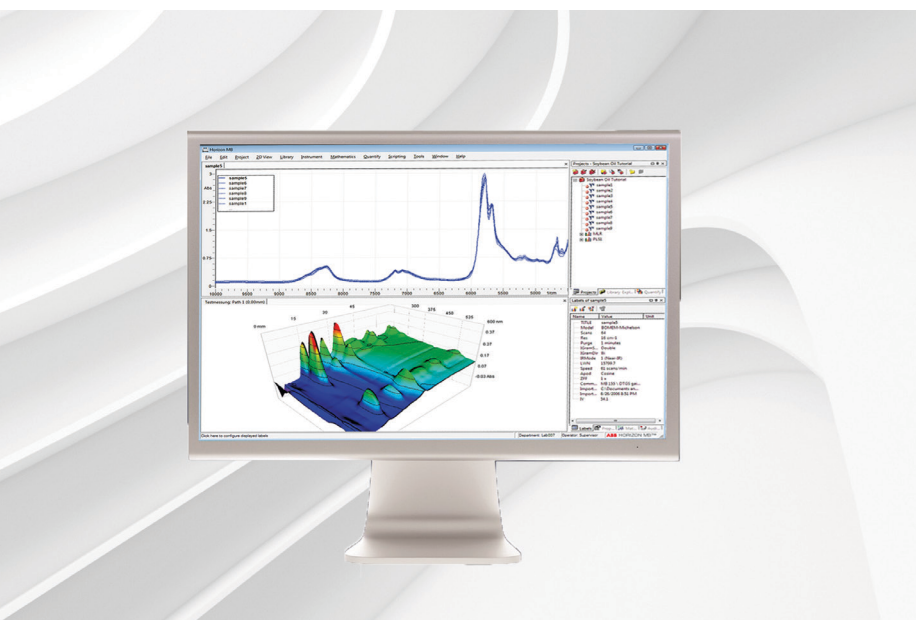


# HorizonMB

## Advanced spectroscopy analysis software



HorizonMB software interface

Intuitive spectroscopy software for laboratory analyzers

**Measurement made easy**

## Features & benefits

### Ease of use

The HorizonMB™ software makes it easy to acquire, process, and analyze data. Its customizable workspace and user-friendly interface enable you to obtain and manage your results expertly. Also, with its numerous data importing and exporting options, HorizonMB greatly simplifies all data conversion tasks. Adapting HorizonMB to your workflow is easy and pain-free.

### User-friendly workspace

HorizonMB's customizable workspace provides an overview of all important functions and frequently performed tasks.

- Spectra are displayed in the main window.
- Projects window organizes spectra and other data. These can be grouped into projects.
- All functions can be accessed from the menu bar.
- The toolbar can be customized to hold the most frequently used functions.
- The Properties window provides information and details on the current spectrum and open libraries.

### Customizable workspace

To simplify common tasks, you can customize the layout of your workspace and save that layout. Each user can customize a layout and save it with its profile.

### Multiple viewing options

Data can be displayed in numerous ways: 2D, 3D, splits, offsets, overlays, tables, etc. You can also exchange these displays and data with Microsoft Office™ by simply cutting and pasting.

### Instrument monitoring

Integrated health monitoring functions ensure that your instrument is always working at its optimal capacity.

### Modular software

All software functions are available as packaged modules. This way, you only pay for the functions that you need.

## HorizonMB standard package

### Intuitive software for everyday operations

The HorizonMB module facilitates the acquisition, processing and analysis of samples. With HorizonMB, managing analytical results has never been easier.

### Data management

Data can be saved as individual spectra, but also as projects. Projects can contain in one location all spectra, their associated data, and calibration information. Projects can be browsed with the project explorer. Data can be saved in most common formats, thus greatly simplifying data transfers from your instruments.

### Spectral manipulation

HorizonMB includes a comprehensive set of math functions and data tools including peak picking, spectral subtraction and baseline correction.

### Validation

Numerous validation routines integrated in the software verify that your instrument is operating as it should.

## HorizonMB optional modules

### Professional

#### Advanced features for demanding users

The HorizonMB Professional module includes enhanced mathematical functions, 3D capabilities and extended import/export functions. It also includes a regulatory module for automated execution and reporting of the instrument verification tests described in the ASTM and pharmacopoeia guidelines.

Validation Report 2008-07-28 11:07:54

Spectrometer OpenBeam Regulatory Validation Report

Validation Status: PASSED

Report Number: 2008-07-28 11:07:54

Performed by: CALIBRO

Associated Validation Template: VAL0001\_M03000\_D705\_OpenBeam\_revD-C LBO.csv

Validation Type: Basic

Spectrometer model: M03000

Serial Number: 1234567-345

Accessory model: R-1

Serial Number: R-1

Detector model: 249537-200633

Serial Number: 7654321-201

Detector Gain: 9

Resolution: 1

Scan: 4

Number of measurements: 1

Comment:

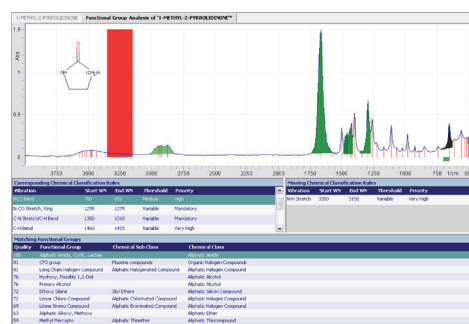
Basic Validation

	Tolerance Min	Tolerance Max	Status	Minimum	Maximum
Line Position (cm <sup>-1</sup> ) [1915-1925]	1917.886	1918.000	Passed	1917.886	1918.000
Line Width (cm <sup>-1</sup> ) [1915-1925]	0.06	0.76	Passed	0.0628972	0.6628972
Line Height (Abs) [1915-1925]	0.06	0.4	Passed	0.131325	0.131325
Energy Index (cm <sup>-1</sup> ) [1915-1925]	< 0.1	0.1	Passed	0.0337854	0.0337854
Start at 1915 (cm <sup>-1</sup> ) [1915-1925]	580	11000	Passed	2544.255	2544.255
Stop at 1915 (cm <sup>-1</sup> ) [1915-1925]	800	11000	Passed	3525.135	3525.135

### IR Interpretation

#### Easy identification of functional groups

The HorizonMB IR Interpretation module is used to analyze IR spectra and easily identify functional groups using the IR interpretation rule database.



### Quantify

#### The modern chemometrics toolbox

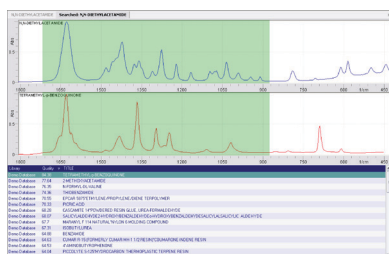
The HorizonMB Quantify module incorporates a wizard to quickly develop a quantitative calibration method using univariate and multivariate algorithms (like PLS and MLR) for data analysis and quantification. It also includes the HorizonMB Professional module.



### Library

#### A powerful search engine

The HorizonMB Library module is designed to improve search efficiency across multiple libraries for quality control and identification purposes. It offers spectrum and full-text search capabilities with custom libraries and most common commercial library formats.



## Security

### Enabling 21 CFR Part 11 compliance

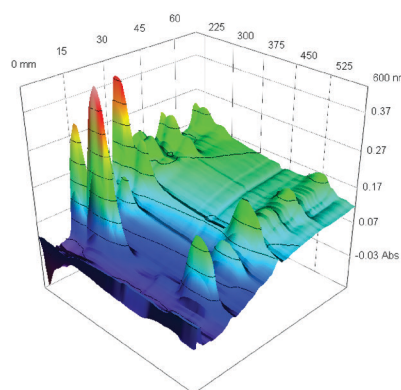
The HorizonMB Security module allows you to login the software with your Microsoft Windows® login, or to create a completely new login. It provides access control to software functions based on a permission scheme where hierarchical access control is based on data access roles. It includes electronic signatures, activity logging, and data manipulation traceability that allow its use in 21 CFR Part 11-compliant and other regulated environments.

Acquisition	Validation	Health Monitoring
IR Source		
Hour of use nominal		OK
Current		OK
Voltage		OK
Electronic Temperature		OK
Metrology		
Electronic		OK
Detector		OK
Interferometer		OK
Co-addition		OK
Firmware		OK

## Reaction Monitoring

### Real-time reactions

The HorizonMB Reaction Monitoring module provides real-time insight on dynamic reactions. It allows tracking of multiple peaks to help understand and optimize the evolution of a reaction. It includes HorizonMB Professional and Quantify modules.



## Minimum requirements

### Hardware

- RAM: 4 GB required (minimum)  
(6 GB recommended for Quantify module)
- Hard disk: 80 GB minimum
- Ethernet connection

### Software – US English Windows recommended

- Windows 7 - SP1, Windows 8, Windows 10
- All 32-bit and 64-bit versions supported.
- French, Dutch and German Windows languages supported

### Analyzers compatibility:

- MB3000 series (MB3000, MB3600, MB-Rx)
- FTPA200-200 series (FTPA200-260)
- TALYS series (using an external computer)

## About ABB

ABB Measurement & Analytics is one of the world leader manufacturer of laboratory and process analytical systems developing FT-IR and FT-NIR spectrometers for several industrial applications. As part of our portfolio of products and services for process optimization, we are able to offer a full range of custom calibration modeling services and application support for industrial applications.

ABB also provides extensive, globally distributed after-sales support and engineering services, as well as a full customer training program.

### IR & NIR spectroscopy knowledge management

- Application support and spectroscopy training
- Calibration and chemometrics development training
- On-site services including hardware and calibration maintenances

### Up-time insurance program

- Preventive maintenance
- Extended warranty services
- Tailor-made service contracts
- Chemometrics services
- Installations/start-ups & analyzer life cycle programs
- Process spectrometer start-ups
- Laboratory spectrometer installations
- Spectrometer and laboratory/process software exchanges/upgrades

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