

1 Purpose

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

- New version: 4.1.1.238
- Old version: 4.1.1.191

2 New features

| Topic | Description |
|------------------------------------|---|
| B&W Tek – Performance test | Performance test is now available for all B&W Tek instruments. |
| B&W Tek – PVR files | PVR files can be created, as a developer, to perform external performance tests. |
| B&W Tek – i-Raman EX | i-Raman EX Model BWS485III is now supported. |
| B&W Tek – all portable instruments | Historical control charts in performance test database. |
| B&W Tek – PTRam | Laser temperature and spectrometer temperature display for PTRam instrument in Status dialog. |
| B&W Tek – all portable instruments | External trigger function. |

3 Improvements

| Topic | Description |
|--|---|
| B&W Tek – all portable instruments | Added option “Enable interlock signal”. |
| B&W Tek – all portable instruments | Revised performance test parameter default values. |
| B&W Tek – 1064 nm portable instruments | Changed Raman shift calibration error threshold default value from 0.1 to 0.3 for all 1064 nm laser models. |

| Topic | Description |
|------------------------------------|---|
| B&W Tek – all portable instruments | Display of integration time for the Raman spectrum added to the Performance test result. |
| B&W Tek – i-Raman EX | Added config option "Use sound alarm when laser is ON" to disable/enable beeper for i-Raman EX. |
| B&W Tek – all portable instruments | Updated message on saturation warning during data collection. |
| B&W Tek – all portable instruments | Improved Raman Shift calibration function. It now uses the proper spectral range to determine auto integration time. |
| B&W Tek – all portable instruments | Removed signal saturation error dialog box and added signal saturation warning message to the instrument status dialog. |
| B&W Tek – all portable instruments | Created instrument specific file to store laser wavelength and Raman Shift calibration information. This information is no longer automatically reset when switching instruments. |
| B&W Tek – all portable instruments | Changed reference label to Dark in the icon for the tab ribbon button. |
| B&W Tek – all portable instruments | Windows regional settings (decimal point/comma) can now be used. |
| All instruments | Quantitative regression development mode viewing of existing models is fixed to reflect exact model settings both for MLR and PLS. |

4 Fixed bugs

| Topic | Description |
|------------------------------------|--|
| B&W Tek – all portable instruments | Fixed time stamp in audit trail. |
| B&W Tek – all portable instruments | Fixed reports for performance test and for Raman shift calibration in comma separated regional settings. The reports were not following the Windows regional settings. |
| B&W Tek – all portable instruments | The dark spectrum was not acquired with the same number of averaging as the signal. |
| B&W Tek – all portable instruments | In the performance test, the photometric precision test was not calculated with the correct formula. |
| B&W Tek – all portable instruments | PVR file created was not using dark subtracted and intensity corrected spectrum. |
| B&W Tek – PTRam | Spectrograph temperature and laser temperature are read correctly to trigger auto Raman shift calibration. |

| Topic | Description |
|-----------------|---|
| All instruments | Fixed copyright year to 2022. |
| NIR instruments | Fixed Low Flux test report dates. |
| NIR instruments | Fixed Library Validation report dates (PDF, HTML, Excel). |

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.