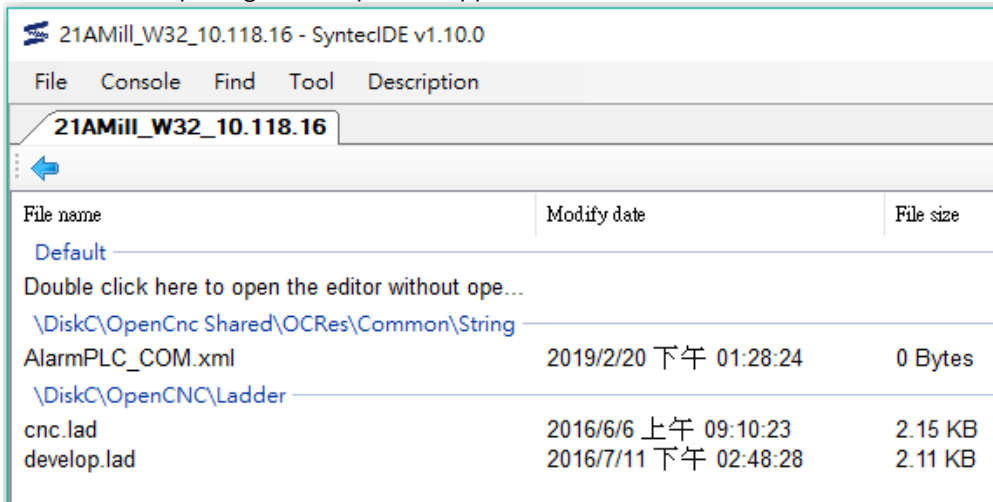
2.3.13 Open the application tool

Steps :

1. Double-click the file category icon on the main screen.



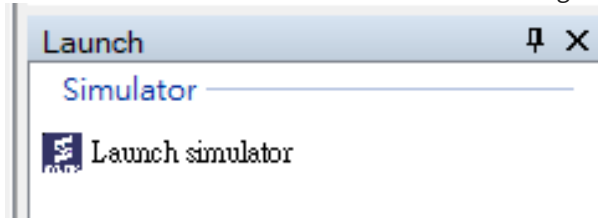
2. Double-click the file you want to open in the file list, or double-click "Double-click here to open the editor without opening file" to open the application tool.



2.3.14 Launch the simulator

Steps :

1. Double-click the "Launch simulator" icon on the right side of the SI to open the simulator.



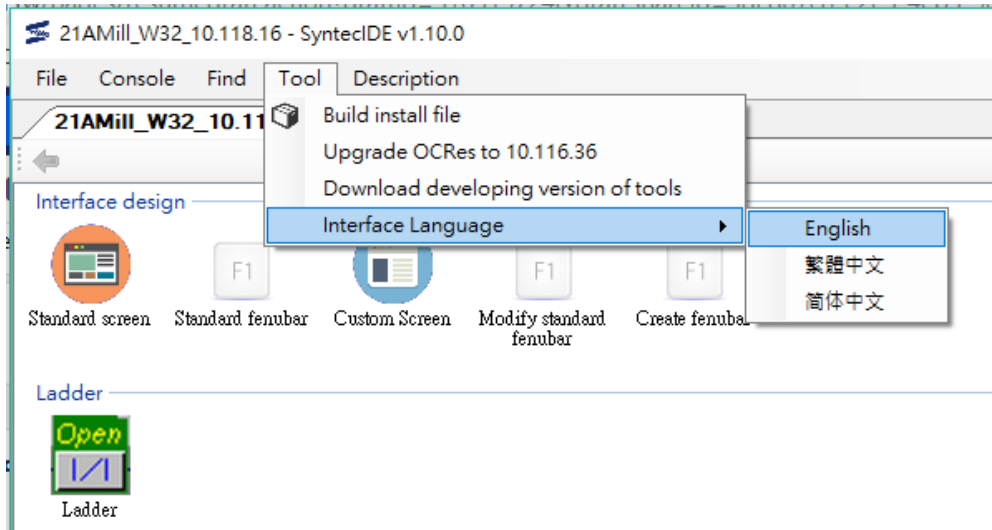
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2.3.15 Switch language

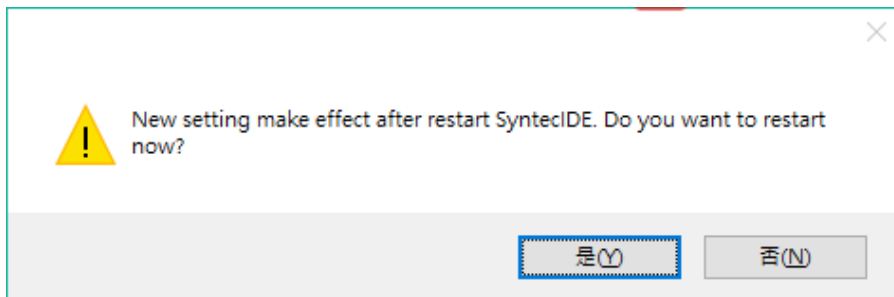
SI supports English, Traditional Chinese and Simplified Chinese.

Steps :

1. Click the tool > Interface Language > English/Traditional Chinese/Simplified Chinese



2. The setting will take effect after restart, so you will be asked if you want to restart immediately.



3. After restart, the language will be updated.

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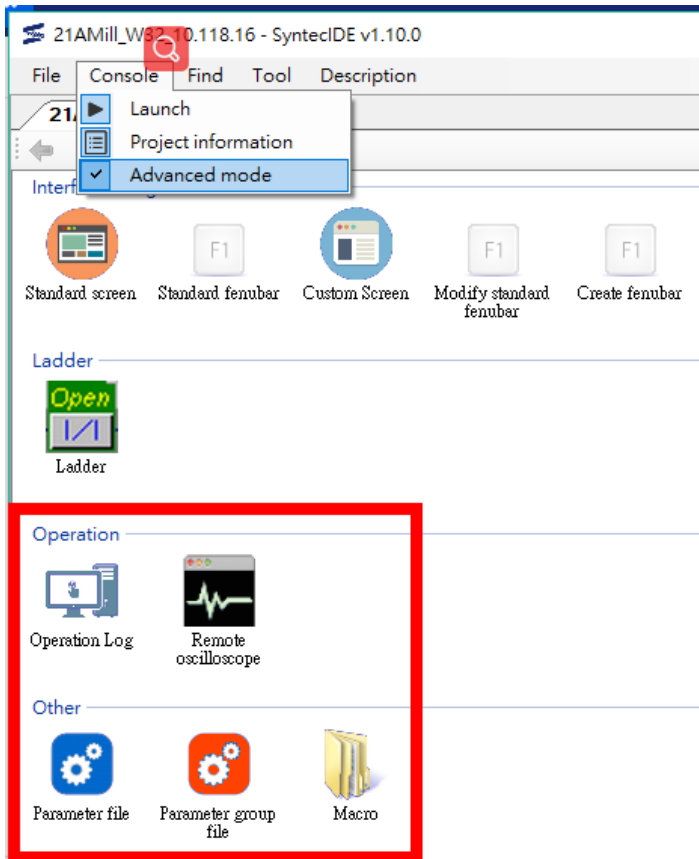
2.3.16 Advanced mode

You can only see two categories in General Mode of SI, they are "Interface Design" and "Machining", which are commonly used and suitable for developers.

In Advanced Mode, you can see other categories, such as "Operation" and "Other", this mode is suitable for debug.

Setting method: Click on the function bar: "Console - Advanced Mode"

Description: Tick on the left means Advanced Mode, otherwise it is General Mode

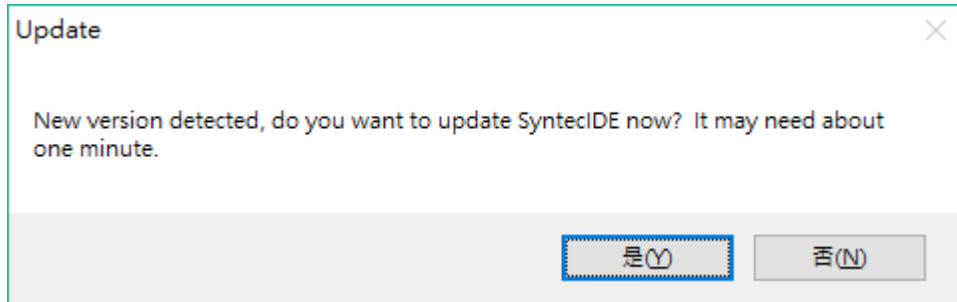


2.3.17 SI automatic update

After starting SI and login, SI will check if there is a new version of SI.

When a new version is detected in Syntec website, the inquiry window will pop up to ask whether you want to update the version or not.

It is recommended to select "Yes".



After pressing "Yes", it will take around one minute to update the software. SI will inform you when the update is completed.



After pressing "Yes", SI will restart automatically.

2.3.18 Update application tool

SI is able to automatically update application tools.

When login: When you open the application tool, SI will automatically update the tool to the latest version and then open it.

When not login: If SI has downloaded the latest version of the tool, SI will automatically update the tool to the latest version and then open it.

3 SI Operation steps

3.1 Customization Developers

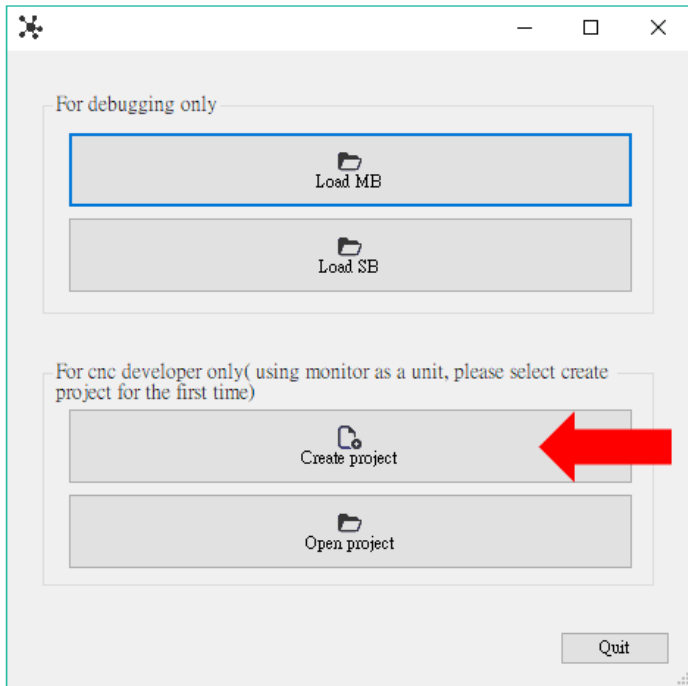
3.1.1 Step 1: Create Project

For first use, users have to create a project or load the backup file.

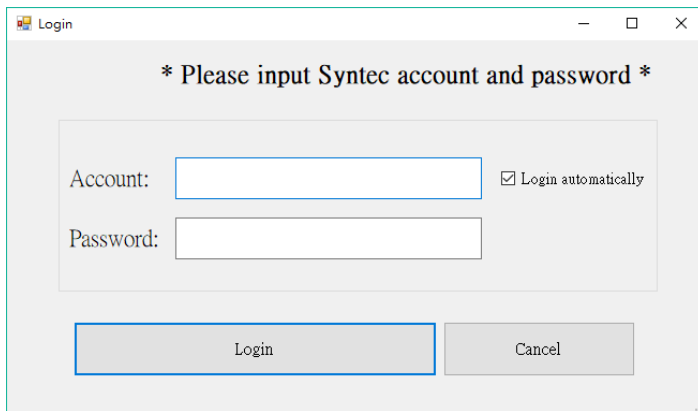


SYNTEC

1. Execute SI and click "Create project".



2. For the first log in SI, please input account and password. (Internet required)



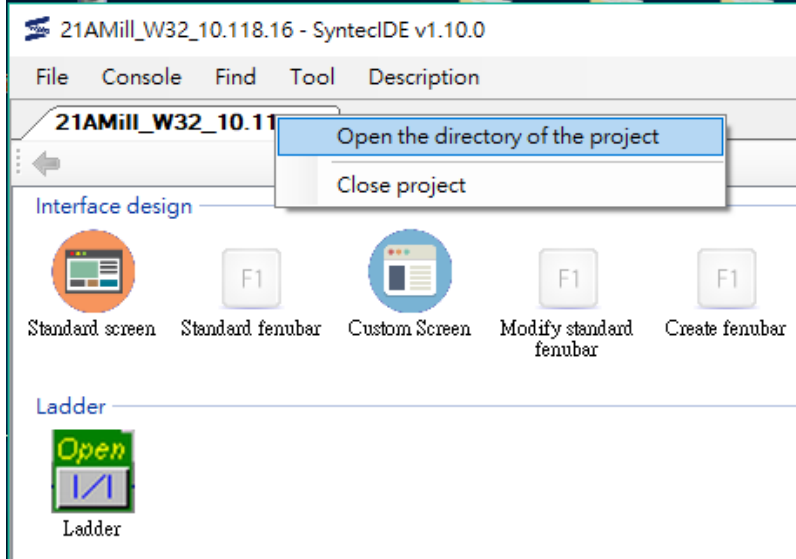
3. Select the project version/Enter the project information
 - Select the simulator version from the pull-down menu A.
 - Select the machine types on software list B.
 - Enter the project name and file path in the C box. (You can use default path directly.)
 - Click D (OK button) to create a new project.



4. Import customized files(old files)

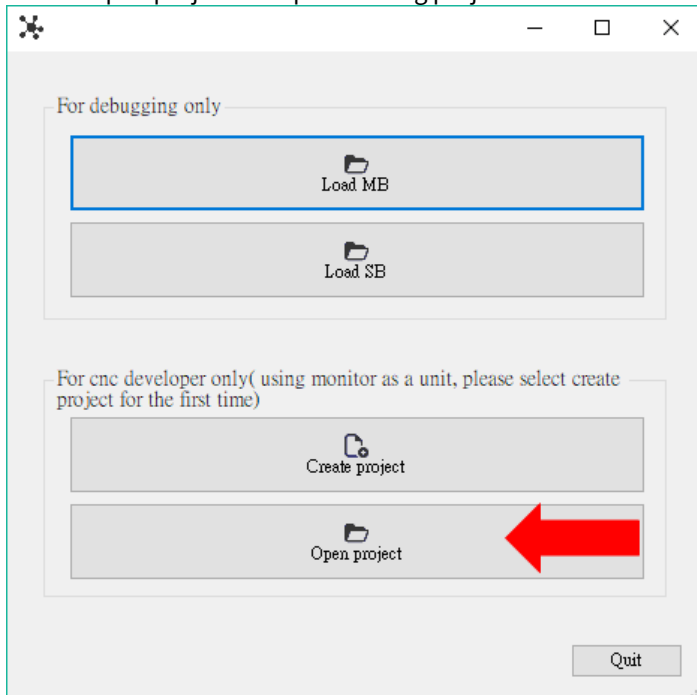
If you have customized parts of files, you can copy them into the project such as OCREs folder and CNC.Lad, and should be placed in the corresponding path in the DiskC folder.

Right-click on the project TAB and click "open the directory of the project", then copy the files.

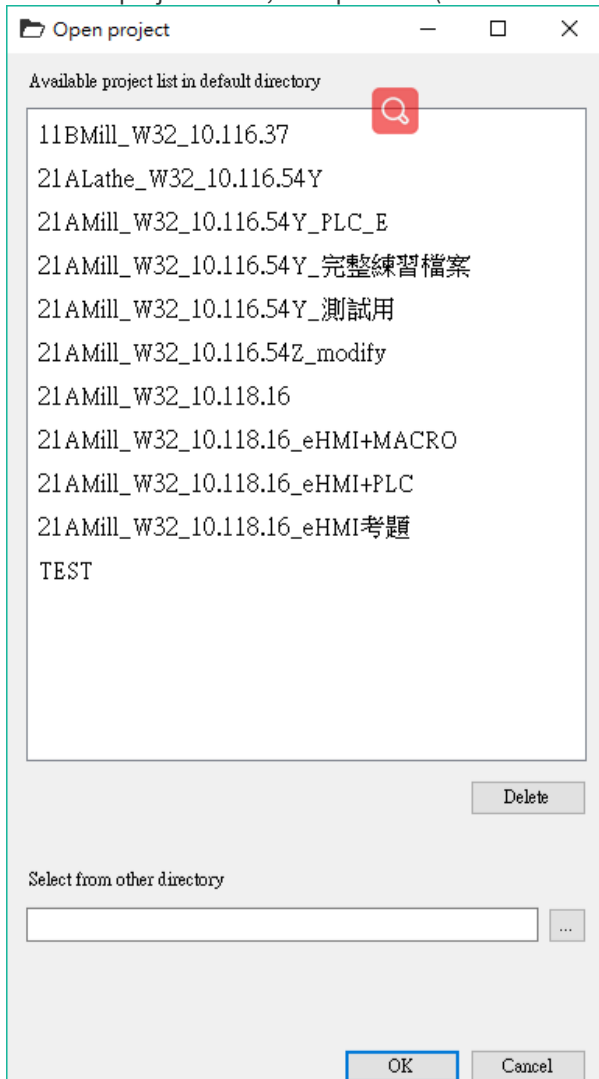


For existing projects (not the first time to use), select "Open project".

1. Select "Open project" to open existing projects.



2. Select the project name, then press ok (Or double-click the project name to open the project.)

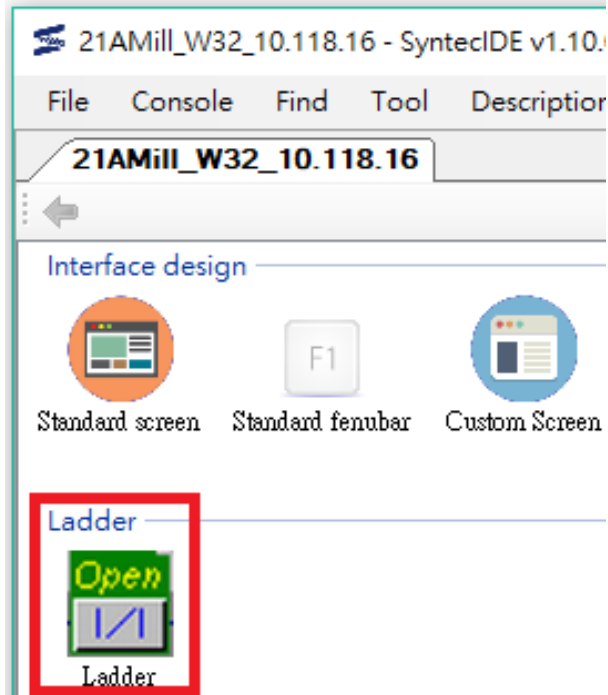


SYNTEC

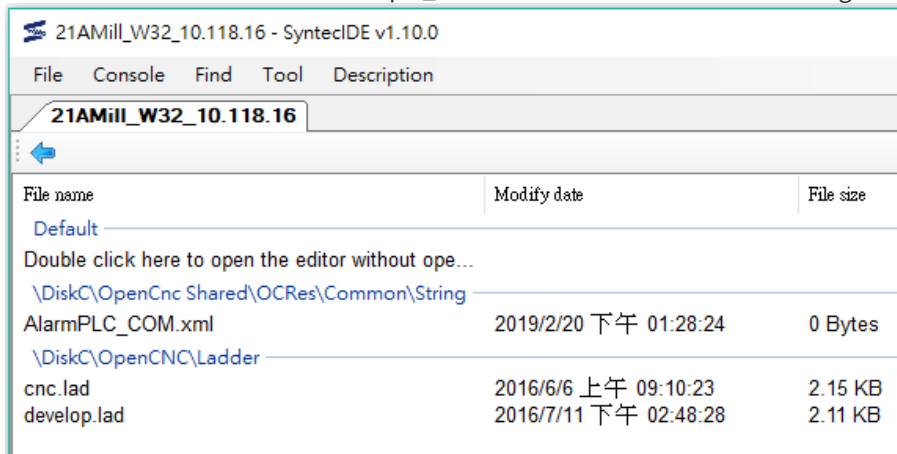
3.1.2 Step 2: Edit a file

EX: PLC Ladder

1. Double-click "ladder" icon on main screen.

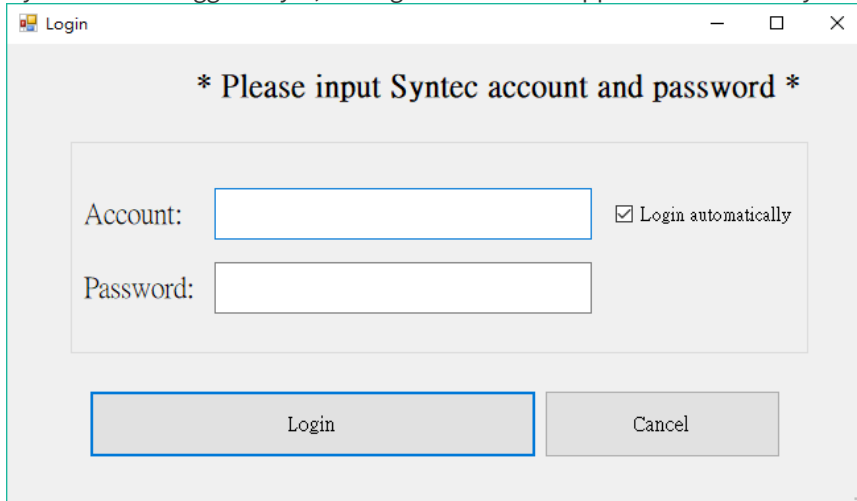


2. SI will switch to the sub-screen and show all the files about PLC. You can double-click "cnc.lad" to edit the ladder and double-click "alarmplc_com.xml" to edit the PLC alarm string.



3. If ladder editor isn't detected in this project, SI will automatically download it from Syntec website.

4. If you have not logged in yet, the login window will appear. Please enter your account/password.



Account: Login automatically

Password:

Login Cancel

5. If ladder editor exists, SI will automatically execute it and load cnc.lad file, then users can start editing.

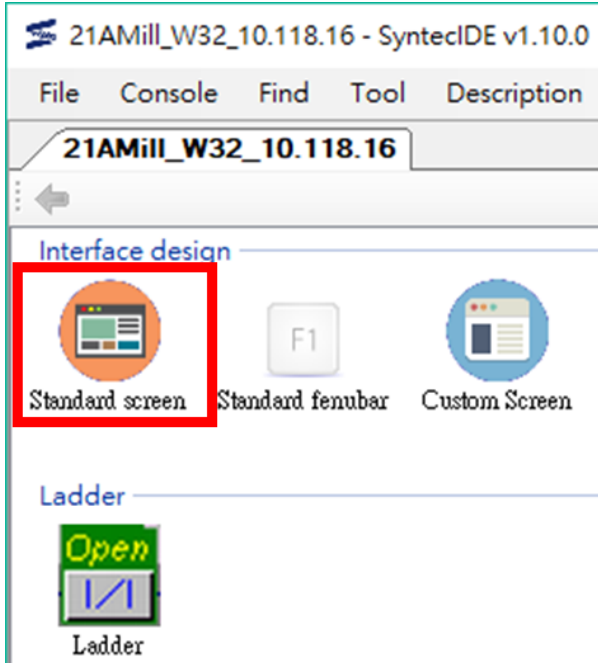


SYNTEC

EX: Customization screen

Modify standard screen

1. Double-click "Standard screen" icon on main screen.

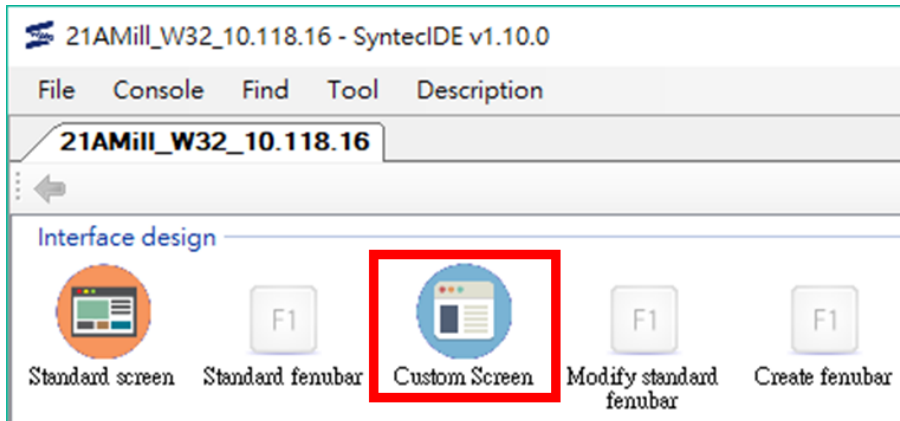


2. Find the file you want to modify in file name list, right click and click "Copy to OCRes"

File name	Modify date
Default	
Double click here to open the editor without ope...	
\DiskC\OpenCnc Shared\StdMMIRes\Screen\WorkRecord	
Brw_WorkRecord_Main.xml	2018/12/4 下午 06:53:36
\DiskC\OpenCnc Shared\StdMMIRes\Screen\WorkPiece	
Brw_WorkPiece_Main.xml	2017/7/11 上午 09:29:21
\DiskC\OpenCnc Shared\StdMMIRes\Screen\WifiSet	
Brw_WifiSet_SSIDList.xml	2017/7/11 上午 09:29:21
Brw_WifiSet_Main.xml	2017/7/11 上午 09:29:21
\DiskC\OpenCnc Shared\StdMMIRes\Screen\TxtEditor	
Brw_TxtEditor_TeachCoord.xml	2017/7/11 上午 09:29:21
Brw_TxtEditor_Main.xml	2017/7/11 上午 09:29:21
Brw_TxtEditor_4Axes.xml	2017/7/11 上午 09:29:21
Brw_TxtEditor_3Axes.xml	2017/7/11 上午 09:29:21
Brw_TxtEditor_2Axes.xml	2017/7/11 上午 09:29:21

3. Back to the main screen.

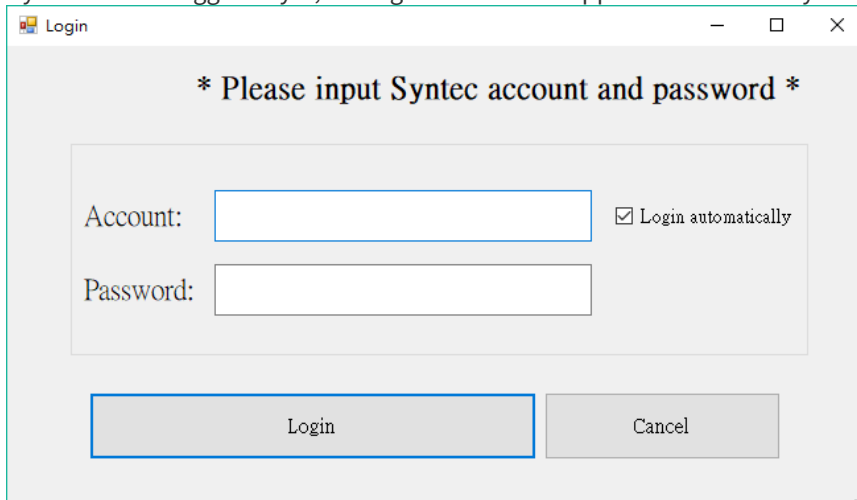
4. Double-click "Custom Screen" icon.



5. Double-click the screen file which we just copied.

File name	Modify date	File size
Default		
Double click here to open the editor without ope...		
Double click here to create file.		
\DiskC:\OpenCnc Shared\OCRes\Screen\WorkPiece		
Brw_WorkPiece_Main.xml	2019/2/20 下午 02:07:45	11.6 KB
\DiskC:\OpenCnc Shared\OCRes\Common\AppData		
Backgnd.xml	2019/2/19 下午 03:40:58	7.67 KB

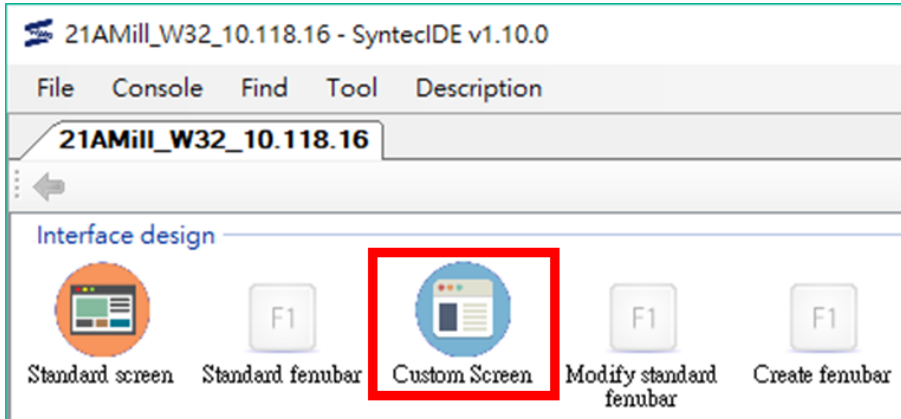
6. If eHMI isn't detected in this project, SI will automatically download it from Syntec website.
7. If you have not logged in yet, the login window will appear. Please enter your account/password.



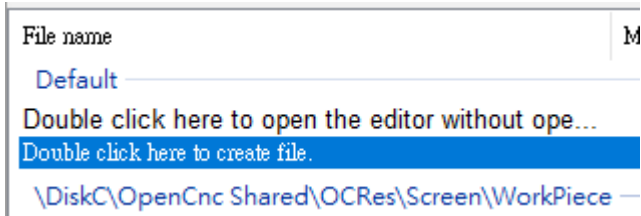
8. If eHMI exists, SI will automatically execute it and load the copied file, then users can start editing.

Add a customization screen

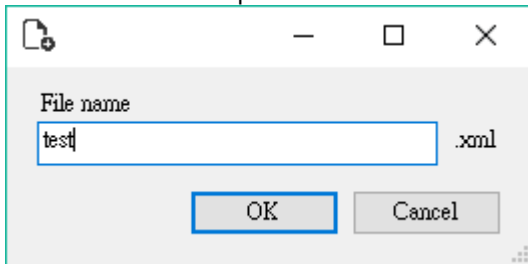
1. Double-click "Custom Screen" icon.



2. Double-click "Double click here to create file".



3. Enter a filename and press OK.

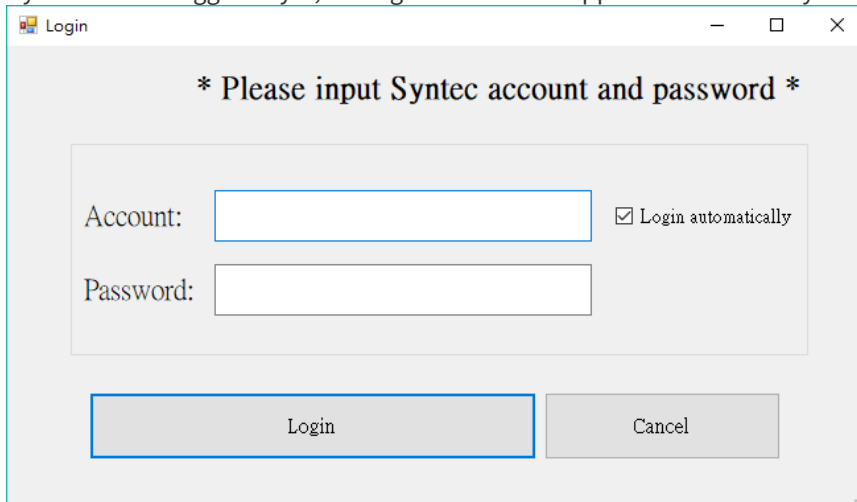


4. Double-click new screen file which we just created.

File name	Modify date	File size
Default		
Double click here to open the editor without ope...		
Double click here to create file.		
\DiskC\OpenCnc Shared\OCRes\Screen\WorkPiece		
Brw_WorkPiece_Main.xml	2019/2/20 下午 02:07:45	11.6 KB
\DiskC\OpenCnc Shared\OCRes\Common\AppData		
test.xml	2019/2/20 下午 02:12:40	79 Bytes

5. If eHMI isn't detected in this project, SI will automatically download it from Syntec website.

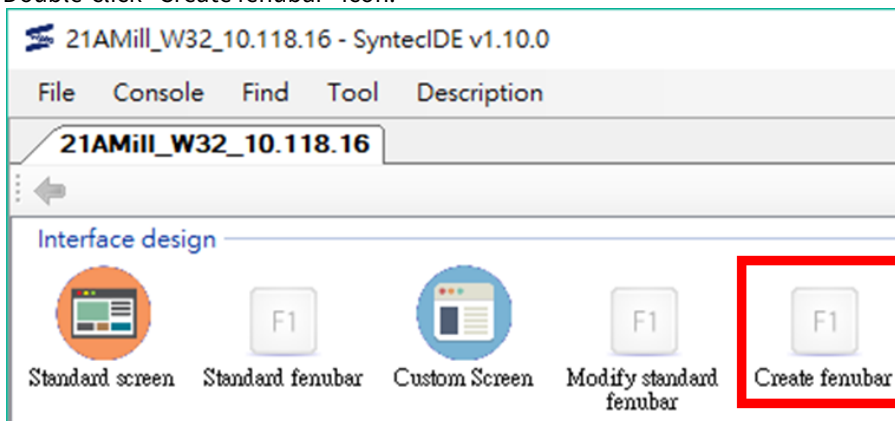
6. If you have not logged in yet, the login window will appear. Please enter your account/password.



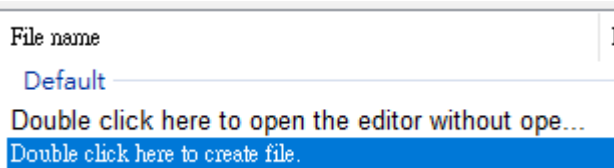
7. If eHMI exists, SI will automatically execute it and load the new file, then users can start editing.

Add a fenubar (AttachFenu)

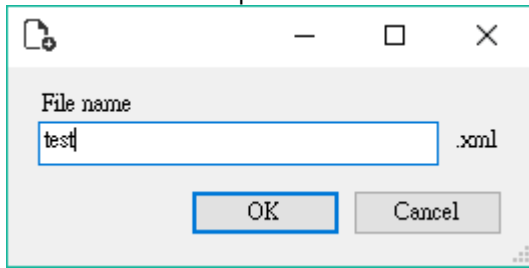
1. Double-click "Create fenubar" icon.



2. Double-click "Double click here to create file".



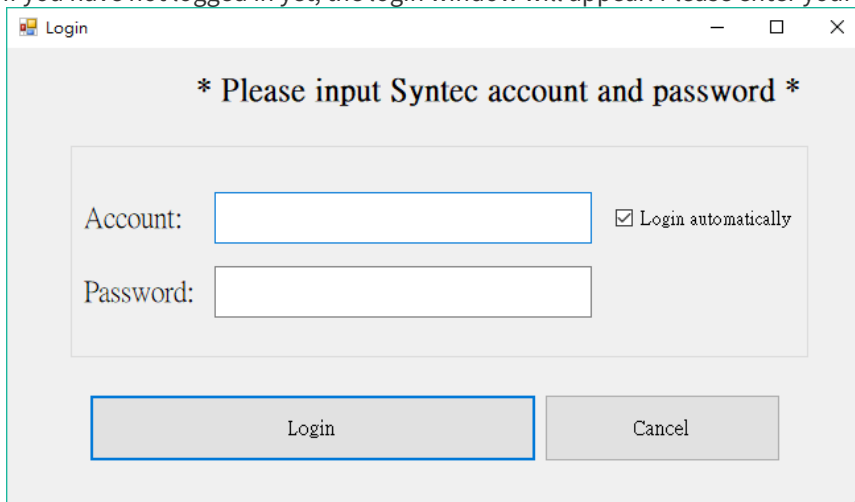
3. Enter a filename and press OK.



4. Double-click new fenubar file which we just created.

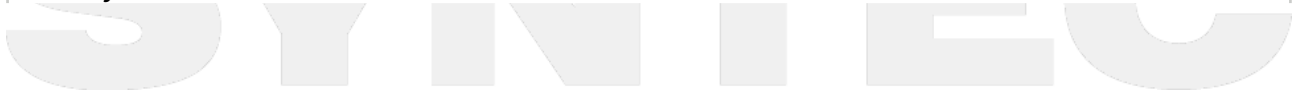
File name	Modify date	File size
Default		
Double click here to open the editor without ope...		
Double click here to create file.		
\DiskC\OpenCnc Shared\OCRes\Common\CustomFenu\AttachFenu		
test.xml	2019/2/20 下午 02:25:31	82 Bytes

5. If eHMI isn't detected in this project, SI will automatically download it from Syntec website.
6. If you have not logged in yet, the login window will appear. Please enter your account/password.

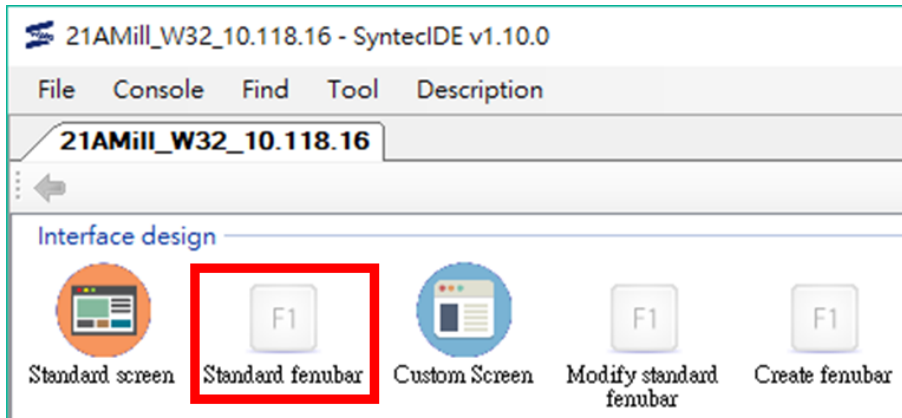


7. If eHMI exists, SI will automatically execute it and load "test.xml" file, then users can start editing.
8. In eHMI, the default name of the first fenubar is "New Fenu", please modify it by yourself.

Modify a standard fenubar



1. Double-click "Standard fenubar" icon.



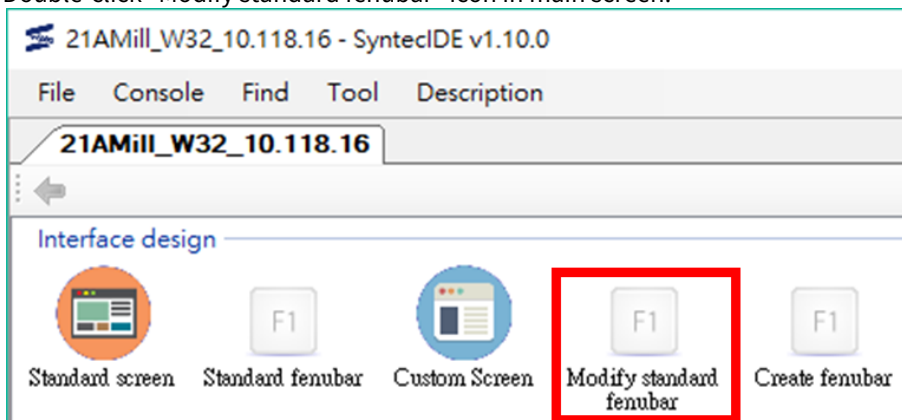
2. Find the file you want to modify in file list, double-click to open it. If eHMI exists, SI will automatically execute it and load the file selected.

\DiskC\OpenCnc Shared\StdMMIRes\Common		
CncFenu.xml	2019/1/20 上午 04:48:14	125.43 KB
CncFenu5.xml	2019/1/20 上午 04:48:13	129.88 KB
CncFenuType2.xml	2019/1/9 上午 08:24:29	110.62 KB
CncFenuType2Group.xml	2019/1/8 下午 01:27:01	1.71 KB

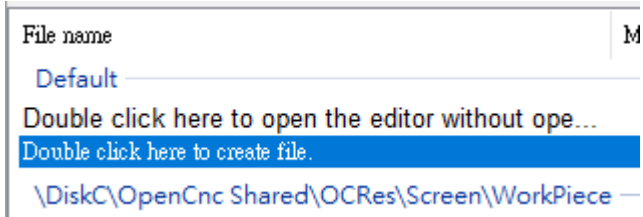
3. In the component browser of eHMI, find the fenubar name that you want to modify. (EX: main)



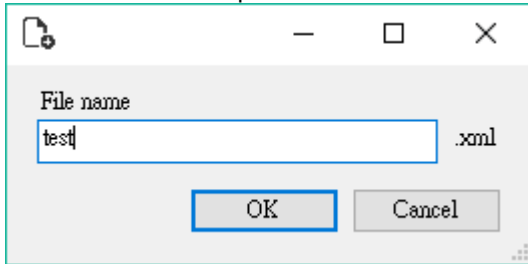
4. Double-click "Modify standard fenubar" icon in main screen.



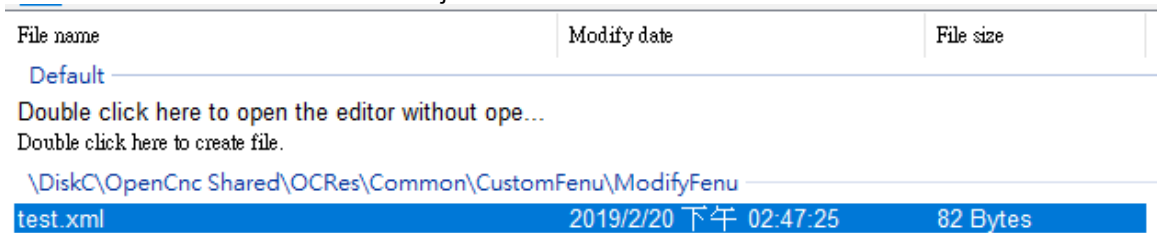
5. Double-click "Double click here to create file".



6. Enter a filename and press OK.



7. Double-click new fenubar file which we just created.



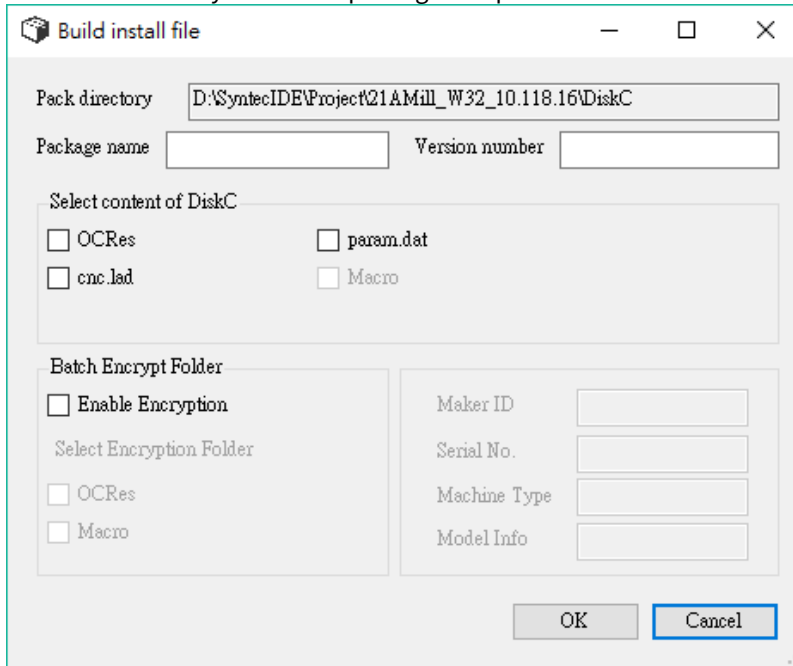
8. In the component browser of eHMI, rename "New Fenu" to which you want to modify. (EX: main)



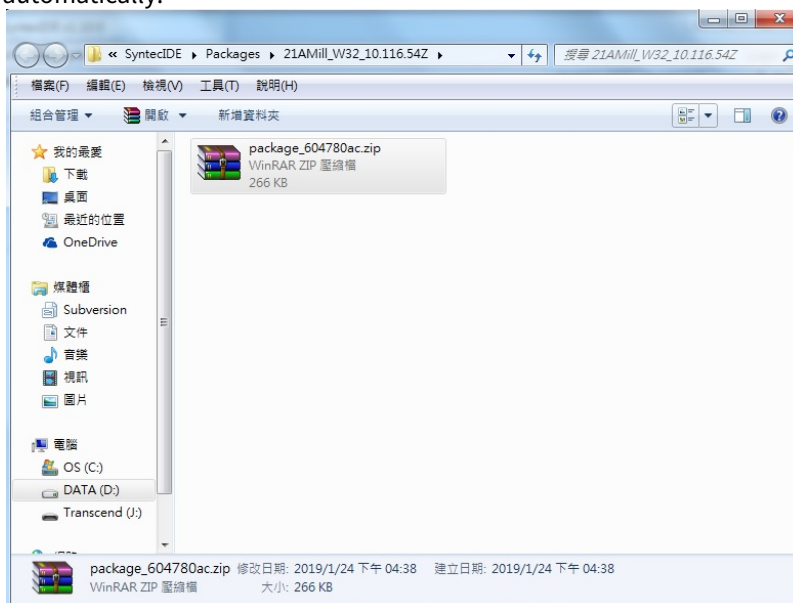
9. Finish editing and save the modification.

3.1.3 Step 3: Building installation package

1. On SI main screen, click "Build install file" in the function bar.
2. The package name and version number are not necessary. If they are filled, they will be displayed when you select the installation package on the controller.
3. Select the content you want to package and press OK.



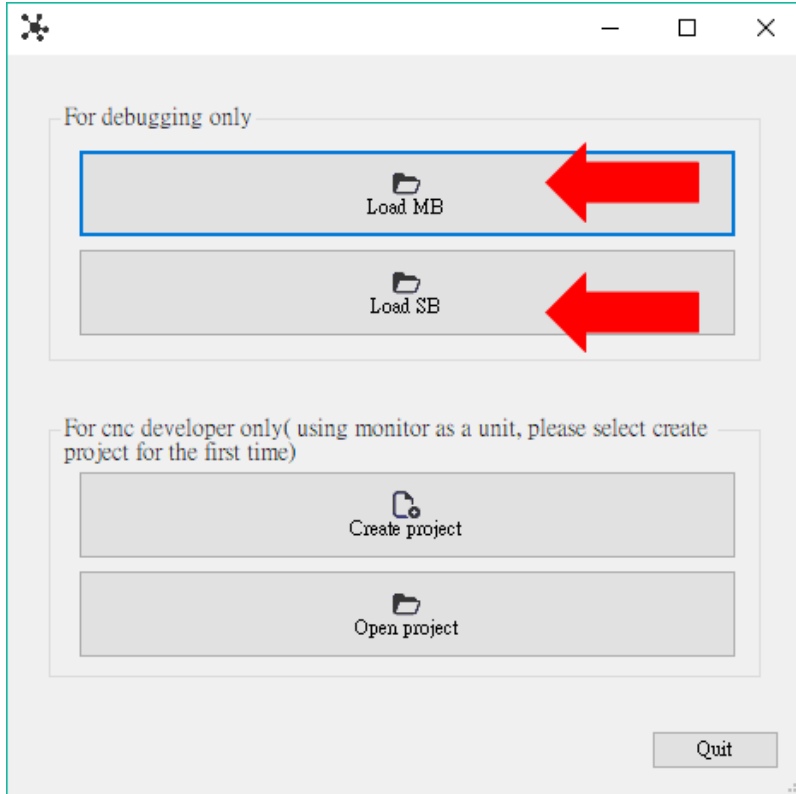
4. When the installation package is built, the folder where the installation package is located will pop up automatically.



3.2 Problem analysis or re-development - user with SB/MB

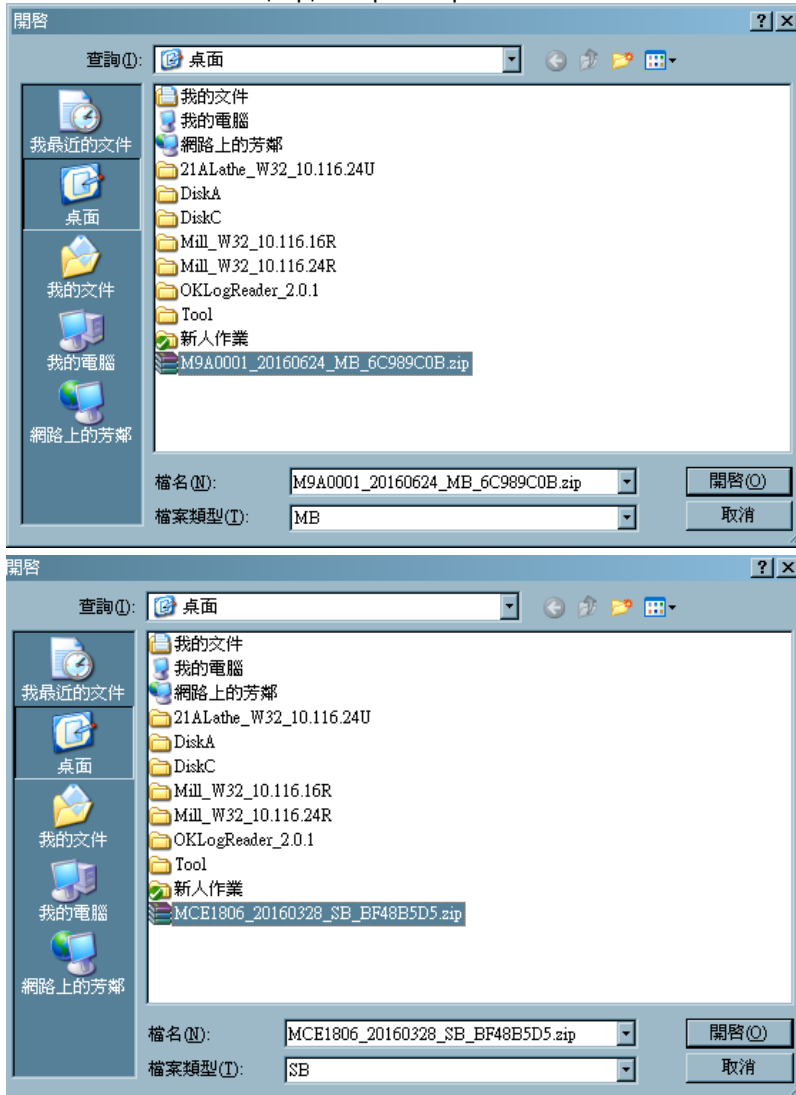
3.2.1 Step 1: Import project

1. Select "Load MB" or "Load SB"



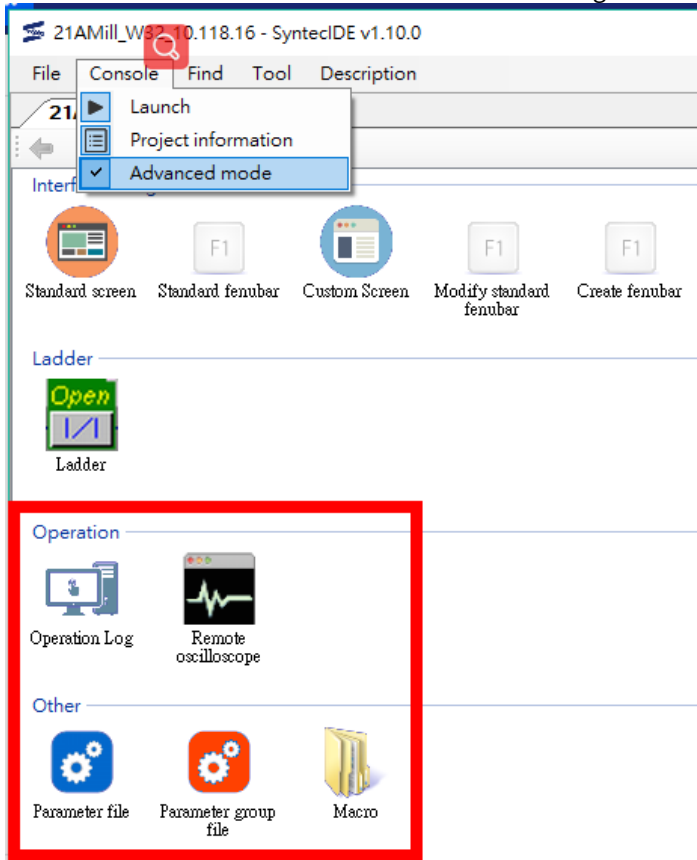
SYNTEC

2. Select the MB or SB file (.zip) and press open to load it in SI.



SYNTEC

3. Click "Advance mode" to show the tool used for debug.

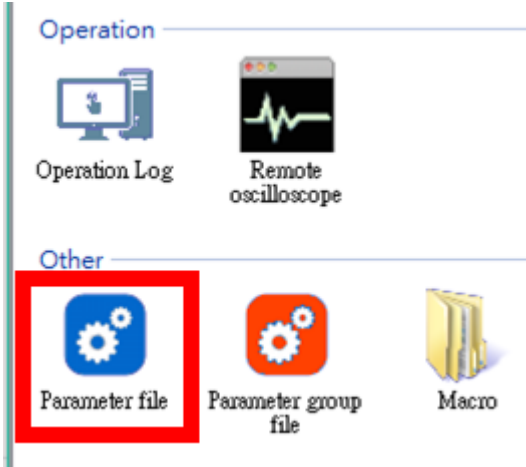


3.2.2 Step 2: Edit a file

EX: Parameter file

SYNTEC

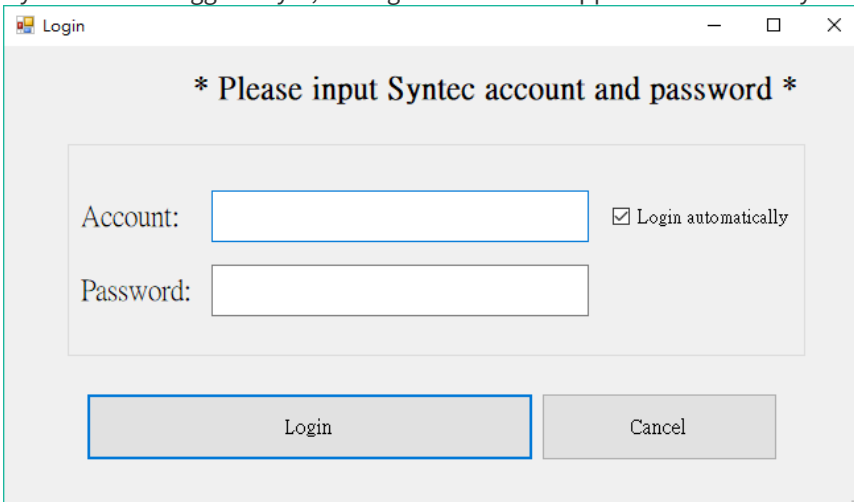
1. Double-click "Parameter file" icon.



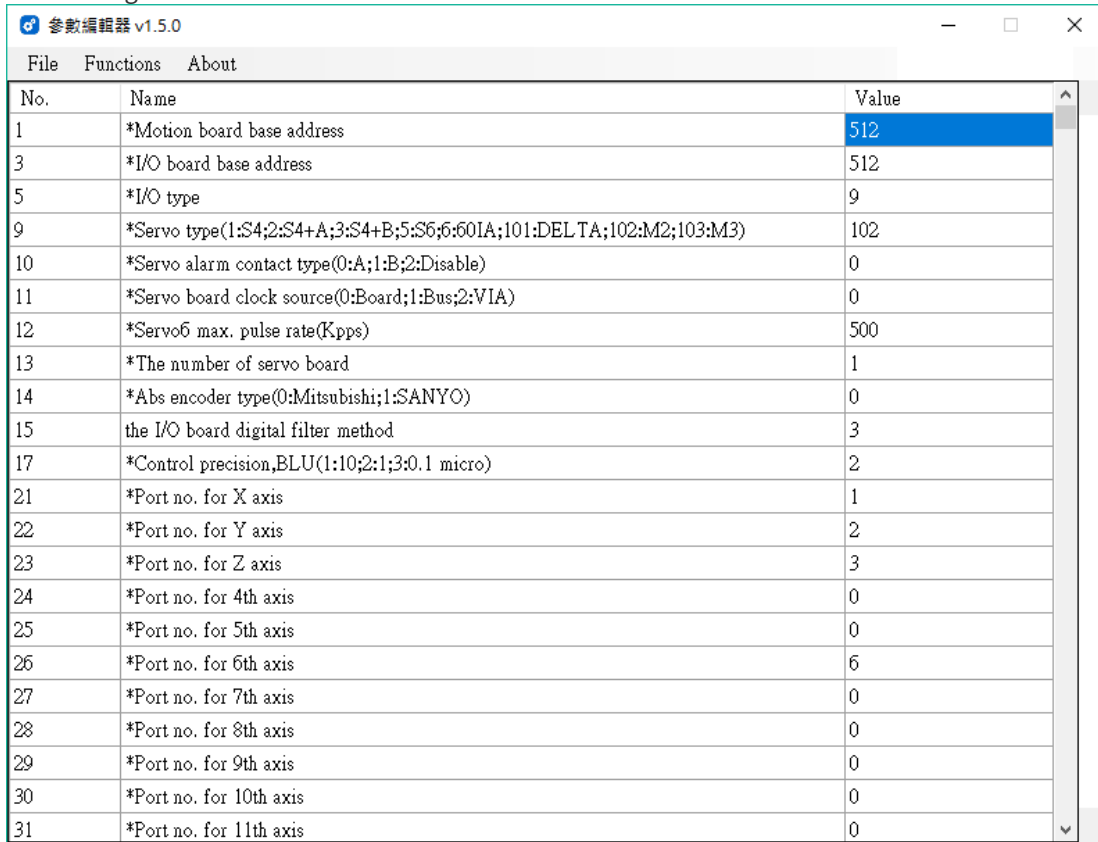
2. Double-click parameter file which you want to inspect or edit. (EX: param.dat)

File name	Modify date	File size
Default		
Double click here to open the editor without ope...		
\DiskC\OpenCNC\Data		
param.dat	2019/2/20 下午 02:23:20	40.03 KB

3. If parameter editor isn't detected in this project, SI will automatically download it from Syntec website.
4. If you have not logged in yet, the login window will appear. Please enter your account/password.



5. If parameter editor exists, SI will automatically execute it and load "param.dat" file, then users can start editing.

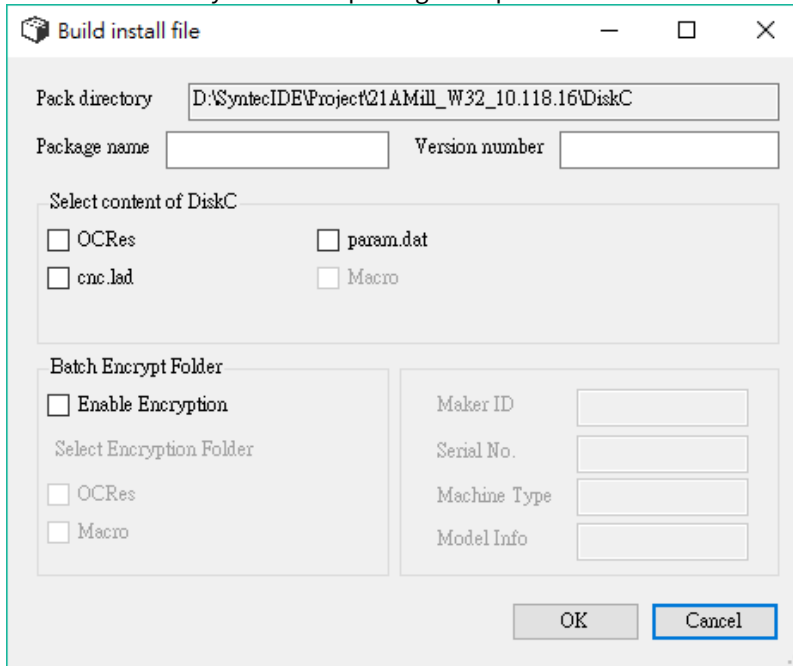


No.	Name	Value
1	*Motion board base address	512
3	*I/O board base address	512
5	*I/O type	9
9	*Servo type(1:S4;2:S4+A;3:S4+B;5:S6;6:60IA;101:DELTA;102:M2;103:M3)	102
10	*Servo alarm contact type(0:A;1:B;2:Disable)	0
11	*Servo board clock source(0:Board;1:Bus;2:VIA)	0
12	*Servo6 max. pulse rate(Kpps)	500
13	*The number of servo board	1
14	*Abs encoder type(0:Mitsubishi;1:SANYO)	0
15	the I/O board digital filter method	3
17	*Control precision,BLU(1:10;2:1;3:0.1 micro)	2
21	*Port no. for X axis	1
22	*Port no. for Y axis	2
23	*Port no. for Z axis	3
24	*Port no. for 4th axis	0
25	*Port no. for 5th axis	0
26	*Port no. for 6th axis	6
27	*Port no. for 7th axis	0
28	*Port no. for 8th axis	0
29	*Port no. for 9th axis	0
30	*Port no. for 10th axis	0
31	*Port no. for 11th axis	0

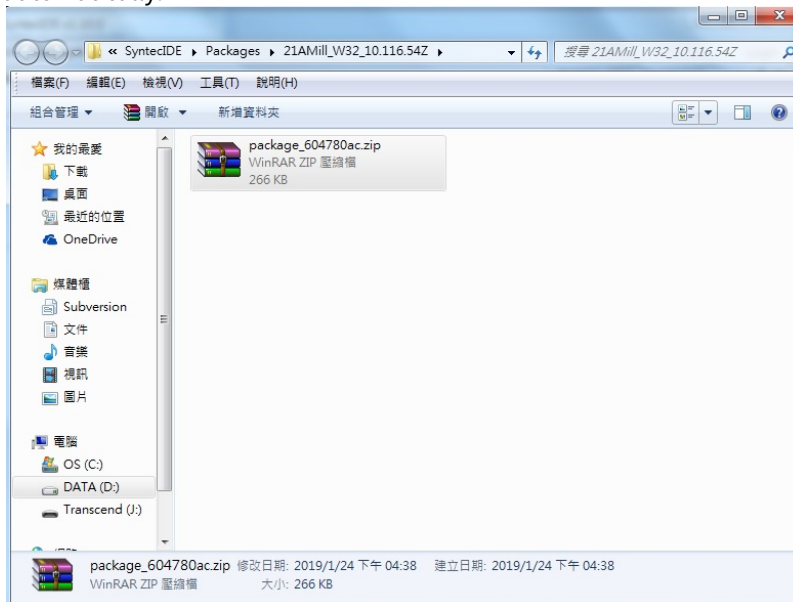
SYNTEC

3.2.3 Step 3: Building installation package

1. On SI main screen, click "Build install file" in the function bar.
2. The package name and version number are not necessary. If they are filled, they will be displayed when you select the installation package on the controller.
3. Select the content you want to package and press OK.



4. When the installation package is built, the folder where the installation package is located will pop up automatically.



4 SI Q&A

4.1 Q & A

Q1 : Can SI work without internet?

SI can work without internet only when you don't need to download simulators or application tools.

When do SI need Internet:

- a. Download the simulator to create a new project.
- b. Download the application tools when use for the first time. (EX: Ladder editor)
- c. Upgrade the simulator version.

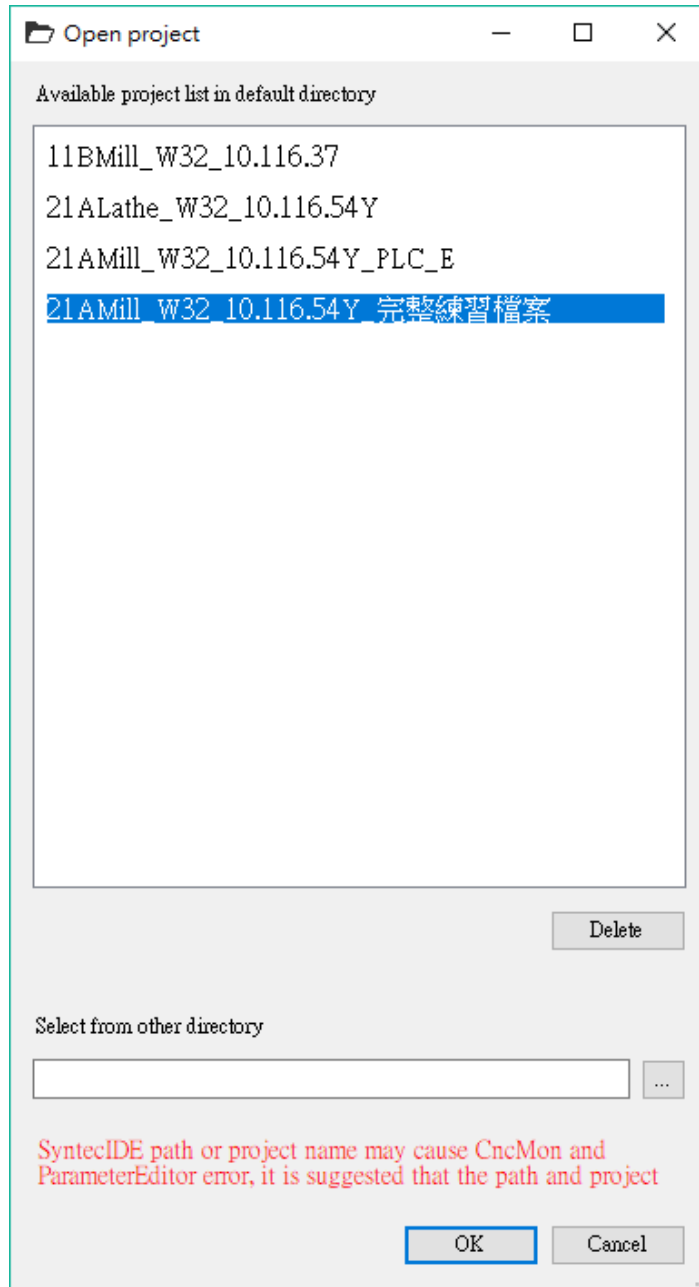


SYNTEC

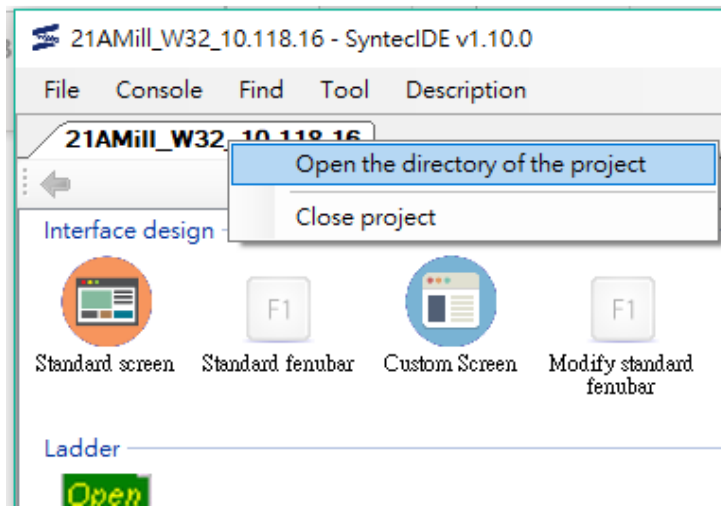
Q2 : How to change the project name?

Since some functions (such as simulator, parameter editor) may be unusual in some specified path, it's recommended that the project must be named in English letters, numbers and symbols.

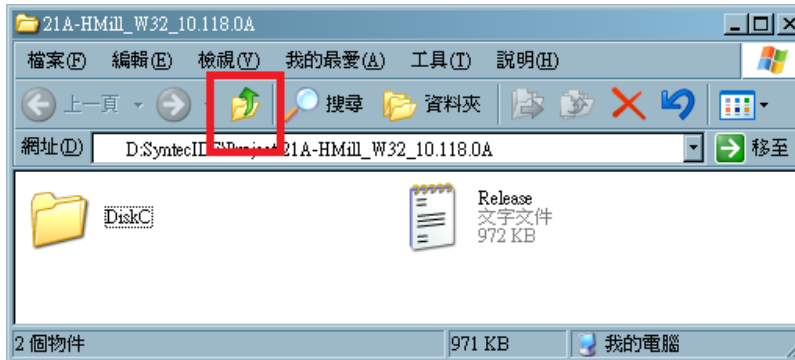
SI checks the project name after version 1.9.0 and will hint users to rename the project if the project name does not conform to the specification.



If you don't know where the project directory is, right-click on the TAB after opening the project in SI and select "Open the directory of the project".

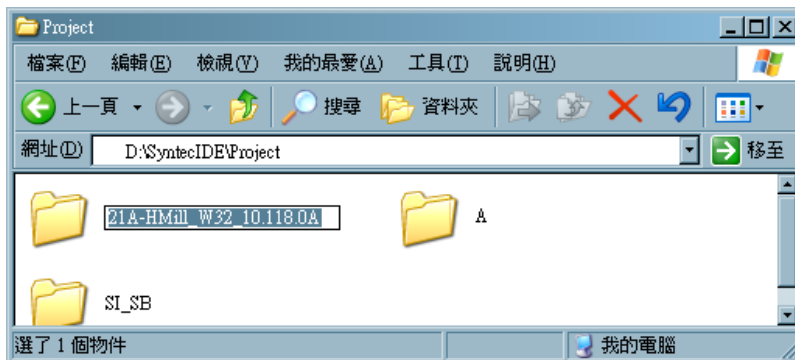


After clicking, the simulator folder will pop up, then go back to the upper level and user can find the project folder.



Please close SI first to avoid failure when changing name.

After changing the project name, the new project name will be displayed when restart SI.



Q3 : What to do if the SI doesn't work?

Please confirm that if the SI version is between 1.5.0 and 1.9.1.

If the version is within this range, SI may not be able to work normally due to the time format problems in different countries.

Solution :

- a. Please download the version after 1.10.0 from Syntec website.
- b. After confirming that SI is enabled, if you want to restore the previous projects, can follow the below steps:
 - Copy the Project folder from the old SI folder to the new SI folder. The SI folder is named SyntecIDE.
 - Execute SI(new version), you can select "Open project" to open the old projects.

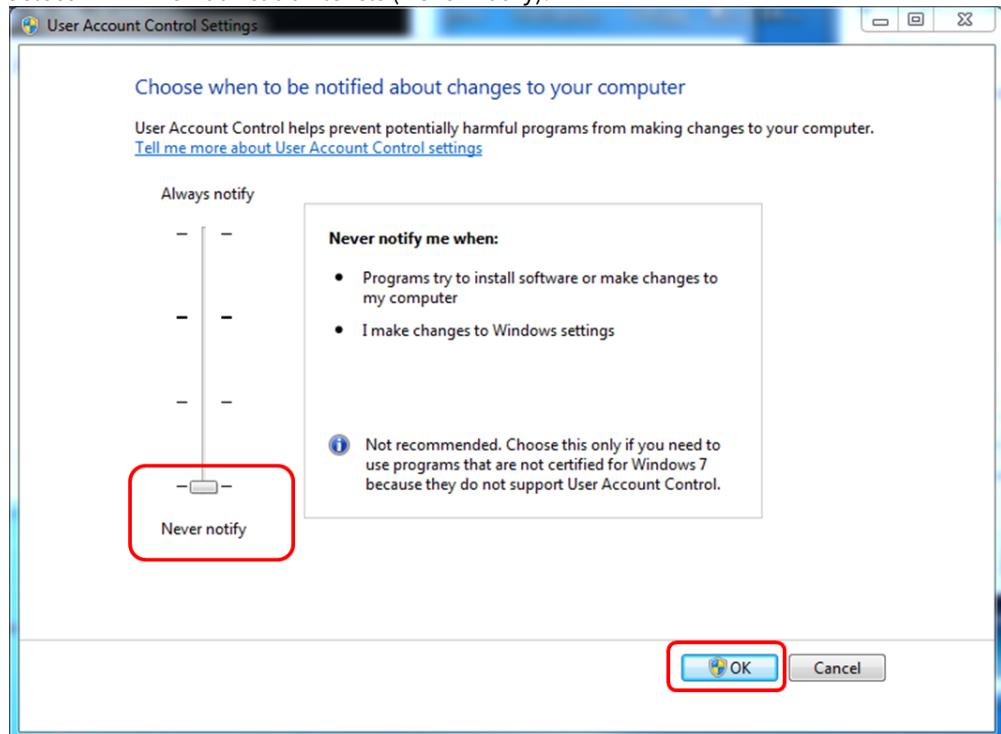


SYNTEC

Q4 : What to do if the simulator doesn't work?

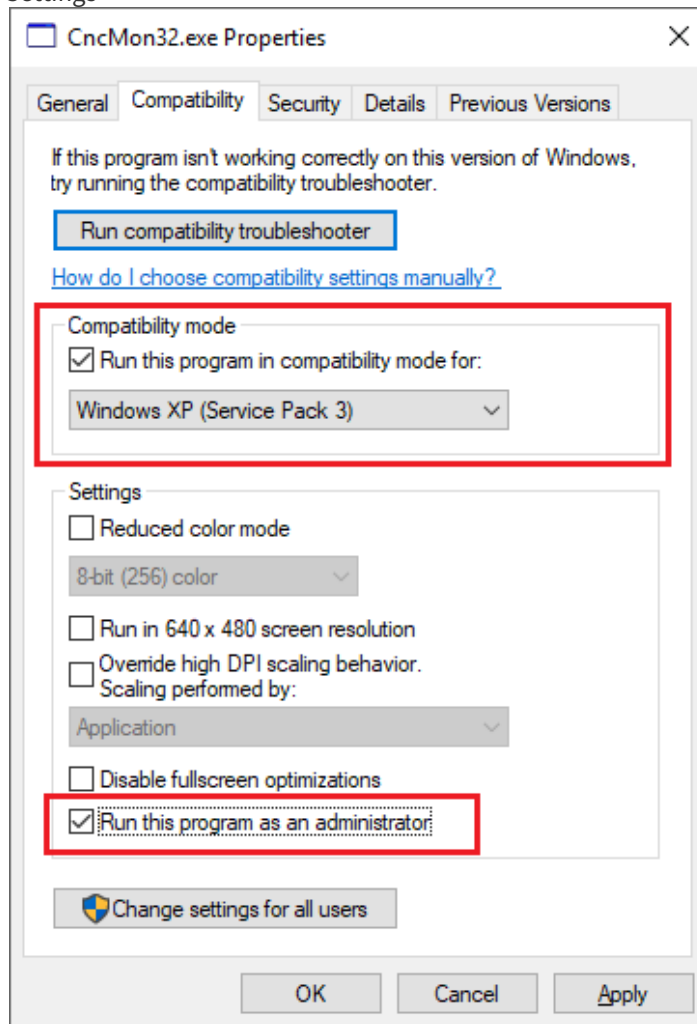
Solution :

- a. Please follows the items mentioned in "Basic environment setting steps" in CH1.
- b. The path of the simulator must not be too complex, have Chinese letters, or have special characters.
 - i. It's recommended that the total path length should not exceed **50 characters**, as follows:
 1. OK : C:\Louis\docs\woodworking\woodprj\DiskC
 2. NG (too complex) : C:\Users\E440\Documents\Visual Studio 2013\Backup Files\Developer Dem
- c. If still cannot open the simulator as a system administrator, follow these steps to set "User account control Settings".
 - i. Search for "UAC" in the start menu with the search box, or go to "Change User Account Control Settings" from the control panel.
 - ii. Select minimize notification levels (Never notify).



- iii. Press OK and reboot.
- d. Turn off the firewall
- e. Change compatibility settings

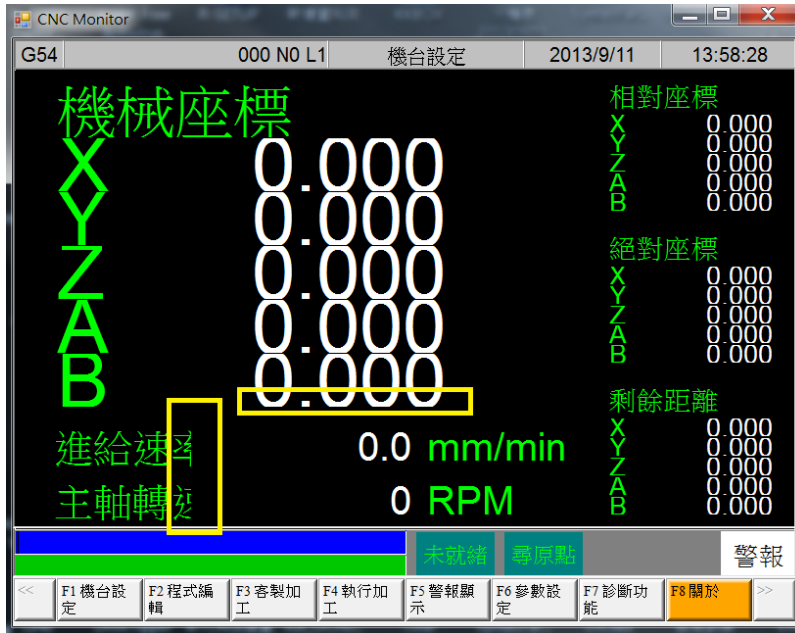
- i. Path: SyntecIDE → Project → Project name → DiskC → OpenCNC → Bin → CncMon32.exe → Property (Right click) → Compatibility → Compatibility mode / Settings



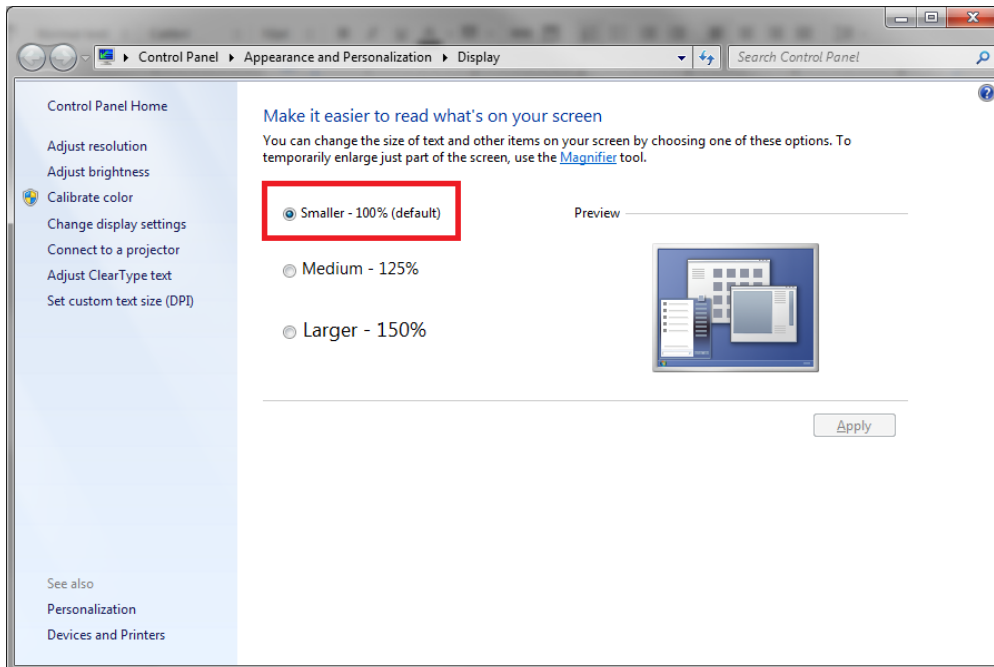
- ii. Click apply and OK

SYNTEC

Q5 : After opening the simulator, the screen appears incompletely.



Solution : Control panel → Appearance and Personalization → Display, select [Smaller - 100%(default)]



Q6 : How to set the simulator displaying 10+8 key?

Suitable for 10.118.12B ~ 10.118.12I

Steps :

1. Under the display of 8 keys, go to "Set MMIconfig" screen to set the "Window Layout Size", and set the width/height to 1024 and 768 respectively.

Item	Value
[Fenubar] No LR Button	System Default
[Fenubar] Big LR Button	System Default
[Fenubar] Text Over Picture	System Default
[Fenubar] TextColor	System Default
[Fenubar] BackColor	System Default
Pending alarm shown mode	POPUP
Screen Stretch Type	AUTOFIT
Window Layout Size:Width	800 → 1024
Window Layout Size:Height	600 → 768
Popup Screen Position Type	DEFAULT

Value : 800
Hint Positive Integer, Default=800

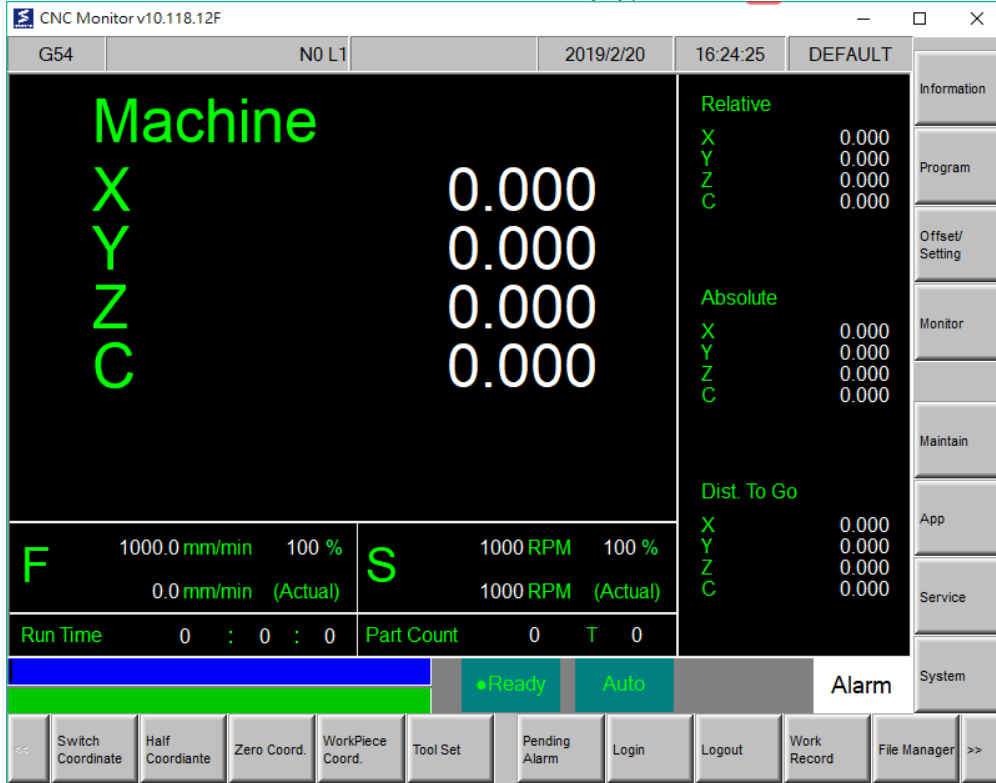
Setting Valid After Restart

•Ready Auto Alarm

Modify Set Default Set Default All My Favor F6 My Favor F7 My Favor F8

SYNTEC

- Go to "Param." screen to set Pr3205 to 2 (Function key type: 10+8). Relaunch the simulator.



Remedy if setting in wrong steps:

If Pr3205 is set to 2 before "Window Layout Size" is changed on "Set MMIconfig" screen, the simulator may display incompletely as shown in the following figure:



SYNTEC

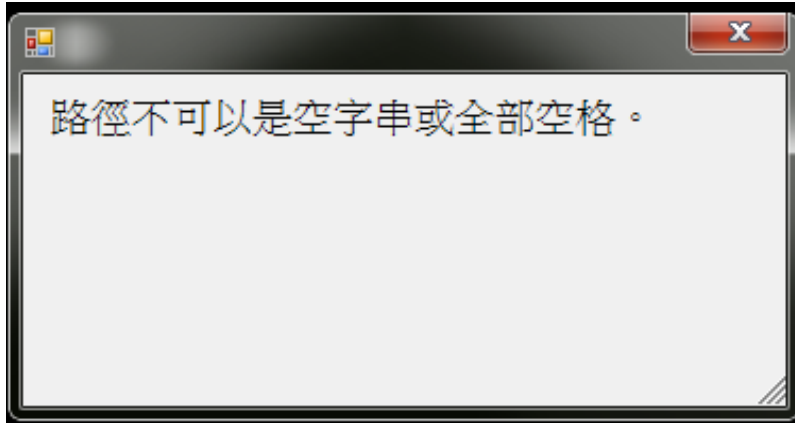
CNC Monitor v10.118.12F			
G54	N0 L1	Coord.	2019/2/20 16:25:42 DEFAULT
Machine			
X		0.000	Relative X 0.000
Y		0.000	Relative Y 0.000
Z		0.000	Relative Z 0.000
C		0.000	Relative C 0.000
			Absolute X 0.000
			Absolute Y 0.000
			Absolute Z 0.000
			Absolute C 0.000
			Dist. To Go X 0.000
			Dist. To Go Y 0.000
			Dist. To Go Z 0.000
			Dist. To Go C 0.000
F	1000.0 mm/min 100 %	S	1000 RPM 100 %
	0.0 mm/min (Actual)		1000 RPM (Actual)
Run Time	0 : 0 : 0	Part Count	0 T 0

Solution :

1. Extend the window to the maximum size and try to enter "Set MMIconfig" screen to change the settings.
2. Re-download the simulator and follow the correct setting steps.

SYNTEC

Q7 : After changing Pr3209, the simulator appears "路径不可为字符串或全部空格".



Solution : Check if there is any Chinese characters in the path where the simulator is located.

Incorrect : C:\Users\SyntecClub\Desktop\模拟器_21AMill_W32_2.4.11

Correct : C:\Users\SyntecClub\Desktop\21AMill_W32_2.4.11

If the path is correct and the error window still appears, please refers to **Q4**.

Q8 : Already logging in, but fail to download tools.

Reason :

1. Internet disconnection
2. Syntec website exception
3. Download function fault.

Solution :

1. Recover internet connection.
2. Contact Syntec and ask to repair the website.
3. Download the latest version of the tool (zip file), and put it in the path "SyntecIDE\Tool".

5 SI Appendix

5.1 Comparison table of standard screen

After 10.116.35 and 10.117.35, the files' name of the standard screens have been changed.

For the projects with older version, if there is any customization for the standard screen, please refers to the following table to modify the file name.

Old filename	New filename
WorkPiece.xml	Brw_WorkPiece_Main.xml
SimuCoord.xml	Brw_Simu_Main.xml
XML_WorkRecord.xml	Brw_WorkRecord_Main.xml
SRI_Diagnostic.xml	Brw_SRIDiagnostic_Main.xml
SRI_ComParam.xml	Brw_SRIComParam_Main.xml
SRI_DeviceParam.xml	Brw_SRIDeviceParam_Main.xml
SpindleAdjust_AccDeceleration.xml	Brw_AdjustApplication_AccDec.xml
SpindleAdjust_Positioning.xml	Brw_AdjustApplication_Position.xml
SpindleAdjust_Tapping.xml	Brw_AdjustApplication_Tapping.xml
BallBarAdjust.xml	Brw_AdjustApplication_BallBar.xml
AdjustTuningMenu.xml	Brw_TuningMenu_Main.xml
AutoTuning_Home.xml	Brw_AutoTune_Main.xml
AutoTuning_SetLimit.xml	Brw_AutoTune_SetLimit.xml
AutoTuning_SetMode_Syntec.xml	Brw_AutoTune_SynSetMode.xml
AutoTuning_Result_Syntec.xml	Brw_AutoTune_SynResult.xml
AutoTuning_SPDSetMode_Syntec.xml	Brw_AutoTune_SynSpdSet.xml
AutoTuning_SPDResult_Syntec.xml	Brw_AutoTune_SynSpdResult.xml
AutoTuning_AdvancedMode_Syntec.xml	Brw_AutoTune_SynAdvance.xml
AutoTuning_SetMode_Yaskawa.xml	Brw_AutoTune_YasSetMode.xml

AutoTuning_Result_Yaskawa.xml	Brw_AutoTune_YasResult.xml
AutoTuning_SPDSetMode_Yaskawa.xml	Brw_AutoTune_YasSpdSet.xml
AutoTuning_SPDResult_Yaskawa.xml	Brw_AutoTune_YasSpdResult.xml
AbsoluteSetting.xml	Brw_AbsoluteSetting_Main.xml
SerialServoInfo.xml	Brw_SerialServoInfo_Main.xml
SerialPLCAxisParam.xml	Brw_SPLCACncParam_Main.xml
SerialPLCAxisMonitor.xml	Brw_SPLCADiag_Main.xml
RotParam.xml	Brw_RotCncParam_Main.xml
RotMonitor.xml	Brw_RotDiag_Main.xml
SysFileExportSelect.xml	Brw_ExportItem_Main.xml
TableGlobal.xml	Brw_Diagnostic_Main.xml
TableSysData.xml	Brw_Diagnostic_SysData.xml
TableRegister.xml	Brw_Diagnostic_Register.xml
TableIOCSA.xml	Brw_Diagnostic_IOSCA.xml
TableTimerCounter.xml	Brw_Diagnostic_TimerCounter.xml
TableCoord.xml	Brw_Diagnostic_Coord.xml
TableFastSysData.xml	Brw_Diagnostic_FastSysData.xml
TableFastAxesData.xml	Brw_Diagnostic_FastAxesData.xml
SimuParam.xml	Brw_SimuParam_Main.xml
FeatureCoord_3PTS.xml	Brw_FeatureCoordinate_3PTS.xml
FeatureCoord_TOOL.xml	Brw_FeatureCoordinate_TOOL.xml
FeatureCoord_EULER.xml	Brw_FeatureCoordinate_EULER.xml
FeatureCoord_2VECS.xml	Brw_FeatureCoordinate_2VECS.xml
AutoCenter.xml	Brw_AutoCenter_Main.xml
ManualCenter.xml	Brw_AutoCenter_Manual.xml

ThreePtsCenter.xml	Brw_AutoCenter_ThreePts.xml
AutoTool4.xml	Brw_AutoTool_4.xml
AutoTool.xml	Brw_AutoTool_Main.xml
FavorSet.xml	Brw_MyFavorite_Main.xml
SysParam.xml	Brw_Param_Main.xml
SysParam_RBit.xml	Brw_Param_RBit.xml
SysParam_Axes.xml	Brw_Param_Axes.xml
SysParam_PitchError.xml	Brw_Param_PitchError.xml
ParamSet.xml	Brw_SystemSet_Main.xml
ToolMill.xml	Brw_ToolMill_Main.xml
AuthoNameList.xml	Brw_AuthoManager_NameList.xml
AuthoSetting.xml	Brw_AuthoManager_Setting.xml
AuthoPopup.xml	Brw_PopupAutho_Main.xml
ToolLathe.xml	Brw_ToolLathe_Main.xml
DipoleLog.xml	Brw_DipoleLog_Main.xml
SetMMIConfig.xml	Brw_MMIConfig_Main.xml
NetworkSet.xml	Brw_NetSet_Main.xml
CncAbout.xml	Brw_CncAbout_Main.xml
RemoteConnSet.xml	Brw_ClientConf_RemoteConnSet.xml
KernelParamSet.xml	Brw_ServerConf_KernelParamSet.xml
BK_RT_Conclusion.xml	Brw_BackUp_Std.xml Brw_Restore_Std.xml
SysFile_I.xml	Brw_MacroMgr_Import.xml Brw_SysFileMgr_Import.xml
SysFile_E.xml	Brw_MacroMgr_Export.xml

	Brw_SysFileMgr_Export.xml
SysFileTips.xml	Brw_SysFileMgr_Tips.xml
SysFileImportTips.xml	Brw_SysFileMgr_ImportTips.xml
CheckBootPicBMPFail.xml	Brw_SelBootPic_CheckBootPicFail.xml
CheckVerFail.xml	Brw_SelBootPic_CheckVerFail.xml
UpdateBootPicSuccess.xml	Brw_SelBootPic_UpdateBootPicSuccess.xml
UpdateBootPicFail.xml	Brw_SelBootPic_UpdateBootPicFail.xml
WorkPieceLathe.xml	Brw_LatheWorkpieceShift_Std.xml
HSHPParam.xml	Brw_HSHPPParam_Main.xml
HSHPQuickParam.xml	Brw_HSHPPQuickParam_Main.xml
ToolManagement.xml	Brw_ToolManagement_main.xml
SerialParamSelect.xml	Brw_SerialParamMenu_main.xml
SerialTunning_Layout.xml	Brw_SerialParam_main.xml
SerialTunning_Input1.xml	Brw_SerialParam_Input1.xml
SerialTunning_Input2.xml	Brw_SerialParam_Input2.xml
SerialTunning_Input3.xml	Brw_SerialParam_Input3.xml
RestoreSerialDefault.xml	Brw_SerialParamReset_main.xml
PosCoord.xml	Brw_PosCoord_Main.xml
PosCoord_2.xml	Brw_PosCoord_2Axes.xml
PosCoord_3.xml	Brw_PosCoord_3Axes.xml
PosCoord_4.xml	Brw_PosCoord_4Axes.xml
MonSTDDData.xml	Brw_Monitor_Main.xml
MonSTDDData_Multi.xml	Brw_Monitor_Multi.xml
MonSTDDData_2.xml	Brw_MonitorS1_Main_2Axes.xml
MonSTDDData_3.xml	Brw_MonitorS1_Main_3Axes.xml

MonSTDDData_4.xml	Brw_MonitorS1_Main_4Axes.xml
MonGData.xml	Brw_MonitorS1_GCode_Axes.xml
MonGData_2.xml	Brw_MonitorS1_GCode_2Axes.xml
MonGData_3.xml	Brw_MonitorS1_GCode_3Axes.xml
MonGData_4.xml	Brw_MonitorS1_GCode_4Axes.xml
MonComData_2.xml	Brw_MonitorS1_Com_2Axes.xml
MonComData_3.xml	Brw_MonitorS1_Com_3Axes.xml
MonComData_4.xml	Brw_MonitorS1_Com_4Axes.xml
ProgramEditor.xml	Brw_TxtEditor_Main.xml
TeachCoord.xml	Brw_TxtEditor_TeachCoord.xml
TableLogData.xml	Brw_OpLogData_Main.xml
SystemInfo.xml	Brw_SystemInfo_Main.xml
CncLadder.xml	Brw_Ladder_Main.xml
TableToolNo.xml	Brw_ToolNo_Main.xml



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