DRJ FullView

Powerful Troubleshooting / Analytical Tool for DRJ Control Systems

A Windows based program, FullView is developed and used by D.R. Joseph to analyze system performance and errors on these systems. Now maintenance managers and technicians can connect to FullView via the supplied serial cable or Ethernet and gain complete access to IBC System parameters and display information.

Valuable parameters that a user can access to check system performance are:

- Verify/Change system communication integration settings
- Compare system parameter changes such as gain, deadband, alarms
- Upload and download parameter recipes
- Optimize sensor setup
- Set security access
- Set layflat deviation limits and alarms

Having access to these parameters can permit a user to compare system performance on all DRJ systems, and to tweak the performance to each blown film line's unique production requirements.

Without FullView, there is no real easy way to track parameter settings and their line performance implications. Referencing past parameter settings can prove to be one of your most valuable troubleshooting tools, and make optimizing another line all the more easy.

In conjunction with using FullView as an optimization tool for your lines performance, it is very valuable as a troubleshooting tool. In the case that a remote technician is unable to connect to your system, you have the same tools that a DRJ tech uses to troubleshoot an issue.

Over time, parameter settings on the system may be changed by a user for various reasons. A user could download the systems settings with FullView and later refer to the line's parameter recipe for future troubleshooting or cross checking another lines performance. This way, if parameters are changed thereafter, a useful comparison of the effects on changing the system's parameter can be drawn.

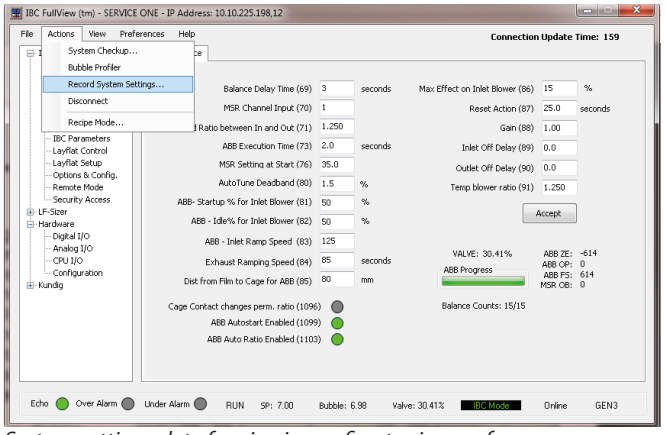
FullView is also useful when the IBC system functions are integrated into another line controller; it acts as a user-friendly interface to verify and set input/output signals to ensure proper communication.

To the right is an example of one such tool; the sensor checkout table. Accessing this table allows the user to view IBC and Layflat Sensor status, strength and echo, sensor temperature, sensor range and sensor errors.

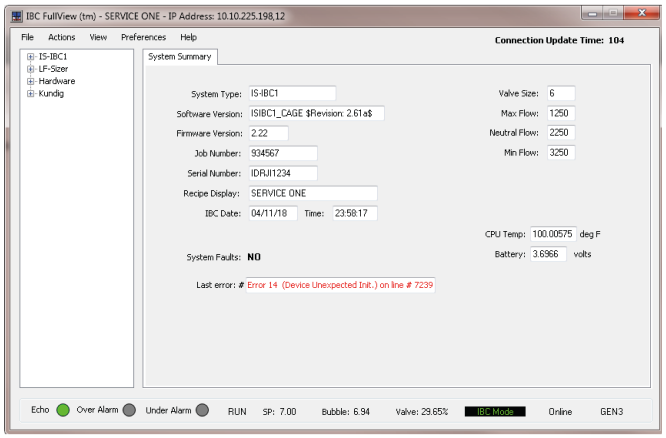
Troubleshooting tools that a user can access are:

- Cross checking line performance via saved parameter recipes
- Referencing line specific historical IBC settings
- View internal system faults and error information
- Monitor analog inputs
- Sensor checkout to view all sensor details, manage sensors, and perform sensor communication analysis to locate intermittent faults

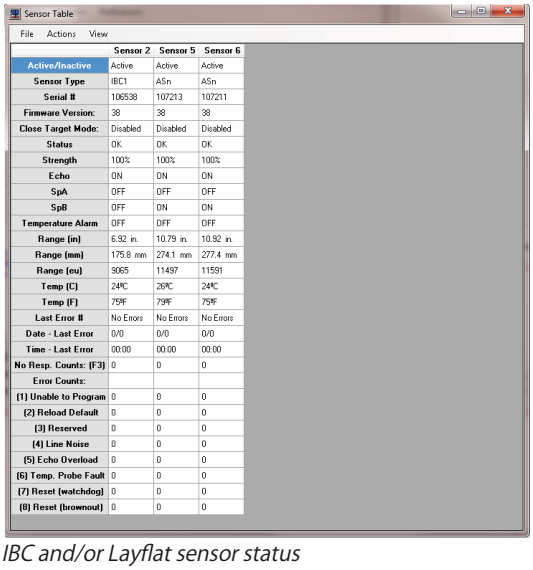
System Checkup is a troubleshooting tool that is quick and easy to use: with one operation, system checkup highlights any issues with the system.



System settings data for viewing or fine tuning performance



System Summary with configuration and software information



	Sensor 2	Sensor 5	Sensor 6
Active/Inactive	Active	Active	Active
Sensor Type	IBC1	ASn	ASn
Serial #	106538	107213	107211
Firmware Version:	38	38	38
Close Target Mode:	Disabled	Disabled	Disabled
Status	OK	OK	OK
Strength	100%	100%	100%
Echo	ON	ON	ON
SpA	OFF	OFF	OFF
SpB	OFF	ON	ON
Temperature Alarm	OFF	OFF	OFF
Range (in)	6.92 in.	10.79 in.	10.92 in.
Range (mm)	175.8 mm	274.1 mm	277.4 mm
Range (cu)	9065	11497	11591
Temp (C)	24°C	26°C	24°C
Temp (F)	75°F	79°F	75°F
Last Error #	No Errors	No Errors	No Errors
Date - Last Error	0/0	0/0	0/0
Time - Last Error	00:00	00:00	00:00
No Resp. Counts: (F3)	0	0	0
Error Counts:			
(1) Unable to Program	0	0	0
(2) Reload Default	0	0	0
(3) Reserved	0	0	0
(4) Line Noise	0	0	0
(5) Echo Overload	0	0	0
(6) Temp. Probe Fault	0	0	0
(7) Reset (watchdog)	0	0	0
(8) Reset (brownout)	0	0	0

IBC and/or Layflat sensor status

The trending feature allows for continuous data logging to a file as well as 20 minutes of trending stored on the computer screen for viewing.

The screenshot to the right shows IBC functions performance as reported by the system. From one screen you can see the trending of the layflat set point, actual layflat, bladder valve percents, inlet/outlet speeds as well as the Master Speed Reference for the blowers. You can also create an event to mark system changes to analyze them against the line performance and IBC settings.

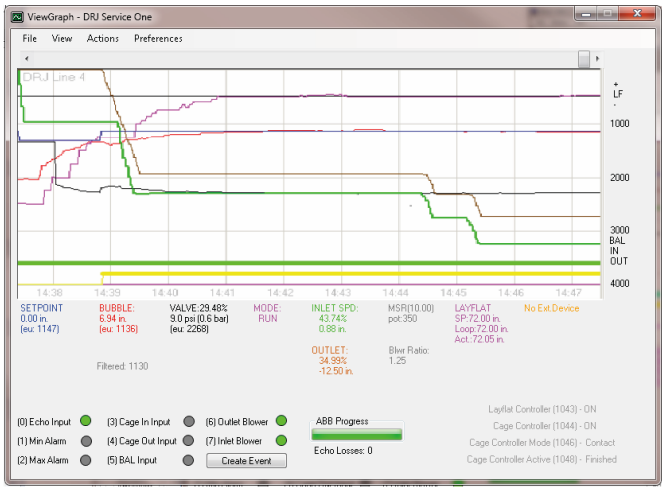
Analyze the data file using any spreadsheet program, such as Microsoft Excel, that supports the import of comma-separated variable (CSV) files. The graph can be printed or stored as a bitmap image and studied later.

Bubble Profiler is a feature that uses this .csv data to build a time lapse (adjustable speed) animation of the bubble from a top down point of view. 4 ea. IBC and Layflat sensors are shown in this example, representing each sensor's unique and dynamic distance to the bubble. This will enable the user to identify a pattern, if one, in the bubble's shape to help detect:

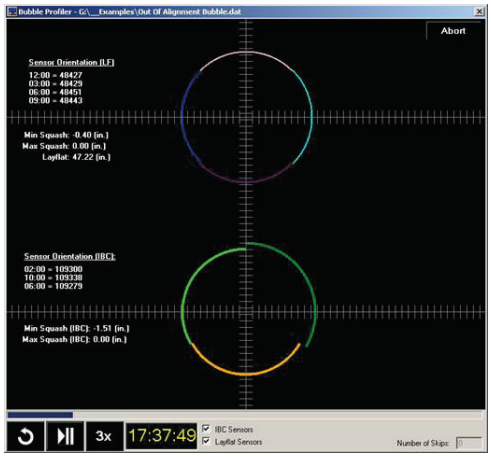
- Breathing
- Swirling
- Profile Issues
- Alignment or Leveling Issues
- Collapsing Frame Setup Issues
- Sudden Deflation or Inflation Issues
- Sensor Issues

Settings Check: When you are setting up your line, or changing a component on your line, with FullView you can easily check your settings to ensure that the IBC components are properly set. The screen to the right shows a display that helps check settings such as sensor distance on the right, layflat monitor setpoints, and analog output on the left to verify sensor signal. Under the "Hardware" tab on the left hand vertical column, you can also access the digital and analog input/output signals for the blowers, cage and sensors.

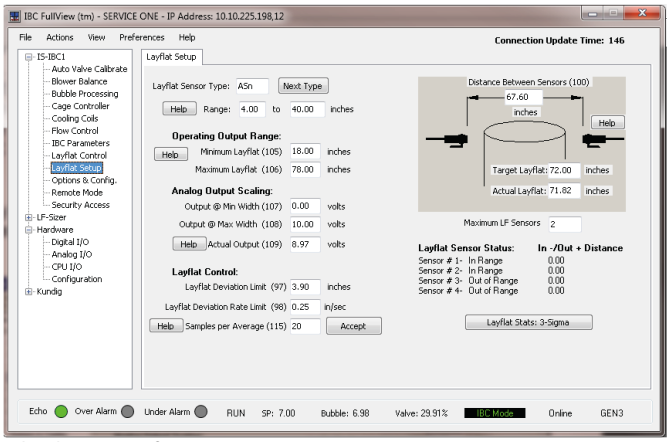
With the combined troubleshooting and optimization features on FullView, users can get the most out of their DRJ IBC system, and have a powerful troubleshooting tool in the instance that a problem arises or production changes require a parameter change for a successful and quantifiable adjustment to IBC settings.



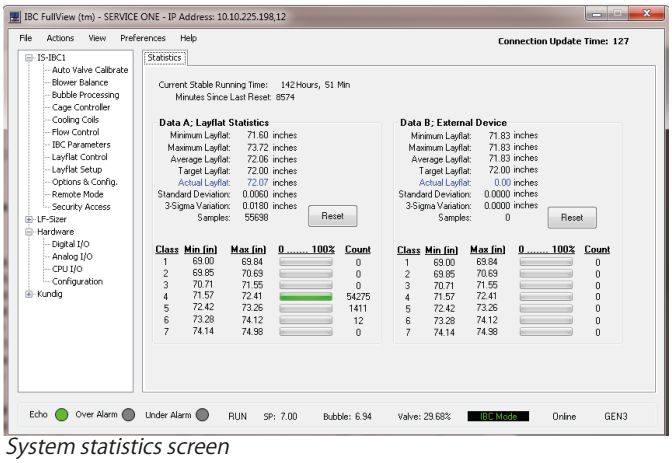
System trend screen showing IBC functions



Bubble Profiler showing bubble shape as measured IBC & Layflat Sensors



Check settings for proper component set-up



System statistics screen

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