Monitoring Laboratory Equipment From A Dashboard

Author

Dave Levy
Global Director
Asset Informatics and Analytics

PerkinElmer, Inc.

Background

Dashboards have been around for a very long time. Originally part of horse-drawn wagons, they protected passengers from whatever horses kicked up in transit. Fast forward to the 21st century and those lowly wagon boards have morphed into virtual command centers for a plethora of devices found in everything from the cars we drive to the latest scientific instrumentation found in laboratories around the world.

With such sophisticated monitoring tools now at our fingertips, it may come as a surprise to learn that the average lab, for instance, loses about $15,000 every time a key instrument fails. Those losses can be even greater in high-volume and networked laboratories, where the price tag per instrument failure can top $65,000 or more.[1] In today's ultra-competitive business environment, unexpected losses such as these can not only tarnish a lab's reputation and jeopardize critical research; they hurt the bottom line and can even lead to compliance and regulatory issues if there seems to be a chronic pattern of instrument failures. Sadly, recent research shows that may be happening more than we think, as many labs continue to underestimate the importance of regularly monitoring their instrumentation. That simple task could anticipate future problems and recommend remedial actions before untimely system failures ever occur.[2]

The Rise of Business Intelligence

Today's best-run laboratories are not so shortsighted as to ignore the benefits of monitoring their equipment nor are they just about pure scientific research anymore. Instead, they are run as businesses and cost centers overseen by professional managers who also happen to be more than trained scientists. Increasingly, lab leadership is comprised of experienced business leaders who are intent on optimizing the discovery process by employing continuous improvement initiatives, reducing unnecessary costs, minimizing lab downtime, and enhancing the efficiency of laboratory operations across the enterprise. To meet those objectives, lab leaders require reliable data about lab performance, productivity, and the total cost of ownership for every scientific instrument within their respective organizations. If that data happens to appear in an easy-to-access, interactive format that allows for customized reports on vendor services, asset performance histories, consumables usage, financial information, and exportable metrics reporting, so much the better. After all, time is money, and laboratories need facts and results, not another trip down the information rabbit hole. Armed with solid business intelligence, lab managers and business leaders could easily recognize why a specific device is profitable or not, rather than rely on the less-than-reliable "gut feelings" of the past. In combination with vendor performance reports, instrument service details, failure reports, and scheduled service dates – all available at their fingertips within seconds – lab leaders could quickly leverage this unprecedented level of information into a distinct competitive advantage that would clearly separate the winners from the "also rans." The question is how?

Defining the Big Data Problem

Rob Wright, editor of Life Sciences Leader, recently wrote that Big Data reminds him of the line in the *Rime of the Ancient Mariner,* "Water, water, everywhere, nor any drop to drink." With information growing at an exponential rate exceeding our ability to even store it, Wright fears that scientists are viewing only the tip of a proverbial iceberg and might well be overlooking potentially game-changing discoveries.[3]
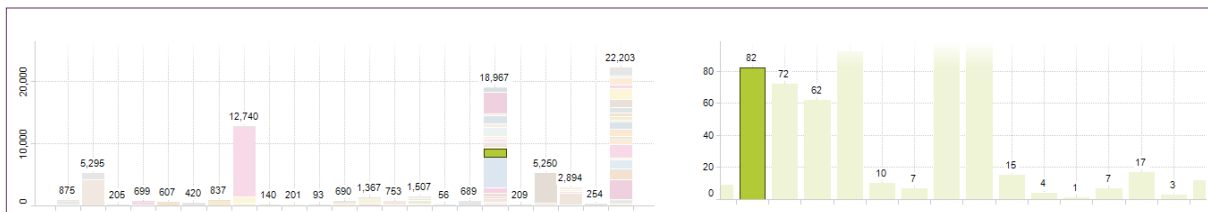
OneSource Dashboard: Asset Distribution by Type

This fear should not apply just to scientific data, but operational data as well. IT leaders throughout the scientific industry are under increasing pressure to provide lab scientists with "actionable information" they can actually use to make real-time decisions that affect their operations[4]. One obvious outcome of the trend to aggregate and integrate information for end users is the rising popularity of dashboard technology in the lab. The innovative and elegantly designed OneSource Dashboard is a case in point. Designed by PerkinElmer's OneSource Laboratory Services, the OneSource Dashboard is helping scientists track multiple aspects of their instrumentation across the lab and throughout the enterprise. A simple, highly visualized business intelligence tool, the OneSource Dashboard seamlessly interfaces with the OneSource web portal. Combined with the new OneSource Mobile app, these innovative tools provide a specifically designed suite of information services that offer OneSource customers deeper insights into their equipment, performance, and overall operations in a customizable format that monitors every lab instrument at a customer site, regardless of manufacturer[5].

Leveraging the power of your own lab's key performance indicators is only a few keystrokes away, and that journey begins by contacting your OneSource representative.

Reference

1. http://www.perkinelmer.com/pdfs/downloads/ BRO_010308_01.pdf

2. http://www.perkinelmer.com/pages/010/onesource/ onesource_multivendor_lab_equip.xhtml

3. Rob Wright, "Don't Let Big Data Analytics Prevent You from Being Brilliant at the Basics," Life Science Leader (July 2014), Vol. 6, No. 7, p. 6.

4. https://www.dhs.gov/news/2014/09/09/written-testimony-st-under-secretary-joint-subcommittee-hearing-house-committee

5. http://www.perkinelmer.com/pages/010/OneSource/Asset-Analytics-and-Informatics/onesource_dashboard.xhtml

For more details on the benefits of PerkinElmer's OneSource Laboratory Services Portal and OneSurce Dashboard, follow this link: www.perkinelmer.com/data

For a complete listing of our global offices, visit www.perkinelmer.com/ContactUs

011934_01   PKI