

Basetwo for Optimizing Batch Distillation Processes



Long cycle time, extensive chemical consumption, high energy usage, and a lack of real-time understanding of critical quality attributes (CQAs) hinder scale up to commercial batches and impact final product quality. The goal is to address these challenges using advanced process modeling and optimization:



Process Scale-Up

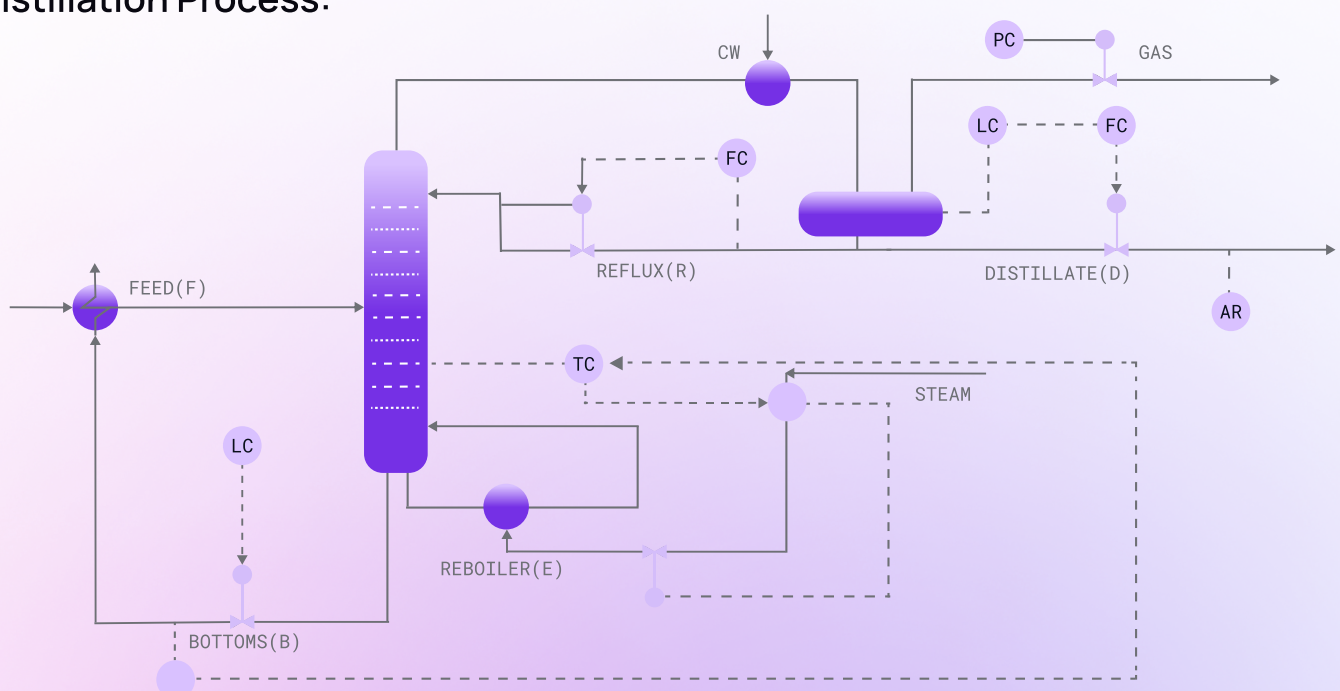
Ensure consistent and efficient CQAs at commercial scale with a focus on improved yield and quality.



Real-Time Optimization

Optimization of a CGMP process in real-time to ensure increased quality, yield, and reduced costs.

Distillation Process:



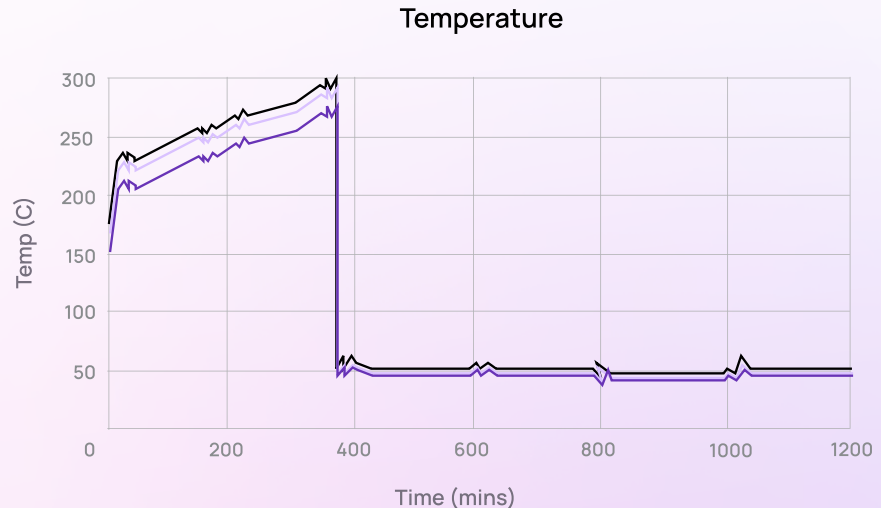
Basetwo Solution

Extract 1-2 years of historical data

Examples of data inputs:

Feed Flow Rate, Jacket Temperature, Pressure, etc.

Visualize your data on the Basetwo platform



Build a model informed by your data

Virtually simulate your processes and perform what-if analyses without affecting your actual processes or consuming resources.

Use Reinforcement learning/optimization algorithms

Used to design optimal control strategies for your existing processes, allowing you to determine the most efficient way to run your operations at various scales.

The Result

1



Reduced overall cycle time by **>40%**.

2



Reduced total energy used per batch by **25%**.

3



Achieved a total cost savings of **>40%** per batch.

Want to explore how Basetwo can help reduce costs and increase efficiency for your team?

Reach out today!

✉ contact@basetwo.ai

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