IMPROVE SCIENTIFIC DATA PROCESSING WITH BIOVIA INSIGHT® FOR EXCEL
ENHANCE DATA AGGREGATION AND ANALYSIS
Use Case

Challenge:
Replace an entrenched spreadsheet-based data processing plug-in with a faster, more purpose-built tool running BIOVIA Pipeline Pilot protocols in Microsoft Excel spreadsheets

Solution:
BIOVIA Insight for Excel

Results:
- Significantly improved performance and speed (e.g., one Pipeline Pilot protocol reduced from 3-4 hours to 25 seconds)
- Reduction in number of required templates
- Fewer time-consuming manual processes
- Improved collaboration and decision making Improved design visualization and communication

CUSTOMER: A GLOBAL BIOPHARMA FOCUSED ON INNOVATIVE CANCER TREATMENTS

This BIOVIA customer supports drug discovery activities ranging from target validation and development candidate identification to clinical trial design and execution with a focus on cancer therapies. For many years, scientists at this company had been using a legacy plug-in to Microsoft® Excel® spreadsheet software for performing scientific data aggregation, analysis and presentation. With the legacy system reaching its end of life, the company made the decision to replace this legacy system with the BIOVIA Insight for Excel scientific data processing tool.

CHALLENGE: REPLACE ENTRENCHED SCIENTIFIC SPREADSHEET TOOL WITH BIOVIA INSIGHT FOR EXCEL

The greatest challenge in rolling out Insight for Excel was dealing with scientists' long-standing personal attachment to their existing spreadsheet tool. Entrenched legacy files were spread across every email server in the company with some scientists closely guarding Excel macros that they had used for years and did not want to change. However, the new deployment also presented an excellent opportunity to limit the number of complex custom macros used by a small number of individuals, and encourage more broadly applicable protocols that many scientists could use. With this in mind, the deployment team evaluated many use cases to see what they could replicate from group to group. They also fine-tuned queries to make them smaller and more easily supportable over the long term. Finally, while the legacy spreadsheet tool was flexible, it was also slow. With the amount of data growing year after year, scientists had come to accept the inevitability of some queries taking up to 3 hours to process.

SOLUTION: PURPOSE-BUILT, STEPWISE QUERIES IN THE POWERFUL PIPELINE PILOT ENVIRONMENT

BIOVIA Insight for Excel is more purpose-built than the legacy spreadsheet plug-in and works well with short, stepwise queries that build up results as they become relevant. This is much more efficient than the old process of bringing in 40 columns of data with one query, which is also difficult to support. By collecting use cases and better understanding what really mattered to scientists, the

deployment team was able to provide a smaller number of queries that worked for everyone, simplifying both deployment and ongoing maintenance of the system. They also took advantage of a unique capability of Insight for Excel. Running Pipeline Pilot protocols in Excel allows protocol authors to automate the process of accessing, analyzing and reporting scientific data directly within a spreadsheet. Scientists can load molecular data files and display live chemistry in Excel spreadsheets. They can calculate molecular properties and perform RGroup and combinatorial chemistry analyses on structures. The software even provides on-the-fly chemical name translations into and out of a variety of languages, eliminating the need for an expensive third-party tool to handle this. The company is now working on tools to streamline the writing of patent applications.

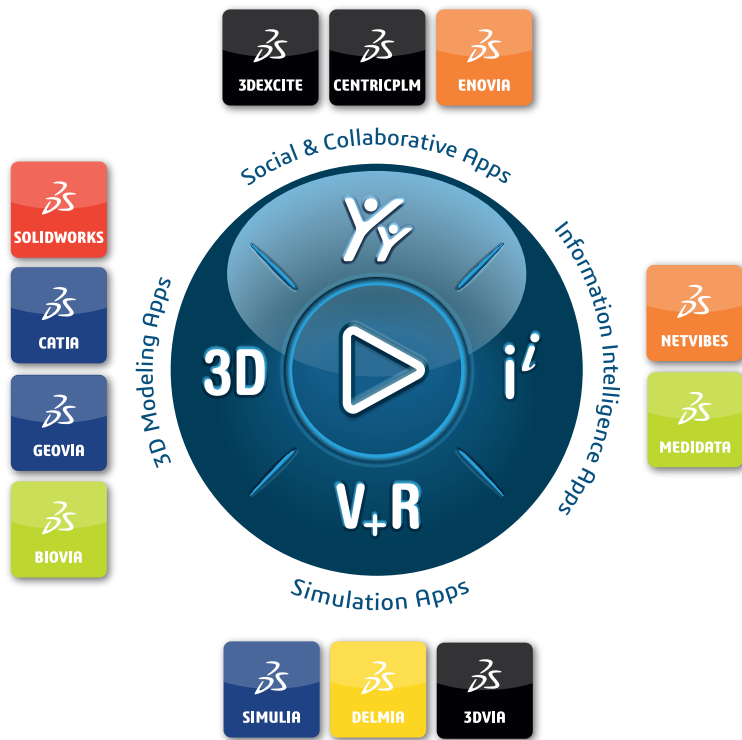## RESULTS: FASTER SCIENTIFIC DATA ANALYSIS IN EXCEL WITH FEWER TEMPLATES; IMPROVED COLLABORATION AND DECISIONS

One highly resistant scientist at the company was very vocal about not wanting to replace the legacy spreadsheet plug-in. The deployment team acquired one of his legacy templates, rebuilt it in Insight for Excel and ran it in a meeting. He was told to be patient; it might take a little time to run. "Yes," he said, "It will take 3-4 hours." The query returned results in 25 seconds, turning this skeptical scientist into an enthusiastic supporter of Insight for Excel.

> "I've never seen a software product that our scientists love as much as BIOVIA Insight for Excel. Developing protocols in BIOVIA Pipeline Pilot makes it easy to deliver specific capabilities in workflows that are familiar to users."
>
> — Lead Systems Engineer, Global Biopharmaceutical R&D Company

Replacing the legacy plug-in with Insight for Excel has delivered much more than simple spreadsheet capabilities to scientists at this Biopharma company. Their Pipeline Pilot integration provides a whole new model for delivering the solutions scientists want in the tool they use the most. By automating data collation, Insight for Excel eliminates time-consuming manual processes. The tool integrates experimental data with property calculations, predictive models and analytics in a familiar, intuitive spreadsheet environment. It offers powerful visualizations that are easy to assemble on the fly and can be applied as predefined templates. This provides unified project views for team members, driving collaborative decision making and accelerating therapeutics to market.

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CS-3507-0623