

Control System History

History of Stuga Control Systems

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2017 - TwinSAFE
2016 - Integrated Control
2015 - Windows 7/8 with TwinCAT3
2012 - PC Windows XP with PLC Back End
2010 - PC Windows XP
2003 - PC Windows XP Ecoline
1998 - PC Windows 95
1994 - PC DOS Arcom PC104 Bus
1990 - PC DOS Arcom STE Bus
1984 - 6502 Processor

Comments

2017 - TwinSAFE

Added TwinSAFE for safety control

2016 - Integrated Control

Both side of flowline (sawing and machining) on one PLC program

2015 - Windows 7/8 with TwinCAT3

Switch to TC3 and extend to ZX4 Control

2012 - PC Windows XP with PLC Back End

Beckhoff PLC original code written by subcontractor for Autoflow machine TwinCAT2
EtherCAT bus
Motion Control across EtherCAT

2010 - PC Windows XP

Saw software windows based, no direct control to back end
.net 2.0 Visual Basic
IO Control and Motion control via USB to Nextmove Controller
Control resides in Nextmove (Backend) - Mint Basic

2003 - PC Windows XP Ecoline

MS Access database used as front end, no direct control to back end
USB Link to Trio drive system (trio Basic), later to USB Nextmove - Mint Basic
Control resides in Nextmove (Backend) - Mint Basic

1998 - PC Windows 95

Flowline machining centre software multi.exe written in C++, DOS shell running on windows platform
Programming in C / C++
Network with saw side ACEpc
TCP/IP Networking
IO Control and Motion control via ISA bus to Nextmove PC 8 axis controller

1994 - PC DOS Arcom PC104 Bus

Router and Saw PC upgraded to ACEpc from Arcom using a PC104 bus for IO expansion
Programming in C / C++
Flash SDD 8Mb
Floppy disk storage and data transfer
TCP/IP Networking
IO Control via STE SPIBB16 interface cards
Motion Control via serial interface to SmartDrive "SmartSystem" 3 axis stepper controller

1990 - PC DOS Arcom STE Bus

Router control converted to 286 / 386 cards running DOS
Programming in C / C++
STE Bus System for IO expansion
HDD added up to 64Mb
IO Control via STE SPIBB16 interface cards
Motion Control via serial interface to SmartDrive "SmartSystem" 3 axis stepper controller

1984 - 6502 Processor

Router control system originally designed using 6502 processor CPU cards.
Programming in BBC Basic and Assembly code
Floppy disk based
IO Control via hand etched interface boards
Motion Control via card parallel interface to 3 axis stepper controller