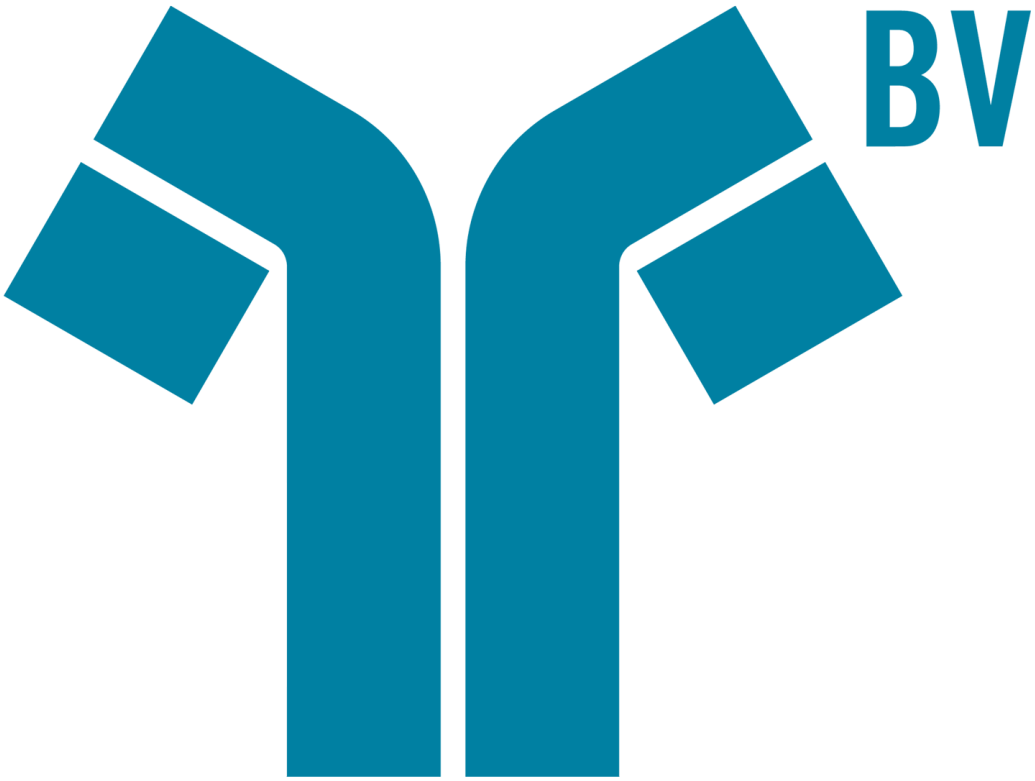
BPV Flex 2.0 Software

Release Notes



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Introduction 1

Thank you for choosing SCIEX to supply your system. We are pleased to bring you the BPV Flex Software.

This document describes features in the software and provides instructions for installing the software.

We recommend that users keep these release notes for reference as they become familiar with the software.

Note: The numbers in parentheses are reference numbers for each issue or feature in the SCIEX internal tracking system.

Workstation Requirements

CAUTION: Potential Data Loss. Do not install the BPV Flex Software on the acquisition computer. Software errors and data integrity issues can result if the BPV Flex Software and acquisition software are used concurrently.

- Dell OptiPlex XE2 computer with:
  - An Intel Core I5-4570S processor (Quad core, 2.90 GHz, 6 MB with HD Graphics 4600)
  - 32 GB DDR3 1600Mhz SDRAM
  - 2*2Tb HDD (RAID1)
  - DVD+-RW

Note: Newer systems might become available. For more information, contact the local sales representative. Older computer models might be compatible. However, they have not been tested and might result in degraded performance.

Software Requirements

The workstation must be configured with the following applications:

- English version of the Windows 10, 64-bit operating system

  Note: Cybersecurity support is included for Windows 10, 64-bit operating systems.

- Microsoft .NET Framework 4.6.2
- Adobe Reader

Note: Visit www.adobe.com and follow the instructions to install the latest version of Adobe Reader.

- Microsoft Office 365

Note: If a trial version of Microsoft Office is installed on the computer as a temporary measure, then the full version of the Microsoft Office software must be activated before the trial period expires. The license can be purchased from your regional division of Microsoft or from an authorized distributor in your region.

Installation Instructions 2

Install the Software

Prerequisite Procedures
• (If applicable) Uninstall any earlier version of the BPV Flex Software

1. Log on to the computer as a user with Administrator privileges.
2. Download the **BPVFLEX-2.0.zip** file from sciex.com/software-support/software-downloads.

   Note: To prevent potential installation issues, we recommend that the file be saved to a location other than the computer Desktop.

3. After the download is complete, right-click the **BPVFLEX-2.0.zip** file.
4. Click **Extract All** and then select a destination folder.
5. After the extraction is complete, navigate to the selected destination folder and then double-click the **setup.exe** file.
6. Follow the on-screen instructions to complete the installation.
7. Restart the computer.
8. Open the BPV Flex Software.

License the BPV Flex Software

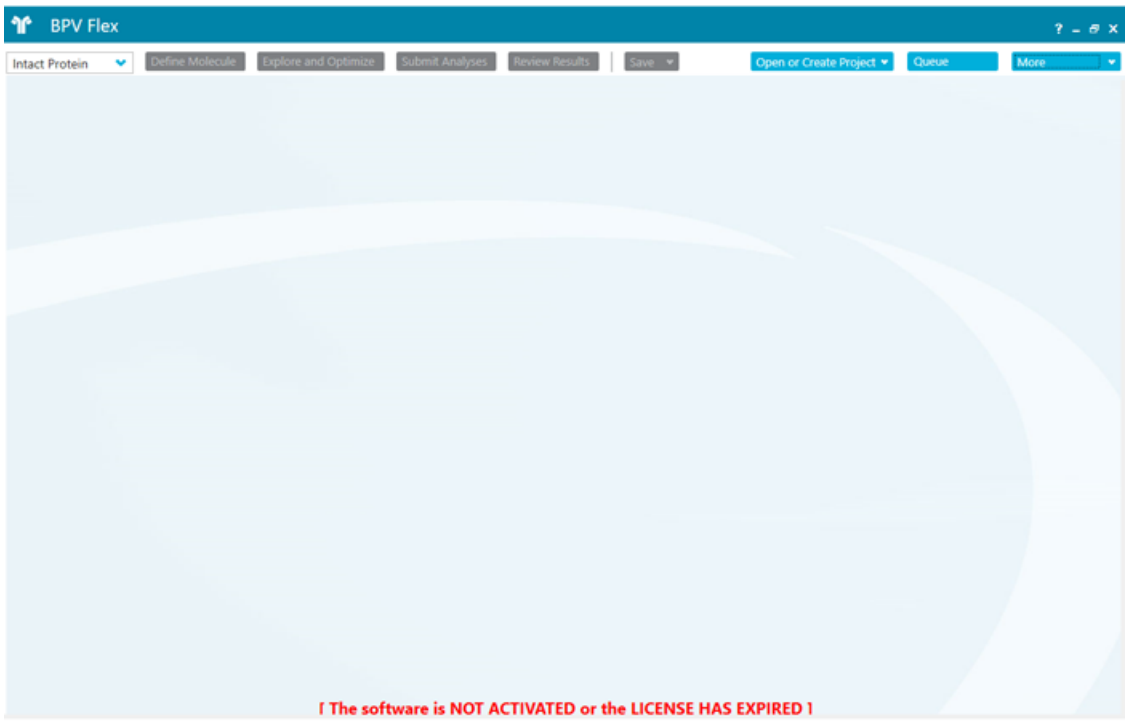
The BPV Flex Software is a licensed product. If a valid 2.0 license is not installed, or if the license has expired, then the processing and saving functions are not available.

1. Open the BPV Flex Software.

   If a valid license file does not exist, then the BPV Flex Activation dialog opens. Continue with step 3.

   If the user closes this dialog without licensing the software, then the BPV Flex Software opens. A message at the bottom of the window indicates that there is an issue with the license.

Figure 2-1 License Message



Any of the following conditions can result in this message being shown:

- A valid 2.0 license is not installed.
- The computer network connection is not available. The licensing components used by BPV Flex Software require that the computer network adapter be enabled, although a physical connection to the network is not required.

2. To license the software when the BPV Flex Software window is open, follow these steps:

a. Click **More > About**.

Figure 2-2 More Options

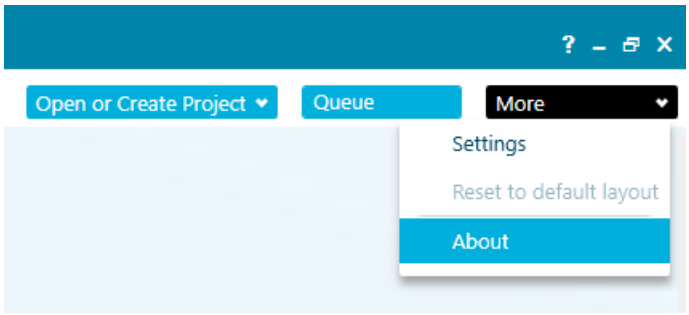
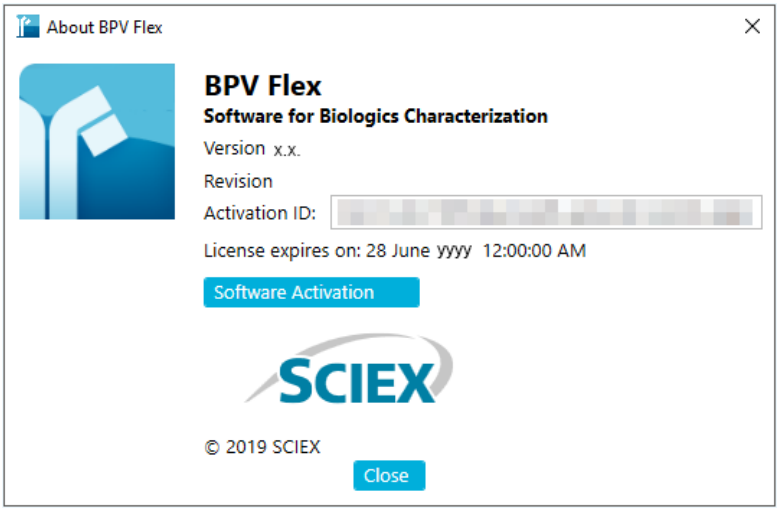


Figure 2-3 About BPV Flex Dialog



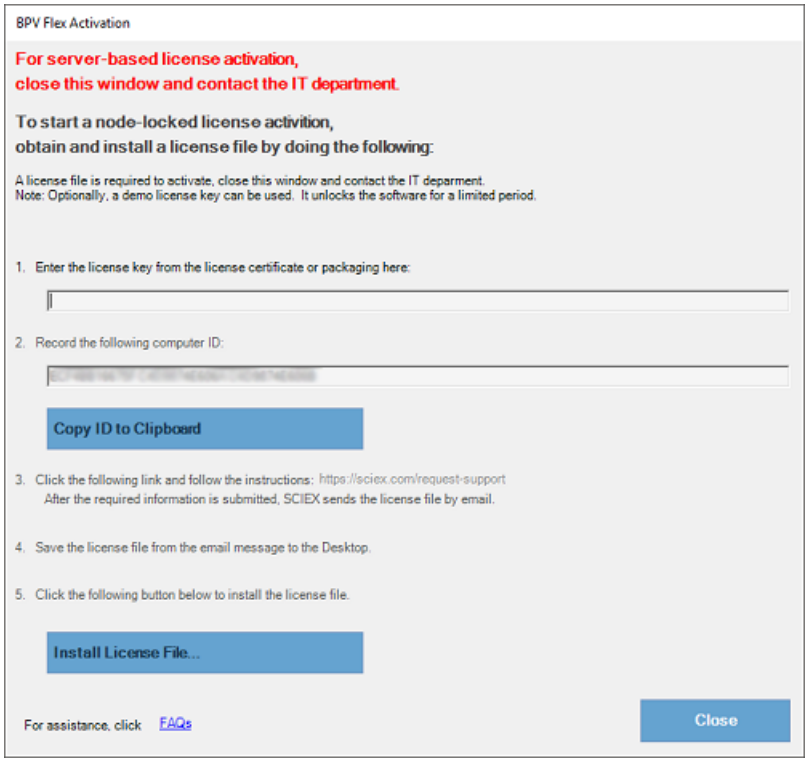
b. Click **Software Activation**.

Note: The **Copy ID to Clipboard** and **Install License File** buttons are disabled until the user enters an activation ID.

3. In the BPV Flex Activation dialog, type the license key in the appropriate field.

   If a license key is not available, then contact sciex.com/request-support.

Figure 2-4 BPV Flex Activation Dialog



4. Click **Generate Computer ID**.

   This creates a unique identifier for the workstation.
5. Click **Copy ID to Clipboard**.
6. Click the sciex.com/request-support link.
7. Log on to access the software activation page.
8. Follow the instructions to obtain the license.

   After the required information is submitted, a license file is sent to all of the e-mail addresses provided.
9. After the e-mail containing the license file is received, copy the license file to the workstation Desktop.
10. Click **Install License File** on the BPV Flex Activation dialog.

    The Select the new license file to be installed dialog opens.
11. Browse to and select the license file and then click **Open**.

    Both the Select the new license file to be installed and the BPV Flex Activation dialogs close.

12. Click **OK** to close the About BPV Flex dialog.

Remove the BPV Flex Software

1. Log on to the computer as a Windows user with Administrator privileges.
2. Click **Start > Control Panel > Programs and Features.**

> **Tip!** If the control panel components are shown by **Category**, then click **Start > Control Panel > Programs > Programs and Features > Uninstall a program.**

3. Select BPV Flex 2.0 Software and then click **Uninstall**.

   The software is removed, with no user intervention required.

   During the removal, the software name is removed from the Installed Programs list, the shortcut to the BPV Flex Software is removed from the desktop, and the shortcuts to the software and the user documentation are removed from the Start menu.

> **Note:** If the product is licensed, then the license file is not removed and can be used if the BPV Flex Software is installed again.

New in Version 2.0 3

This section describes the enhancements and fixes in the BPV Flex 2.0 Software. To view the enhancements and fixes for the previous releases of the BPV Flex Software, refer to the *Release Notes* that came with that version of the software.

New Features in Version 2.0

- **Scrambled disulfide analysis:** The software provides the ability to optionally search for unexpected (scrambled) disulfide bonds that can result from cellular expression, purification, formulation, andother factors. In addition, the software provide features to assist in distinguishing expected disulfide bonds from unexpected disulfide bonds. (BPV-5896)
- **N-Glycans:** A comprehensive list of N-glycans has been added to the modification library. These N-glycans are represented in Oxford Notation. Commonly occurring bi-antennary glycans on antibodies produced in CHO cells are represented by a **~** in the **Symbol** column. Tri- and tetra-antennary and bis glycans are represent by a **^** in the **Symbol** column. (BPV-5146)
- **Optical data support in peptide mapping:** In the peptide mapping workflow, users can open data files containing optical data and compare and correlate optical results to mass spectrometer results. (BPV-5829)
- **Interactive sequence viewer:** A sequence viewer in the peptide mapping workflow allows the user to visualize and navigate the underlying results from a molecule-centric view. The user can visualize the following:
  - Sequence coverage
  - Various peptides observed in the sample
  - MS/MS fragmentation for each peptide
  - Identified modifications
  - Disulfide bonds specified by the user and disulfide bonds observed in the data file

  The sequence view also allows the user to filter the results to show all the peptides identified, only those peptides that have been validated, or all peptides set to "Use". (BPV-5847)

Enhancements in Version 2.0

- **Peptide mapping signal processing improvements:** The peptide mapping signal processing algorithm has been improved. (BPV-5827)

- **Improvements to MS Graphs:** A number of improvements have been made to the MS graphs:
  - Modifications can be shown on the reconstruction graphs in the intact protein workflow. (BPV-4112)
  - The isotope pattern can be shown in the TOF MS graph in the peptide mapping workflow. (BPV-4807)
  - Custom peak labels can be added to the Chromatogram graph in the peptide mapping workflow. (BPV-5588)
- **Gaussian smoothing:** In the intact protein workflow, Gaussian smoothing can be set to 0. (BPV-5942)
- **Support for hypermasses for large charge states:** Hypermasses can be shown for charge states greater than 100. (BPV-5925)
- **Support for fixed modifications:** The user can mark a modification as "fixed", so that the unmodified theoretical form is not generated or searched in the sample. (BPV-5412)
- **Changes to default settings for Grouping and Filtering:** By default, the grouping and filtering options are enabled. (BPV-5886)
- **Changes to default settings for Perform LC Peak Detection:** By default, the **Perform LC Peak Detection** is now enabled. (BPV-5887)
- **Changes to the mass error display:** Mass error in the Fragment tables in the peptide mapping workflow can now be shown in Da or ppm. (BPV-2355)
- **Improvements to the Review Results page:** Changes to the Analysis Results dialog make it easier to open and save results. (BPV-5676)
- **Changes to percentage modification:** The modification percent values are not shown for unmodified peptides if the option to average charge states is selected. (BPV-4972)
- **Improvements for multiple submission:** The Submit Analyses page has a number of usability improvements, including a hot key for each button, automatic addition of empty rows, and alphabetical data file loading. (BPV-5557)

Fixed Issues in Version 2.0

- Modifications with unassigned positions for disulfide bonded peptides are not shown correctly: A modification without an assigned position is always shown in-line with the first peptide chain of a disulfide bonded peptide. A position must be assigned for the modification to be shown in-line with the correct peptide chain. (BPV-5013)
- Peptide sequences are not shown in the tooltips in the Sequence Viewer if multiple, large results are open at the same time. (BPV-5835)
- **Chain** and **Chain Names** fields are blank in the Intact Protein Results Table if data was analyzed using the nonreduced setting. (BPV-5859)

Known Issues 4

- The message "The Software is NOT ACTIVATED or the LICENSE HAS EXPIRED" is shown after the software is licensed. Workaround: Close and then open the software. (BPV-6215)
- The BPV Flex Software cannot be opened if SCIEX OS is removed. To avoid this issue, after removing SCIEX OS, start the computer again. (BPV-5788)
- Processing times might be significantly long, greater than twelve hours for some data files. This issue is typically observed if large peptides with multiple variable modifications are identified and matched to a peak. The software spends a significant amount of time calculating MS/MS scores for all of the possible combinations of modifications that can occur on these peptides. (BPV-6250)
- Occasionally, the color-coding in the DAR and Payload graph legends is not shown correctly after the results of the analysis are unloaded and then loaded again. Workaround: Select and then clear the **View** checkbox for one of the entries in the table next to the graph. (BPV-4860)
- The data format of the AA Index is not maintained when the data is copied and then pasted in an Excel spreadsheet. To avoid any issues with Excel updating the copied content, change the cell format to **text** in the Excel spreadsheet before pasting the data. (BPV-2100)
- Spaces in the Results table are not recognized in Excel. Workaround:
  - Do not use spaces when typing text in the Results table.
  - When searching the Excel spreadsheet for text containing spaces, use a wildcard (?) character.

  (BPV-6287)
- The values shown in the XIC Area column of the Peptide Results table are determined by processing and are used for subsequent modification percent calculations. XIC Area values are also shown in the Area column of the XIC Peaks tab in the BPC/TIC/XIC pane. However, because there might be slight differences in the values, the values in the XIC Peaks tab should be used for information purposes only. (BPV-868)
- A mismatch is observed between the *m/z* value in the Peptide Results table and the *m/z* value shown in the XIC in the graph header. Always use the *m/z* values listed in the Results Table and the TOF-MS graph header because the values shown in the XIC graph header is from an intermediate step during processing and should be used for information purposes only. (BPV-5242)

- If a secondary monitor is turned off or if the cable is disconnected from the monitor, then the BPV Flex Software and any floating windows on that monitor are not automatically visible on the primary monitor. If the application or floating window is not visible, then do one of the following:
  - If the BPV Flex application is on the screen that is no longer visible, then press **Alt + Tab** to select the BPV Flex Software from the running applications, hold down the Windows key and then use the Left or Right arrow keys to move the application to the visible monitor.
  - If the BPV Flex Software is stuck on a monitor, press **Alt+Space+M**, use the Left or Right arrow keys to move the application to the visible screen, and then press **Enter** to place the application.
  - If only a floating window is off-screen, then click **Settings- > Reset default layout**. (BPV-4340)
- The Repair function is not available when the BPVFlex.msi installation script is run from the self extracting installation folder after the BPV Flex Software has been previously installed. The BPV Flex Software can be removed or installed. To avoid any issues, navigate to Apps & features in the Windows Settings application and then remove the BPV Flex Software. (BPV-4716)
- The Modification table shows an error icon if the same modification is added for different workflows in the Molecule page and in the Explore and Optimize page. Workaround: Set the modification to **Both** workflows in the Define Molecule page and then remove the modification from the Explore and Optimize page. (BPV-4776)
- When the user connects remotely to the software and floats one of the panels, if the user subsequently ends the remote connection and then connects again using a different number of monitors for the remote connection, then the software stops responding. (BPV-5659)
- An error is generated when the user attempts to paste a very large sequence viewer image where the protein definition contains many chains in PowerPoint. When this issue occurs, paste the image in Paint, resize the image, and then paste the image in PowerPoint. (BPV-5819)
- The peak list does not fill the entire available space when the user opens an Intact Protein project that has more than two reconstructed peaks, opens the Peaks table, and then maximizes the pane to see both the graph and the peak list. Workaround: Resize the window to see more peaks. (BPV-5812)
- If a white screen is shown when the software is opened after a power outage, then the user interface preferences might have become unusable. It this issue occurs, then do the following:
  1. Close the BPV Flex Software.
  2. Open Windows File Explorer and the type the following in the navigation bar: %LOCALAPPDATA%\SCIEX\BPVFlex.exe_Url_zsw5cspffhupfda3rpyapo0oiz5tmj2g
  3. Delete the 2.0.0.0 sub-folder.
  4. Open the BPV Flex Software and then customize the window layout and the graph options that have returned to their default settings.

  (BPV-5141)
- Results cannot be generated using the multi-submit feature if the data files are stored on a network. Only data files on a local drive can be used to generate results using the multi-submit feature. (BPV-5609)

Contact Us

Customer Training

- In North America: NA.CustomerTraining@sciex.com
- In Europe: Europe.CustomerTraining@sciex.com
- Outside the EU and North America, visit sciex.com/education for contact information.

Online Learning Center

- SCIEX University™

SCIEX Support

SCIEX and its representatives maintain a staff of fully-trained service and technical specialists located throughout the world. They can answer questions about the system or any technical issues that might arise. For more information, visit the SCIEX website at sciex.com or contact us in one of the following ways:

- sciex.com/contact-us
- sciex.com/request-support

CyberSecurity

For the latest guidance on cybersecurity for SCIEX products, visit sciex.com/productsecurity.

Documentation

This version of the document supercedes all previous versions of this document.

To view this document electronically, Adobe Acrobat Reader is required. To download the latest version, go to https://get.adobe.com/reader.

Contact Us

To find software product documentation, refer to the release notes or software installation guide that comes with the software.

To find hardware product documentation, refer to the *Customer Reference* DVD that comes with the system or component.

The latest versions of the documentation are available on the SCIEX website, at sciex.com/customer-documents.

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