

SEIKI SYSTEMS

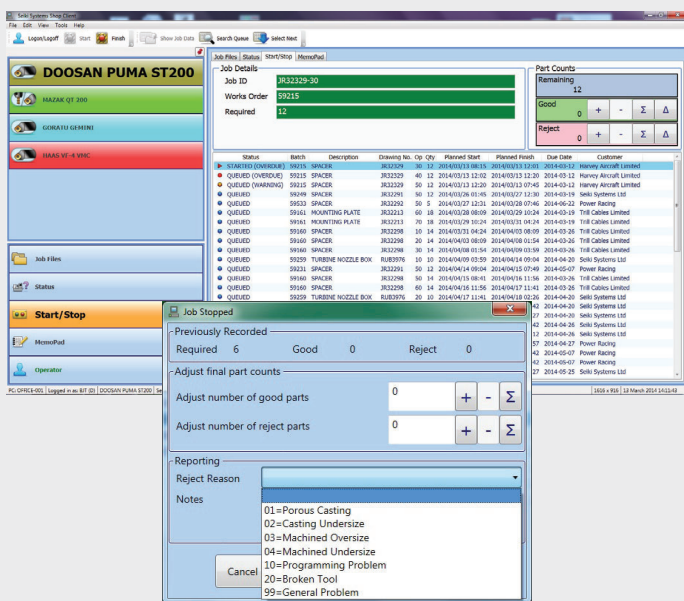
Seiki SFDC

Seiki Systems has over 25 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 planning and scheduling, DNC, SFDC WIP tracking, machine monitoring, performance analysis reporting and industrial touch screen PCs.



Transparent and Efficient Works Order Processing

The capture of accurate and reliable production data is key to a deriving a realistic view of the current status of all work in progress, which in turn enables you to have a view of your true capacity for planning and scheduling work throughput. Whilst traditional paper based methods can be used to collect and collate data, the data can often be inaccurate and consequently historical analysis has limited benefits. Seiki SFDC provides a robust real time works order data collection solution, supporting more transparent, effective and efficient works order processing.



Deliver electronic work queues to the operator on the shop floor enabling them to start/stop/pause jobs. Users can also manually enter good and scrap part counts and scrap reason codes



Works Order Data Collection

Seiki SFDC captures events occurring at the resource via the shop floor terminal, where the operator is able to confirm the start and completion of each Works Order. The quantity of parts produced can be entered manually or automatically (via part counter if fitted to the CNC) and can be progressive during the batch or upon completion. Users are also able to record information such as good and scrap part counts and scrap code reasons. This data can help identify opportunities for eliminating waste and create a more efficient and lean production process. To close the data loop, actual job operation times can be identified and configured to refresh the routing master within your manufacturing planning system.

If the Seiki Monitoring module is installed the system is also able to support the collection of the live resource status data as it is manually entered by the operator (e.g. waiting inspection), and/or automatically collected from the machine (e.g. cycle start). The combined information derived from works order data collection and resource status monitoring provides greater control and visibility of your performance, quality and resource availability.

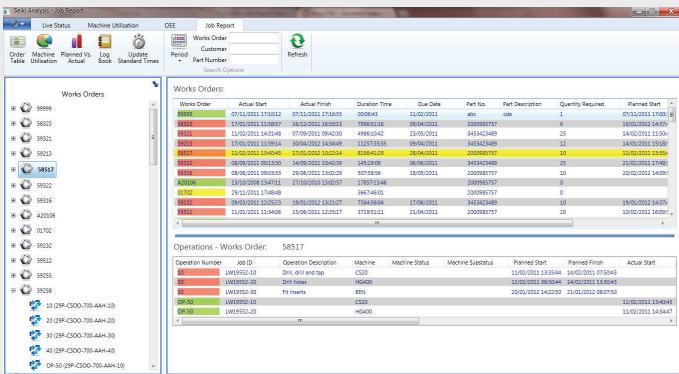
Seiki SFDC benefits include:

- A data collection solution designed specifically for the shop floor environment
- Improve visibility of works order status and material traceability
- Achieve greater data accuracy and on-time deliveries
- Optimise works order performance by improving output and reducing scrap levels
- Perform W.I.P tracking
- Supports accurate job costing
- Provides reliable data for continuous improvement strategies

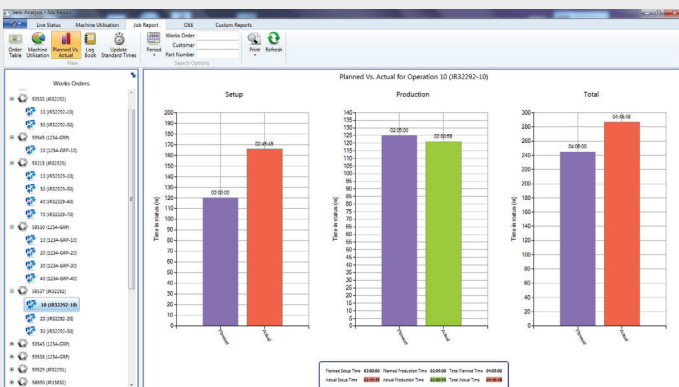


Work Queues for WIP Tracking

In order to realise all the benefits that are to be gained from job data collection, work queues (work-to-lists) may be used to support work in progress tracking. Seiki's Electronic Work Queue software enables scheduled works orders to be displayed directly on the shop floor for each workplace resource, providing the operator with forward visibility of the planned workload. Creating a work queue is simple. If you have a manufacturing planning system, such as the Seiki Scheduler or a third party ERP/MRP system, a work queue can be automatically created for each resource if the imported data for each works order contains a work centre resource reference. Alternatively works orders can be entered manually or 'dragged and dropped' from a central list to populate the work queues for each configured resource. It is also possible to group resources in order that a works cell may share a single work queue. Individual work queues may be configured into a single resource work queue to co-ordinate supportive activities to the same set of priorities and deadlines, for example this knowledge can enable the tool-presetting area to prepare tool kits for CNC machines in order of priority. Work in progress tracking is achievable using this combination of live manufacturing data when used with the Seiki Scheduler.



Office view of the live status of Works Orders and Works Order Operations



Seiki Job Report showing planned vs actual production data for an operation



Manufacturing Intelligence

Seiki analysis software acts upon the central data repository, providing an easy method of accessing, viewing and summarising manufacturing performance data to generate reports comprising of relevant management information based on real time data collection. Seiki Job Report software provides graphical reporting and detailed historical analysis of the progress and times of operations for individual works orders, including a comparison of planned versus actual job times and costs.

Each individual job report displays the part number, works order number, start time, total duration and quantity produced. The results can be presented in a pie chart, displaying an accumulation of the various activities that each operation involves between the start and completion of the job, together with an event sequence bar chart to show the individual job timeline. Within this graphical display the accumulative totals of the various actions on the job, e.g. setting, production and waiting, can also be made available through Seiki Monitoring. The information is shown as actual time spent on a given activity, with a percentage of total job time and the frequency with which the activity occurred. If the estimated or planned time for the job has been allocated it can subsequently be compared with the actual time that the job took (batch and per part) based on the data collected, and to further support accurate analysis, the system also enables you to allocate hourly costs for each machine. As well as detailed job analysis the software displays trends on repeating jobs in the form of a bar chart with activity lists.

All analysis data can be exported in a number of formats for internal distribution. This data from the shop floor will enable management to make informed business decisions and put in place initiatives to reduce costs and improve performance.

Seiki SFDC features include:

- Collect job status data - start/finish/pause
- Automatic and manual part counting
- Enter scrap code numbers and reasons
- Integrated with work queues
- Graphical reports of individual job performance
- Export data as .csv, .bmp or HTML format for easy distribution
- Integrates to your ERP system for automatic updating of inventory levels

Seiki SFDC is available as a stand alone solution or as an integral part of Seiki NMS. The modularity of Seiki software provides you with a flexible solution and progressive upgrade path. Our aim is to work with you to secure your return on investment and support your business as it grows. We offer a complete service including planning, installation, implementation, customisation, training and after sales support.



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

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