PC Configuration - Flowline D

PC network configuration of the Flowline following using a Beckhoff TwinCAT3 system which controls both the saw and windows side.

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Comments

Following a second wave of obsolescence, this upgrade replaces all the control components with a Beckhoff control system. The major change to this system is that it uses one central system to control both sides of the machine.

A front end Pc is used to provide the user interface, which has a desktop split across two screens, one for each side of the machine. The front end software launches two UI forms, which has a slight downside in that two operators cannot use it at exactly the same time

Uses a Gapton Computers or Netmatters supplied "CNC" machine

A "Back End" Beckhoff PC is used to provide the PLC control systems, running TwinCAT3.

Both PCs need to be on the same network

Front end PC needs TwinCAT3 Engineering Runtime installed, which allows communication to TwinCAT on the back end PC, and installs the System Manager to allow configuration and diagnostics of the front end.

The front end PC needs to have a "Route" set up to the Back end PC for TwinCAT to work

PC Naming

Front End	Back End	Optional - Diagnostic PC
F0nn where nn is the build number	F0nnBE where nn is the build number	F0nnD

> ℹ️ ...The Diagnostic PC is sometimes added to give a permanent desktop that can be connected via teamviewer. This allows remote real time diagnostics withvideo footage and TwinCAT3 System Manager

Folder Structure

Setup Files	Front End Software
*.mul and *.saw initialisation files	written in vb.net
c:\ddrive\	c:\multi\winmulti.exe

Location of folder structure of MH side can be changed in the local masterdir.saw. See https://stuga.dokit.app/wiki/Masterdir_File

> ℹ️ ...The default folder used is called "DDRIVE" for historical reasons. Some other machines have aBeckhoff PC as the front end which has limited HDD space. In this case, a secondary PC was set up for diagnostics / storage (sometimes referred to as the "Camera PC"). The DDRIVE was set up as a shared folder on the Camera PC to store all machine data and diagnostics, which was mapped as "D:\" from the front end

PCs