

## OVERVIEW

Companies that require faster results in their drive for competitive advantages in engineering and science are relying on predictive models to reduce costs and time to market for new and improved products. Engineers, scientists, and researchers who are tasked with building and using predictive models in their organizations may lack the analytical tools and expertise that can be applied to industrial, real-world scenarios. Constructing predictive models with accuracy, usefulness, and adaptability is a dynamic discipline that requires both machine learning competencies and human input for high-quality results.

As part of Predictum's LAB product suite, BuildLAB™ is a predictive analytics solution that optimizes model construction through an iterative process for transforming, normalizing, and validating the right data sets in model construction. BuildLAB's features for model validation and performance evaluation will help you identify the best model for handling the right level of complexity without imposing limitations on relationships among process factors.

If your company doesn't have data scientists on staff, Predictum offers data science consulting services to assist you in the process of model construction and performance evaluation.

## KEY FEATURES AND BENEFITS

Predictum's BuildLAB solution offers powerful baseline features and functionality for effective model construction and is tailored to meet clients' particular requirements and business objectives.

### Key Features

### Benefits

Advanced modeling capabilities harnessed from JMP® Pro software that can be automated, semi-automated, or used manually

Extensibility and powerful performance in using advanced data science capabilities to uncover insights in engineering and science

Ratings-based functionality for determining the best models

Configurable criteria enable users to readily compare candidate models based on changes to requirements

Validation and performance evaluation to identify the best model that leverages historical and current data effectively

Time and cost savings of effective model management to extend the data science expertise in your organization

Centralized model repository with quantitative metrics

Streamlined management and administration of models and traceability for audits and regulatory compliance

Ability to work with raw models in JMP software, or explore and visualize models dynamically in JMP Pro software with the optional integration of Predictum's SashLAB™ solution

Added value of combining the best platforms and analytical capabilities into a comprehensive, integrated analytical system for effective problem solving and operational improvement

Artificial neural networks that support a complex, multilayer framework

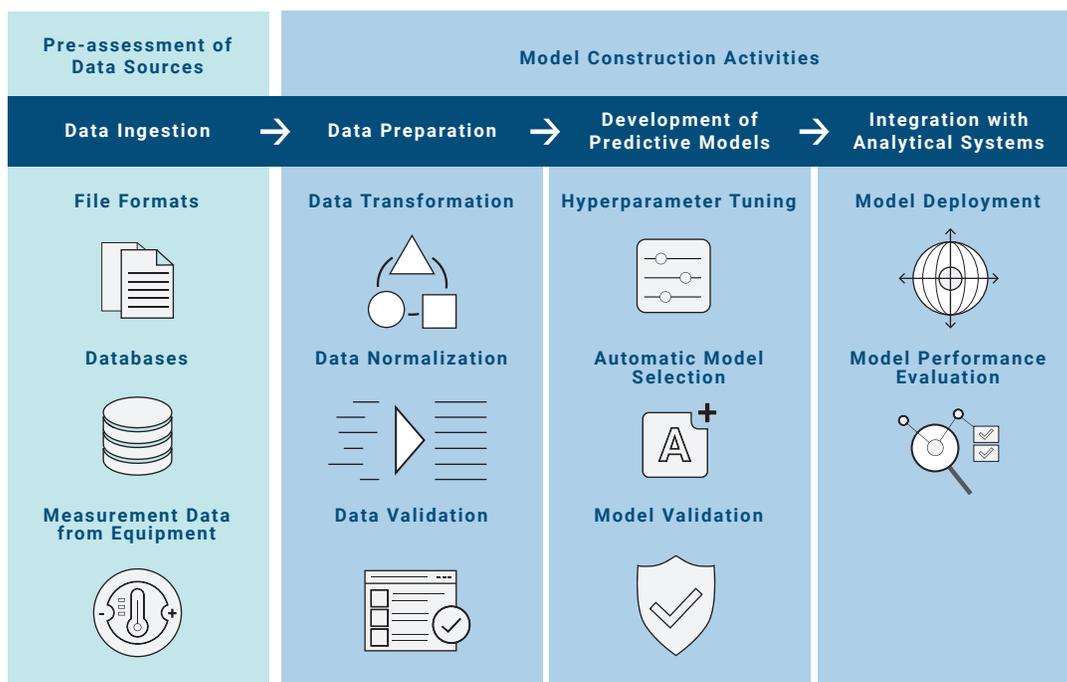
Realistic, non-linear models for complex processes resulting from non-linear dependence on parameters

Ability to incorporate new factors and new factor levels automatically

Ensure models are up to date with changes to process requirements in real time and according to material availability

## MODEL CONSTRUCTION PHASES AND ACTIVITIES

Companies rely on relevant and accurate models to identify the complex patterns of aggregated data, facilitate problem solving, and uncover insights to aid in decision making. Predictum tailors the BuildLAB solution to our clients' unique requirements by using an iterative process for developing the most effective models trained with the right data sets and finetuning the accuracy of the models through validation and performance evaluation.



## SYSTEM REQUIREMENTS

### Software

JMP Pro software 13 and later versions (for model construction, dynamic visualization, and analysis)

JMP software 13 and later versions (for dynamic visualization and analysis only)

### Operating Systems

Windows 7 SP1 – 32-bit and 64-bit

Windows 8 and 8.1 – 32-bit and 64-bit

Windows 10 – 32-bit and 64-bit

macOS 10.13 High Sierra or later versions

### Processor

Minimum - Intel Core i5 2.4 GHz or equivalent

Recommended - Intel Core i7 3.0 GHz or equivalent

### RAM Memory

Minimum – 16 GB

Recommended – 32 GB or more

### Hard Disk Space

Minimum – 10 GB free

Recommended – more than 10 GB

## ABOUT PREDICTUM INC.

Predictum Inc. is an analytical solutions company with clients of all sizes, including Fortune 100 companies in the semiconductor, biotechnology, pharmaceutical, chemical, consumer products, and automotive industries.

For over 25 years, Predictum has been enabling companies to achieve higher levels of analytical productivity, using advanced analytics and statistical methods routinely and effectively for continuous process improvement. Our team of engineers, statisticians, and programmers brings deep industry knowledge and experience in integrated analytical systems development, data science, and machine learning to provide our clients with robust and scalable solutions that deliver higher business value.

## CONTACT US

**T.** +1 416.398.8900

**E.** [info@predictum.com](mailto:info@predictum.com)

**W.** [www.predictum.com](http://www.predictum.com)

### USA HEADQUARTERS

401 Congress Avenue, Suite 1540  
Austin, TX 78701  
USA

### CANADA HEADQUARTERS

150 Eglinton Avenue East, Suite 805  
Toronto, ON M4P 1E8  
Canada

The contents of this publication are presented for informational purposes only, and while reasonable care has been taken to ensure accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by Predictum's terms and conditions, which are available on request. Predictum reserves the right to modify or improve the designs or specifications of our products at any time without notice.

Copyright © 2019 Predictum Inc. All rights reserved. The Predictum logo, BuildLAB logo, product names and service names are trademarks or registered trademarks of Predictum Inc. in the USA and Canada. JMP and other SAS Institute Inc. product or service names are registered trademarks or trademarks of SAS Institute Inc. in the USA and other countries. ® indicates USA registration. All other company names, product names, and trademarks in this document are property of their respective owners and mentioned for identification purposes only.