Plant machine reliability is key in all branches of the fine chemicals, refining and hydrocarbon processing industries for preventing system breakdowns and unplanned shutdowns – starting with the transparent connectivity of gas chromatographs to the visualization. The MAXUM gas chromatograph enables chemical composition analysis of gases and liquids present in production phases. It is built for installation in harsh environments, either directly online or near at-line process measurement laboratories. Its application flexibility allows analysis of feedstock samples, partially processed streams, final products and process by-products, including wastes and environmental hazards.

**Advantages**

- Reliable communication from the field to the control room via the managed Industrial Ethernet switches of SCALANCE X enables efficient monitoring for the asset management of gas chromatographs via the ASM
- Increased efficiency: comprehensive visualization, validation and calibration of all gas chromatographs from a central station
- Complete product portfolio from a single vendor reduces commissioning time and permits easier integration
- Maximum flexibility via scalable solution

**Products used for this application**

- **Industrial Ethernet switches – SCALANCE X**
  With SCALANCE X, we offer a comprehensive portfolio of managed and unmanaged switches for specific networking tasks.
- **Analyzer System Manager (ASM)**
  ASM integrates current analyzer measurement data based on standard industrial communication protocols.
- **Gas chromatograph – MAXUM**
  The MAXUM gas chromatograph is built for installation in harsh environments, either directly online or near at-line process measurement laboratories.
- **Automation – PLCs**
  The SIMATIC range of controllers comprises basic, advanced, distributed and software controllers offering impressive scalability and integration of their functions.