





BIOVIA, Dassault Systèmes supports science-based industries by providing a scientific collaborative environment for advanced biological, chemical and materials experiences. BIOVIA solutions including molecular modeling & simulation, data science, scientific and laboratory informatics, formulation design, quality & compliance and manufacturing analytics are used by more than 2,000 companies globally.

BIOVIA is Science. Our deep scientific heritage and valuable technology expertise advances the highest levels of scientific research and collaborative innovation across science-driven industries including life sciences, consumer packaged goods, energy & materials, aerospace & defense and high-tech. BIOVIA solutions and professional services are developed by scientists for scientists.

Since joining Dassault Systèmes, BIOVIA will continue to invest in Science while expanding into other core Dassault Systèmes industries. BIOVIA technology complements other Dassault Systèmes brands, allowing our rich scientific experience and know-how to speed product innovation and improve process design across other industries.



BIOVIA Scientific Portfolio Across the Product Lifecycle



DIGITALIZING SCIENTIFIC INNOVATION

In today's experience economy, the capability to develop, simulate and produce breakthrough experiences at the molecular level delivers transformational value for enterprises of all industries. BIOVIA is committed to help customers drive innovation, increase productivity, improve quality and compliance, reduce costs and accelerate time to market with a comprehensive software portfolio including:

Data Science

Unlock scientific innovation with Artificial Intelligence and Machine Learning from accessing and aggregating data to sophisticated analytics, modeling and reporting.

Molecular Modeling & Simulation

Create better performing, safer and more cost-effective products by connecting the virtual and real worlds to test concepts with minimum risk and lower costs.

Scientific Informatics

Improve collaboration, innovation and productivity by leveraging scientifically-aware tools to effectively access, analyze and share content.

Laboratory Informatics

Increase efficiency and enhance compliance with integrated, streamlined and automated lab workflows, along with harmonized, standardized and easy-to-deploy processes.

Formulations Design

Accelerate product innovation and product launches by managing product complexity and the regulatory requirements for global formulations.

Quality & Compliance

Achieve Total Quality and Business Excellence in BioPharma with a comprehensive data-centric approach to Quality Management, ensuring data integrity and a "Single Source of Truth" for information.

Manufacturing Analytics

Maximize process efficiency, reduce costs and control product quality, variability and yield in process industries with validation-ready process and quality data access, aggregation, contextualization, analysis and reporting

Integrating BIOVIA's strong suite of scientific informatics solutions with the Dassault Systèmes **3D**EXPERIENCE® platform creates significant opportunities for BIOVIA to support and develop systemic collaboration, project management, data and content reuse, traceability and other processes, applications and integrations that are critical to science-driven organizations.

BIOVIA supports more than 2,000 companies globally in the pharmaceutical, biotechnology, chemicals, energy, consumer packaged goods, aerospace, automotive, high tech and industrial products industries as well as academic and government entities.

BIOVIA PRODUCTS

Data Science

BIOVIA offers a comprehensive collection of solutions to support the development, maintenance and deployment of data science solutions. Lower the barrier to Artificial Intelligence with our prebuilt Machine Learning architectures or easily integrate your own from 3rd party tools such as Python and R. Expand the use and reuse of data, democratize advanced techniques and foster a knowledge-driven culture.

- BIOVIA Pipeline Pilot: BIOVIA Pipeline Pilot enables scientists to rapidly create, test and publish data science solutions that automate accessing, processing, modeling and reporting scientific data in a graphically-based, code-free environment. Additional libraries of out-of-the-box capabilities can also operationalize advanced scientific analyses and machine learning as enterprise tools.
- BIOVIA Scientific Intelligence: A suite of applications for researchers to rapidly aggregate, search, correlate and visualize scientific information and data for easy interpretation and exploration. Scientists can search electronic lab notebook (ELN) data to find their work, explore related projects or identify internal subject matter experts for potential collaborations.
- BIOVIA Insight: A web-based application that allows scientists to aggregate, refine, visualize and analyze data and share information with internal and external collaborators and stakeholders.

Molecular Modeling & Simulation

BIOVIA modeling and simulation software allows scientists to perform computations of chemical, biological and materials properties; to simulate, visualize and analyze chemical and biological systems; and to communicate the results to other scientists. Scientists can investigate and test hypotheses in silico prior to costly experimentation, reducing the time and expense involved in bringing products to market.

- BIOVIA Discovery Studio: This life science modeling and simulation application supports in silico target identification and lead optimization using a wealth of trusted life science modeling and simulation methods.
- BIOVIA Materials Studio: This materials modeling and simulation application helps researchers predict and connect a material's atomic and molecular structure with its properties and behavior.
- BIOVIA COSMOtherm: This comprehensive modeling and simulation tool utilizes COSMO-RS to predict a variety of chemical properties of pure molecules or mixtures in liquid phase.

Scientific Informatics

BIOVIA's solutions for Scientific Informatics are purpose-built to capture, store, manage and mine scientific data and information both on premises and in the cloud. Through this combined portfolio, we provide comprehensive data visualization and analysis software enabling scientists to convert raw data into actionable insight.

- **BIOVIA ScienceCloud**: A scalable cloud solution that supports collaboration across research, development and quality control, providing a secure, unified environment for informatics solutions from BIOVIA.
- **BIOVIA Draw**: Draw and edit complex molecules, chemical reactions and biological sequences, facilitating collaborative searching, viewing, communicating and archiving of scientific information.
- **BIOVIA Direct**: Register, search and retrieve molecules and reactions in a fully integrated, relational Oracle® environment.
- **BIOVIA Assay**: A web application for the analysis and management of plate-based screening data.
- BIOVIA Sample for Assay: A web-based application to track and manage sample data that comes from plate-based assays and the steps needed to prepare them (e.g., splits, pools, replications, etc.).
- **BIOVIA Content Databases**: This comprehensive, integrated and cross-referenced collection of factual databases and reference works covers chemical sourcing, molecular properties and bioactivity (metabolism and toxicology) information.

Unified Lab

The BIOVIA Unified Lab offers research, development, analytical and QA/QC laboratories a unique opportunity to remove paper processes and better support end-to-end analytical and process workflows. Unified, harmonized and standardized laboratory/resource management and procedure execution can help achieve your business goals by improving collaborative innovation, increasing productivity, reducing regulatory compliance and safety risk and accelerating time to market.

- **BIOVIA Workbook**: A multi-disciplinary electronic lab notebook (ELN) for documenting and managing the flow of information, tasks and materials within and between labs, with authoring and workflow support.
- BIOVIA Notebook: An easy-to-deploy, easy-to-use ELN for organizations focused on intellectual property capture and information sharing, process documentation and overall lower total cost of ownership.
- BIOVIA Study Design & Tracking: Provides the tools to design and manage multiple study types that are performed in scientific laboratories, and offers improved visibility of the experimental design (development) process across the organization.
- **BIOVIA Task Plan**: Supports tasking out of activities along with sample and work management in the lab. Scientists can create tasks and assign them to colleagues, while digitally managing the submission, routing, receiving, tracking and reporting of test results.
- BIOVIA Compose: Permits the creation of recipes and methods from standardized libraries of operations, allowing the right content to be input into processes from the beginning, for global procedure replication and compliance.

- BIOVIA Capture: A mobile-enabled application supporting execution procedures such as recipes and methods in the lab, which increases efficiency, reduces transcription errors, supports standardization and improves compliance.
- BIOVIA CISPro: A chemical inventory management system that makes current, real-time chemical safety and inventory data available on-demand, helping to drive the safe handling, storage and management of chemicals and other inventory materials.
- **BIOVIA Samples**: Manages the creation, receipt, collection, labeling, splitting and disposal of samples within the lab. BIOVIA Samples is configured to meet specific needs of different labs and provides compliance through the validated Chain of Custody.
- **BIOVIA Equipment**: A comprehensive application for automated instrument data acquisition and the management of instrument-related data and workflows.
- BIOVIA Chromatographic Data System (CDS) Add-Ins: Import sample information from BIOVIA Task Plan (including recipes) to the CDS, and send CDS result data back to the measurement store in BIOVIA Equipment, where it is available for further use in BIOVIA Capture and BIOVIA Task Plan.

Manufacturing Analytics

BIOVIA supports the entire manufacturing process lifecycle from process development through scale-up and tech transfer to final production by allowing customers to leverage their process and quality data to maximize efficiency, product quality and yield while meeting regulatory requirements and reducing costs in production processes.

 BIOVIA Discoverant: An enterprise-level, validation-ready system for process and quality data access, aggregation, contextualization, analysis and reporting. It enables the design of robust GMP processes and provides immediate visibility into process performance, quality and compliance risk, as well as improved understanding and control of process and product variability.

Formulations Design

BIOIVIA enables science-based companies to make better use of existing intellectual property (IP) to produce new formulated products more rapidly. New product forms, delivery technologies or breakthrough consumer products are dependent on innovators who combine raw materials – under strict regulatory guidelines – into formulations that are safe, stable, efficacious and cost-effective.

 BIOVIA Enginuity: An enterprise solution to build, manage, label and launch real-world formulations in the cosmetic, Consumer Packaged Goods (CPG) and pharmaceutical industries, using Good Manufacturing Practice (GMP) guidelines.

Quality & Compliance

QUMAS is a fully integrated cloud-based solution for managing quality data, documents and processes to achieve Compliance, Quality and Operational Excellence throughout the product lifecycle. The core of this offering is QUMAS EDMS for Quality Document and Content Management and QUMAS EQMS for Quality Process Management. This integrated solution allows organizations to automate quality processes, promote data integrity, reduce compliance risks and enhance quality. Customers can expand the capabilities with search and analytics capabilities for Quality content, providing true end-to-end control and visibility.

- **QUMAS EDMS**: A cloud-based Electronic Document Management System for data-centric documentation and content management that delivers proven regulatory compliance practices for data and document control and related training across the business.
- QUMAS EQMS: A cloud-based solution for Enterprise Quality and Quality Process Management that enables organizations to standardize and automate business processes that manage the collection, tracking and analysis of information and the resolution of related issues.
- **Quality Intelligence**: Federated 3DSearch and quality-specific analytics capabilities based on the **3D**EXPERIENCE platform that provide the technology to enhance and advance Quality strategies.

BIOVIA SERVICES

- Solutions Consulting: The Solutions Consulting team provides implementation services and other tailored service solutions including scientific computing, IT integration and project management supporting worldwide engagements.
- **Training**: The Training team helps customers to accelerate software adoption and use with self-paced, on-demand training, onsite training for groups and online training for groups with remote instructors.
- **Customer Support**: The Customer Support team offers scientific and technical support capabilities staffed by product and scientific experts with PhDs in biology, chemistry and IT/ computer science qualifications located throughout the US, Europe and Asia-Pacific.
- Scientific Consulting and Contract Research: Dassault Systèmes offers flexible customer engagements leveraging advanced molecular modeling/simulation (using computational science), scientific data analytics (using Machine Learning) and the deep scientific knowledge of Dassault Systèmes experts to help customers speed product innovation and improve process design.

BIOVIA BACKGROUND AND HISTORY

Dassault Systèmes (Euronext Paris: #13065, DSY.PA) acquired Accelrys Inc. in April 2014, establishing the BIOVIA brand by combining Dassault Systèmes' collaborative **3D**EXPERIENCE technologies and the leading life science and materials science applications from Accelrys. BIOVIA now provides the largest and deepest science portfolio supporting the scientific informatics, molecular modeling & simulation, data science, laboratory informatics, formulation design, quality & compliance and manufacturing analytics domains. In December 2018, Dassault Systèmes acquired COSMOlogic GmbH & Co., a leader in thermodynamics for exact modeling of solubility and computational chemistry, delivering value along the entire chemicals and materials value chain. Now part of Dassault Systèmes' BIOVIA brand, COSMOlogic technology is transforming the way BIOVIA customers across multiple industries make predictions in fluid-phase Thermodynamics from product ideation to delivery. This technology can help sciencedriven innovators develop and deploy successful enterprise-class solutions that improve productivity and accelerate new products to market.

ACCELRYS BACKGROUND AND HISTORY

Accelrys commenced operations in 2001 following the combination of five companies: Molecular Simulations Inc., Synopsys Scientific Systems, Oxford Molecular, Genetics Computer Group and Synomics Ltd. In 2004, Accelrys acquired SciTegic, the developer of Pipeline Pilot data pipelining software. This keystone product has evolved into BIOVIA Pipeline Pilot, which now provides an integrated solution for accessing data, cleaning it, modeling it and sharing results, as well as a scalable framework for end-to-end data science.

In July 2010, Accelrys merged with Symyx Technologies, Inc., combining Accelrys' portfolio of scientific informatics solutions with the market-leading Symyx electronic laboratory notebook (ELN) and other Symyx/MDL software products. Subsequently, Accelrys extended its ELN capabilities through the acquisition of Contur Software AB in May 2011 and broadened its data capture and laboratory execution capabilities for the critical QA/ QC phase of product development through the acquisition of VelQuest Corporation in January 2012. The acquisition of Colorado-based Aegis Analytical Corporation in October 2012 brought the Discoverant manufacturing analytics solution suite for compliance-intensive industries into the Accelrys software portfolio.

In January 2013, Accelrys acquired Vialis AG, a leading informatics system integrator. In September 2013, Accelrys acquired ChemSW, Inc., an Environmental Health & Safety (EH&S) compliance solutions provider with a system for managing and tracking the source, use and disposal of chemicals along the entire lab-toplant value chain. In December 2013, Accelrys acquired QUMAS, a Cork Ireland-based company focused on Enterprise Regulatory, Quality and Compliance Management.

This deliberate merger and acquisition strategy made Accelrys—now Dassault Systèmes' BIOVIA brand—one of the largest, most comprehensive scientific informatics providers in the world. BIOVIA now offers the experience, knowledge and know-how to design, develop and deploy successful enterprise-class solutions and experiences that can improve the productivity of sciencedriven innovators and accelerate new products to market.

OFFICE LOCATIONS

BIOVIA Dassault Systèmes employs approximately 700 people in software development, quality assurance, customer support, consulting, sales, marketing, accounting, finance, and legal.

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Our **3D**EXPERIENCE® platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the **3DEXPERIENCE**® Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 210,000 customers of all sizes in all industries in more than 140 countries. For more information, visit **www.3ds.com**.





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