FAQ Robot Exporter

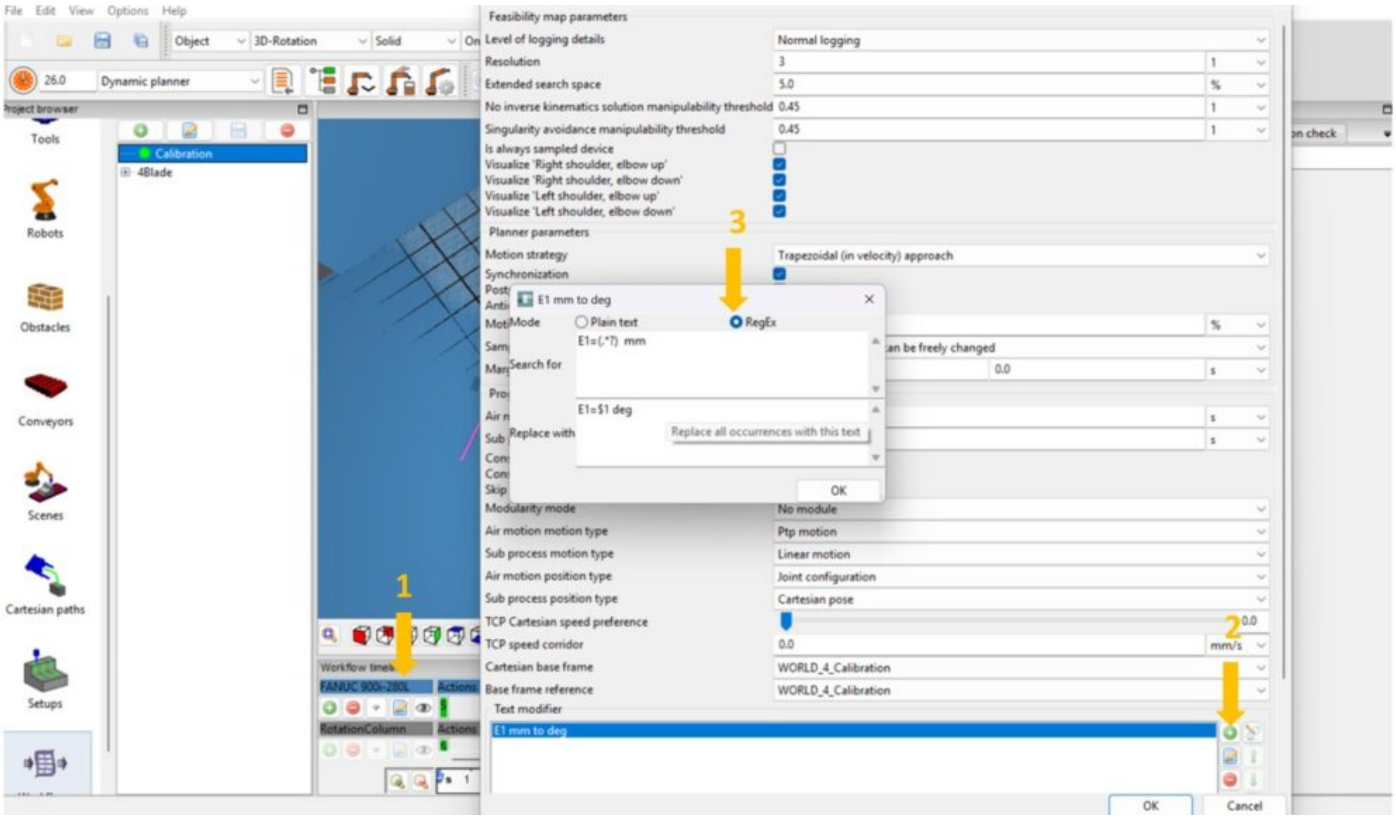
Wrong format for external axis

The exported robot program uses "mm" for the external rotation axis instead of "deg" degree.

In case of a FANUC ".ls" robot program it would look as follows for a linear motion point. The external axis E1 is however a rotation axis.

P[113]{
GP1:
UF : 1, UT : 1, CONFIG : 'N U T, 0, 0, 0',
X = 4402.896 mm, Y = -2677.32 mm, Z = 2690.996 mm,
W = -30.559 deg, P = 9.583 deg, R = -95.614 deg,
E1= -26.586 mm
};

If your exporter does not directly support switchting to deg for the given rotation axis you can have the exporter automatically modify the exported text also in the exporter setting.



Step 0: Open the "Workflow" Editor. Step 1: Select the robot "Parameters". Step2: Add a "Text modifyier". Step 3: Select "Regular Expression" and edit the "text to be replaced" and the "replace with". In our case of the FANUC program exporter:

Search for: "E1=(.*?) mm"

Replace with: "E1=$1 deg"

WARNING:

One warning though: If your rotation module is already supported and its values are correctly exported in degree, the text-replacement can have an unexpected side effect: It collects E1= and mm beyond several command lines of the robot program. This converts:

P[136]{
GP1:
UF : 1, UT : 1, CONFIG : 'F U T, 0, 0, 0',
X = 3714.904 mm, Y = -2037.529 mm, Z = 937.005 mm,
W = -0.085 deg, P = -86.669 deg, R = 150.35 deg,
E1= -79.611 deg

};

P[137]{

GP1:

UF : 1, UT : 1, CONFIG : 'F U T, 0, 0, 0',

X = 3676.824 **mm**, Y = -2015.773 mm, Z = 959.199 mm,

W = -0.085 deg, P = -86.669 deg, R = 150.35 deg,

E1= -79.611 deg

};

into

P[136]{

GP1:

UF : 1, UT : 1, CONFIG : 'F U T, 0, 0, 0',

X = 3714.904 mm, Y = -2037.529 mm, Z = 937.005 mm,

W = -0.085 deg, P = -86.669 deg, R = 150.35 deg,

E1**=** -79.611 **mm**

};

P[137]{

GP1:

UF : 1, UT : 1, CONFIG : 'F U T, 0, 0, 0',

X = 3676.824 mm, Y = -2015.773 mm, Z = 959.199 mm,

W = -0.085 deg, P = -86.669 deg, R = 150.35 deg,

E1= -79.611 deg

};