

# NEXT-GEN FORMULATION DESIGN ON 3DEXPERIENCE PLATFORM

Datasheet



BIOVIA Formulation Design is a cloud-native software solution crafted to assist formulators in efficiently handling recipes for a variety of formulated products. This solution facilitates the management of formulation data, ingredient definitions, and employs robust domain-specific calculations to enhance formulation optimization. The inclusion of formula reporting and integrated regulatory compliance checking significantly streamlines the product development process. Through potent search functionalities, formulators can harness organizational knowledge to initiate new projects and concurrently develop multiple formulations. Formulation Design further encourages secure collaboration and information sharing, thereby expediting research and development processes.

## KEY VALUES:

- Accelerate formulation development
- Optimize formula costs
- Enable collaboration and improve productivity
- Reduce compliance risks
- Design formulas using powerful calculators

## KEY FEATURES:

### Leverage past work for new projects

BIOVIA Formulation Design empowers formulators to seamlessly find and leverage valuable information from previous formulations.

This capability enables formulators to expedite reformulation processes and make well-informed decisions by tapping into the extensive data resources within their organization. Formulators can refine search results by combining various types of information from past formulations, including ingredient usage and test results. Importantly, stringent access controls guarantee that formulators can only access data for which they have explicit permission, ensuring data security and confidentiality.

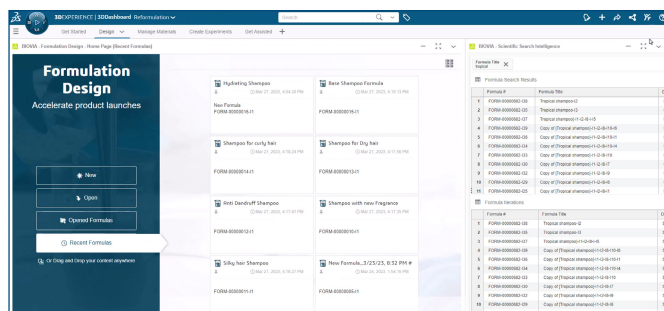


Figure 1: Modern and user friendly interface for Formulation Design

## Create multiple new formulas: faster, better and easier than ever

Formulation Design delivers an intuitive user experience designed to streamline the formulation process, boost productivity, and minimize the learning curve for new users.

Formulators can easily view and analyze the ingredient composition of their formulas. Furthermore, the 3DEXPERIENCE® Platform facilitates the swift creation of new materials, enabling formulators to seamlessly incorporate them into their formulations in real-time.

Understanding the genealogy of a formula is crucial for effective reformulation. Formulation Design enables formulators to trace the development lineage of a formula, offering valuable insights into its evolution. Users can track the origins, histories, and relationships of formulas, leveraging this information to enhance their understanding and make informed decisions.

This iterative process, based on experiences and lessons learned, ultimately contributes to improved formulation outcomes by avoiding past pitfalls.

Formulation Design facilitates seamless collaboration among users by securely sharing formulations. This ensures that relevant stakeholders can contribute and collaborate in a controlled and protected environment.

To expedite the creation of an entire line of formulated products, Formulation Design offers the capability to edit multiple formulas in a single screen. This feature eliminates the need to modify each formula individually, saving considerable time and effort, especially when formulating related products or variants. This streamlining of the formulation process enhances efficiency and productivity in product development.

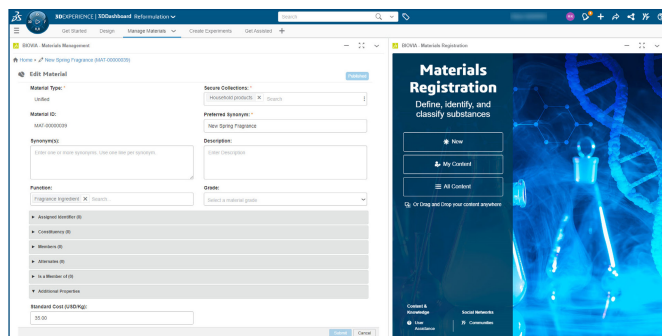
The screenshot shows the 'Compare Formulas' feature in BIOVIA Formulation Design. It displays a table with multiple columns for different formulas, allowing users to compare their compositions side-by-side. The table has a header row with columns for 'Name', 'Unit %', 'Unit Wt', 'Unit Vt', 'Unit Wt', 'Unit Vt', 'Unit Wt', 'Unit Vt', 'Unit Wt', 'Unit Vt'. Below the header, there are several rows of data, each representing a different formula. The data includes various chemical components and their respective weights and volumes. The interface is designed to be easy to use, with clear labels and a structured layout.

Figure 2: Compare and edit multiple formulas simultaneously

## Calculations - Support for various formulation methods

The application provides various calculations to support formulating in various modes such as:

- **As added basis:** set initial ingredient amounts that will be used to make the formula
- **As formed basis:** set desired final ingredient amounts after the formula is made
- **Active level basis:** set ingredient amounts based on ingredient activity
- **Per piece basis:** set desired ingredient amounts in the final container/dosage/tablet/unit of the product
- **QS ingredients:** set balancing ingredients and the application will calculate the filler amount after all other ingredients have been added
- **Premixes:** Prepare premixes and use them repeatedly multiple levels deep as required
- **Formula summary:** Review your formula by looking at combined amounts/flattened out views of formulas



**Figure 3:** Seamless integration with Materials Management to easily create and manage formulation ingredients

## Real-time regulatory compliance monitoring

Ensuring compliance with regulatory standards during the early design phase is critical for optimizing time and resources, preventing unnecessary efforts in formulating and testing compositions that may later fail regulatory checks. Formulation Design excels by integrating regulatory data, enabling real-time assessment of compliance during the design phase. Identifying issues early minimizes the risk of delays, contributing to an efficient development timeline and improving time-to-market for formulated products.

## Convenient reporting for easy sharing of information

Formulation Design offers robust reporting functionality, allowing users to generate comprehensive reports on their formulations. These reports can include specific details and insights, providing a clear overview of the formulation process and its outcomes.

## Formulation APIs

Formulation Design is designed to support integration with third-party systems through a fully documented Application Programming Interface (API) and the event-publishing infrastructure provided by the 3DEXPERIENCE Platform. This integration capability allows for efficient and controlled communication between Formulation Design and external systems and broadens the functionality and adaptability of Formulation Design, allowing it to seamlessly collaborate with other tools and systems within an organization's technological ecosystem.

## Seamless Integration with Scientific Notebook – BIOVIA Next-generation ELN

BIOVIA Formulation Design offers seamless integration with Scientific Notebook, streamlining workflows in formulation development and experimentation. Scientists can utilize formulas within Formulation Design to initiate a formulation study in Scientific Notebook. This integration provides a consolidated view of formulas, specifications, tests performed, and their results, all within a single interface. The synergy between Scientific Notebook and Formulation Design enhances the efficiency of testing for reformulated and new formulations.

## Integrated with Lab Operations

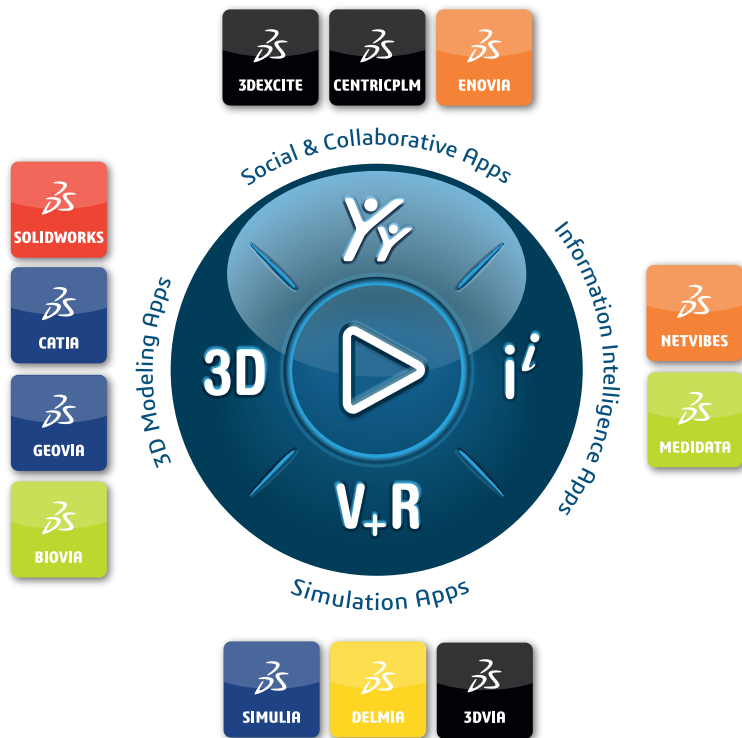
Formulation Design integrates with Laboratory Operations for batch making. Upon completing a formula design, formulators can initiate the creation of a batch plan in Laboratory Operations with a simple click. Users have the flexibility to define test specifications and, if necessary, route the batch plan for approval before actual batch production begins. The collaboration between Formulation Design and Laboratory Operations marks a transformative shift in the process of designing, making, and testing reformulated products.

**Figure 4:** Integration with Scientific Notebook

Take the next step in your formulation development journey. BIOVIA Formulation Design ensures you are getting the most out of your data, with less effort, to accelerate your formulated product development.

**Figure 5:** Integration with Laboratory Operations

LEARN MORE



## Our 3DEXPERIENCE® platform powers our brand applications, serving 11 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the 3DEXPERIENCE Company, is a catalyst for human progress. We provide business and people with collaborative virtual environments to imagine sustainable innovations. By creating 'virtual experience twins' of the real world with our 3DEXPERIENCE platform and applications, our customers push the boundaries of innovation, learning and production.

Dassault Systèmes' 20,000 employees are bringing value to more than 270,000 customers of all sizes, in all industries, in more than 140 countries. For more information, visit [www.3ds.com](http://www.3ds.com).

### Europe/Middle East/Africa

Dassault Systèmes  
10, rue Marcel Dassault  
CS 40501  
78946 Vélizy-Villacoublay Cedex  
France

### Asia-Pacific

Dassault Systèmes K.K.  
ThinkPark Tower  
2-1-1 Osaki, Shinagawa-ku,  
Tokyo 141-6020  
Japan

### Americas

Dassault Systèmes  
175 Wyman Street  
Waltham, Massachusetts  
02451-1223  
USA

**DS** **DASSAULT**  
**SYSTEMES** | The **3DEXPERIENCE**® Company