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CASE STUDY

Analyse-it® Reduces Method Validation steps at a National Clinical Laboratory

"With Analyse-it, I pull in the data and quickly analyse it, and then prepare figures for manuscripts right there. From the beginning of the project to completion, using one application saves me probably a day's worth of time."

Research & Development Scientist, at a National Clinical Laboratory in the USA
(who unfortunately could not be named, due to company policy)

When you work with many of the nation's university and teaching hospitals, as well as major commercial and government laboratories – offering more than 2,000 tests and combinations – efficient method validation makes a difference.

A research and develop scientist with a national clinical laboratory evaluates automated immunoassays for some of the industry's leading in-vitro diagnostic device makers, including Abbott Diagnostics, Bayer Diagnostics, Beckman Coulter and Roche Diagnostics. She and her colleagues compare the analytical performance of various machines and then publish the results.

Over several years of R&D, the researcher has used a variety of approaches to method evaluation, from customized Microsoft Excel spreadsheets designed by colleagues to packaged method validation software. Each of these approaches lacked key functionality, requiring her to use multiple tools to validate methods.

"The other method evaluator software we used wasn't integrated into Excel," she said. "There were steps to prepare data for analysis, and then we had to move figures to graphics software to get them ready for publication. I could never get Bland-Altman plots to look the way I wanted. It was a huge headache."

Method Validation Integrated into Excel

At the time, some of her colleagues used Analyse-it method evaluation software and recommended it. The software supports the latest CLSI and industry-recognised protocols, enabling users to validate, verify and demonstrate analytical accuracy, precision, linearity, reference intervals, and diagnostic performance.

Customer

Research & Development Scientist
National Clinical Laboratory in the USA

Challenge

A research and development scientist previously used customized Microsoft Excel spreadsheets and other method validation software, requiring her to use multiple tools to validate methods.

The Analyse-it Advantage

Analyse-it integrates right into Excel, saving steps and time learning how to use new software.

Analyse-it includes method comparison procedures not available with the previous software, including Bland-Altman plots, Passing & Bablok, Deming, Weighted Deming and Linear regression.

With evaluation in one application, the lab begins analysis more quickly and performs all steps within Analyse-it – saving about a day.

Researchers can analyse data on their own without engaging statisticians to create the required formulas in Excel.

Analyse-it®

In particular, the researcher appreciated that Analyse-it integrates right into Excel, saving steps and time learning how to use new software. It also includes method comparison procedures not available with the previously used method validation software, including Bland-Altman plots, Passing & Bablok, Deming and Linear regression.

Because Analyse-it works within the familiar Excel environment, the researcher can easily begin using the software immediately. She downloads data directly from laboratory instruments into Excel, rather than having to re-enter it manually into Excel or another software package. “It’s already in an Excel sheet,” she said. “I just open it up and the data set is there. It’s just so easy.”

Analyse Faster

With Analyse-it, the lab can perform analysis more quickly. “I just open up my data, and with a few clicks the software analyses the data, without the extra steps required with other software,” she said. “I can do regressions right away,” she said. “That’s probably the top feature for me.”

As a researcher, she also values the ability to analyse data on her own without engaging statisticians to create the required formulas in Excel – and that Analyse-it is considerably faster than using an Excel spreadsheet.

Figures Ready for Publication

Previously, the researcher could not prepare figures for publication in Excel or with the method validation software she used – forcing her to manipulate images in Adobe Photoshop or Illustrator. That added considerable time preparing results for publication.

Now, she can easily edit figures right in Analyse-it, adding and editing titles, moving around regression statistics, and formatting values of the axis. “I can edit the actual figures for publication in Analyse-it. It’s a lot faster now”, she said.

‘Saves Me Time’

From analysis to publication, the lab now saves considerable time. With all analysis in one application, eliminating manual input and excess importing and exporting of data, the researcher and her colleagues also reduce the risk of error.

“With Analyse-it, I pull in the data and quickly analyse it, and then prepare figures for manuscripts right there,” she said. “From the beginning of the project to completion, using one application saves me probably a day’s worth of time.”

A Reliable and Supported Product

Over the past few years of using Analyse-it, the researcher notes that the software has been updated regularly to remain current with the latest protocols and statistical procedures – ensuring that she and her team have access to the latest method validation procedures.

Most importantly, she and her colleagues have come to rely on Analyse-it. “It’s completely accurate and reliable. We can trust the information we’re getting.”

About Analyse-it®

Analyse-it is the most popular statistical analysis and charting software for Microsoft® Excel™. Formed in 1997, Analyse-it built its flagship product through work with two of the world’s largest pharmaceutical and diagnostic companies: Astra Zeneca and Johnson & Johnson (now Ortho-Clinical Diagnostics). More than 15,000 customers all over the world use Analyse-it, in organisations ranging from pharmaceutical and diagnostics, to educational, environmental, geological, medical & life sciences. Analyse-it is well respected in the scientific and research community, and is used and cited in thousands of peer-reviewed published papers.