

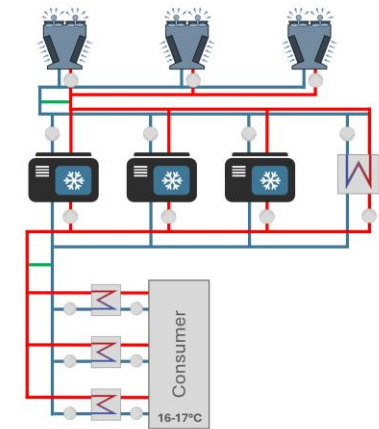
Topic 9: Development of Tools for Automated Validation of **Model** and **Data Quality** for Energy Supply System Optimization

Organization

- **Vorstellung**
 - Personen
 - Thema
- **Randbedingungen**
 - **Präsentation:** 22./24.07.
 - **Bericht:** 08.09.
 - **Bearbeitungszeit:** ca. 10 Wochen
 - **Regeltermin:** wöchentlich, Freitags (30 Min.) – kurze vorbereitete Vorstellung + Diskussion, **4 x**, danach
 - **Regeltermin:** 2-wöchentlich, Freitags (1 h) – kurze vorbereitete Vorstellung + Diskussion, **3 x**
- **Ansprechpartner**
 - Heiko (primär) – Bitte: heiko.ranzau@etalytics.com
 - Jerome (PTW)
 - Tim (etalytics)
- **Fragen**
- **Nächste Schritte**
 - Recherche und Einarbeitung
 - Datensichtung

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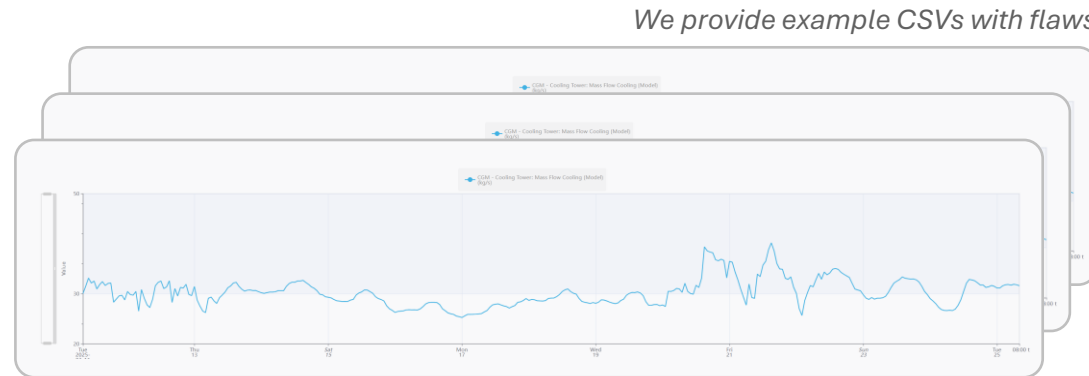
PTW (Jerome Stock) & etalytics (Heiko Ranzau)



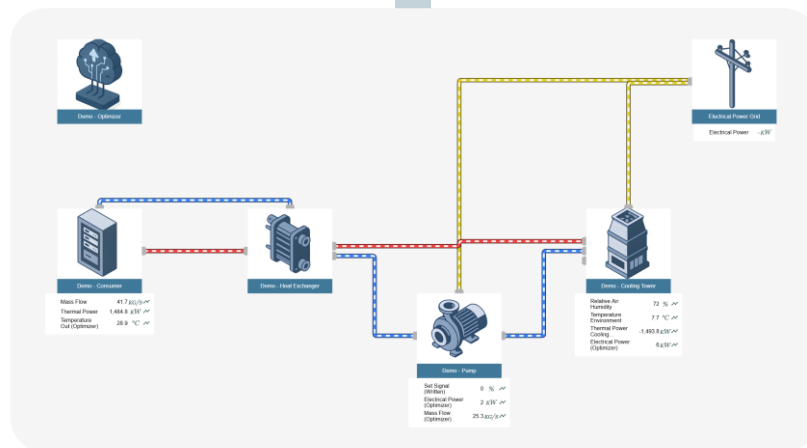
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PTW (Jerome Stock) & etalytics (Heiko Ranzau) – 3 Minute Pitch

FOKUS: Data Science → Visualization



Use Context



We provide example systems

Identify inconsistencies and errors in the data:

- Thermal balancing (ensuring the sum of energy consumers equals the sum of energy producers)
- Mass flow consistency checks
- Physical constraint validation based on component specifications and thermodynamic laws

Visualization of:

- Key parameters (mass flows, e.g. Sankey)
- Problems on system level (e.g. Cooling Tower)