Blending Optimization

ORTOMATION.IO
OPTIMIZING YOUR WORLD

Sector: Oil Refining

Why chose ORTO for this application?

The impact of blend components on blended material qualities can be very non-linear. Furthermore, blend component properties vary over time and are often not known accurately.

ORTO self-learning technologies, naturally handles non-linearity and variation in blend component properties ensuring the optimum is always found. The easy-to-use design significantly improves return on investment (by a factor or 2-5 times) and reduces the expertise needed.

The technology is more scalable, enabling optimization to be applied to a small scope and then expand easily over time to capture increased savings.

Business Objective

The goal of gasoline and distillate in-line blend optimization is to meet limiting product quality specifications at the lowest blend component cost.

Typical Optimization Objective Function

Maximize operating profit associated with blending (due to blend component costs)

By manipulating:

- Blend component flow rates or flow ratios

Subject to the following constraints:

- Product quality limits
- Blend system hydraulic limits

Solution

On most blending operations, 3-5 agents will be sufficient.

Benefits

The typical benefit is a 2-5% reduction in higher cost blend components.