

## Analyzer Apps

Analyzer Apps are apps for spectroscopic sensors – a tailored configuration of chemometric models, analysis software, and automation for real-time process monitoring of substantial product properties like concentrations. Analyzer Apps are calibrated to measure process quantities relevant to you; they turn your spectroscopic sensor into a smart Process Analyzer.

**Analyzer Apps S / M / L** are packages for typical small, medium, or large-scale calibrations at fixed prices. Our application specialists will be in close contact with you to determine the most suitable Analyzer App for the product features you want to measure.

Product / Service	Calibration Design	Measurements	Data Inspection	Calibration of Features	Automation	1 <sup>st</sup> Year Maintenance
Free Feasibility Study		5	•			
S		(*)	•	1	(**)	•
M	•	(*)	•	3	(**)	•
L	•	(*)	•	5	(**)	•
<b>Add-ons</b>						
Calibration Measurements	•	25	•			
Additional Calibration				1		
Automation (1) excl. predictor software (2) incl. PEAXACT AppServer (3) incl. PEAXACT ProcessLink					•	
Maintenance Service (per year)						•

- (\*) Preferably done by customer. Otherwise see add-on: Calibration Measurements.  
 (\*\*) See add-on: Automation.  
 (1), (2), (3) Alternative automation options.

Choose a license option. N is the number of acquired licenses.

License	Description	Surcharge
Automation	Protection of Analyzer Apps against unauthorized access, modification, and duplication to guarantee liability. Maintenance available. To be used with N spectrometers.	N = 1: none N ≥ 2: +25% per unit
Unlimited (if available)	Full read/write-access to Analyzer Apps. No liability, no warranty, no maintenance. To be used with an unlimited number of spectrometers.	+100% of base price

## Product Details

### Calibration Design

An optimal design of the calibration experiment reduces the number of calibration measurements and maximizes the quality of the calibration.

### Calibration Measurements

Reliable reference measurements are crucial for a statistically sound calibration. Preferably these measurements are carried out by the customer in the customer's facilities with best support by S-PACT. Alternatively, measurements can be performed by S-PACT personnel.

### Data Inspection

A data-driven analysis (correlation analysis, plausibility tests) of calibration measurements is performed to determine the most applicable chemometric model and to confirm quality of data.

### Calibration of Features

Chemometric models (IHM, PLS, etc.) are calibrated to measure your relevant product features. Models are validated for possible process variations to estimate the model robustness and predictive performance. Models are created with PEAXACT – Software for Quantitative Spectroscopy. The calibration report documents the predictive performance of a chemometric model, including operating conditions, validation and prediction errors, and other figures of merit. It is the final step in model development before the model can be implemented for process analysis.

### Automation

Chemometric models get implemented into your automation system (DCS, data analysis platform, measurement software, etc.) using e.g., the PEAXACT AppServer as back-end predictor, or the PEAXACT ProcessLink – a lightweight process monitoring application with built-in OPC UA server – which transforms your measurement computer into an industry 4.0 sensor.

### 1<sup>st</sup> Year Maintenance

The first year of [Maintenance Service](#) is included with new product licenses.

## Terms and provisions

Analyzer Apps are created for conditions specified and documented by the customer and shown in the quote. Changes in the specifications may affect the validity and require re-validation (see Maintenance Service) including an assessment of adaptation efforts. The customer is responsible for the timely provision of training data during the first year of maintenance service. Otherwise, an extension of maintenance service is mandatory.

## Analyzer App Maintenance Service

Increase the lifetime of your Analyzer Apps through periodic maintenance.

This service is an annual subscription. An active maintenance service subscription is required to check the validity of your Analyzer App with new process conditions, instruments, or for calibration transfer. This service covers:

- Annual validation of chemometric models and recommendation for modifications
- Optional on-site visit by an application specialist (excl. travel expenses)
- Platform compatibility updates

### **Annual validation**

Regularly, the performance of the Analyzer App is validated by benchmarking the predicted values with references determined by an independent technique. Spectra and reference values need to be provided by the customer.

### **Support visit**

An on-site visit of our application specialists to the customer's facilities can support the performance optimization significantly. We suggest having such visit yearly or whenever major process modifications are expected which affect the Analyzer App validity.

### **Compatibility updates**

Ensures full compatibility of the Analyzer App with changes in hardware or new versions of the operating system and other software.