



## ● CMET Software for Inline Process Control

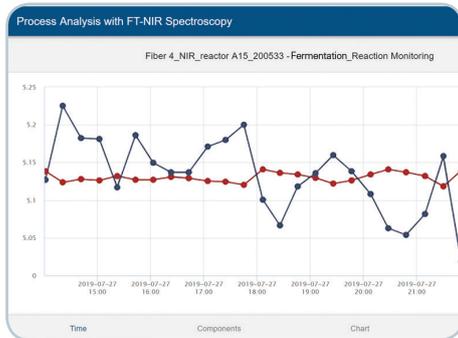
The CMET Process Software is the link between Bruker's outstanding FT-NIR process analyzer and the customers Distributed Control System (DCS). Commands given by the DCS are transferred to CMET which in return starts a specific measurement and transmits the data back to the DCS for visualization and archiving.

- 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 Trendchart
- Statistical Evaluations of Process Data
- Different Trigger Modes
- Online BIAS correction

Inline FT-NIR spectroscopy is a powerful tool to do just that. 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.



CMET Trend Display

Quality	Name	Activity
Green	Q412 F1 - Standard acces...	Idle
Green	Q412 F1 Corr On - Standa...	Idle
Green	IN238 F4 - IN238	Idle
Green	IN271 F3 - IN271	Idle

Quality	Name	Valid until
Green	IN228; Gasoline;	No Limit

Quality	Name	Valid until
Green	PQ: IN238 F4	06.03.2019 12:19:06
Green	OQ: IN238 F4	06.03.2019 12:19:06

CMET Runtime - Status Overview

## 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 model, 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.

## NEW:

- Functions like *Online BIAS* and the *Recipe Control* for a simplified handling of batch processes with many changing products.
- Trend Chart with a new interface, login functionality and database connection.

## CMET Runtime

The software CMET Runtime is used for two major tasks:

- Background measurement & management
- Continuous measurement and 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 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 DA as Client and Server
- Analog Communication 4 – 20 mA
- Fieldbus (Modbus, Profibus DP)

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

Time	Product	Component Name	Value	MDI	ADC
Meas. Point: Fiber_1					
2019-12-17 10:28:35	Polymers	Acid Value (mg(KOH)/g)	9.4555	0.48	2053
2019-12-17 10:28:35	Polymers	Amine Value (mmol/kg)	15.872	0.60	2053
2019-12-17 10:28:35	Polymers	Density (g/mL)	0.90046	0.01	2053
2019-12-17 10:28:35	Polymers	OH Value (mg(KOH)/g)	40.476	0.03	2053
2019-12-17 10:28:35	Polymers	Tacticity (%)	50.154	1.08	2053
Meas. Point: Fiber_2					
Meas. Point: Fiber_3					

Real-Time Overview with Outlier Indication

[www.bruker.com/ft-nir](http://www.bruker.com/ft-nir)

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