

Upgrading Autoflow TwinCAT2 to Win10 and TwinCAT3

Process for upgrading an Autoflow from the original TwinCAT2 system to a new PC with Windows 10 and TwinCAT3

 Difficulty **Hard**

 Duration **2 day(s)**

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Introduction

Autoflows from A2001 to A2015 were initially produced with TwinCAT2 software. This has now been superseded with TwinCAT3 which then has the benefit of compatibility with version 6 front end software.

The original PC cannot be used because

- It is not powerful enough to run v6 front end
- The operating system cannot be upgraded to Windows 10
- It cannot be upgraded to TwinCAT3

The Beckhoff C6015 PC has been chosen to be the replacement PC. It is compact, yet powerful enough to run the v6 front end and TwinCAT in the same . It has an upgrade to 1.9Ghz 4 core processor.

Because it has a limited 40Gb SSD memory, a compact 64Gb memory stick is inserted into the USB 3.0 port. This acts as a separate drive for the DDRIVE dynamic storage for all machine setup. The internat drive is for the Operating System only. This mimics the current Autoflow setup of a remote Camera PC, hence the camera PC can be retired after the upgrade



Step 1 - Convert the Project

Step 2 - Ensure Saw and Extraction is mapped

Original TC2 software has the saw and extractors set up as a simple kind of inverter. The should now be removed and the mapping changed for the outputs Y97 and Y98 directly mapped rather than "inverterGoFwd"

Step 3 - Ensure Inverter Fwd is mapped

Original TC2 software has the spindle inverter set up as a simple kind of inverter. The should now be removed and the mapping changed for the output Y62directly mapped rather than "inverterGoFwd"

Step 4 - Check infeed parameters for new version

infeedZeroToX=605

stopZeroToX=595

measureSensorPos1=1554

Step 5 - Set maxZPosition in userVariables.mul

Ensure maxZPosition is set to 105
