

Twincat Library: Cross Publishing data

Application Note

Version	Date	Editor	Comment
002	2014-01-16	mvx	Convert to new document style, minor corrections

Document AN106_TwinCAT-CrossPublishing_EP
 Version 002
 Source Q:\doc\ApplicationNotes\
 Destination T:\doc\ApplicationNotes
 Owner mvx

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1 Target and Purpose

The Triamec TwinCat library comes with basic sample codes for NCI and CNC. This application note describes additional functions available in this library.

This application note describes how data may be transferred cyclically from one drive to another at 10 kHz. Since data does not reach the PC, the PC-CPU load is not affected.

2 PLC Code

The following declaration is made in "MAIN_SLOW"

```
publish          : TL_publishSlave2Slave;
```

add the following code to MAIN_SLOW

```
(* publish the actual position of an axis to an other axis *)
publish.src1      := gAxis[1].MC_axis.register.AxisCmd.PathPlanner.XnewCoupled;
publish.src2      := gAxis[1].MC_axis.register.AxisCmd.PathPlanner.XnewCoupled + 1; (* Float40 *)
publish.src3      := gAxis[1].MC_axis.register.AxisCmd.PathPlanner.VnewCoupled;
publish.src4      := gAxis[1].MC_axis.register.AxisCmd.PathPlanner.AnewCoupled;
publish.src5      := gAxis[1].MC_axis.register.AxisSig.PositionController.ControlOutputCurrentQ;
publish.dest1     := gAxis[2].MC_axis.register.AxisCmd.PathPlanner.XnewCoupled;
publish.dest2     := gAxis[2].MC_axis.register.AxisCmd.PathPlanner.XnewCoupled + 1; (* Float40 *)
publish.dest3     := gAxis[2].MC_axis.register.AxisCmd.PathPlanner.VnewCoupled;
publish.dest4     := gAxis[2].MC_axis.register.AxisCmd.PathPlanner.AnewCoupled;
publish.dest5     := gAxis[2].MC_axis.register.AxisSig.PositionController.ControlOutputCurrentQ;
publish(Trialink:= Trialink, AxisSrc:=gAxis[1], AxisDest:=gAxis[2]);
```