

Case Study 109

BalanceTalk Software Aids in Cancer Research

The Challenge

The Fox Chase Cancer Center in Philadelphia, Pa. is a National Cancer Institute-designated comprehensive cancer center devoted to reducing the burden of cancer. Fox Chase has helped to pioneer the modern approach to understanding cancer by bringing together scientists from many disciplines. Fox Chase supports more than 80 research programs.

Cal Shaller is a researcher at Fox Chase who is working on new methods for attacking cancer with antibodies. His group is researching the use of radioactive isotopes that can be attached to a tumor and then used both as a diagnostic tool to characterize the tumor and as a means to isolate the treatment of the tumor. They have already determined that there is immediate clinical application for the diagnostic component of their research.

The group conducts experiments with laboratory mice that take place over a time frame of approximately one month. At the conclusion of the experiments, the technicians harvest and weigh the organs from each mouse used in the experiment. The 600 - 700 weights generated at the end of each experiment are entered into Microsoft Excel for further calculations and graphing. Analysis of that data is then used as the basis for planning the next experiments.

Manually transcribing this data and then entering it into Excel® proved to be a formidable task for the researchers. Not only was this an expensive process because of the technician time required for the data entry, it also meant that the researchers had to wait until all of the data was entered in Excel, before they could start planning for their next experiment.

At one point they tried to improve the process by using a thermal printer to print the weight data directly from the balance. Although this did eliminate the initial transcription time, all of the data still had to be manually entered into Excel®. It was clear that there had to be a better way to manage the volume of data that they were dealing with.

The Solution

Fox Chase selected BalanceTalk, from Labtronics Inc., to automate data collection from their Denver P-114 balance directly into their Excel® spreadsheet.

Setup of the software was simple and straightforward, as BalanceTalk includes an Instrument Library with setup information for balances from all of the major manufacturers. To connect their Denver P-114 balance, the lab simply selected "Denver Balances" from the list and specified the COM port that the balance was connected to. They didn't have to worry about baud rates, parity, data bits or parsers as all of that information was automatically entered for them.

Integrating BalanceTalk with Excel® was just as easy for the lab as setting up the balance. They simply entered the path to their Excel® application and the name of the spreadsheet template that they use for their data analysis.

Now, when the technicians have samples to weigh, they simply start data collection for their balance and BalanceTalk automatically starts Excel®, with their spreadsheet template loaded – ready to collect data.

The Result

BalanceTalk has completely eliminated the time consuming and tedious task of data transcription and data entry into Excel®. Mr. Shaller estimates that this is now saving 3 days of technician time per month over their manual process. With those savings alone, the BalanceTalk software, at a cost of \$495, was able to pay for itself in the first month that it was in use.

In addition to the cost savings, BalanceTalk has also eliminated the time that the researchers have to wait before they can review their data. They now have access to the full set of data, as soon as the last weighing is completed. This gives them more time to analyze their results and plan for their next experiments. As Mr. Shaller points out, "with the arrival of BalanceTalk we are now 3 days ahead of the game for every experiment."

BalanceTalk has clearly provided the Fox Chase Cancer Center with the cost-effective solution that they were looking for to manage the volume of data generated by their research.

When asked to describe the impact that BalanceTalk has had on his research, Mr. Shaller said that it “works beautifully” and “has proven to be a tremendous time saver”.

Benefits

- BalanceTalk has completely eliminated manual data recording and transcription, saving 3 days of technician time every month.
- Being able to send the data directly to Excel® gives the researchers immediate access to their experimental data.
- Very easy to setup and use
- Cost Effective – their \$495 investment was returned to them in just one month