

How Falconry Helped Predict Off-spec Events



So, how to get advance warning for a product stream being off-spec?

Petrochemical plants have multiple processing units that manufacture products with required specifications.

Ensuring **product remains on-spec is important**

- to meet industry standards,
- to avert potential revenue loss

Each unit has multiple sensors that provide new data every minute. Analyzer cycle times and lab sample draw frequencies vary.

Feed-stock changes introduce quality fluctuations.

These sources need to be monitored to identify off-spec

Falconry was able to provide in plant SCADA integrated quality prediction.

This helped provide at least **2-5 days advance warning** of the off-spec incident.

In addition, Falconry also provides **Explanation Scores** to identify which signals are most/least associated with a given prediction. This helps significantly in **root cause analysis**.

Falconry Operational AI software discovered and learned to recognize patterns of operation that **identified off-spec events in advance thereby reducing reprocessing and inventory costs.**

How?
Using Falconry software, the client was able to analyze data from multiple sources:

- Process flows
- Process temperatures
- Process pressures
- Feed stock metrics
- Intermediate unit stream properties (lab or analyzer)

Falconry allows them to correct conditions in the plant and ensure the product remains on spec.

