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1 Purpose

This document describes new features and fixed bugs in the following new software version in comparison with the previous version.

- New version: 4.1.1.329
- Old version: 4.1.1.238

2 New features

Instrument	Topic	Description
All instruments	New pretreatment	XTR pretreatment is implemented.
All instruments	New pretreatment	Spectral baseline correction is implemented.
All instruments	Technology selection	It is now possible to select the technology (RAMAN or NIR) on the login screen.
All Raman instruments	Autointegration time	In the Project options, it is possible to define a warning if the autointegration time exceeds a certain time. For example, if the integration time exceeds 60 seconds, the user is warned that the signal intensity is low.
All Raman instruments	Long integration time	For all scans using autointegration time, a maximum integration time can be set.
All Raman instruments	Laser on/off	It is possible to switch the laser on/off from Vision for continuous acquisition using the Raw Data tab.
All Raman instruments	Continuous measurement	It is possible to adjust integration time and laser power during continuous acquisition.
All Raman instruments	Peak analysis	Peak analysis is implemented: peak finding, peak width, peak intensity, … It is possible to apply it on processed spectra to export the reports.
All Raman instruments	Peak tracking	In post data acquisition, it is possible to track the position of a defined peak.

Instrument	Topic	Description
All Raman instruments	Performance Test	HQI is calculated and reported in the Performance Test.

3 Improvements

Instrument	Topic	Description
All instruments	Normalization	Thickness correction pretreatment is renamed to: Normalization/thickness correction
All instruments	Wavelength range	The used wavelength range during method development (Quant, ID, Qual) is now determined by the sample set.
All instruments	Routine Analysis	User experience is improved: Product selection during a routine analysis using identification method
All instruments	RA Operator	The process of setting up the Routine Analysis (RA) Operator and assigning the project is simplified.
All instruments	Data import	SPC import is improved.
All Raman instruments	PVR file	It is verified that the probe serial number in the PVR file is the same as in the Ratio 3 file.
All Raman instruments	Usability	It is now possible to close the status window.
All Raman instruments	Usability	Values which are actually used during acquisition are displayed in the status window and greyed out.
B&W Tek – i-Raman EX	Log book	Added logging capabilities for diagnostics.
B&W Tek – all instruments	Usability	The possibility to stop the acquisition is improved: Abort button is implemented.
B&W Tek – all instruments	Driver package	A new driver package is available improving compatibility between the BWSpec and the Vision software.
B&W Tek – PTRam	Diagnostic database	The diagnostic database allows the handling of multiple probes with one instrument.
B&W Tek – PTRam	Temperature readings	Temperatures are displayed with 2 decimal places.
B&W Tek – PTRam	Instrument stabilization	The combination of instrument stabilization followed by a Performance Test is improved and defaults on the reference channel.

4 Fixed bugs

Instrument	Topic	Description
All instruments	Routine Analysis	Product was requested whereas it was filled in the MUX table of the routine analysis: fixed.
All instruments	Routine Analysis	Bugs related to Routine Analysis (RA) Operator were fixed.
All Raman instruments	PVR file creation	Fixed issue when creating PVR files.
All Raman instruments	Performance Test	Performance Test failed because low intensity peaks were not properly detected: fixed.
All Raman instruments	Changing DCM	Changing the Data Collection Method (DCM) does not imply to run a Performance Test afterwards.
All Raman instruments	Performance Test	**Diagnostics** ▶ **Diagnostic Database** ▶ **View**: Raman Peak Width in Trend chart (Min, Max) is fixed.
All Raman instruments	Usability	Cancel acquisition stops the acquisition.
B&W Tek – PTRam	Data processing	Analyze stored data and recall data would lead to crash, it is now fixed.
B&W Tek – i-Raman EX 1064 nm	Status LED	LED on the front panel of the instrument is fixed.
B&W Tek – i-Raman instruments	Trigger	Trigger usability is improved.
XDS and DS2500 instruments	Vision Multi License	The Multi License for Vision Mutli installation were not accepted – this has been fixed.
XDS and DS2500 instruments	File location	The file path for saving the correction files generated during standard creation in the Vision production version has been reset to the old path used in previous version.
DS2500	Audit Trail	Audit Trail records for modifications of the Data Collection Method (DCM) did not include information about old values and new values. This is now fixed.

5 Known bugs

Topic	Description
Tray selection	In seldom cases, the tray sample position selection window does not display the correct tray setup. Selecting the tray again can solve this issue.
XDS spectra – DCM sample properties	In seldom cases, Vision crashes when opening DCM sample properties for XDS spectra if the configuration is not set to XDS Analyzer.
Checkmarks are not updated	In seldom cases, the checkmarks that indicate the section a user is currently working in (e.g. routine mode) remain checked even after changing to a different mode (e.g. data acquisition mode).
Menu items not visible	In seldom cases, some functionalities in the drop-down menus in routine mode do not display all available functions (e.g. autosave and timed acquisition). These functions can still be used by activating the touch screen buttons or easy connect buttons.

6 Compliance

The current software version does not contain any modifications that affect conformity of Vision regarding GAMP.

Requirements of 21 CFR Part 11 can only be activated when a Vision Pharma License has been used for the installation of Vision.