

TwinCAT Library: Encoder

Application Note

Version	Date	Editor	Comment
002	2012-1127	mvx	Convert to new document style

Document AN107_TwinCAT-Encoder_EP
Version 002
Source Q:\doc\ApplicationNotes\
Destination T:\doc\ApplicationNotes
Owner mvx

Copyright © 2012	Triamec Motion AG	Phone +41 41 747 4040
Triamec Motion AG	Industriestrasse 49	Email info@triamec.com
All rights reserved.	6300 Zug / Switzerland	Web www.triamec.com

Disclaimer

This document is delivered subject to the following conditions and restrictions:

- This document contains proprietary information belonging to Triamec Motion AG. Such information is supplied solely for the purpose of assisting users of Triamec products.
- The text and graphics included in this manual are for the purpose of illustration and reference only. The specifications on which they are based are subject to change without notice.
- Information in this document is subject to change without notice.

Table of Contents

1 Target and Purpose.....1	3 Endat.....2
2 Fast Encoder.....2	

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.

Most encoder settings such as analog/digital selection and pitch are specified using the TAM System Explorer. This application note describes two additional modes available:

- Fast Encoder
- Endat

2 Fast Encoder

To activate the fast encoder mode, add the following declaration to MAIN_SLOW

```
triamec\TcHmiPro\TcApplication\bin\Debug\System
```

```
encoderConfig : TL_EncoderConfig;
```

and its code

```
encoderConfig.Execute := gAxis[4].ready;  
encoderConfig.station := gAxis[4].MC_axis.station;  
encoderConfig.fastencoder := TRUE;  
encoderConfig(Trialink:=Trialink);
```

be aware, that using fast encoder requires the extension TAD5 be mounted to the analog encoder input.

3 Endat

to activate Endat 2.1 for axis 1, add this declaration and code to MAIN_SLOW

```
Endat : TL_EndatActivate
```

and

```
Endat.Execute := gAxis[1].ready;  
Endat.Offset := 0;  
Endat(axis:=gAxis[1].MC_axis, Trialink:=Trialink);
```

Note that this requires drive units in m or radian.