PROCESS SOFTWARE

CMET 3.5

Software for Inline Process Control

Innovation with Integrity

The CMET Process Software is the link between Bruker's outstanding FT-NIR process analyzers and the customers Distributed Control System (DCS). Commands given by the DCS are transferred to CMET which in return starts a specific measurement and transmits the data back to the DCS for visualization and archiving.

For decades FT-NIR spectroscopy is used for process and quality control to improve process efficiency. The increasing demand of automation requires not only a state of the art hardware but also an equivalent software.

With CMET it is possible to configure various different tasks and scenarios starting from very simple continuous measurements up to very complex batch processes with permanently changing products. To each measurement channel different products can be assigned and with that different calibration models. By using external triggers the DCS has full control over the instrument. CMET provides besides the quantitative and qualitative results a series of signals, e. g. which measurement is currently running, chemometric alarm or the actual light intensity at the measuring point.

All generated results can be stored in a log file, database or send to the DCS for visualization and archiving. An integrated watchdog function permanently monitors the hardware and software status to ensure reliable 24/7 production.

- Easy-to-use and modular concept
- Setup and runtime environment
- Watchdog and automatic start
- Supports standard communication protocols
- OPC client and server functionality
- Logfiles and trend charts
- Statistical evaluations of process data
- Different trigger modes
- Online bias correction

NEW
- OPC UA server interface, providing status signals and measurement results according to the latest industrial communication standard
- Support for the latest single channel process spectrometer BEAM for measurements in diffuse reflection mode
- IoT Interface for the process spectrometer MATRIX-F II, providing addition hardware related information (temperature, humidity, source end of life time, etc.)

CMET Setup

The CMET Setup has a modular concept which offers the user the necessary flexibility to map the vast number of different applications.

- Spectrometer Setup:
  Define general measurement points and measurement parameters.
- Product Setup:
  Configure product specific parameters such as calibration models, storing options, product information.
- I/O Setup:
  Setup the different communication protocols, check OPC Items and specify logfile parameters.
- Scenario Setup:
  Assign a product to a specific measurement point and define start triggers and output signals.

CMET Trend Display

CMET Runtime

The software CMET Runtime is used for two major tasks:

- Background measurement & management
- Continuous measurement & process monitoring

CMET Runtime can be easily configured to load and start automatically a specific scenario which comes in handy during a power failure.

CMET Runtime - Status Overview

CMET Trend Chart

To monitor the most recent data, CMET Runtime is equipped with a web based (including network access) trend chart interface.

Technical Info

CMET supports various communication protocols:

- **OPC UA as Server**
- OPC DA as Client & Server
- Analog Communication 4 – 20 mA
- Fieldbus (Modbus, Profibus DP), ProfiNET

Supported languages: English, German, French, Spanish, Portuguese, Polish, Russian, Japanese, Chinese

Real-Time Overview with Outlier Indication

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Bruker Optics is ISO 9001, ISO 13485, ISO 14001 and ISO 50001 certified.

Process Spectroscopy
www.spectroscopy-in-process.com

Latest Software Release: