

# Advantech SE Technical Share Document

Date	2019 / 06 / 11	Related Product	CODESYS	
Category	<input type="checkbox"/> FAQ <input checked="" type="checkbox"/> SOP <input type="checkbox"/> Driver Tech Note			
Abstract	How to transfer DXF file to G code by CODESYS?			
Keyword	DXF, G code			
Related OS				
Revision History				
Date	Version	Author	Reviewer	Description
2019/06/11	V1.0	Owen.Chang	Nick Liu	

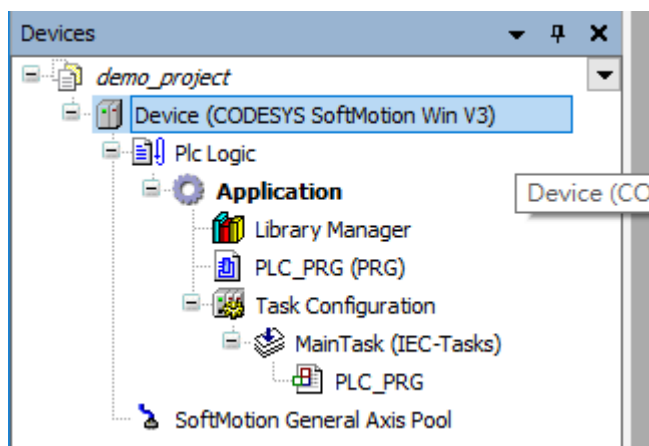
## ■ Problem Description & Architecture:

**AutoCAD DXF** (Drawing Interchange Format, or Drawing Exchange Format) is a CAD data file format developed by Autodesk for enabling data interoperability between AutoCAD and other programs. CODESYS can import DXF files for automated generation of matching G code or import ASCII file(.cnc, .gcode, .txt) which include G code description. This SOP show you how to do it.

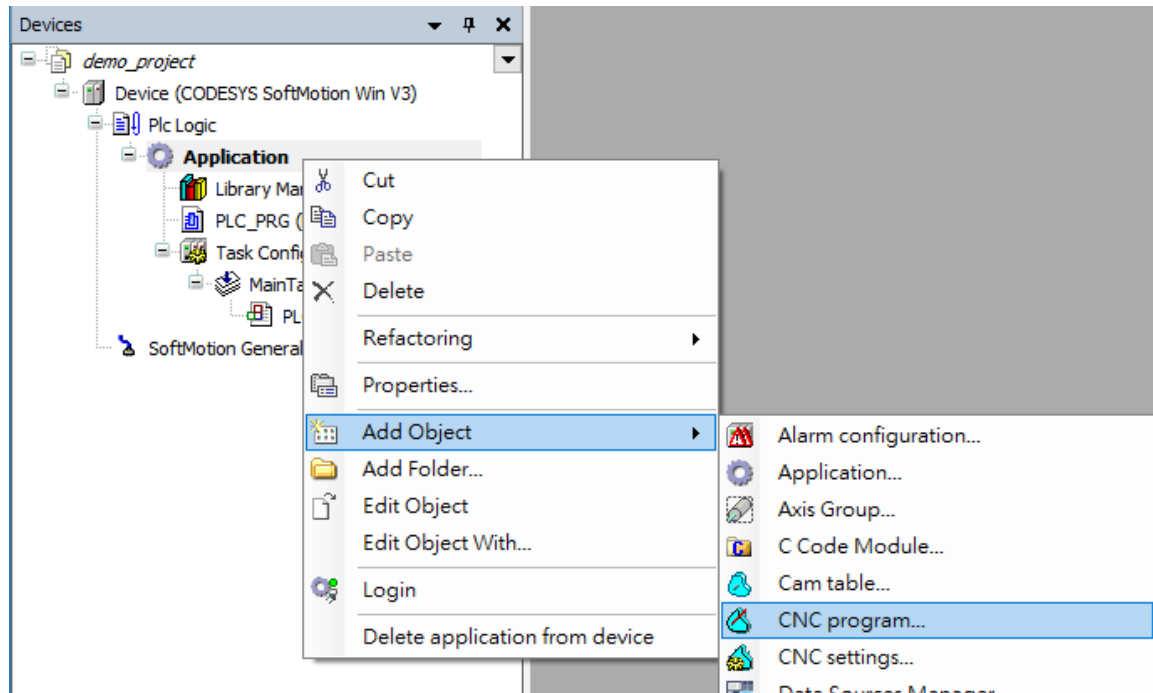
Note: CODESYS have some restrictions for DXF file import, please refer to following doc:  
[https://help.codesys.com/webapp/ sm cmd cnc dxf import;product=codesys\\_softmotion](https://help.codesys.com/webapp/ sm cmd cnc dxf import;product=codesys_softmotion)

## ■ Brief Solution - Step by Step:

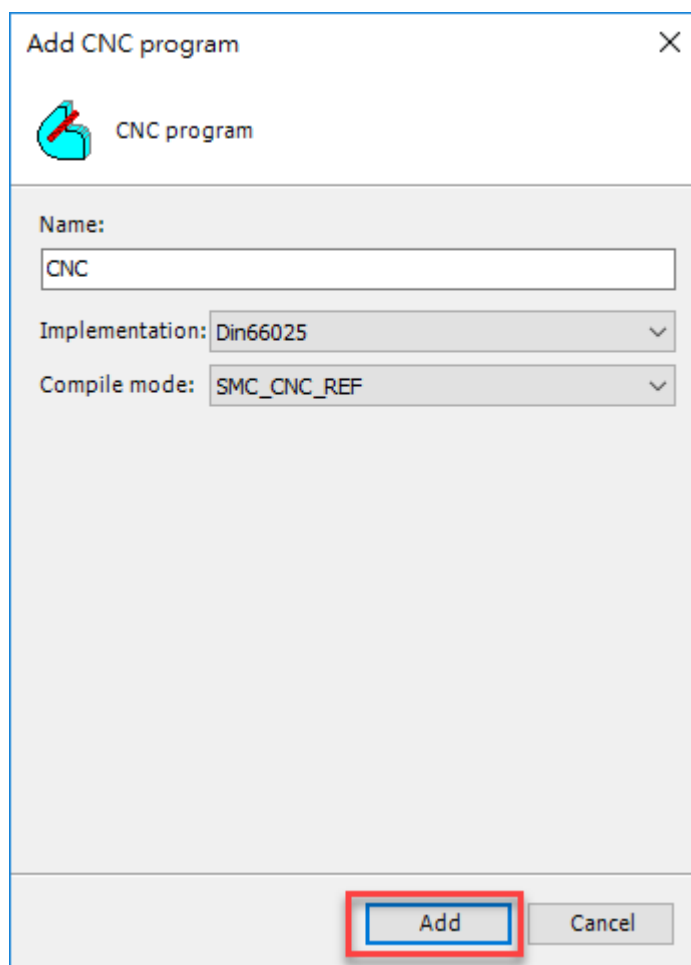
1. Select softmotion related device



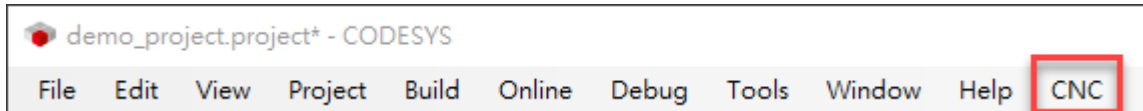
## 2. Right click Application > Add Object > CNC program



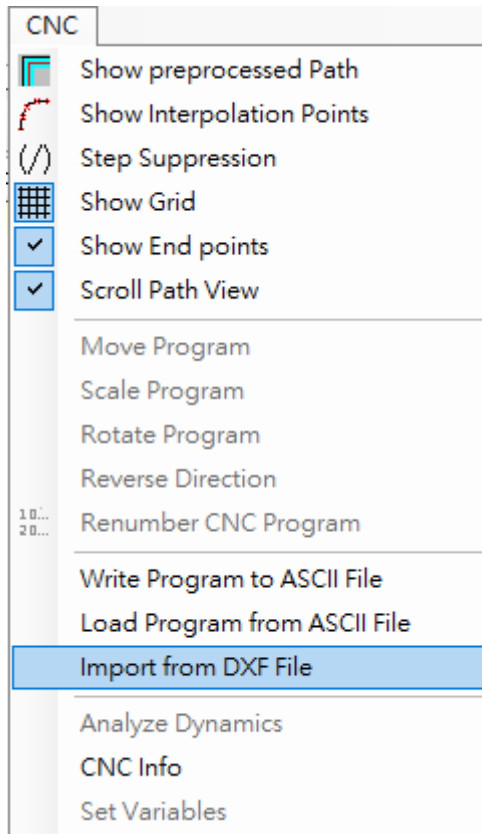
## 3. Click Add



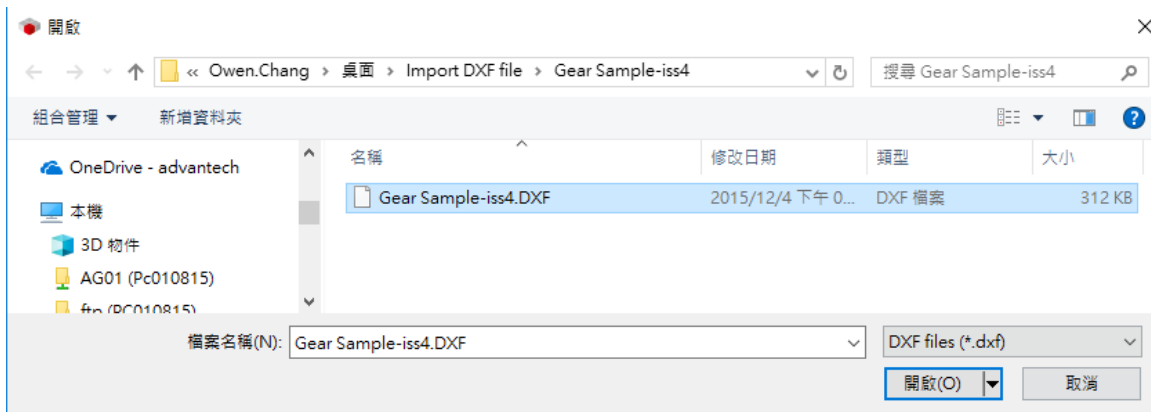
- The CNC Tab will show up on the top tool bar



- CNC > Import from DXF File (ASCII File can be loaded by Load Program from ASCII File)



- Select DXF file and open



## 7. DXF is transferred to G code as result.

The screenshot displays the Advantech software interface for CNC programming. The left-hand pane shows the project structure under 'demo\_project', with 'Application' selected. The main window is titled 'CNC [Device: Plc Logic: Application]' and contains a list of G-code commands. Below the list is a 2D plot showing the resulting toolpath, which includes a large circular arc and several linear segments.

Line	Command
1	N000 G00 X35.633504016892452 Y18.534129566876391
2	N010 G01 X34.758189563767438
3	N020 G01 Y18.61003581687639
4	N030 G01 X35.167402454392438
5	N040 G01 Y21.977145191876389
6	N050 G01 X34.779558704392443 Y21.457449879376391
7	N060 G01 X34.736861438767448 Y21.51443425437639
8	N070 G01 X35.183398548142449 Y22.10762956687639
9	N080 G01 X35.224332141892447
10	N090 G01 Y18.61003581687639
11	N100 G01 X35.633504016892452
12	N110 G01 Y18.534129566876391
13	N120 G00 X38.288117298142453 Y20.88798894187639
14	N130 G01 X37.832679798142443 Y20.280520191876391
15	N140 G01 X36.957406360642437
16	N150 G01 X36.539334095017438 Y19.722926441876389
17	N160 G01 Y18.61003581687639