

Advantech SE Technical Share Document

Date	2019 /11 /12	Related Product	CODESYS	
Category	☒ FAQ ☐ SOP ☐ Driver Tech Note			
Abstract	How to set scaling of Axis to control motor?			
Keyword	motion control, resolution			
Related OS	N/A			
Revision History				
Date	Version	Author	Reviewer	Description
2019/11/12	V1.0	Owen.Chang	Nick.Liu	

■ Problem Description & Architecture:

Resolution is the smallest position change in one turn that can be achieved by the servo. Generally, when we control the object, we only concern engineering unit/actual unit(user unit) to achieve the target application. Thus, the scaling is the way to define the mapping between resolution and user unit.

■ Brief Solution - Step by Step:

If 1 turn of motor maps to 3 meters of belt, the following is the example.

Shihlin SDP servo resolution: 24bit

<https://www.seec.com.tw/Content/Goods/GCont.aspx?SiteID=30&MmmID=707031024777534630&CatId=2016010610171478721&MSID=745372170263276312#ad-image-0>

Left side: Increments: 16#1000000

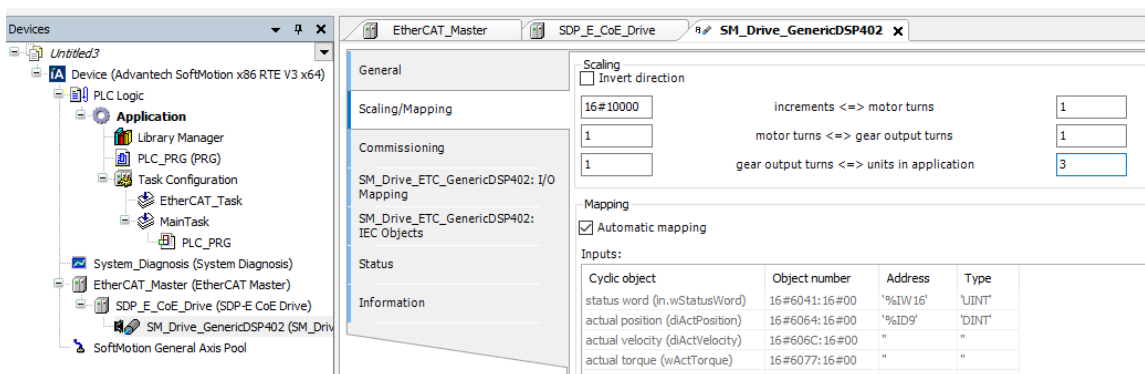
Right side: Motor turns: 1

Left side: Motor turns: 1

Right side: Gear output turns: 1

Left side: Gear output turns: 1

Units in application: 3



After setting above configuration, if customers use MC_MoveAbsolute whose position is 1, it means that CODESYS will know how many pulses should be send to make driver to move the belt to move 1 meter

from the origin, so you could make a movement with the user unit directly and don't have to understand the actual pulse to achieve the purpose.