

## 1 Purpose

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

- New version: 4.1.1.191
- Old version: 4.1.1.156

## 2 New features

Topic	Description
B&W Tek – Instrument drivers	The drivers are installed with Vision. It is not necessary to install BWSpec to operate the instrument.
B&W Tek – DCM	After changing the data acquisition parameters in the status dialog, a data collection method is created automatically and a spectrum is saved.
B&W Tek – Service mode	The following features have been implemented in the service version of Vision: <ul style="list-style-type: none"><li>▪ PVR file creation</li><li>▪ Auto-Raman shift settings editing</li><li>▪ Performance test settings editing</li></ul>
PTRam	Vision supports the PTRam with the following features: <ul style="list-style-type: none"><li>▪ Internal and external performance tests</li><li>▪ Auto-Raman shift calibration</li><li>▪ PVR files</li></ul>
MIRA DS MUX	It is possible to connect up to 16 MIRA DS instruments to Vision. Each COM port can be selected in the MUX table of the data collection method.

### 3 Improvements

Topic	Description
Raman/NIR user interface	The separation between the NIR and the Raman interfaces has been improved. NIR users see only NIR features and Raman users see only Raman features.
iRaman – Performance test	Performance tests on the sample channel have been added for all supported Raman instruments.
Ratio 3 files	Vision automatically loads the most recent version of the ratio 3 file that is associated to the connected instrument if the file is present in the Vision folder.
Instrument serial number in exports	ASCII exports show the serial number of the instrument.
2060 Software	Improvements for the 2060 Software communication have been introduced. The improvements are not visible for users. The product list and the operation method list for a given project are available for the 2060 Software.
DS2500 – Reference/dark frequency settings	Users can now define the frequency of reference scans/dark scans. This option was previously deactivated.
XDS lab systems – Auto-numbering with timed acquisition	In the routine mode for XDS lab systems (e.g. NIRS XDS Smart-Probe Analyzer) with timed acquisition and autosave activated, the autonumbering is not reset to 0001 after a user change.
Manual	The Vision Reference manual has been updated.

### 4 Fixed bugs

Topic	Description
Pretreatments with SNV	Some combinations of pretreatments using standard normal variate were not applied correctly. This has been fixed.
i-Raman EX – Temperature	The temperature reading for the i-Raman EX did not work correctly. This has been fixed.
Library for leverage calculation	The library for leverage calculation is now backed up with the project.
Content uniformity test report	The report for content uniformity tests did not display the whole serial number of the instrument. This issue has been fixed.

Topic	Description
Status <b>Connect</b>	If you were logged in as routine analysis operator, the menu <b>Acquire ► Connect</b> did not change to <b>Disconnect</b> once an instrument was connected. This has been fixed. However, the <b>[Connect]</b> touch screen buttons and easy connect buttons are always named <b>Connect</b> .
Sample selection in model development	In some cases, during sample selection the division of the calibration set into calibration set and validation set did not work correctly.  This happened for example if the pretreatments sequence <b>2nd deriviate</b> and <b>Standard Normal Variate</b> in combination with the algorithm <b>Maximum Distance in Wavelength Space</b> were selected.  This has been 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.