iC Software

Process Knowledge for Lab and Plant

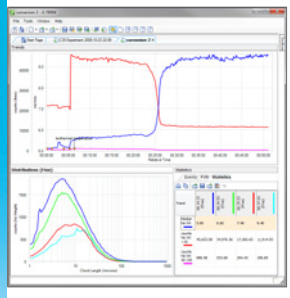
Inline Particle and Droplet Measurement

Scale-up from Lab to Plant

Process knowledge collected in the laboratory is developed into a standard operating procedure. iC Process enables the seamless transfer of these methods to the plant where they can be used for real-time process monitoring and control.

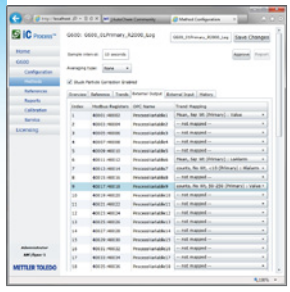
Intuitive Process Monitoring

The web-based user interface of iC Process makes it easy for operators to select the appropriate, approved method and collect data. Trend views allow users to monitor particle or droplet processes without the need for offline sampling and analysis.



Data Analysis for Experts

Plant data collected with iC Process can be further analyzed to gain deeper insight into the particle process. iC FBRM™ provides a wide range of options for analysis and comparison of real-time and historical process data.



Standard Interface to DCS

iC Process supports full communication to Distributed Control Systems (DCS) via industry standard communication protocols such as Modbus and OPC UA.

iC Process™ for FBRM®

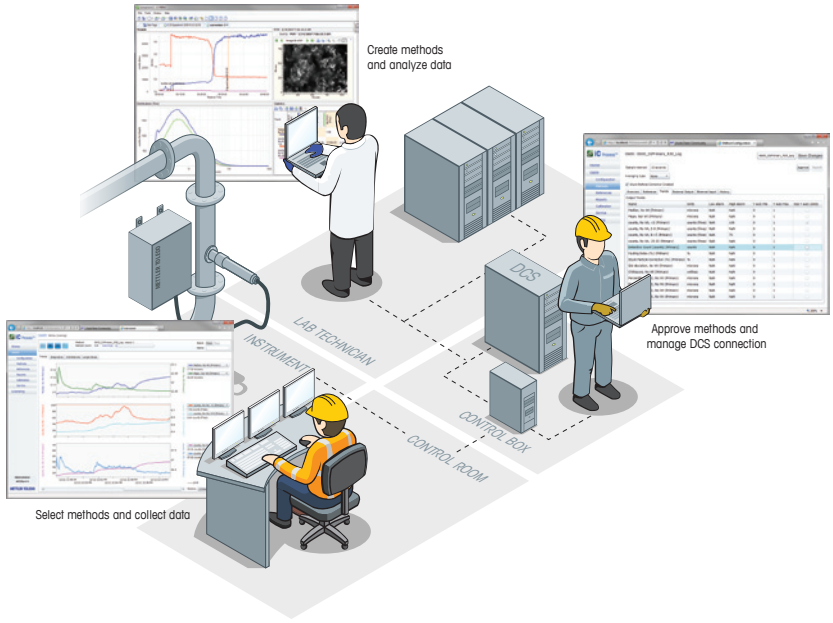
Specifically designed for inline monitoring of particle and droplet systems in the plant, iC Process enables the tracking of critical quality parameters in a process vessel or pipeline. This allows direct monitoring and control of their impact on final product quality or downstream process efficiency.

The iC Process user interface provides an immediate visual understanding of process progress and any upsets that may occur. Key information can be viewed on the iC Process webpage or sent to the Distributed Control System (DCS) for real-time monitoring and control of particle and droplet processes.

METTLER TOLEDO

Process Knowledge for Lab and Plant

Inline Particle and Droplet Measurement



Create a Standard Method for Process Monitoring

During the development process, scientists and engineers use iC software to collect and analyze data from laboratory experiments and use it to develop analytical methods for Process Analytical Technology (PAT) instruments. These methods are used to monitor critical quality and process variables when the process is transferred to the plant.

Transfer and Approve

An important part of implementing process analytics in the plant is the ability to transfer knowledge from the laboratory in the form of a method that is easily implemented in the plant. Optimized methods are validated and locked, then made available for use by authorized personnel. Within iC Process, engineers and operators can choose from pre-defined methods or templates developed in iC FBRM.

Monitor Particles and Droplets in Real Time

Operators select an approved method and start batch or continuous data collection using the intuitive web interface. Collected data is available in real-time via the iC Process webpage or directly through the DCS. Disturbances and process deviations are immediately detected and used to trigger manual corrective action or automated process control.

Conduct Expert Analysis with iC FBRM

Data collected in the plant using iC Process is seamlessly transferred back to iC FBRM where it can be further studied and analyzed. iC FBRM allows users to investigate root causes of process disturbances, batch to batch repeatability, and other factors related to critical product quality and process efficiency parameters.

Generate Reports

iC Process includes options to produce batch reports, customized time-range summaries or automated daily summary reports. Additional details are available using the professional reports generated by iC FBRM.

PC Specifications (Minimun Requirements)

	iC Process Client	iC Process Server
Operating System	Microsoft Windows 7™, Microsoft Windows XP™ SP3	Windows Server 2008, Microsoft Windows 7™, Microsoft Windows XP™ (SP3) (32-bit only for D600)
CPU	Intel Core 2 Duo 2.4 GHz	Intel Core 2 Duo 2.8 GHz
Memory	2+ GB RAM or more	3GB RAM or more
Hard Drive	SATA 5400rpm	SATA 7200rpm
Graphics	SXGA 1280x1024 with 3D hardware acceleration	
Additional Software	Internet Explorer 8, Microsoft Silverlight 5.1 Runtime, Adobe Acrobat Reader	

Supported Hardware

- iC Process for FBRM software supports the acquisition and evaluation of data from ParticleTrack™ G600/G600Ex, C35/C35Ex, E25, and FBRM D600 model instruments

Make Better Decisions, Complete Projects Faster

iC software integrates the experimental workflow making it simple to visualize, interpret and report results. A unified approach supports lab to plant applications for spectroscopy, particle characterization, reactor control and calorimetry.

Mettler-Toledo AutoChem, Inc.
7075 Samuel Morse Drive
Columbia, MD 21046
Phone +1 410 910 8500
Fax +1 410 910 8600

www.mt.com/iCProcess

For more information