KDS
Quantum

Quantum

Your ultimate step to improving production efficiency

KDS - helping create a more profitable business

Quantum
Shop floor data collection done differently

Efficiency Management

"Efficiency is the (often measurable) ability to avoid wasting materials, energy, efforts, money, and time in doing something or in producing a desired result.

In a more general sense, it is the ability to do things well, successfully, and without waste"

Every modern print converter must take steps to control and minimise waste. The way they approach this varies greatly from company to company and the success of their efforts also varies greatly, with many companies failing to achieve their objectives altogether.

Quantum Efficiency Management System from KDS offers a complete new approach for converters. Quantum performs highly accurate data collection while at the same time providing sophisticated job performance feedback for machine operators, assisting them to meet targets and reduce waste

Efficiency Management Units

KDS' unique Efficiency Mangement Units (EMUs) easily retrofit to any converting machine in just a few hours. Once installed the EMUs continuously monitor the machine, measuring and categorising every metre of material used and every second of machine activity. But EMUs are far more than just data collection equipment.

Whenever a new job is started the Job Specifications are downloaded to the EMU. Among other information, the specifications includes the quantity to produce and the estimated times and material usage for the setups and run parts of the job.

After using Quantum for just one day we were astonished at the inaccuracy of the waste figures we were logging on our manual job sheets. Quantum opened our eyes to our production problems and ultimately changed the way we did things.

Andy Bishop, Operations Manager
Chesapeake Bristol, UK

As the job progresses the EMU continuously compares the progress against the job plan and provides feedback to the operator via a comprehensive dashboard which indicates whether the job is on track or if it is falling behind.

The unique EMU dashboard assists the operator throughout the job, always keeping them informed of the progress. The EMU guides them to achieve 100% efficiency, clevery indicating when it is running behind target or even running too slow to complete on time.
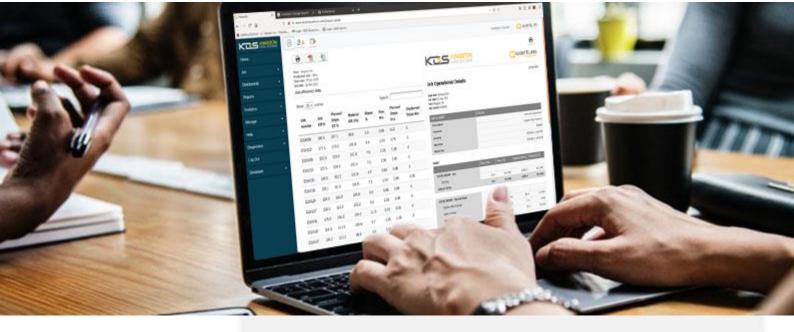
Connectivity

Quantum EMUs effectively connect your production machines to your company's network and stream data directly from them twenty-four hours a day. This telemetry is available to anyone with suitable login permissions via a standard web browser, so front line managers can easily get a live data feed directly from the machine. Managers can see real time job progress, job performance statistics and alerts when things are not quite going to plan.

And since Quantum uses web technology, permitted users are able to access this information from any PC, laptop, tablet or smart phone at any time, and from anywhere in the world.

Reporting

Quantum does not just stream live data. It actually provides much more.

At the heart of the Quantum system is a powerful relational database, where every aspect of every job, every activity of every operator and every meter and every second of activity on all machines connected to the Quantum system is automatically stored.

The stored data provides managers with an unprecedented databank through which they are able to analyse anything from an individual

job to operators, machines, departments and plants overall performances. Quantum is also able to collect and report on data from multiple plants.

A whole range of over 120 summary reports, analysis reports, event logs, productivity tables, activity charts, live job dashboards, historical job dashboards and machine performance dashboards are all available, intuitively, and instantly at the click of a mouse.

In brief – if something happened on a machine connected to the Quantum system, there will be a record of it in the Quantum database!

Analytics

Quantum also includes powerful analytics software enabling analysis and comparison of data over longer periods of time.

Analytics will allow mangers to see the results of their efforts with a host of charts and tables illustrating trends and changes in key performance statistics over time.

Data sharing

Over time Quantum will build up the most comprehensive data bank of productivity data, and that data can be selected and shared with other applications. Exporting

Data in CSV or XML format allows managers to use the data in their own custom spreadsheets or third-party reporting software.

Andon Boards

Quantum can easily be extended to provide customised data views and Andon Board displays for installation on the shop floor.

Live data from machines, or archived data from the Quantum database can be displayed and different pages can be automatically rotated at fixed intervals. Keeping the operators in the loop on progress and performance is a key factor in improving

MIS Integration

Almost all converting companies operate with some form of MIS system at the heart of their operation. This may be a fully functional ERP system or as simple as a few spreadsheets. The good news is that Quantum can integrate with it and import the job specification for all your scheduled jobs.

Quantum can then take over management of each job directly on the converting machine. Quantum will assist the machine operator achieve maximum efficiency and keep managers in touch with the job progress from start to finish. Quantum will record all activity and material usage on the machine and when the job is complete, Quantum will make the KPIs of the job available for export back to the MIS. In this way Quantum can become an expert Manufacturing Execution System extension to your existing MIS.

Quantum Platforms

Quantum is available in three different platforms so there is an ideal solution for everyone.

Quantum Solo: runs completely stand alone with the EMU hardware also containing a database and webserver. Simply install the EMU on a single machine and log into it from any web browser to use the Quantum web application.

Quantum EMS: is a complete capital purchase of the whole system including a dedicated server. The system and server are installed in your factory giving you complete control of the installation.

Quantum Cloud Services: is a subscription service, running from our fully hosted cloud servers. Simply install an EMU on each required machine and plug in a network cable to connect to our server. Very low upfront costs make QCS an attractive option since the savings you make each month can easily make it totally self-funding.

Summary

Quantum is the most comprehensive and accurate machine monitoring and efficiency management system on the market today. Complete integration with the converting machine and the unique operator interface make Quantum EMUs a useful addition to the machine. Unlike most other data collection equipment, EMUs assist the operators in their work rather than detract from it.

While unobtrusively monitoring every second of machine activity Quantum excels with comprehensive web reporting, analytics and live production dashboards. The intuitive Quantum Web Application provides managers with unprecedented insight into the production operation, helping reduce waste, boosting efficiency and improving operating profits.

Request a demonstration

We would love to show you how simple and how good Quantum really is, so feel free to contact us for more information or to arrange a Quantum demonstration.

Take the first step in getting total control of production and connect with your machines and operators like never before.

KDS
KINGSTON DATA SYSTEMS

Kingston Data Systems Pty Ltd, Unit 2 Progress Drive Carrum Downs, Melbourne, VIC 3910, Australia

www.kingstondatasystems.com
sales@kingstondatasystems.com
Tel: +61 3 9775 8316