

Optimiser

The Machine Learning Optimisation Application for BioSolve Process

Part of our new BioSolve *Analytics* package, *Optimiser* is a proprietary tool that employs Bayesian inference statistical methods to automate the daunting task of multi-variable and multi-objective bioprocess modelling.

40
DECISION
VARIABLES

10
MINUTES
TO SET UP

95%
REDUCTION OF
MANUAL OPERATION

<90 min
TO ACHIEVE
RESULTS*

*based on 150 iteration runs



Using BioSolve Process with *Optimiser*

1

SET OBJECTIVES

E.g., max. yield, lowest capital investment, or smallest carbon footprint

2

DEFINE VARIABLES

Set Decision Variables: operational parameters such as cell culture method, titre, or no. of column cycles

Optionally Set Constraints: lower & upper limits such as max no. of Protein A column cycles

3

RUN THE OPTIMISER

Generate the optimal process configuration that resolves competing objectives

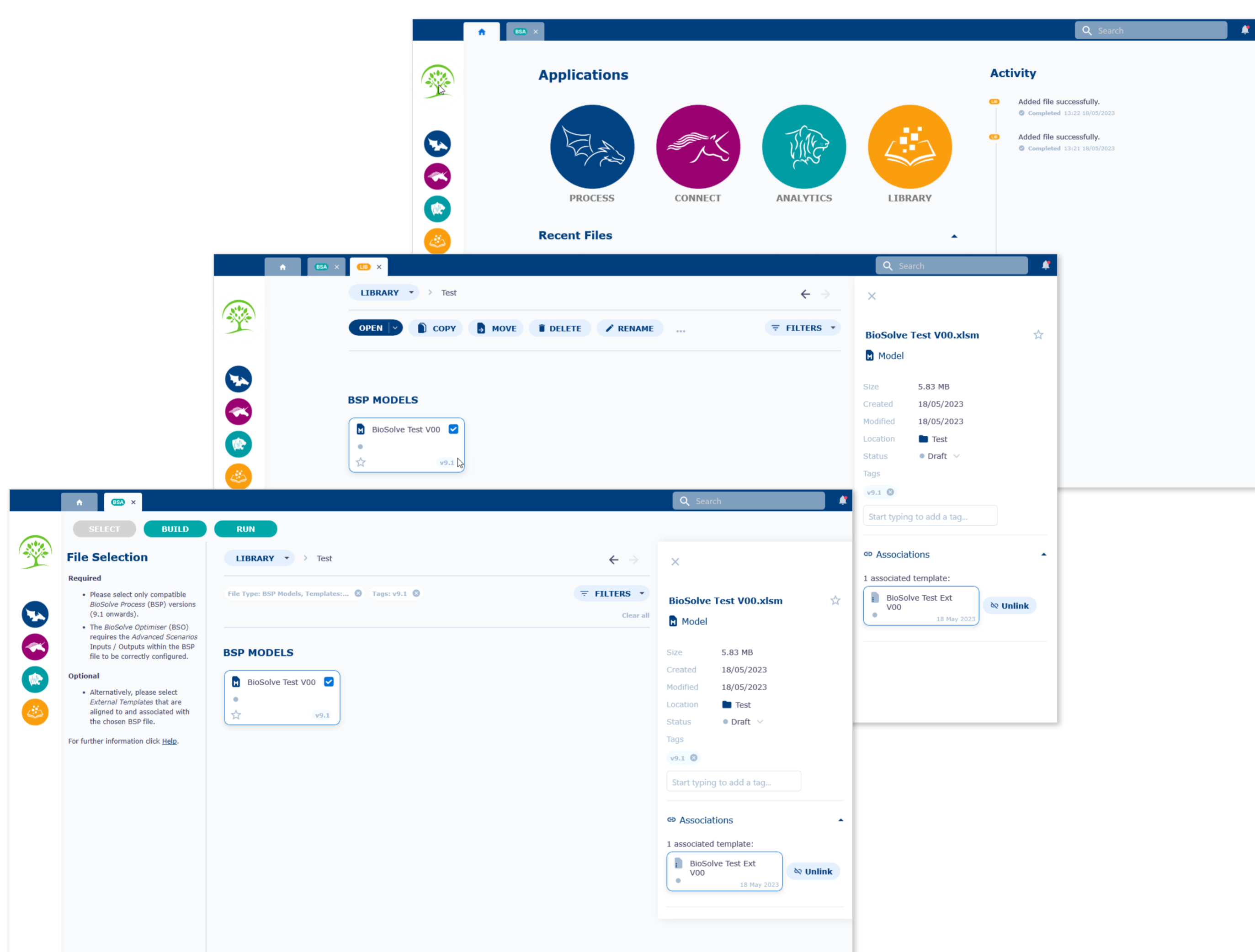
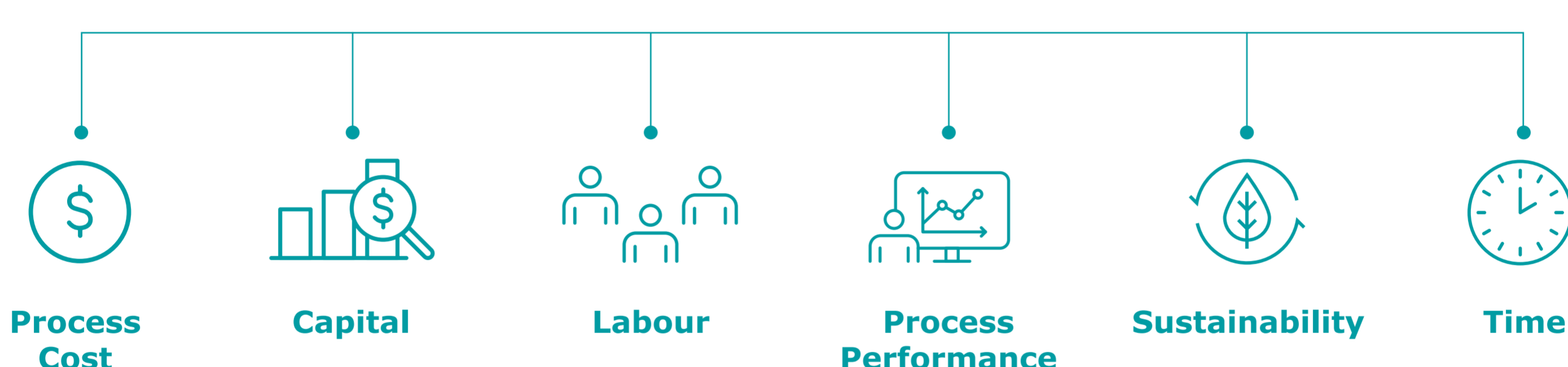
Make the Impossible Possible

Manually creating process simulations is time-consuming and not feasible when you have multiple objectives and dozens of decisions to consider in your design space.

Optimiser solves this matter by unwinding complex, intractable issues to generate optimal solutions that solve multiple objectives—all within tens of minutes.

What Are Your Objectives?

UP TO 3 OBJECTIVES CAN BE SELECTED DURING OPTIMISATION



Who Should Use *Optimiser*?



Engineers



Operators



Supply Chain



MSAT Leads

What Is BioSolve *Analytics*?

BioSolve *Analytics* is a new suite of tools to enhance the BioSolve *Process* user experience.

Our first BioSolve *Analytics* module is the *Optimiser*. Additional BioSolve *Analytics* tools, including *Visualiser*, a new visualisation tool, are coming soon.

Unleash the Power of BioSolve *Process*

By actively learning the problem space, *Optimiser* automatically finds solutions to complex bioprocess optimisation targets.

Learn more at biopharmservices.com