ScreenWorks

System Control

Software Version 5.1.4

Software Release Notes

Software Version 5.1.4
October 2021

MOLECULAR
DEVICES

Contents

Chapter 1: ScreenWorks Software Version 5.1.4 Release Notes

The version 5.1.4 update is a minor release. Included are a summary and details of the changes incorporated in this revision as compared to version 5.1.3, the last general release of the software.

The following topics are included in this chapter:

- ScreenWorks Software Version 5.1.4 Summary
- Issues Addressed in ScreenWorks Software v5.1.4
- Known Issues in ScreenWorks Software v5.1.4 on page 7

For computer requirements, software update instructions, and other related details, see ScreenWorks Software General Information on page 29.

ScreenWorks Software Version 5.1.4 Summary

The version 5.1.4 update incorporates the following changes:

Table 1-1: Summary of version 5.1.4 changes

Tracking ID	Status	Functional Area	Description
SW51-25	Fixed	General	Random Refresh Issue in Plate Grid
SW51-135	Fixed	General	Opening a Non-standard File Causes an Error Loop
SW51-151	Fixed	Peak Pro 2 Analysis	After PeakPro 2 Analysis Window is Closed, PeakPro Remains Active
SW51-153	Fixed	Peak Pro 2 Analysis	Baseline and Trigger Line Stay Visible After PeakPro 2 Analysis is Closed
SW51-155	Fixed	Peak Pro 2 Analysis	When multiple data files were open, PeakPro analysis on one data file caused the kinetic reduction values to display on the grids of other data files
SW51-184	Fixed	General	Highlighting Wells During a Protocol Run Causes the Menu Icons to Flicker
SW51-185	Fixed	General	Option to Wash Cell Reservoir is Disabled
SW51-188	Fixed	General	Pixelated Image Files

Issues Addressed in ScreenWorks Software v5.1.4

The following explains the issues addressed and fixed in version 5.1.4.

Random Refresh Issue in Plate Grid

SW51-25

Fixed the issue that caused random refreshes in the plate grid.

Opening a Non-standard File Causes an Error Loop

SW51-135

Fixed the issue that caused an error loop (improper argument) when opening a non-standard file.

After PeakPro 2 Analysis Window is Closed, PeakPro Remains Active

SW51-151

Fixed the issue that caused PeakPro to remain active after the PeakPro 2 analysis window was closed.

Baseline and Trigger Line Stay Visible After PeakPro 2 Analysis is Closed

SW51-153

Fixed the issue that caused the baseline and trigger line stay visible even after the PeakPro 2 Analysis was closed.

Analysis of One Data File Launches Kinetic Reduction Values in Another Data File

SW51-155

Fixed an issue that occurred when multiple data files were open, running the PeakPro analysis on one data file caused the kinetic reduction values to display on the grids of other data files.

Highlighting Wells During a Protocol Run Causes the Menu Icons to Flicker

SW51-184

Fixed the issue that caused the menu icons to flicker when the user highlighted the entire plate wells during a protocol run.

Option to Wash Cell Reservoir is Disabled

SW51-185

Fixed the issue that caused the wash cell reservoir option to be greyed out.

Pixelated Image Files

SW51-188

Fixed the issue that caused a protocol with saved images to randomly create pixelated TIF files

Known Issues in ScreenWorks Software v5.1.4

The following explains the known issues in version 5.1.4.

Intermittent Application Crash During a Back-to-Back Read

SW51-182

Running protocols back-to-back may cause the ScreenWorks application to crash.

Workaround

Close the data files that remain opened after each run.

Chapter 2: ScreenWorks Software Version 5.1.3 Release Notes

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The version 5.1.3 update is a minor release. Included are a summary and details of the changes incorporated in this revision as compared to version 5.1.2, the last general release of the software.

The following topics are included in this chapter:

- ScreenWorks Software Version 5.1.3 Summary
- Issues Addressed in ScreenWorks Software v5.1.3

For computer requirements, software update instructions, and other related details, see ScreenWorks Software General Information on page 29.

ScreenWorks Software Version 5.1.3 Summary

The version 5.1.3 update incorporates the following changes:

Table 2-1: Summary of version 5.1.3 changes

Tracking ID	Status	Functional Area	Description
SW51-180	Fixed	General	Intermittent Motion Subsystem Error in Automation Mode

Issues Addressed in ScreenWorks Software v5.1.3

The following explains the issues addressed and fixed in version 5.1.3.

Intermittent Motion Subsystem Error in Automation Mode

SW51-180

Fixed the issue in the firmware where in automation mode, the instrument intermittently reports Motion Subsystem Error.

Chapter 3: ScreenWorks Software Version 5.1.2 Release Notes

3

The version 5.1.2 update is a minor release. Included are a summary and details of the changes incorporated in this revision as compared to version 5.1.1, the last general release of the software.

The following topics are included in this chapter:

- ScreenWorks Software Version 5.1.2 Summary
- Issues Addressed in ScreenWorks Software v5.1.2

For computer requirements, software update instructions, and other related details, see ScreenWorks Software General Information on page 29.

ScreenWorks Software Version 5.1.2 Summary

The version 5.1.2 update incorporates the following changes:

Table 3-1: Summary of version 5.1.2 changes

Tracking ID	Status	Functional Area	Description
SW51-19	Fixed	General	Instrument Restart Required After Software Crash
SW51-158	Fixed	Yellow Plate Signal Test	Yellow Plate Signal Test Uses Wrong Camera Mode
SW51-159	Fixed	Protocols	High Gain Lumi Protocol Switch to FL Causes Error
SW51-160	Fixed	Protocols	Yellow Plate Signal Test in FL and Then Pre-Stabilize for a Lumi Protocol With High Gain Causes Error
SW51-163	Fixed	Protocols	Protocol With Dual Read Modes Causes Error
SW51-164	Fixed	Protocols	Protocol With Dual Read Modes Causes Incorrect Minimum Interval Time
SW51-169	Fixed	General	Intermittent Software Crashes When Closing Several Data Tabs
SW51-170	Fixed	Protocols	Switching to a Lumi Protocol After Running a FL Protocol Causes Error
SW51-171	Fixed	Automation	File Name Problem Using Barcodes in Automation Mode

Issues Addressed in ScreenWorks Software v5.1.2

The following explains the issues addressed and fixed in version 5.1.2.

Instrument Restart Required After Software Crash

SW51-19

Fixed the issue where a ScreenWorks software crash requires the instrument to be restarted.

Yellow Plate Signal Test Uses Wrong Camera Mode

SW51-158

Fixed the issue where the yellow plate signal test is set to use the default normal camera mode but the signal test happens in the high speed camera mode.

High Gain Lumi Protocol Switch to FL Causes Error

SW51-159

Fixed the issue where after running a luminescence protocol with the gain set to a value higher than 128 and then switching to a fluorescence protocol, the software displays an error.

Yellow Plate Signal Test in FL and Then Pre-Stabilize for a Lumi Protocol With High Gain Causes Error

SW51-160

Fixed the issue where after running the yellow plate signal test in fluorescence mode and then manually pre-stabilizing the camera for a luminescence protocol with the gain set to higher than 128 results in a software error.

Protocol With Dual Read Modes Causes Error

SW51-163

Fixed the issue where running a dual read protocol with certain camera settings causes the software to display an error.

Protocol With Dual Read Modes Causes Incorrect Minimum Interval Time

SW51-164

Fixed the issue where manually pre-stabilizing the camera for a protocol with dual read modes causes incorrect minimum interval time.

Intermittent Software Crashes When Closing Several Data Tabs

SW51-169

Fixed the issue where selecting to close all files when several tabs are open intermittently causes the software to crash.

Switching to a Lumi Protocol After Running a FL Protocol Causes Error

SW51-170

Fixed the issue where running a fluorescence protocol and then switching to a luminescence protocol causes the software to display an error.

File Name Problem Using Barcodes in Automation Mode

SW51-171

Fixed the issue where running a protocol in automation mode with save images and with barcodes enabled, produces incorrect image file names.

Chapter 4: ScreenWorks Software Version 5.1.1 Release Notes

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The version 5.1.1 update is a minor release. Included are a summary and details of the changes incorporated in this revision as compared to version 5.1, the last general release of the software.

The following topics are included in this chapter:

- ScreenWorks Software Version 5.1.1 Summary
- Issues Addressed in ScreenWorks Software v5.1.1 on page 13

For computer requirements, software update instructions, and other related details, see ScreenWorks Software General Information on page 29.

ScreenWorks Software Version 5.1.1 Summary

The version 5.1.1 update incorporates the following changes:

Table 4-1: Summary of version 5.1.1 changes

Tracking ID	Status	Functional Area	Description
SW51-156	Fixed	Mode Switching	Switching From Automation Mode to Manual Mode Causes Error

Issues Addressed in ScreenWorks Software v5.1.1

The following explains the issues addressed and fixed in version 5.1.1.

Switching From Automation Mode to Manual Mode Causes Error

SW51-156

Fixed the issue where when the instrument is equipped to function in Automation mode, switching from Automation mode to Manual mode causes a ScreenWorks software Motion Control error.

Chapter 5: ScreenWorks Software Version 5.1 Release Notes

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The version 5.1 update is a minor release. Included are a summary and details of the changes incorporated in this revision as compared to version 5.0.1, the last general release of the software.

The following topics are included in this chapter:

- ScreenWorks Software Version 5.1 Summary
- Modifications Made in ScreenWorks Software v5.1 on page 17
- Issues Addressed in ScreenWorks Software v5.1 on page 18
- Known Issues in ScreenWorks Software v5.1 on page 20

For computer requirements, software update instructions, and other related details, see ScreenWorks Software General Information on page 29.

ScreenWorks Software Version 5.1 Summary

The version 5.1 update incorporates the following changes:

Table 5-1: Summary of version 5.1 changes

Tracking ID	Status	Functional Area	Description
SW51-41	Modified	Save Images	Increased Maximum Saved Images Limit per Experiment
SW51-65	Modified	Yellow Plate Signal Test	Changed Default Camera Mode for Yellow Plate Signal Test
SW51-76	Modified	Load Tip Position	Improved Load Tips Position Protocol Setting
SW51-94	Modified	Peak Pro 2.0 Analysis	Use Normalized Data With Peak Pro 2.0 Analysis
SW51-97	Modified	Peak Pro 2.0 Analysis	Use Decimals for Trigger and Baseline in Peak Pro 2.0 Analysis Dialog
SW51-101	Modified	Peak Pro 2.0 Analysis	Save Settings and Load Settings in Peak Pro 2.0 Analysis Dialog
SW51-107	Modified	Peak Pro 2.0 Analysis	Set Individual Well Data Ranges in Peak Pro 2.0 Analysis Dialog
SW51-142	Modified	Exporting	Export Data With up to Four Decimal Places
SW51-144	Modified	Peak Pro 2.0 Analysis	Saved Settings Load Automatically in Peak Pro 2.0 Analysis Dialog
SW51-145	Modified	Peak Pro 2.0 Analysis	Peak Pro 2.0 Statistics tab Opens With Peak Pro 2.0 Analysis Dialog
SW51-11	Fixed	Calibration	Esc Makes Calibration Dialog Disappear Irretrievably
SW51-24	Fixed	Multi-Well Graph,	Well Labels Disappear When the Multi-Well Graph Resizes
SW51-40	Fixed	Dispense	Upper Limit of Dispense Speed not Validated
SW51-59	Fixed	Well Graph	Well Graph Marking Shows Hidden Well Instead of Displayed Well

Table 5-1: Summary of version 5.1 changes (continued)

Tracking ID	Status	Functional Area	Description
SW51-60	Fixed	Yellow Plate Signal Test	1536 Yellow Plate Test Signal Values Truncated
SW51-66	Fixed	Peak Pro 2.0 Analysis	Copy and Paste Issue for Peak Pro 2.0 Software Module Table Data in Excel
SW51-90	Fixed	Protocol Running	Random "Unable to Aspirate" Error
SW51-91	Fixed	File Saving	Instrument Seems Frozen When Saving Large Data Files
SW51-98	Fixed	Open Image	Open Image File Menu Option Disappears After Running a Protocol
SW51-103	Fixed	File Saving	Out of Memory Error After Opening and Closing Large Data Files
SW51-104	Fixed	Groups	Adding Groups to a Large Data File Causes Crash
SW51-105	Fixed	Peak Pro 2.0 Analysis	Baseline Level Ignores Data Range Settings in Peak Pro 2.0 Analysis Dialog
SW51-111	Fixed	Peak Pro 2.0 Analysis	Peak Pro 1.0 Software Module License Expiration Breaks Peak Pro 2.0 Software Module Export
SW51-114	Fixed	Peak Pro 2.0 Analysis	Issue With Normalized Data After Analysis in Peak Pro 2.0 Software Module
SW51-151	Known Issue	Peak Pro 2.0 Analysis	Peak Pro 2.0 Software Module Stays Active After Close

Modifications Made in ScreenWorks Software v5.1

The following explains the modifications made in version 5.1.

Increased Maximum Saved Images Limit per Experiment

SW51-41

Protocols can be set to save up to 6,000 images per experiment.

Changed Default Camera Mode for Yellow Plate Signal Test

SW51-65

The Yellow Plate Signal Test default camera mode is now set to Normal.

Improved Load Tips Position Protocol Setting

SW51-76

When the Loads Tips Position setting is selected, and Source Plate 1 is used for tips, the setting for aspirate automatically changes from Source Plate 1 to Source Plate 2.

Use Normalized Data With Peak Pro 2.0 Analysis

SW51-94

Peak Pro 2.0 Analysis is enhanced to run normalized data. Data normalization is a Corrections option for Kinetic Reduction.

Use Decimals for Trigger and Baseline in Peak Pro 2.0 Analysis Dialog

SW51-97

The Trigger level and Baseline level in the Peak Pro 2.0 software module allow manual entry of decimal values.

Save Settings and Load Settings in Peak Pro 2.0 Analysis Dialog

SW51-101

Peak Pro 2.0 Analysis dialog box settings can be saved and loaded for later analysis using the added Save Settings and Load Settings buttons.

Set Individual Well Data Ranges in Peak Pro 2.0 Analysis Dialog

SW51-107

In the Peak Pro 2.0 Analysis dialog box, a data range can be set for individual wells.

Export Data With up to Four Decimal Places

SW51-142

A new Decimal Places field in all of the File Export tabs that allows you to specify 2, 3, or 4 decimal places for your export data. Your setting applies only if the selected number of decimal places exist in the data.

Saved Settings Load Automatically in Peak Pro 2.0 Analysis Dialog

SW51-144

When you open a data file in the Peak Pro 2.0 software module that has saved settings, the saved settings automatically load when the Peak Pro 2.0 Analysis dialog box opens.

Peak Pro 2.0 Statistics tab Opens With Peak Pro 2.0 Analysis Dialog

SW51-145

When you open the Peak Pro 2.0 Analysis dialog box, the Peak Pro 2.0 Statistic tab is active. When you close the Peak Pro 2.0 Analysis dialog box, the Kinetic Reduction tab is active.

Issues Addressed in ScreenWorks Software v5.1

The following explains the issues addressed and fixed in version 5.1.

Esc Makes Calibration Dialog Disappear Irretrievably

SW51-11

Fixed the issue where pressing the Esc key to close the Calibration dialog box makes it unusable again until the software is restarted.

Well Labels Disappear When the Multi-Well Graph Resizes

SW51-24

Fixed the issue where resizing the multi-well graph window causes the well labels to change to boldface and randomly disappear.

Upper Limit of Dispense Speed not Validated

SW51-40

Fixed the issue where when an out of range dispense speed is specified, the dispense speed is not validated before a protocol runs, which requires an instrument reset during the run.

Well Graph Marking Shows Hidden Well Instead of Displayed Well

SW51-59

Fixed the issue where when multiple wells are analyzed, even though only one well is in focus, and clicking a spot on the graph shows the details of a hidden well.

1536 Yellow Plate Test Signal Values Truncated

SW51-60

Fixed the issue where the signal values for a 1536 Yellow Plate Test would truncate causing rows AA through AF to go missing.

Copy and Paste Issue for Peak Pro 2.0 Software Module Table Data in Excel

SW51-66

Fixed the issue where copying in the Peak Pro 2.0 software module by clicking the Copy Table Data to Clipboard button and pasting it to Excel, shifts the values of CTD @90% to the next column.

Random "Unable to Aspirate" Error

SW51-90

Fixed the issue where running a protocol intermittently displays an error message that the instrument is unable to aspirate.

Instrument Seems Frozen When Saving Large Data Files

SW51-91

Fixed the issue where when saving a large data file, the instrument remains busy without any indication of remaining time and appears frozen.

Open Image File Menu Option Disappears After Running a Protocol

SW51-98

Fixed the issue where after running a protocol, the Open Image option in the File menu disappears.

Out of Memory Error After Opening and Closing Large Data Files

SW51-103

Fixed the issue where after opening and closing a large data file with 6,000 reads, an out of memory error message displays.

> **Note:** When data files from older versions of ScreenWorks software are opened and re-saved in ScreenWorks software Version 5.1, they can no longer be opened in previous ScreenWorks software versions, including ScreenWorks software Version 5.0. Before saving the data file in the 5.1 software format, a backup copy of the data file is automatically saved in its original software format.

Adding Groups to a Large Data File Causes Crash

SW51-104

Fixed the issue where adding groups to a large data file of a 1536 plate with 6,000 reads causes intermittent software crashes.

Baseline Level Ignores Data Range Settings in Peak Pro 2.0 Analysis Dialog

SW51-105

Fixed the issue where the Baseline level always uses the full data range, regardless of the Data range settings in the Peak Pro 2.0 Analysis dialog box.

Peak Pro 1.0 Software Module License Expiration Breaks Peak Pro 2.0 Software Module Export

SW51-111

Fixed the issue where when the Peak Pro 1.0 software module license expires, when exporting statistics for Peak Pro 2.0 software module, the kinetic reduction types menu options in the Compute list are missing.

Issue With Normalized Data After Analysis in Peak Pro 2.0 Software Module

SW51-114

Fixed the issue where when after a set of wells are analyzed in the Peak Pro 2.0 software module and corrections to normalize data are applied, using the normalized data with the default setting results in the loss of the baseline level and the trigger line.

Known Issues in ScreenWorks Software v5.1

The following explains the known issues in version 5.1.

Peak Pro 2.0 Software Module Stays Active After Close

SW51-151

If the Peak Pro 2.0 software module has been opened and closed, clicking on the well grid can cause the Peak Pro 2.0 software module baseline and other markers to show up on the graph.

Workaround:

Close and re-open the data file.

Chapter 6: ScreenWorks Software Version 5.0.1 Release Notes

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The version 5.0.1 update is a minor release. Included are a summary and details of the changes incorporated in this revision as compared to version 5.0, the last general release of the software.

The following topics are included in this chapter:

- ScreenWorks Software Version 5.0.1 Summary
- Modifications Made in ScreenWorks Software v5.0.1 on page 23
- Issues Addressed in ScreenWorks Software v5.0.1 on page 23

For computer requirements, software update instructions, and other related details, see ScreenWorks Software General Information on page 29.

ScreenWorks Software Version 5.0.1 Summary

The version 5.0.1 update incorporates the following changes:

Table 6-1: Summary of version 5.0.1 changes

Tracking ID	Status	Functional Area	Description
SW51-23	Modified	Peak Pro 2.0 Analysis	Peak Pro 2.0 Software Module Displays Kinetic Reduction Type
SW51-29	Modified	Peak Pro 2.0 Analysis	Peak Pro 2.0 Analysis Dialog Dynamic Threshold Settings Improvements
SW51-48	Modified	Peak Pro 2.0 Analysis	Peak Pro 2.0 Software Module Auto Noise Rejection Improvements
SW51-17	Fixed	Plate Grid View	Well Saturation Warning Text Overlapped Other Text
SW51-30	Fixed	Peak Pro 2.0 Analysis	Peak Pro 2.0 Software Module Calculated CTD90 and Peak Decay Time for Very Wide Peaks Wrong
SW51-31	Fixed	Yellow Plate Signal Test	Camera Exposure Setting Issues After a Yellow Plate Signal Test
SW51-51	Fixed	Groups	Adding Groups With Certain Settings Caused Crash
SW51-55	Fixed	Peak Pro 2.0 Analysis	Peak Pro 2.0 Software Module Calculated Rise Time Values for Some Wells Wrong
SW51-58	Fixed	Peak Pro 2.0 Analysis	Peak Pro 2.0 Software Module Randomly Crashed
SW51-61	Fixed	Peak Pro 2.0 Analysis	Peak Pro 2.0 Software Module Displayed Inconsistent Peak Spacing Values
SW51-64	Fixed	Peak Pro 2.0 Analysis	Removing Groups From Analyzed Data in Peak Pro 2.0 Software Module Caused Crashes
SW51-70	Fixed	Tools	Save Error Log Broken

Table 6-1: Summary of version 5.0.1 changes (continued)

Tracking ID	Status	Functional Area	Description
SW51-79	Fixed	ICCD Luminescence Mode	On ICCD Instruments, Gate Setting for Luminescence Mode was Wrong

Modifications Made in ScreenWorks Software v5.0.1

The following explains the modifications made in version 5.0.1.

Peak Pro 2.0 Software Module Displays Kinetic Reduction Type

SW51-23

To be consistent with the Peak Pro 1.0 software module, the selected Kinetic Reduction type in the Peak Pro 2.0 software module displays above the Plate Grid View next to the icon button.

Peak Pro 2.0 Analysis Dialog Dynamic Threshold Settings Improvements

SW51-29

In the Peak Pro 2.0 software module, there is a new Apply to all wells check box for the Dynamic threshold settings.

Peak Pro 2.0 Software Module Auto Noise Rejection Improvements

SW51-48

In the Peak Pro 2.0 software module, a new Auto Noise Rejection algorithm improves noise elimination.

Issues Addressed in ScreenWorks Software v5.0.1

The following explains the issues addressed and fixed in version 5.0.1.

Well Saturation Warning Text Overlapped Other Text

SW51-17

Fixed the issue where the well saturation warning message on the top of the plate grid covered the text Max Value RFU. It also cut off on the right side, displaying an incomplete sentence.

Peak Pro 2.0 Software Module Calculated CTD90 and Peak Decay Time for Very Wide Peaks Wrong

SW51-30

Fixed the issue where the Peak Pro 2.0 software module calculated CTD90 and Peak Decay time values wrong.

Camera Exposure Setting Issues After a Yellow Plate Signal Test

SW51-31

Fixed the issue where after running the Yellow Plate Signal Test, followed by a manual camera stabilization, and then a protocol, the stabilization still used the last exposure settings from the signal test, rather than the settings in the protocol.

Adding Groups With Certain Settings Caused Crash

SW51-51

Fixed the issue where adding a new group with certain values in number of rows or columns caused a crash.

Peak Pro 2.0 Software Module Calculated Rise Time Values for Some Wells Wrong

SW51-55

Fixed the issue where the Peak Pro 2.0 software module calculated Rise Time values for some wells wrong.

Peak Pro 2.0 Software Module Randomly Crashed

SW51-58

Fixed the issue where Peak Pro 2.0 software module randomly crashed when changing settings.

Peak Pro 2.0 Software Module Displayed Inconsistent Peak Spacing Values

SW51-61

Fixed the issue where the Peak Spacing values selected in the Peak Pro 2.0 Analysis Configuration tab displayed differently in the Statistics table and the Plate Grid View.

Removing Groups From Analyzed Data in Peak Pro 2.0 Software Module Caused Crashes

SW51-64

Fixed the issue where after using the Peak Pro 2.0 software module, deleting or modifying data caused crashes.

Save Error Log Broken

SW51-70

Fixed the issue where the Save error log option produced a blank file.

On ICCD Instruments, Gate Setting for Luminescence Mode was Wrong

SW51-79

Fixed the issue where, on ICCD instruments, the gate setting for Luminescence mode incorrectly locked at 6% when it should have been 100%.

Chapter 7: ScreenWorks Software Version 5.0 Release Notes

7

The version 5.0 update is a major release. Included are a summary and details of the changes incorporated in this revision as compared to version 4.2.1, the last general release of the software.

The following topics are included in this chapter:

- ScreenWorks Software Version 5.0 Summary
- New in ScreenWorks Software v5.0 on page 26
- Modifications Made in ScreenWorks Software v5.0 on page 26
- Issues Addressed in ScreenWorks Software v5.0 on page 26

For computer requirements, software update instructions, and other related details, see ScreenWorks Software General Information on page 29.

ScreenWorks Software Version 5.0 Summary

The version 5.0 update incorporates the following changes:

Table 7-1: Summary of version 5.0 changes

Tracking ID	Status	Functional Area	Description
TET-15	New	Read Mode	Added the Ability to Sample up to 50 Points per Cardiomyocyte Calcium Peak
TET-16	New	Read Mode	Added the Ability to Capture up to 6,000 Samples per Experiment
TET-84	New	Camera	Added High Speed Camera Support With Continuous Stabilization
TET-111	New	Data Analysis	Added ScreenWorks Peak Pro software Version 2.0
TET-7	Modified	Protocols	Simplified Drag and Drop Steps in Protocols
TET-24	Modified	Peak Pro 1 Kinetic Reduction	Alphabetized List of Standard Deviations in Peak Pro 1.0 Software Module
TET-6	Fixed	Analysis Tab	Slow Screen Refresh With Large Data Files
TET-13	Fixed	Group Statistics Graph Tab	Missing Graphs in Group Statistics
TET-64	Fixed	Signal Test and Protocol Test	No Screen Refresh in Signal Test and Protocol Test
TET-80	Fixed	Protocols	Stopping a Running Protocol Causes Software Crash
TET-104	Fixed	System Memory	Out of Memory Error

New in ScreenWorks Software v5.0

The following new features are included in version 5.0.

Added the Ability to Sample up to 50 Points per Cardiomyocyte Calcium Peak

TET-15

Added the ability for ScreenWorks software to provide up to 50 sample points per peak for a cardiomyocyte beating at 120 beats per minute or two beats per second.

Added the Ability to Capture up to 6,000 Samples per Experiment

TET-16

Added the ability for ScreenWorks software to capture up to 6,000 samples per experiment. The HS EMCCD camera in HighSpeed mode captures 6,000 samples in 60 seconds.

Added High Speed Camera Support With Continuous Stabilization

TET-84

Added high-speed and high-sensitivity camera support (sampling rate up to 100 Hz) with continuous camera stabilization.

Added ScreenWorks Peak Pro software Version 2.0

TET-111

New advanced peak detection and event characterization measurements and analysis functionality for high-speed and high-sensitivity data analysis and data export. Requires the purchase of a separate software module license.

Modifications Made in ScreenWorks Software v5.0

The following modifications were made in version 5.0.

Simplified Drag and Drop Steps in Protocols

TET-7

In protocol editor, a new step icon automatically gets placed at the end of the list of protocol steps, by dragging the new step icon anywhere on the work area.

Alphabetized List of Standard Deviations in Peak Pro 1.0 Software Module

TET-24

The list of Standard Deviation options in Peak Pro 1.0 software module is now alphabetized.

Issues Addressed in ScreenWorks Software v5.0

The following explains the issues addressed and fixed in version 5.0.

Slow Screen Refresh With Large Data Files

TET-6

Fixed the issue where, in the Analysis tab, clicking in a well on the plate map causes a slow screen refresh.

Missing Graphs in Group Statistics

TET-13

Fixed the issue where, in the Group Statistics Graph tab, after a data acquisition, you must refresh the Group Statistics Graph window to view the graph.

No Screen Refresh in Signal Test and Protocol Test

TET-64

Fixed the issue where during signal test or protocol signal test, when the cursor was left positioned over the dialog box, the screen would not refresh.

Stopping a Running Protocol Causes Software Crash

TET-80

Fixed the issue where clicking Stop during a protocol run caused the software to freeze or crash.

Out of Memory Error

TET-104

Fixed the issue where if multiple large data files that contained image files were opened, the out of memory message displayed, and the ScreenWorks software had to be restarted.

Chapter 8: ScreenWorks Software General Information

8

Use ScreenWorks System Control to define and run experimental protocols, and control the FLIPR® Penta High-Throughput Cellular Screening System.

The following topics are included in this chapter:

- Computer System Requirements
- Installing ScreenWorks Software
- (Optional) Activating the ScreenWorks Peak Pro License on page 30
- Uninstalling ScreenWorks Software on page 30
- Starting the Software on page 31
- Understanding Online Mode vs. Offline Mode on page 31
- Obtaining Support on page 32

Computer System Requirements

The ScreenWorks software version 5.1.2 has the following computer system specifications for use with the FLIPR Penta instrument:

Item	Description
CPU	2.5 GHz, quad processor or faster
Operating system	Windows 10, 64-bit
Memory	16 GB RAM 4 GB RAM minimum
Data Connection	10/100 Ethernet port
Storage	500 GB hard drive
Display	27 inches, 2560 x 1440 resolution maximum, Custom scaling setting not to exceed 107%

> **CAUTION!** We do not recommend changing the Display settings to those that exceed the stated specifications.

Installing ScreenWorks Software

As of version 3.1, the installer automatically uninstalls the old software version as long as it is the same major release (3.1 to 3.2). If you are replacing ScreenWorks software version 3.2 or version 4.x with version 5.1, manually uninstall the old software. See Uninstalling ScreenWorks Software on page 30.

Use the following procedure to upgrade your ScreenWorks software when needed.

To install the software:

1. Double-click the **ScreenWorks_5_1_x.exe** ScreenWorks software installation file. A **Welcome to the ScreenWorks Setup Wizard** dialog is displayed.
2. Click **Next**.
3. In the **License Agreement** dialog, select **I accept the terms of the license agreement**, and click **Next**.

4. In the **Online/Offline Mode** dialog, designate the default mode in which you want the software to start.
   - In **Online**, ScreenWorks software automatically looks for a connected instrument when the software is started.
   - In **Offline**, ScreenWorks software does not automatically look for a connected instrument.
5. Click **Next**.
6. In the **Destination Folder** dialog, the **Install ScreenWorks 5.1 to** field displays the default installation directory. To change the installation directory, click **Change**, navigate to the desired directory, then click **OK**.
7. Click **Next**.
8. In the **Select Program Folder** dialog, leave the displayed default **Program Folder** settings. Select **Anyone who uses this computer** to make ScreenWorks software available to all users on the FLIPR Penta System host computer, then click **Next**.
9. In the **Configuring the ScreenWorks** installation dialog, if you want to make any changes, click **Back** to go to the previous screen, otherwise click **Next** to start the installation.
10. When the installation is complete, the **Completing the installation process** dialog appears. Click **Finish** to exit the wizard.

Uninstalling ScreenWorks Software

The following is the recommended method for removing ScreenWorks software from a Windows-based computer because it also removes related information from the Windows Registry.

To uninstall ScreenWorks software:

1. Open **Control Panel.**
2. Depending on your Windows operating system:
   - Windows 7—Click **Add or Remove Programs**
   - Windows 10—Click **Programs and Features**
3. In the list that displays, select **ScreenWorks**.
4. Click **Remove** or **Uninstall**.
5. Follow the on-screen instructions to finish uninstalling the software.

(Optional) Activating the ScreenWorks Peak Pro License

The ScreenWorks® Peak Pro™ software functionality is license-protected. The software license activation enables the Peak Pro analysis functionality any time after the trial period expires. The following Peak Pro analysis licenses are available for purchase:

- ScreenWorks Peak Pro software version 1.0—adds additional Kinetic Reduction Configuration types
- ScreenWorks Peak Pro software version 2.0—adds a new Peak Pro 2.0 Analysis dialog and support for high-speed and high-sensitivity data

Note: There is a one time 14-day Peak Pro trial usage option in the Help menu. When the trial period expires, the Peak Pro 1.0 analysis functionality disappears, the Peak Pro 2.0 analysis functionality disables, and the Help menu trial option is inactive. The rest of the ScreenWorks software version 5.0 remains functional.

To activate the ScreenWorks Peak Pro software license:

1. Start the ScreenWorks software.
2. Click the **Help** tab.
3. Click **Software License**.
4. If you have not started the available 14-day Peak Pro software trial, the option to start the 14-day Peak Pro software trial, or enter the product key appears. Click **Yes**.
   After the trial expires, only the option to provide a software license product key appears.
5. If you have internet connectivity, type the provided **Product Key** in the field and click **Activate Online**, and then follow the on-screen instructions.
6. If you do not have Internet connectivity, click **Activate Offline** and follow the on-screen instructions. Activate Offline requires the following:
   - Your product key
   - A separate computer with Internet connectivity
   - A USB drive for transferring files between the computers
7. Restart ScreenWorks software to finish the license activation.

Starting the Software

You can start the ScreenWorks software with or without an attached instrument. When no instrument is connected, you are working offline and you cannot acquire data. As long as you can open an existing data file, you can use the software offline.

- To start the software under normal, online conditions, wait for the connected instrument to complete its startup sequence, and then double-click the ScreenWorks icon on your desktop.
- To start the software from the Windows Start menu, click **Start** > **All Programs** > **Molecular Devices** > **ScreenWorks 5.1**.

Understanding Online Mode vs. Offline Mode

The software has two startup modes:

- Online—the software is connected to the instrument.
- Offline—the software is disconnected from the instrument.

The default start-up mode is determined during software installation in the **Online/Offline** dialog. Regardless of the startup mode, pipettor head and tip washer type must always match.

> **Note:** To be able to select either mode while generating protocols, you must install the software in Offline mode.

When the software is open, you can switch modes by selecting from the **Instrument** menu, **Go Online** or **Go Offline**.

> **Note:** Switching modes after the software is opened does not change the software startup mode chosen at the time of installation. To change the default startup mode, the ScreenWorks software must be reinstalled.

About Online Mode

When started in Online mode, ScreenWorks software checks for instrument connections. If no connections are sensed, you are notified. You can then either check the connections and attempt to connect again, or choose to run the software in Offline mode.

Create new protocols in Online mode.

When ScreenWorks software starts in Online mode and connects to the instrument, the default installation configuration file is overwritten using the current instrument settings and plate library information.

If you are working in Online mode and then switch to Offline mode, the instrument setup configuration is remembered as the last setting.

About Offline Mode

When ScreenWorks software starts and no instrument connection registers, you are notified and can then either check the connections and attempt to connect again in Online mode, or choose to run the software in Offline mode.

When ScreenWorks software starts in Offline mode, you can configure the following hardware options:

- Camera Type
- Pipettor Format

Protocols created in Offline mode with hardware settings that do not match current hardware settings are flagged. You must change the hardware settings to match those in the protocol in order to run it.

Obtaining Support

Molecular Devices is a leading worldwide manufacturer and distributor of analytical instrumentation, software, and reagents. We are committed to the quality of our products and to fully supporting our customers with the highest level of technical service.

Our Support website, https://support.moleculardevices.com/, has a link to the Knowledge Base, which contains technical notes, software upgrades, safety data sheets, and other resources. If you still need assistance after consulting the Knowledge Base, you can submit a request to Molecular Devices Technical Support.

You can contact your local representative or Molecular Devices Technical Support at 800-635-5577 (North America only) or +1 408-747-1700. In Europe, call +44 (0) 118 944 8000.

Please have your instrument serial number or Work Order number, and your software version number available when you call.

WARNING! BIOHAZARD. It is your responsibility to decontaminate components of the instrument before you return parts to Molecular Devices for repair. Molecular Devices does not accept items that have not been decontaminated where it is applicable to do so. If parts are returned, they must be enclosed in a sealed plastic bag stating that the contents are safe to handle and are not contaminated.

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