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.

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

Falkonry 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 Falkonry 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)

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