

## Direct Ethernet Machine Data Acquisition

Seiki Systems has over 20 years experience in the development and provision of real time manufacturing execution and production control systems that provide an immediate, visual and dynamic picture of the 'plan to make' production process - your strategic and operational manufacturing management solution. We specialise in software that is designed to maximise the efficiency of production equipment and plant resources by addressing the complete works order lifecycle, from top floor to shop floor. The Seiki solution comprises of a suite of modular software including real-time scheduling, DNC and paperless manufacturing, SFDC and machine performance monitoring, W.I.P tracking, performance analysis and reporting and industrial touch screen PCs.



### Direct Ethernet Machine Data Acquisition

Seiki Systems is able to offer direct Ethernet CNC machine data acquisition as an integral part of our Machine Monitoring solution. Data over Ethernet enables unified, robust communication with your CNC machines. It is compatible with Siemens, Mazak and Fanuc. This solution enables you to record and track machine events - valuable manufacturing data that can make a real difference to your business.



### Fanuc

Collection of data from Fanuc controls is using FANUC's FOCAS control.

Control	Ethernet
15B	No
18C	No
0i-B	Optional *
0i-C	Optional *
0i-D	Yes
15i-A	Optional *
15i-B	Yes
16i-A	Optional *
16i-B	Yes
18i-A	Optional *
18i-B	Yes
21i-A	Optional *
21i-B	Optional *
30i	Yes
31i	Yes
32i	Yes

\*To check if Ethernet is present you need to check on the control of there is embedded Ethernet

NOTE: PCMCIA is not a good ergonomic solution and Seiki will not supply this.

Pre-requisites: Ethernet



### Mazak

Collection of data from Mazak machines is via in-built Mazak software on the machine.

Control	Ethernet
Fusion 640M, 640T, 640 MT	Ethernet Optional *
Matrix	Yes
Matrix II	Yes
Smart	Not Supported
Smooth G/Smooth X	Yes

\*To check if Ethernet is present you need to check the MS Windows settings. If no Ethernet is present then a 16bit PCMCIA card can be obtained from Mazak. NOTE: An E-Tower is a very good indication that an Ethernet port is present



### Siemens

Collection of data from Siemens controls is via software that we install on the machine HMI, which talks to the Siemens version of OPC.

Control	Ethernet
840D	Optional - In back of control
840D SL (Slimline)	Optional - In back of control of an electrical cabinet
840Di	Yes
828	No

Pre-requisites: PCU50 - This is a Windows PC that runs the HMI. It will have a Windows label on it and can be easily identified by the hard disk locking device.



NOTE: Seiki Monitoring is able to support a dual installation of direct Ethernet based machine data collection and traditional digital I/O

The following data can be collected via Ethernet based machine data acquisition. However, it is important to note that NOT ALL data is subsequently used by Seiki Analysis.

Data	Standard Analysis	Further Information
Status: • Running • Idle • Feed Hold • Alarm	Yes	
Alarm Number	Text of message	In Logbook only, no further analysis
Alarm Message	Text of message	Can be written to Logbook but no further analysis
Feed Override - Percentage	Sub-status of running	
Speed Override - Percentage	Sub-status of running	
CNC Part Count	Yes	
Active Program Name	No	Can be written to Logbook but no further analysis
Active Program Number	No	Can be written to Logbook but no further analysis
Currently Active Tool	No	Can be written to Logbook but no further analysis

Note: The Direct Ethernet Machine Data Acquisition feature is only available with Version 5 Seiki software.



For more information about any of our manufacturing software solutions contact us:  
**01273 666999** or email [sales@seikisystems.co.uk](mailto:sales@seikisystems.co.uk)

Seiki Systems Ltd | Olivier House, 18 Marine Parade, Brighton, BN2 1TL. United Kingdom  
[www.seikisystems.co.uk](http://www.seikisystems.co.uk)