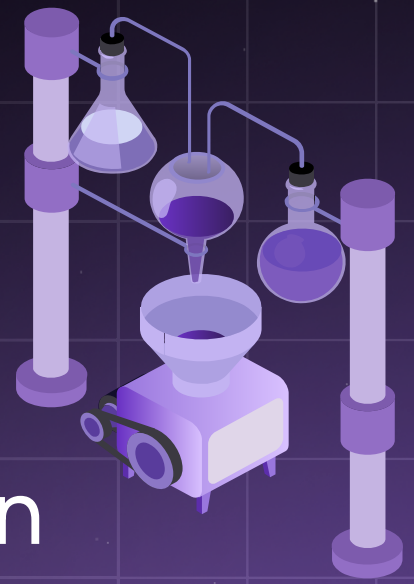
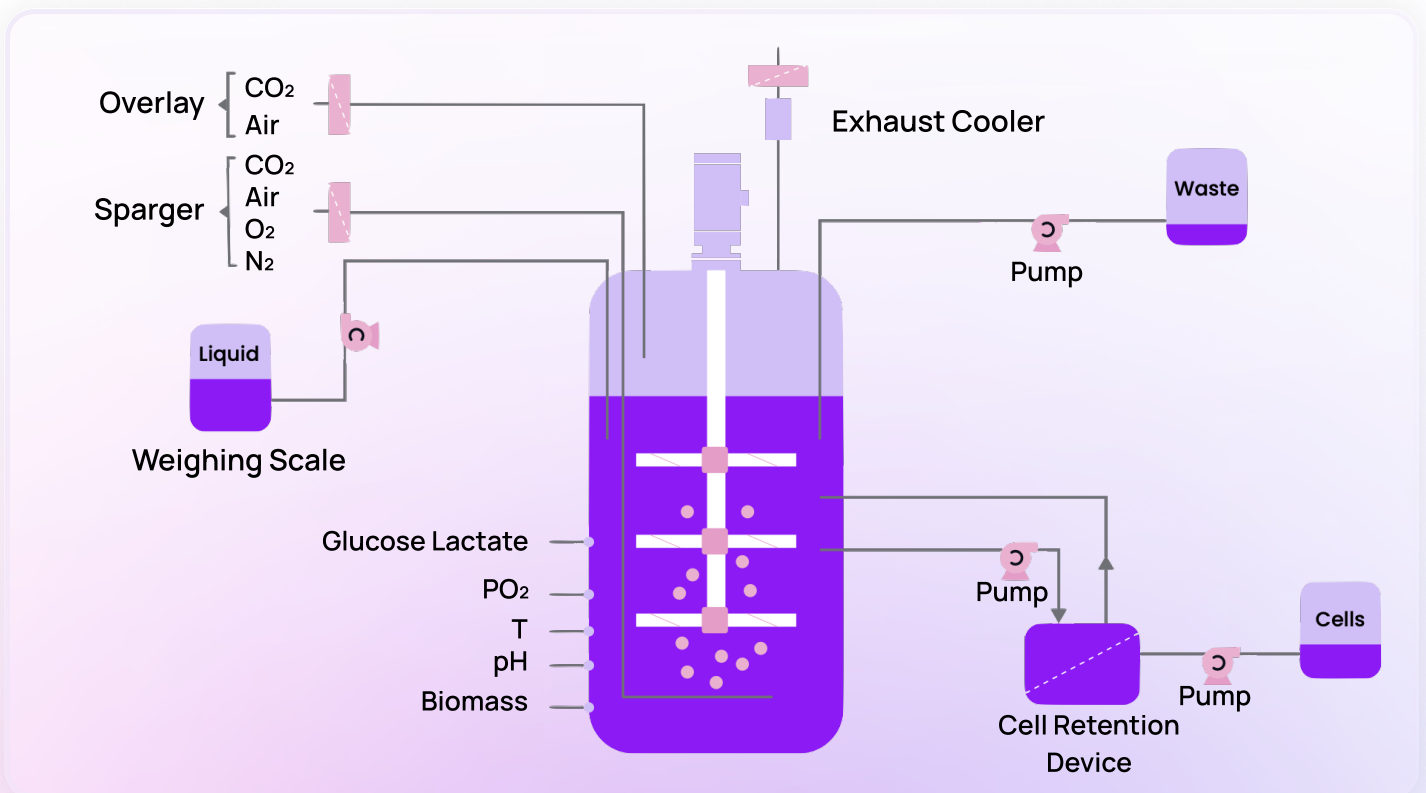


Basetwo: AI-enabled Digital Twins for Bioreactor Performance Optimization



Fermentation optimization is the process of identifying and adjusting key parameters within the bioreactor to maximize the yield or productivity of a fermentation process. The main goals are to enhance cellular growth, viability, and overall product yield while reducing costs and cycle time.

Bioreactor Diagram



Basetwo Solution

The Basetwo AI copilot allows process engineers to create a digital twin of their bioreactor. Without making any adjustments to their physical processes, engineers optimize critical parameters like temperature, pH, dissolved oxygen, agitation, nutrient feed rates, etc. for maximum product yield.

1 Integration of internal specifications and data into Basetwo



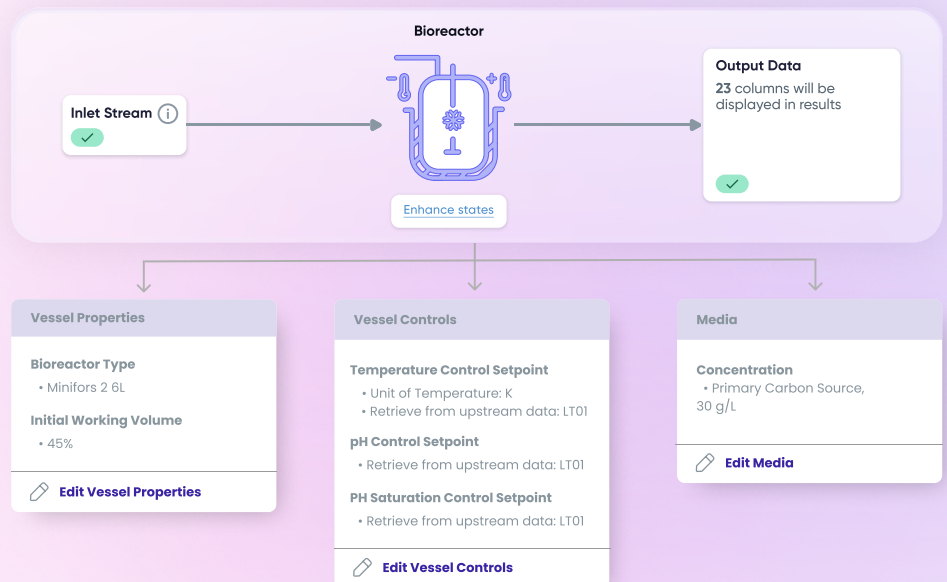
Process Parameters
Fermentation equations, bioreactor parameters, etc.



Quality Data
Historical batch data, cell culture properties, feed stream, etc.

2 Simulation of a physical process within a virtual environment

Allows manufacturers to digitally experiment and perform “what-if” analyses for bioreactor properties and setpoints.



3 Basetwo runs rapid optimization to allow teams to:



Determine optimal bioreactor conditions to **increase yield**



Comprehensive process characterization through real-time monitoring



Identify the optimal cycle duration that balances throughput and effluent quality

Explore how Basetwo can help reduce costs and increase efficiency for your team.

Reach out today!

✉ contact@basetwo.ai