



Customer Case Study: Biotech

Siemens Healthcare

CASE HIGHLIGHTS

Profiled Organization: **Siemens Healthcare**

Challenge: Reducing human error arising out of manual, repetitive and time consuming setting up of parameters by biostatisticians.

Solution: Automation Anywhere's experts provided an end-to-end solution, setting up parameters to automate Siemens' entire analysis process. Using the Visualizer and other tools in Automation Anywhere, Siemens' biostatisticians are able to gather data, generate reports automatically and transfer them to Excel for analysis.

Benefits: Siemens Healthcare could leverage Automation Anywhere to use their QPCR instruments and MxPro analysis software to the fullest, allowing for more accurate, cost, time and resource effective genetic analysis. This allows Siemens to continue to adhere to the high standards of the genetic analysis industry more efficiently.

BACKGROUND

Siemens Healthcare is one of the world's largest suppliers to the biotechnology / healthcare industry. The company is a renowned medical solutions provider with core competence and innovative strength in diagnostic and therapeutic technologies as well as in knowledge engineering, including information technology and system integration. Siemens Healthcare employs more than 49,000 people worldwide and operates in 130 countries.

ISSUE

Siemens Healthcare collects time sensitive and detailed data on DNA and other genetic material using a software (MxPro) that is integrated with a QPCR (Quantitative polymerase chain reaction) instrument. This data is analyzed and used in diagnostics solutions that provide more effective ways to assist in the diagnosis, monitoring and management of disease.

MxPro provides the ability to analyze this raw data. Genetic analysis, by nature requires detailed, multiple option reports. The software provides a plethora of settings that can be

adjusted manually for every type of report or analysis required. Setting up of analysis parameters was time-consuming, repetitive in nature and error-prone. For example, certain analysis required specifying an amplification based threshold manually. While doing so, if the lower and upper range data was not consistent between different runs, it produces erroneous data, which in the biotech/ medical field is unacceptable. Also, errors could only be identified once the report was generated requiring statisticians to re-work the entire analysis.

Moreover, there would be an increased cost of both human resource and time in rectifying settings and reanalyzing data. Siemens Healthcare was looking for a way to eliminate potential manual errors and reduce costs.

Siemens decided to automate the running of these reports in an effort to reduce the time consumed and decrease the re-analysis of data occurring as a result of manual error. Their

requirements were that the software be easy to use, easy to edit and most importantly reliable as that was the key reason to implement such a solution.

In summary: Siemens Healthcare needed a solution to deal with erroneous results, manual errors, increased time consumption and costs in order to be more effective.

SOLUTION

Siemens chose Automation Anywhere to automate the process of setting up analysis parameters. Automation Anywhere experts helped them define the required parameters and provided an end-to-end solution.

Working from a higher level, Automation Anywhere experts first mapped out the complete requirements. All data collected from the instrument was stored in a data file. Each file is taken and analyzed with a certain set of parameters to be decided by the statisticians. The results are then transferred to Excel and certain other reports are generated on the data collectively.

Using Automation Anywhere's SMART Automation Technology, experts automated the entry of specifications and made 7 different types of reports. The entire task required data from 28 screens, over 90 controls, over 250 keystrokes and 15 mouse clicks. The master task would take data from the data file one entry at a time, analyze it and transfer the results to Excel.

Biostatisticians using the automated tasks could easily "see" the task step by step using the powerful *Visualize* tool in Automation Anywhere. It allowed for quick editing if required and troubleshooting data-driven problems if and when they arose.

"The key to this solution was to make the task screen independent. Because it needed to be deployed on multiple machines, screen resolutions, loading times, etc., were bound to be varied and the automated task took this into account, thus running a seamless automated analysis."

- Jesse Canchola, Senior Biostatistician, Siemens Healthcare

BENEFITS

Siemens Healthcare realizes several benefits by automating their reports and analysis processes using Automation Anywhere:

- Quick deployment of automated solutions.
- Accurate report generation.
- Negligent manual intervention.
- Reduce time taken in generating reports.
- Cost and resource savings due to better efficiencies.
- Better leverage of state-of-the-art instruments and analysis software.
- Biostatisticians are able to easily monitor, edit or create their reporting requirements.

"The Visualize technology is an amazing addition to Automation Anywhere (AA). Being able to "see" the point of action brings AA to a higher level and allows our tasks to be completed in record time with troubleshooting a breeze."

- Jesse Canchola, Senior Biostatistician, Siemens Healthcare

Siemens continues to use Automation Anywhere on an on-going basis.

If you found this case study useful, explore how Automation Anywhere can give your business an edge – visit www.automationanywhere.com

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