SEIKI SYSTEMS

Electronic Work Queues

Why Move Away from a Paper Based Work Queue

When implementing any production control system into a manufacturing organisation, key project objectives typically include a desire to reduce paperwork, as well as to control the flow and improve the overall speed, efficiency and accuracy of the delivery of critical job information to the shop floor. One area that can make a significant difference to achieving these objectives is the migration from paper based work-to-lists to an electronic work queue.

The sight of an in-tray on the shop floor full of paper based project document packs is not uncommon in many organisations today. In effect the in-tray can become an operator's work-to-list. As efficient as we all strive to be, the inherent problem with this is the lack of overall live visibility and control over the paper document package once it has been released to the shop. For a manager to then have an overview of what jobs are assigned to a resource, their live status and the risk of causing bottlenecks in the work flow, they would have to physically walk around the shop floor and look through each individual in-tray. The problem then becomes how accurate and current this information can be in a dynamic environment, where changes to the workload or individual job specifications can have significant consequences.

Improve Visibility & Efficiency

As an integral element of the Seiki SFDC module, Seiki's electronic Work Queue software is designed to address these issues with a flexible and configurable solution that can be used in all areas of the organisation to help improve control, visibility and efficiency of this critical stage in the production process. It enables users to view associated job information derived from the ERP, MRP or APS system (such as the Seiki Scheduler), directly on the shop floor or in an office environment. A prioritised list of jobs queued to the resource is then displayed on the shop floor terminal, where the operator is advised and able to respond accordingly for the start and completion of each job operation to support Work in Progress (WIP) booking and tracking. Depending on your requirements/system configuration, a number of additional features, modules and functionality can be made accessible or executable from the Work Queue.

Real Time Job Status Visibility

The Work Queue extends the level of real time Works Order status visibility further by providing a graphical indication of the status of any scheduled job in relation to its planned start time for queued job operations or planned finish time for those that are already in progress. The

Status	Batch
▶ STARTED OVERRUN	59316
● QUEUED LATE	59316
● QUEUED LATE	59316
● QUEUED LATE	59316
● QUEUED LATE	59317
● QUEUED LATE	59317
● QUEUED LATE	59179
● QUEUED	59215

software displays explicit configurable status descriptions such as Queued Warning, Queued Late or Started Overrun on the shop floor Work Queue terminal to show whether the active works order is currently on target against planned times. The software provides insight into the status of the preceding operation, i.e. whether the operation has been started or not and if so, how many parts have been produced thus far. This can enable users to foreshorten time in production by permitting overlap between operations as may be intended by the company's APS system. The operator can also view their current operation in the context of the entire routing sequence.
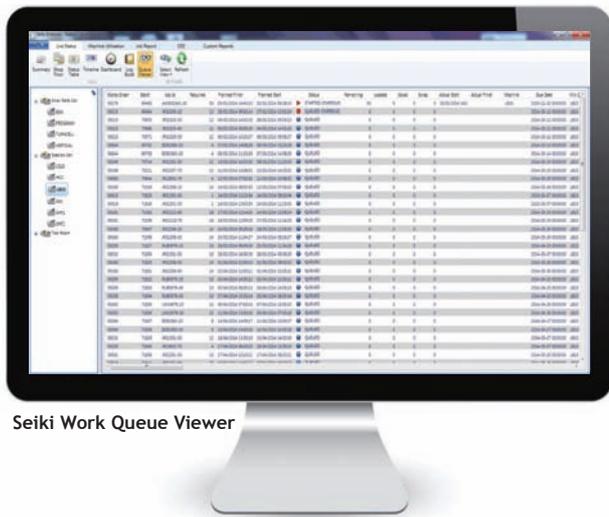
Seiki Electronic Work Queue benefits include:

- Delivery of accurate and complete information at the point of use

- Operator visibility of forward work load & latest manufacturing priorities

- Confidence in having the right information, in the right place at the right time

- Eliminates the time & costs of reproducing revised paper documentation. Supports sustainability/green initiatives.

- Co-ordinate the activities of pre-production departments with a common work queue to ensure that equipment is available for operations to be started on time

- Leverage the data contained within ERP/MRP and/or APS systems and fill the gap where enterprise systems software is less extensible, i.e. in the communication of this data to the point of execution on the shop floor

- Visibility of the operations assigned to a resource, their live status and the risk of causing bottlenecks

- Where changes to the workload or individual job specifications can have significant consequences, the real time, dynamic updating of the work queue with the latest priorities is a significant advantage

Bring Demand Flexibility to the Shop Floor

The other major benefit is the electronic Work Queue can easily be updated to reflect any changes in the work load as they are issued from the planning office, giving the operator forward visibility and confidence that the latest production priorities are displayed on the screen. If the Work Queues are driven by an APS system then the queues will update dynamically. If they are driven by the Seiki Scheduler the WIP booking entries will also dynamically update the operation status in the Scheduler works order view. This increased level of detail ensures that companies are able to work in a more real-time, collaborative and priority driven way by aligning people and processes in the goal of achieving on-time deliveries and customer satisfaction – bringing demand flexibility to the shop floor and real value to the business.

Deliver latest manufacturing priorities to the operator on the shop floor
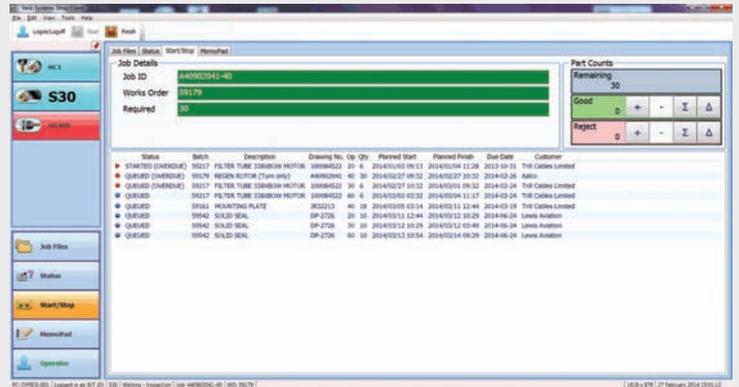

Seiki Work Queue Viewer

A similar view only version of the Work Queue can also be delivered to a production office environment with the Seiki Work Queue Viewer, providing the business with a fast, simple but intelligent live view of the shop floor.

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.

Related Modules

When coupled with our Work Queue driven Jobpack DNC and Machine Monitoring software, and/or integrated to the Seiki Scheduler, the solution offers an enhanced level of manufacturing visibility and control.

Seiki Monitoring

Allows users to view and record of all productive and non-productive events occurring on each resource. This module focuses on the machine as a critical variable in the analysis of your overall efficiency, as it enables users to quickly identify, evaluate and respond to important events whilst increasing equipment availability and reliability. When combined with job data collected from the Seiki SFDC module, the organisation benefits from a complete picture, both in real time and historically, of all the variables that can inform continuous improvement strategies.

Seiki Jobpack DNC

Delivers accurate and complete works order information (NC files, drawings, etc.) to the operator terminal on the shop floor, eliminating copy and distribution times for paper-driven operations. The system includes an administrative toolkit for the management and control of NC Programs, including file status and approval, assignment of user access privileges and generation of traceability reports.

Seiki Scheduler

A complete finite capacity planning solution that provides a dynamic, fast and flexible solution to a typically complex management procedure. It can create optimal sequences of production based on a realistic model of your true available capacity, as well as provide a clear visual indication of the impact of unforeseen changes in order to prevent late deliveries.

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.