

PC Configuration - ZX E

PC network configuration of the ZX3 / 4 following using a Windows Front End Pc and Beckhoff TwinCAT2 system running the back end on machining centre side. Windows PC with Nextmove ESB on Saw side

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Summary

Setup ZX-D ran into problems after a year or so in the field due to overloading of the Beckhoff front end PC. As the PLC program and front end programs increased in size and complexity, the processor and memory in the Beckhoff CX5020 caused performance problems. To overcome this, a quick, cheap and simple solution was to harness the processing power of the "Camera PC" to use as the front end and to keep the Beckhoff CX5020 just for PLC back end tasks.

In the ZX E format, there are 3 PCs in total

1. Beckhoff CX5020 Windows Embedded PC running PLC code
2. Saw side PC on windows OS
3. "Camera PC" used for and front end dial in diagnostics and video, archive and data storage.

All PCs have a network port and are connected through a 5 port switches located in the main cabinet, saw cabinet and a 3rd on the side of the MH machining module

This system has been upgraded on site to most ZX4 Mk4 machines to improve performance

PC Naming

MH Side Back End	Saw Side	Front End / Camera PC
Z0nn where nn is the build number	Z0nnS where nn is the build number	Z0nnC where nn is the build number
Located in MH Infeed cabinet	Located in Saw console	Located in MHInfeed cabinet

Folder Structure

MH Setup Files	Saw Setup Files	MH Front End Software	Saw Front End Software
*.mul initialisation files <code>\\Z0nnC\DDRIVE\</code>	*.saw initialisation files <code>\\Z0nnC\SAW</code> mapped as d:\ from Z0nnS	written in vb.net on Z0nnC <code>c:\multi\winmulti.exe</code>	written in vb.net <code>d:\winStugaSawVB.exe</code>

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

Cameras

The ZX4 Mk4 machine was supplied with cameras as standard. These are also networked into the machine system.