

Sigmafine in the Liquefied Natural Gas Industry

Domains

- Across LNG Process Chain
- Areas — Export and Import Terminals
- Processes — Liquefaction, Regasification

Benefits

- **Accurate and timely** Production and Inventory Accounting for financials
- **Monitoring, identification and reduction of losses**
- **Improve data accuracy and KPIs** by reconciling and validating process information
- **Compliance both commercial and regulatory**
- **Increase Fiscal measurement** for allocation, verify custody transfers and to identify lower quality or out of spec products in receipts and distribution
- **Reduce measurement maintenance** by prioritizing maintenance on instruments that are identified by Sigmafine to have bias or calibration drift
- **Resolve production allocation** issues by properly assigning the correct energy / volume owned by each provider

The LNG market is emerging as one of the fastest growing segment in the energy industry. It is rapidly playing a bigger role in the energy mix, and the market for it is expected to continue to grow.

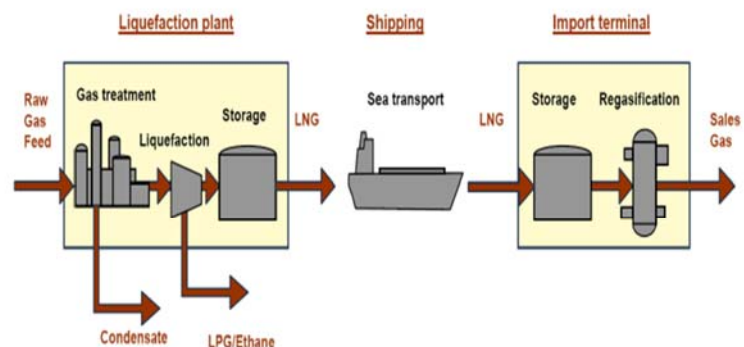
The Business Challenge

Process data validation and accuracy of the data is the basis for proper management of information and accurate business decisions,. In the LNG industry product allocation, gas interchangeability and material composition are only some of the major challenges.

Sigmafine Overview

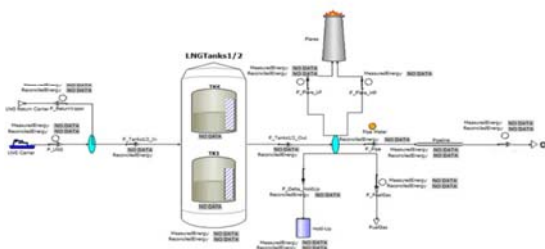
Improve the consistency, quality, and traceability of production data with Pimsoft's Sigmafine data reconciliation software.

Sigmafine provides a validation *checkpoint* between a facility's raw process data and its information personnel. Sigmafine uses a robust data reconciliation engine to reconcile and validate raw plant measurements, which can then be compared to baseline parameters and predetermined business plans.



Example of LNG Process Model

Turn your production information into a strategic asset



Sample Sigmafine LNG Import Facility Model

Sigmafine gives you the confidence of validated data you can trust, enabling you to act quickly, ensure that the data is consistent across your company.

Uses

Data reconciliation

Validate the quality of your process data and optimize your meters accuracy by identifying and reducing measurements bias and drifts.

Energy contents balance

Apply mathematical constraints to increase energy efficiencies.

Natural gas composition measurement

Track liquid/natural gas composition in your facilities and monitor the quality and energy content of your outputs.

Tank management and delivery planning

Introduce solutions for tanks management and delivery planning to minimize moorages and delay.

Production allocation

In production facilities, use Sigmafine to properly allocate volumes and energy according to their specific owners.

Environmental data validation

Monitor and validate your environmental measurements for accurate and reliable regulatory reporting.

Pimsoft

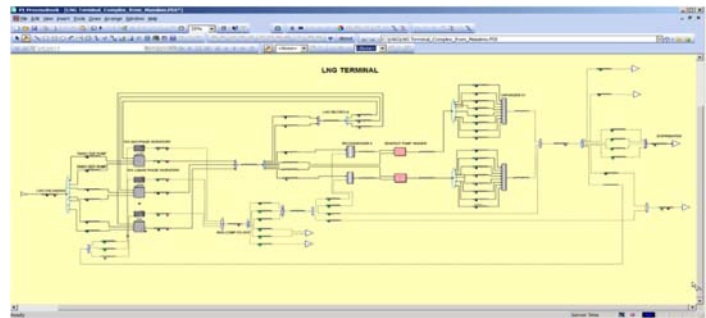
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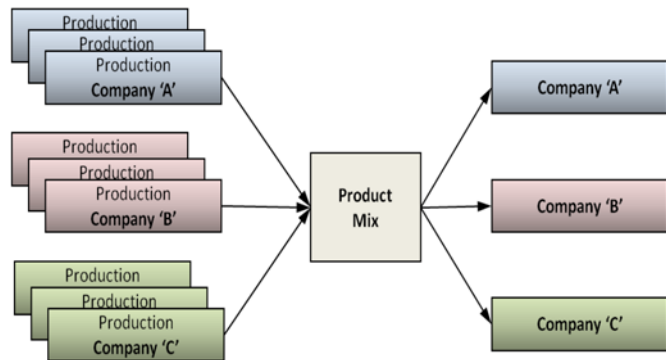
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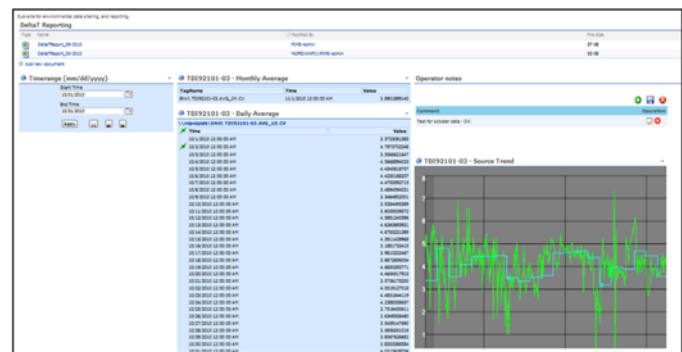
Energy Content Balance



Inventory Management and Delivery Planning



Application: Production Allocation



Environmental Data Validation