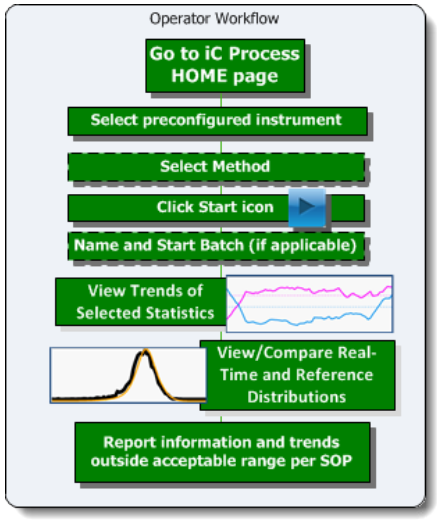
iC Process™ for FBRM 4.4 Quick Reference

For Operators of iC Process™ for FBRM®

This Quick Reference is designed to aid an Operator in monitoring continuous or batch processes using iC Process™ for FBRM software. Refer to the "iC Process for FBRM 4.4 Software User Guide" for details.
Prerequisite: ParticleTrack™ G600/G600Ex or ParticleTrack E25 instrument has been installed and configured in iC Process for FBRM, including method creation by an administrator).

I. Workflow

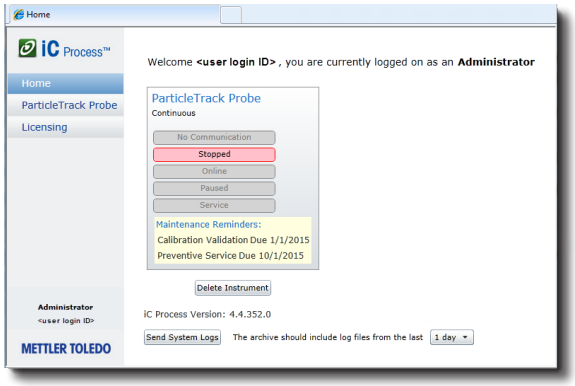
Operators use the software to to carry out a standard operating procedure (SOP) for monitoring a batch or continuous process.



II. Start iC Process for FBRM Software

1. Double-click the iC Process for FBRM desktop icon on the control computer.

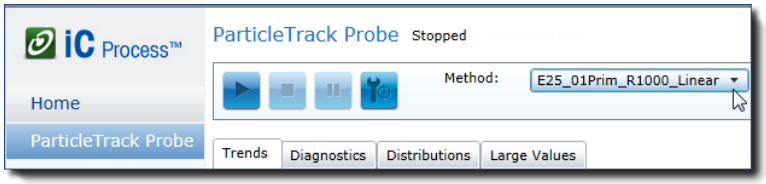
NOTE: If accessing the software from a remote computer, go to the Home page address (URL) for iC Process provided by your Administrator or IT department.



2. Enter your regular login name and password, if prompted. You may or may not see a Windows® Security login, depending on your IT department security.
3. Select the instrument by clicking the name in the left navigation menu.

III. Choose a Method

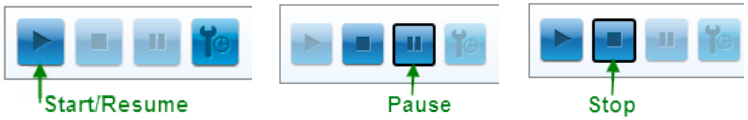
1. On the main instrument page, click the Method drop-down list.



2. Select the Method to use for the particle or droplet system according to your SOP. After method selection, the Start icon button becomes enabled.

IV. Use Toolbar to Control Instrument

First three action buttons at the top of the main instrument page control operation.



Start/Resume—System begins/resumes measuring data and sending it to external systems such as Modbus PLC/DCS, OPC UA, or a WITSML server.

Pause—System continues measuring data, but does not send it to external systems.

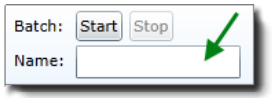
Stop—System ends measurement and instrument is in stopped mode.

Start a Continuous Run

When the instrument is ready, click the **Start** icon button. The instrument goes online and begins collecting measurements and archiving particle or droplet system data in continuous mode.

Start a Batch Run

1. Click the **Start** icon button.
   If the instrument is configured to run batches, a section of batch commands appears on the right side of the toolbar. Enter a Name (or leave the Name box blank to use the system-assigned name).
2. Click the Batch: **Start** button to begin the batch.



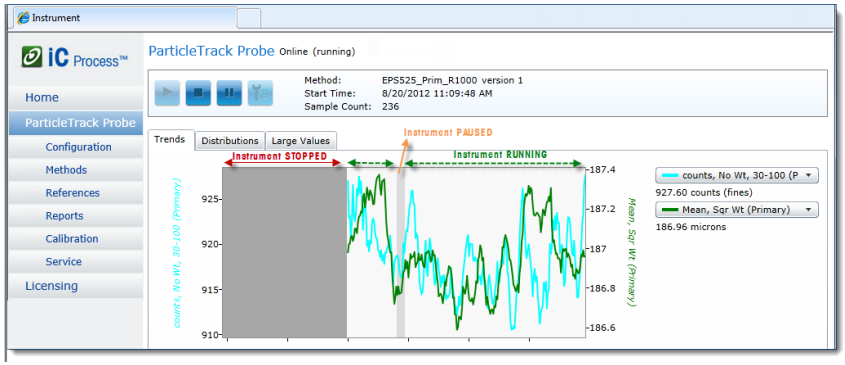
The batch starts, and the batch name or the system-assigned name appears.

NOTE: Green vertical dashed line in the Trends graph indicates the batch start and red indicates stop.

3. Click Batch: **Stop** when you are ready to end the batch and archive batch data.

V. Monitor Trends

Observe the Trends tab. Statistical trends of display in three stacked graphs (a single graph appears in the example below).



Below is a summary of selected information.

- Dashed horizontal line indicates high and low alarm limits, if established.
- Dotted horizontal line indicates target Reference value.
- A dark gray background indicates the instrument is stopped (offline), light gray means online, and medium gray (not shown) means the instrument is paused.
- Use the Time Window at the bottom of the Trends tab to collapse or expand the time window from as little as 15 minutes to as much as 24 hours.
- Use the Time scroll bar to view data as far as 10 days earlier, in time segments set by the Time Window.

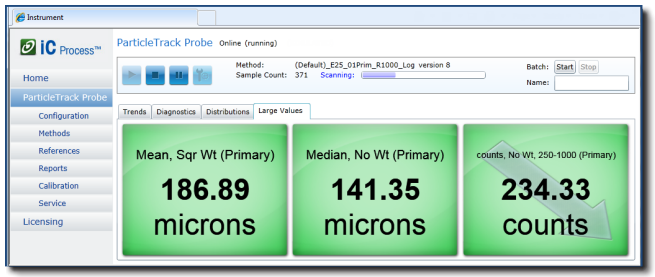
VI. Monitor Distributions and Collect a Reference

Select the Distributions tab.

- Observe the **bold black** line in the graph that shows the real-time distribution.
- If Reference Distributions are part of the method, they appear in the graph.
- If the current distribution is a good reference for the process, click Save As Reference to capture it. NOTE: Only ONE real-time **reference** distribution displays per run, so if you save another reference, the most recent one appears in the distribution graph.

VII. Monitor from a Distance

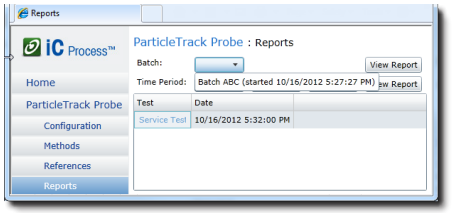
Select the Large Values tab to view enlarged values for the currently selected trend trends. An arrow appears when a trend value is increasing or decreasing (see example below). Also, the large value window shading changes from green to red if a trend value falls outside the limits defined for the method (see section IX).



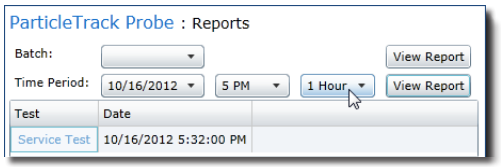
VIII. Generate a Report

A report automatically generates for each process run—A daily report for continuous runs and batch reports for batch runs. Reports are stored in XPS format in the Archive location configured by the Administrator.

1. Select Reports from the left navigation menu.



If batches have been run, click Batch and select the one to report. Then, click **View Report**.



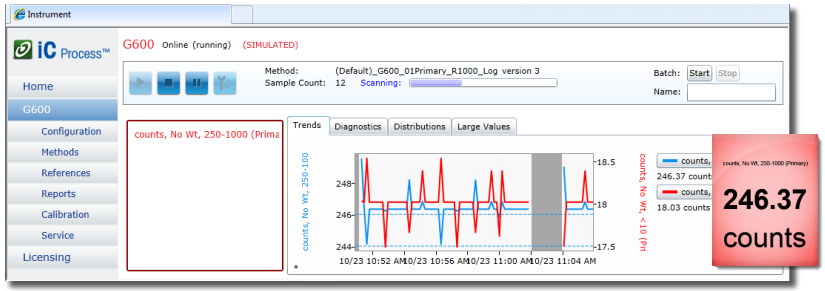
To run a continuous processing report for a specific time period, select the start date, starting time, and duration to report. Then, click **View Report**.

2. View, save, print, or distribute the report per your SOP.

IX. When You See RED!

If the instrument or particle system falls outside of predetermined limits while the instrument is online, key indicators change to red.

- Alarm panel appears. Hover a mouse over the alarm for details.
- Instrument name changes to red in the main display.
- If trend high and low limits have been set by an Administrator, horizontal lines mark the limits in the trend graph and the Large Value display changes to red.



Contact your Administrator and follow your SOP for alarm conditions.

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